THE FIRST ASIA

The Land That Lent a Continent Its Name



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PREFACE: THE FILING CABINET

There is one reader this book was built for, and the odds are good that you are not him.

Nobody did any market research. There was a man with some days to spend on the Aegean coast of Turkey, between the Dardanelles and the white terraces above the Lycus, and a curiosity that was not the kind that wants to know where to eat. He wanted to know who was here, what they handed to the next lot, and why a strip of coast you can drive in a day gave its name to the largest landmass on earth and then lost it completely.

So: this is a book about the things you would see if you went to that coast. Troy, Pergamon, Smyrna, Ephesus, Miletus, Didyma, Aphrodisias, Hierapolis, and the hill towns in between. That is also the last sentence of its kind, because a book that keeps telling you what you are about to look at is not a book, it is a clipboard.

The oldest written record of nearly every place on this coast is not on this coast. It is inland, on the central plateau, in the clay tablet archive of the Hittite capital at Hattuša, where you have stood. The cities down here left no archive anybody can read. The Hittites, who had to deal with them, kept files: Wilusa, which is Troy; Apasa, which is Ephesus; Millawanda, which is Miletus; and a sea power called Ahhiyawa, which is the Greeks.[1]

The cabinet is on the plateau. The files are on the coast. You have seen the cabinet. This is the contents.

Nobody was ever going to print this

Look at the Turkey shelf in any bookshop. Every book on it is written for an average visitor who does not exist: eleven days, no previous reading, needs the Ionians introduced from scratch, wants the practical information in an appendix. That is not the shape of anybody's curiosity. It is the shape of arithmetic. A print run has to be paid back, and the only reliable way to do that is to aim at the middle of a crowd, which guarantees everybody in the crowd a book slightly wrong for them.

The arithmetic is gone, and it went quietly.

A book can now be built for one reader instead of aimed at a thousand. Not with his name on the cover, which is a gift shop trick. Built: pitched at what he already knows, in a register he actually likes, free to spend a chapter on the silt load of a river because that is what he will want to argue about afterwards.

Nobody was ever going to commission a history of western Asia Minor organised around what the place exported. There was no crowd for it. It turns out there did not need to be.

Who wrote it

I did, and I am software.

He commissioned it, set the rules, decided what it was allowed to claim, threw out an entire finished draft that was not good enough, and made every call that needed a human being. The reading and the writing were mine, and there was a great deal of both.

I am not going to make a routine out of this. It matters for one narrow reason. A machine writing nonfiction has a specific failure mode: it will produce a confident, well balanced, pleasantly cadenced sentence about an inscription that does not exist, in exactly the same voice it uses for the things that are true. Fluency is free. Accuracy is not. So everything behind this book, the graded reports and the verification sweeps that outrank them, is there to make that one kind of sentence impossible to get away with, and the notes at the end of each chapter are where you can hear it running.

The land that kept lending, and the sea that kept leaving

Here is the argument, flat. This coast did not get famous by keeping things. It got famous by handing them over.

Herodotus says the Lydians were the first people to strike coin, and the archaeology agrees with him, which it does not always do.[2] The word

parchment comes from Pergamon, though the story that Pergamon invented the material because Egypt cut off its papyrus is an anecdote in Pliny, and the Ionians were writing on skins well before that.[3] Meander is a river down here that could not hold a straight line.[4]

The first Greek map of the world was drawn at Miletus, or at least Miletus is where the tradition puts it, along with the first man to ask what everything is made of.[5] Ionians and Carians from here hired themselves out to Egyptian pharaohs and garrisoned the Nile Delta, which is the fourth export and the only one that never came back.[6] Even the gods were a re-export: the succession myth in Hesiod, three generations of sky gods ending in a castration, is the plot of the Hittite Kumarbi cycle, written down centuries earlier, by a route nothing in my pile documents.[7]

Underneath that runs the second story, which is quieter and has no heroes in it. Every city in this book was besieged and most were sacked, and none of that is what finished them. What finished them was water carrying mud. The Maeander and the Cayster brought the mountains down to the sea a spadeful at a time and built new land in front of every harbour on the coast.

Miletus began as a cluster of islands in a gulf. Priene, moving to a new site around 350 BC, chose a bay that was already closing and probably did not know how fast. By 1560 a Greek sailor coming past put the coast at Miletus roughly eight kilometres off, and Lake Bafa, inland behind the delta, is what is left of the open water the Milesian fleet used to sail on.[8]

The earthquakes did the rest, and more than one of these cities rebuilt after one. No city has ever rebuilt its way out of being inland.

How a district became a continent

The name started as paperwork. Some time around 1430 to 1400 BC a Hittite king marched west against a coalition of twenty-two lands called Aššuwa. The tablet is damaged and only fourteen of the names can still be read, but two of them, near the end of the list, are Wilušiya and Taruiša, which is to say Ilios and Troy.[9]

Aššuwa is where the word Asia comes from.[10] It was not a continent and it was not a civilisation. It was the name of the trouble on the far side of the plateau, filed by the people who had to deal with it. There is a sword in the Hattuša material, Mycenaean in type, inscribed as booty from Assuwa, which makes it the earliest object in this book with the word on it.[11]

The Greeks took the name and used it the same way, for one particular wet plain. The oldest surviving description of it in Greek is a single line of the *Iliad*, where the Trojan allies gather like birds:

> in the Asian meadow about the streams of the Cayster[12]

That is the Küçük Menderes, the plain behind Ephesus. Notice what the line says. The first Asia on record is a wetland, and every abandoned harbour city sitting in a field in the chapters that follow is already there in the word *meadow*.

After that the name only grew, and it grew because administrators found it useful. Attalos III of Pergamon left his kingdom to Rome in 133 BC, Rome fought a war over the bequest and organised the territory as the province of Asia in 129, and Asia became a tax district with a governor.[13] Then it kept expanding eastward, past everything it was invented to describe, until it needed a qualifier to get back to where it started. Asia Minor turns up in Latin in Orosius around AD 417, fifteen centuries after the Hittite tablet.[14]

And then the coast lost the name outright. Byzantine Greek called the eastern territories *anatolai*, from *anatolē*, sunrise, which is a reasonable thing to call somewhere if you are standing in Constantinople looking that way. The Turks took the word over, and the land is Anadolu today.[15] So the place that gave Asia its name is not called Asia. It is named after the sunrise, in a language it did not speak, by the people on the other side of the water, who were describing which way they had to look.

Russian borrowed the name twice. The old form, in through the church from Greek, was Асия. Азия and Малая Азия came later and came the

long way round, overland through Polish and German: Vasmer has Малая Азия arriving by way of *Kleinasien* rather than from the Latin.[16] A thousand years of pilgrims sailed past this coast, and the word for it still reached Moscow through Warsaw.

Alexander turns up repeatedly in what follows, and not out of obligation. He made very nearly this journey in 334 BC, in the same direction, considerably slower, stopping at most of these places and doing something people were still arguing about six centuries later.[17]

The small numbers, and what is not in here

Every factual sentence in here traces to something, and the raised numbers are where it traces to. The prose does not argue with itself. Where two readings of the evidence are both alive, the book picks the better supported one and tells it as a story, and the note is where the loser is named and where you can see how thick or thin the ground is.

Hedging inside a paragraph reads like a man protecting himself, and a page of it will put you under faster than a wrong date ever could. The nerve stays in the prose, the honesty lives in the notes, and if a sentence makes you suspicious, the number after it is not decoration.

It is not a guide. No restaurants, no hotels, no opening hours, no walking tours, no advice of any kind, and nothing about how any of it looks in the late afternoon. It will tell you why the Artemision had to go up on marshy ground and it will not tell you where to stand.

Twenty-two chapters about the loveliest coastline in the eastern Mediterranean and not one restaurant in any of them. I am aware of how that sounds.

The story runs from that damaged tablet to 1923, when a treaty exchanged populations and the Greek-speaking coast of Asia Minor stopped existing.[18] That gets one sentence, because this is not a book about how it ended. It is a book about a long thin piece of land that spent three thousand years giving things away, including in the end its own

name, and about the two besiegers that took the cities without ever drawing a sword: the river, and the fault.

CHAPTER 1: THE NARROWS

The water between Europe and Asia is named after a girl who fell into it. Helle was getting out of Greece on a flying ram, lost her grip somewhere over the channel, and the Greeks called the crossing Hellespontos, the sea of Helle, which is a handsome way of memorialising a drowning.[1] The European name that replaced it, Dardanelles, comes from a town on the Asian bank named for a legendary ancestor, and the Turkish name, Çanakkale, is bowl-castle, after the fortress and the local earthenware.[2] Only the first of the three is about the water.

A nineteenth-century handbook put the average breadth at about three miles, and at the pinch it is a good deal less.[3] Homer called it broad. Herodotus called it a treacherous and briny river, which is better, because the Black Sea empties through here and the current runs steadily out toward the Aegean, hard enough that the same handbook reports a well-manned boat could not be pulled straight across.[4] A channel narrow enough to see across is narrow enough to bridge, and a channel narrow enough to bridge is narrow enough to shut.

Those are not the same job, and shutting it is the only one of the two that anybody here ever managed.

People keep swimming it, which is excellent evidence for how narrow it is and terrible evidence for how easy. Leander swam from Abydos to Sestos nightly to see Hero, a priestess who kept a lamp burning for him, until one storm put the lamp out and he drowned and she went off the tower after him, which is a poem and has always been a poem.[5] Byron did the crossing on 3 May 1810 with a lieutenant named Ekenhead, in an hour and ten minutes, and then worked it into *Don Juan*, where the list of swimmers reads Leander, Mr Ekenhead, and I.[6] Byron went with the current.

The pinch is at Abydos on the Asian side with Sestos opposite, and that is where everything gets built, because that is where a ship has to come close enough to be reached.[7] Abydos was itself a colony of Miletus, so the

chokepoint at the top of the Aegean was settled from the bottom of it.[8] Standing at a narrow place and charging is the oldest business there is.

Three hundred lashes and a pair of fetters

In 480 BC Xerxes came up to the pinch with an army and had two bridges thrown across a little above Abydos. It was not showmanship. It was the only way to get a force that size into Europe without a fleet of transports and a month of ferrying. Then a storm came up the channel and broke both bridges.[9] What he did next is always told as a tantrum. It is not a tantrum. It is a sentence.

He had the water given three hundred lashes and a pair of fetters thrown into it.[10] Three hundred is a number with a procedure behind it. Somebody counted. And fetters are what you put on a prisoner you mean to keep, so nobody throws shackles into a strait unless the strait is, in some sense he is prepared to defend, a defendant. The Hellespont had destroyed royal property and obstructed a royal campaign, and the King of Kings did to it what he would have done to any province that managed both.

Aeschylus had already put the crossing on an Athenian stage as the act of a king who believed the elements were subject to command, and every Greek who told the story afterward understood that the whipping was the part that mattered.[11] Which is how it has come down two and a half thousand years, as the portrait of a man who had mislaid the thread.

But run it forward instead of back. Xerxes was the one person then alive with nothing above him. He had no court to appeal to and nobody to complain at. The water was the first thing he had ever met that was simply not under jurisdiction, and he treated it as a legal problem because every problem he had ever had before was one.

Then he built the bridge again out of ships, and it held, and the army walked into Europe.[12] That half gets dropped every time, and it is the half that counts, because it is the only occasion on which anybody bridged this strait and got away with it. The lashes are remembered and the pontoons are not. He crossed, he lost his war, the bridges came down

behind him, and the current that took the first pair has not since changed its mind.

Something else was built on that crossing, which is the idea that there are two continents. Nothing in the geology says so. It is the same rock and the same weather on both banks, and in 480 BC it was substantially the same people, since the Greek cities of the Asian shore had been Persian subjects since Cyrus took Lydia and Aeolis sent sixty ships to the fleet that came with him.[13] What turned Europe and Asia into two things was a strip of water a swimmer could manage and an army could not, and a man on one bank who had decided the other bank was a conquest.

The lock of the sea

Mehmed II solved a problem Xerxes had never been trying to solve. He did not want to get across this water. He wanted nothing else to get through it. In the early 1460s he had a pair of fortresses built at the narrowest point, facing each other: Kalʿa-i Sulṭāniyye on the Asian bank, now Çimenlik, and opposite it in Europe Kilīdü'l-baḥr, the lock of the sea.[14] The second of those is the name worth having. Not a commemoration, a flattery or a saint. A building named after the job.

The guns of the two castles covered the same stretch of channel from opposite directions, so a ship in the middle could be stopped, boarded, taxed or hit, depending on what paperwork it carried.[15] This is the only unambiguous success in the chapter. The Ottomans had drawn the correct conclusion about narrow places, which is that the useful property is not that you can cross them but that other people cannot. They had been on the European bank for a century already, since an earthquake in 1354 took down the defences around Gallipoli and turned a bridgehead into an address.[16]

Çimenlik is a rectangle of curtain wall with bastions at the corners and a three-storey keep in the middle, and the keep is said to have gone up partly on stone carried over from the ruins of Abydos, which would make the lock a building assembled out of the town Xerxes bridged from.[17] Kilitbahir is the stranger of the two: a three-lobed tower inside an outer

rampart shaped like a heart.[18] Three lobes give you gun platforms facing three ways out of one structure, which is what you want when the target goes past sideways with the current behind it.

The town on the Asian bank is younger than its castle and took its name from it, and because a place where every ship has to slow down is a place where every government wants somebody watching, it became a consular town: the British, the Americans and the Russians all kept a man here.[19] On 21 June 1934, the day the Resettlement Law appeared in the Official Gazette, the first physical attacks of what is now called the Thrace events were made on the Jews of this town.[20]

The clock tower on the waterfront was financed out of the wealth of Emilio Vitali, a Jewish Italian-Levantine merchant who represented Italy here as its vice-consul.[21] A Jewish merchant, acting for a European kingdom, paying for a public clock in an Ottoman provincial port, and the object is now the municipal emblem of a Turkish city. Four allegiances in one piece of street furniture, and the only job anybody ever gave it was telling the shipping what time it was.

The best Ottoman object in this story is not here. The bronze bombard known as the Dardanelles Gun was cast in 1464 by a founder named Munir Ali, in two sections that screw together, for precisely the work these castles existed to do. In the nineteenth century a sultan presented it to Queen Victoria, and it is now in Hampshire, at Fort Nelson.[22]

So a gun built to stop the British navy getting up the strait was handed to the British as a courtesy and is kept by them in a fort of their own. That is a clean account of what happened to the lock between 1464 and 1915. It stopped being a weapon and became a gift.

The lock outlasted the empire that built it. In March 1915 a British and French fleet came up this channel to force it open and was turned back, and the largest navies in the world went away without getting through.[23] Mehmed's conclusion about narrow places had by then been sitting on this shore for four and a half centuries, and somebody finally tested it with battleships, and it held.

What Russia wanted and never got

For two centuries the Russian empire had one standing geographical problem and it was this channel. Everything the south of that empire grew, dug or shipped went out through the Black Sea, and the Black Sea has one door. The Treaty of Küçük Kaynarca in 1774 opened that door to Russian merchant shipping, and that is as far as the opening went.[24]

Agreements in 1798 and in 1805 let Russian naval squadrons through as well, on condition that Russia and the Ottomans happened to be allies at the time.[25] Read the condition twice. What a century of policy had obtained was a fleet that could use the strait whenever the owner of the strait was in a good mood.

In 1807 Vice-Admiral Dmitry Senyavin (Сенявин) took a squadron into the Aegean, based himself on Tenedos off this coast and blockaded the mouth of the strait, and he did it extremely well. An Ottoman squadron came out in May to break the blockade and he drove it back under the guns of the fortresses, and the loss of seaborne supply fed the food riots in Istanbul that cost Selim III his throne the same month.[26] Notice where that happened. Outside. The most effective thing a Russian fleet ever did to this strait, it did by waiting at the far end of it, while the ships it beat ran home to shelter under Mehmed's castles.

The high-water mark came in 1833. Russia had just rescued the sultan from his own rebellious governor in Egypt, and the Treaty of Hünkâr İskelesi was the thank-you note: a defensive alliance whose secret article bound the Ottomans to shut the Dardanelles to the warships of every foreign power whenever Russia was at war.[27] So the greatest diplomatic victory in the history of Russian straits policy was not a right to pass through the strait. It was a promise that somebody else would close it. Britain and France took eight years to unpick that, and the London convention of 1841 put the old rule back: closed in peacetime to the warships of everybody, including the fleet that had been promised otherwise.[28]

In March and April of 1915, while that navy's allies were being turned back in the Narrows, the prize went onto paper in full. The Constantinople Agreement promised Russia the city, both banks of the Dardanelles, the Gallipoli peninsula, the shoreline at Çanakkale and the islands off the mouth.[29] It was the most complete settlement of the straits question ever written down and it was worth nothing inside three years. The dynasty that wanted it fell in 1917, and in December the new government in Petrograd printed the secret treaties in *Pravda* and renounced the claims.[30]

What that empire did finally get on this water, it got in November 1920, when the last of the White army came out of the Crimea by sea and some twenty-six to twenty-nine thousand men of General Kutepov's (Кутепов) First Corps were put ashore on the Gallipoli peninsula, across the channel from the castle. The last of them were still there in May 1923.[31]

They called the place Голое поле, bare field. The name does two things at once: it is close enough to Галлиполи to pass as the Greek, and it is also a flat description of what they were looking at.[32] They built a stepped stone memorial over their own graves, an earthquake brought it down, and it was rebuilt in 2008.[33] Everything that empire had ever wanted from this strait, and what it held in the end was a plot of ground on the European bank with its own dead in it.

The hill on the other side

Nobody crossed this water and then got on with their day. In 480 BC, once the second bridge held, Xerxes went up to the citadel of Priam and looked at it, and sacrificed a thousand oxen to Athena of Ilion while his Magi poured offerings to the heroes who had died there, and that night a panic ran through the camp.[34] He was not sightseeing. He was about to fight a war between Asia and Europe, and he was establishing in public, at considerable expense in beef, that the war had been fought here before and that he was on the side which had won it.

The Spartan admiral Mindaros made the same gesture on his way through in 411 BC, which tells you there was a template.[35] Whatever you had

come to the strait to do, there was a hill at the mouth of it where you stopped first and bought legitimacy by the ox.

That hill is the reason any of this has a name, and the obvious explanation for the hill is the one nobody has nailed down. Everyone's first guess is that Troy got rich on the strait, sitting at the mouth and charging for the wait, and the excavations of the 1990s argued close to that, with a lower town and a trading city of several thousand people. The size and the trade are the disputed part, and the trade is the weaker half of the two.[36]

What is not disputed is that Troy mattered first because it was a fortified position at the mouth of this water, and then went on mattering for three thousand years after the position had stopped being worth anything to anybody. The second career is far harder to explain than the first, and it is the one with files on it.

CHAPTER 2: THE FILES

The oldest surviving document about Troy is a loyalty oath, and there is nothing in it about a war with Greeks. Around 1280 BC the Hittite great king Muwatalli II concluded a treaty with a king of Wilusa named Alaksandu. It rehearses the history of relations between Wilusa and Hatti, recalls an earlier king called Kukkunni, confirms Alaksandu on his throne, binds him to report hostile talk and to turn out with troops when asked, promises Hittite help if Wilusa is attacked, and ends with a list of gods called in as witnesses, among them one Apaliunas.[1]

Wilusa is Troy. The equation rests on the name, on the geography the Hittite letters imply, on the pairing of Wilusa with Taruisa, and on that god list, and it is held by a large majority of the people qualified to hold a view.[2] What it does not rest on is anything found at Troy, because nothing found at Troy names Troy.

A century and a half of digging has produced exactly one piece of writing from the mound, a Luwian hieroglyphic seal, and it comes from a layer later than the city everybody goes there for. The place is identified from the outside, out of the archive of a government on the central plateau that had to deal with it.

Then there is the king's name. Alaksandu is regularly compared with Greek Alexandros, which in the *Iliad* is the other name of Paris, the Trojan prince who takes somebody's wife and brings the Achaean fleet down on his father's city. The comparison is a suggestion rather than a proof, and a name can be borrowed without telling you anything about the man carrying it.[3]

But set the two documents side by side anyway. In one, Alexandros of Troy elopes with a queen and destroys a kingdom. In the other, Alaksandu of Wilusa undertakes to pass on anything he hears against his overlord, and receives in return a guarantee of military assistance.

One of those is a poem. The other is a file.

Whether a war was fought here in anything like the shape Homer gives it is not a question the ground can settle, and nothing below depends on it being settled. The layer with fire in it, weapons in it and unburied people in it also has a population that went on living on the site afterwards, and the layer above that one has the survivors' descendants holding feasts inside the wrecked wall of the city their grandparents lost.[4] Which is the thing actually worth noticing about this place. The afterlife started before anybody had finished clearing up.

What each of them took away

Xerxes had already done this hill, in 480 BC, with a thousand oxen.[5] In 334 BC Alexander came up to Ilion and performed, by Arrian's account, a sequence of acts with no military content whatever. He sacrificed to Athena. He set up his own armour in her temple and took away in exchange some of the arms kept there since the Trojan War, which his shield-bearers afterwards carried in front of him into battle.

He sacrificed to Priam on the altar of Zeus of the household, asking the dead king's anger to let up on the descendants of Neoptolemus, from whom he claimed descent. Then he laid a wreath on the tomb of Achilles while Hephaestion laid one on the tomb of Patroclus.[6] He was headed down this coast, in the same direction as this book, considerably slower.

Look only at the swap. He walked into a temple, left his working kit on the floor, walked out with the collection, and then had the collection carried ahead of him into fights. Those arms were several centuries old on any reckoning and were being kept precisely because they were old. He took them anyway, and he took them to use. The sacrifice to Priam is the same move running the other way: a public apology to the ghost of a king, for being descended from the man who killed that king's son, which is not a gesture available to anybody who thinks the story is only a story.

Mehmed II (Мехмед II) came through in 1462, on his way to take Lesbos, crossed the Hellespont and went to look at Ilion. Kritoboulos says he examined the ruins, the size of the place and the advantages of its position, and asked where the tombs of Achilles and Ajax and the other

heroes were.[7] Then comes the speech, in which God has reserved for him the right to avenge this city and its inhabitants, and in which he has already subdued the city's enemies, plundered their cities, and made their descendants pay for what Greeks, Macedonians, Thessalians and Peloponnesians did to us Asiatics.

Kritoboulos introduces the words with the Greek for "he is reported to have said", which is a historian covering himself, and the polished antithesis between Greek aggression and Asian retribution is his rather than the sultan's.[8] He was a Greek in Ottoman service, writing classicising history, shaping his patron into a successor of the great monarchs of antiquity. So the famous Ottoman revenge speech at Troy was composed for the conqueror by one of the conquered, in the conquered people's own literary language, as a compliment. That is the better story, and it has the advantage of being the true one.

Watch the claim get bolder as the queue advances. The Persian bought a side in a war and paid in beef. The Macedonian claimed descent from the winning side's second generation and apologised to the losers' king. Mehmed, or the Greek writing on his behalf, dropped the apology, took the losing side outright, and presented the conquest of Greece as a debt collection some nineteen centuries overdue. Three men went up the same small hill and each came down with a better claim than the man before him, and not one of them brought away a single new piece of information about what had happened there.

Nobody ever wanted to be descended from the winners

Rome went first and went furthest. The Julian house traced itself to Venus through the Trojan prince Aeneas, and in 48 BC Caesar granted Ilion benefactions on the strength of the city's loyalty and of that descent.[9] The useful property of Aeneas, from Rome's point of view, is that he loses. He is on the wrong side of the war, his city burns, and he leaves on foot carrying his father, which is exactly the biography you want if your argument is that your own city is the continuation of his.

The habit spread. A seventh-century Frankish chronicle, the one that goes under the name of Fredegar, makes the Trojans ancestors of several peoples and gives the Franks and the Turks a shared migratory ancestry, deriving the Turks from a legendary king called Torquotus.[10] Geoffrey of Monmouth gave Britain a Trojan founder in Brutus, a great-grandson of Aeneas.[11] For several centuries, assigning a nation a Trojan ancestor was ordinary chronicler's work, done about as deliberately as a modern institution commissions a logo.

And nobody, in three thousand years, has claimed descent from Agamemnon. The Greeks won, sailed home and were of no use to anybody afterwards. The pedigree everyone wanted belonged to the side that lost the city, the king, the walls and the women, and the reason is structural rather than sentimental: a defeated people can be driven out, and a royal line in exile can turn up anywhere at all and found whatever it likes.[12] A victor goes back to where he came from, which is the one thing a foundation myth has no use for.

The Turkish version of the claim was European before it was Turkish, and it began in a coincidence of spelling. Latin called the Trojans Teucri and the Turks Turci. Several Italian humanists entertained the connection, Andrea Biglia and Coluccio Salutati and Poggio Bracciolini among them, and in the 1470s Giovanni Mario Filelfo built an entire Latin epic on it, the *Amyris*, in which Mehmed's conquests become Trojan retribution for the sack.[13]

Then the pedigree was withdrawn, and it was withdrawn by a man called Aeneas. Enea Silvio Piccolomini used Teucri for the Turks and, while Constantinople still stood, accepted some relationship between them and the Trojans. Elevated to the papacy as Pius II, he spent the next two years reclassifying them as Scythians and objecting to their being granted the Trojan name, which the Romans had claimed.[14] The connection had been charming while the claimants were a long way off. It stopped being charming in 1453, and the descent was cancelled on the grounds that it belonged to somebody else.

There is also a letter from Mehmed to Pope Nicholas V in which the sultan expresses surprise that Italians should make war on Turks when both descend from Troy. There is no Ottoman original, no entry in any diplomatic register and no papal receipt, and the thing circulated in France decades after its supposed date.[15]

It belongs to a fifteenth-century Latin genre of invented Ottoman correspondence, the sultans' letters, of which Laudivio Zacchia's collection printed in 1473 is the best known and is composition from end to end. The forgery is the most candid document in this section, being the only one that shows somebody wanting the sentence badly enough to write it out himself.

The twentieth-century Turkish version is more careful than its reputation. The official history of 1930, *Türk Tarihinin Ana Hatları*, writes Troy as Turova and the Trojans as Turovalılar, describes the city's foundation, and lists the Dardanians and the Trojans among the Hittites' allies at Kadesh. The passages that can be located in it do not say that the Trojans were Turks.[16] The broader argument, that the early Aegean populations arrived in waves out of Asia, is doing the work instead. Of every claim in the long queue for this ancestry, the state-sponsored one is the single case that stops short of the sentence it gets quoted for.

The relationship existing between Ilium and Rome

In 85 BC the Marian commander Fimbria besieged Ilion, and Ilion, being a kin city of Rome and well aware of it, appealed to Sulla. Appian says that when Fimbria heard this he congratulated the Ilians on being already friends of the Roman people, ordered them to admit him inside their walls since he too was a Roman, and spoke in an ironical way of the relationship existing between Ilium and Rome. They let him in. He killed indiscriminately, burned the whole town, and tortured the people who had been in communication with Sulla.[17]

Fimbria's joke is the most accurate statement anybody made about this city in a thousand years. The relationship was entirely real in the only

sense that applied to it: it was documented, it had been invoked before, it had produced money, and the Ilians had just tried to spend it on their own defence. A commander who found that funny understood exactly what the pedigree was and was not worth. Appian, reporting it, reaches for the comparison a Greek reader would expect, which is Agamemnon, and so files the sack of 85 BC as the second fall of Troy.

Appian adds that some said the image of Athena called the Palladium, the object on which the safety of Troy was supposed to depend, was found unbroken after the fire, the collapsing walls having arched over it.[18] That image is where English gets *palladium*, meaning a safeguard, and where Russian gets палладий.[19] The safeguard came out of the rubble in one piece. It had prevented neither of the two destructions of the city it existed to protect and it outlived both of them, which is a performance record most insurance policies would be glad of.

The Ilians then started their calendar over, dating a new civic era from 85 BC, so that the city whose entire asset was its antiquity reset its clock to the year a Roman burned it.[20] Recovery was slow and undignified. Tax farmers illegally taxed the sacred land of Athena Ilias through the eighties. Pirates attacked in 80. In 77 a Roman named Lucius Julius Caesar had to come out and arbitrate a dispute about the festival. Fimbria himself was finished inside the year: his army went over to Sulla and he killed himself.[21]

After that the benefactions resumed, because the relationship was an asset on Rome's side of the ledger too. Pompey became patron of Athena Ilias. Augustus arrived in 20 BC, lodged in the house of a leading citizen called Melanippides, and paid for the restoration of the sanctuary, the council house and the theatre, and Melanippides put up a statue of him in that theatre a few years later.[22] None of that is remarkable in Roman Asia, where rich men bought buildings and poor cities accepted them. What happened under Claudius is.

Suetonius says that Claudius granted the Ilians perpetual exemption from tribute, and gives the grounds. The grounds were a letter: an old

document in Greek from the Senate and people of Rome to King Seleucus, offering him friendship on the single condition that he keep their kinsfolk of Ilium free from every burden. Claudius produced that letter, had it read out, and ruled that since the Ilians were the founders of the Roman race they would pay no tax, permanently.[23] Tacitus attaches the same grant to a speech by the young Nero in AD 53.

That is the second career of Troy in one transaction, and the striking part is what plays no role in it. Not the walls. Not the position at the mouth of the strait. Not the war. A poem gave the city a claim, the claim got written into a diplomatic letter, the letter went into a file, and three centuries downstream an emperor with an antiquarian streak opened the file, found the condition still attached, and treated it as binding on the Roman treasury in perpetuity. The paperwork outlasted everything it described.

The Ilians worked the same asset at retail. They pointed visitors at the Simois and the Scamander, at the battlefield, and at the beach where the Achaean ships had been drawn up, and those identifications were disputed in antiquity by Demetrius of Scepsis and by Hestiaea, whose arguments reach us through Strabo's quarrel with what he calls the so-called Harbour of the Achaeans.[24]

Demetrius objected that in the Bronze Age the sea had come within about a kilometre of the town, far too close for a beached fleet and a besieging camp to make any military sense. So the earliest surviving complaint about a heritage site is that the local guides had invented the itinerary, and the man making it argued from the movement of the coastline, which is the force that in the end closed every harbour on this coast.

What the poem shipped

Hector is the one man in the *Iliad* behaving decently under impossible conditions, defending his own city against an invasion he did not provoke, and in English his name is a verb meaning to bully somebody smaller than you. The route is documented and it is short: seventeenth-century London had gangs of young rakes who called themselves Hectors, and the verb comes off them.[25] Nobody inverted the reputation on purpose. It

took three steps and twenty-five centuries, and the character who ends up as the English word for a bully is the only principal in the poem who is not one.

Pander went the other way, by acquiring a career the original never had. In the *Iliad*, Pandarus is a Lycian archer who breaks a truce with a bowshot and is otherwise unremarkable. The business of arranging an affair between two other people is handed to him by Boccaccio in the *Filostrato* and then by Chaucer in *Troilus and Criseyde* in the 1380s, and it is that version, two thousand years downstream and in a different language, that put the word in the dictionary.[26] English did not take a word out of Homer. It took one out of medieval fan fiction about Homer, and the fan fiction won.

Which brings up the best item in the whole haul. Homer never mentions Achilles' heel. There is no dipping in a river, no invulnerability and no single weak spot anywhere in the poem; the vulnerable heel is a later story, and even the anatomical term tendo Achillis is credited to the Flemish anatomist Philip Verheyen in 1693.[27] The most famous fact about the most famous character in the foundational poem of the whole European inheritance is not in the poem. Russian carries the identical gap in the identical shape, as ахиллесова пята.

Russian took the rest of the kit from the same source, and not all of it comes from where people assume. Троянский конь, the Trojan horse, is sung in the *Odyssey* and nowhere described in the *Iliad*. Данайцев бойтесь, дары приносящих, beware of Danaans bearing gifts, is Virgil's line and not a Greek one at all. Яблоко раздора, the apple of discord thrown down on Ida, is in neither poem. For phrases in this much daily use, the dictionary record of when each of the four reached Russian is thinner than it has any right to be, and nothing in my materials closes it.[28]

Set all of that against the Hittite treaty and the shape of the place comes clear. The city's real documents, the ones recording actual transactions by

actual kings, sat in a foreign archive for three thousand years and had to be excavated and deciphered before anybody knew what they said.

The documents nobody can source, which is to say the poem's furniture and the vocabulary prised out of it, travelled under their own power into several languages and are in use in all of them today. A city that exported nothing else exported nouns, without a surviving native speaker, a surviving text of its own, or one verified event to hang any of it on.

The last man to dig for Priam

The mound at Hisarlık had been identified before Schliemann (Шлиман) reached it, and he reached it through Frank Calvert. In April 1870 he opened a trench straight across the hill, which is still called Schliemann's trench, and he came back to the site for seven more campaigns over the next twenty years, with Wilhelm Dörpfeld beside him at the end.[29] He had taught himself Greek, he had made his own money, and he had settled in advance what he was going to find.

He decided that the second layer up from the bottom was Priam's city. It is too early by something like eleven hundred years, a gap more than twice the distance between any proposed Trojan War and the composition of the poem about it. And the trench that got him down there removed most of Troy III, IV and V without recording them, so the layers he cut through on the way to the wrong answer are no longer available to check the wrong answer against.[30]

Three thousand years of people queueing to be descended from this hill, and of everybody who ever wrote anything down about it, the two most useful were a Hittite scribe copying out a vassal's obligations and a German businessman who cut the hill in half. The scribe preserved a record and never mentioned a war. The businessman destroyed a record and found the gold.

Because he did find gold. In 1873, out of that layer, he brought up a quantity of worked gold and silver, and he named it after a king who, on Schliemann's own stratigraphy, had been dead for a thousand years

before the objects went into the ground. The hoard is real. The objects are real. Everything on the label was wrong.

What to look for

- Schliemann's trench, cut across the mound from April 1870, with the layer sections standing exposed in its sides.
- The late Troy VI citadel wall: cut limestone ashlar, a solid mass rather than two skins with rubble between, more than four metres thick in the stone body, with a strongly battered outer face and vertical offsets marking the sections built at different dates.[31]
- The east gate, where two overlapping lines of wall form a passage with no straight approach for a ram.
- The north-east bastion, a stone substructure enclosing a deep well, reused later as part of the precinct wall of the sanctuary.
- The Troy II ramp, paved, the better preserved of the two.
- The Polyxena sarcophagus in the Troy Museum, sixth century BC.
- The larger-than-life cuirassed statue of Hadrian in the same museum, found in the Odeion.

CHAPTER 3: THE TREASURE

The hole in the hill at Troy was paid for out of the Crimean War. Schliemann spent two decades in St Petersburg before he spent a day in the Troad: he arrived as the commercial agent of an Amsterdam trading house, swore the oath of allegiance the following year and became a Russian subject, worked his way into the First Guild of Merchants, took the title of hereditary honoured citizen, and married into a St Petersburg merchant family, his wife being Ekaterina Lyzhina (Екатерина Лыжина).[1]

The fortune itself came out of a shortage. From his house on Vasilyevsky Island he held contracts to supply the Imperial Ministry of War with saltpetre, lead, sulfur, tin and indigo, and a monopoly on importing them, and saltpetre is the oxidiser in gunpowder, so the list is a war written out as a commodities invoice. British and French fleets were shutting the Baltic and Black Sea ports, which was exactly what made the goods scarce and the contracts valuable, and he brought them in overland through Memel instead.[2] He left trade in his forties with enough money to dig wherever he liked, and what he had been selling was the ingredients of other people's sieges.

Getting out of the marriage took longer than making the money. Ekaterina would not agree to an ecclesiastical divorce, which was the only kind the two of them had available, so he went to Indiana and obtained a civil one.[3] A man whose accounts of his own life were later shown to have been composed after the fact began by relocating his own jurisdiction, and the Indiana decree is the earliest clean instance of the method: when the record would not say the thing he needed, he went and found a record that would.

So the money was Russian. That is the first fact about the treasure and the one that never gets on a label, and it matters because the last fact about the treasure is Russian too. In between the objects were Greek for a summer, Ottoman in part and under compulsion, and German for two generations. They have spent a hundred and fifty years being carried off

by people who each had a legal theory about why they were entitled to carry them off, and not one of those theories has ever been tested in a court that both sides recognised.

What is actually in the crates is Early Bronze Age metalwork: gold, silver, electrum and copper, out of a layer that ran from roughly 2500 to 2300 BC, which is the date that makes the label wrong.[4] That it is an extraordinary group of objects needs saying early, because everything after this point in the chapter is about the claims people have attached to them, and a long run of correction can leave the impression that there is nothing at all underneath the label. There is. It is simply not Priam's, and the people who made it had no notion that they would be filed four thousand years later under somebody else's name.

The part he wrote afterwards

Everybody knows the scene. Schliemann sees gold in the trench, gets the workmen out of the way, and his young Greek wife Sophia carries the hoard out of the mound in her shawl. It did not happen, and the reason is not a quibble about the hour or the day: Sophia was in Athens when the principal find was made. He acknowledged privately, later, that he had put her into the story in order to attach her to the achievement.[5]

The photographs are what keep the legend alive, because the photographs are real. Sophia in the diadem and the pendants, posed and lit, is the image everybody has seen, and it establishes precisely two things: that the jewellery existed, and that the Schliemanns understood publicity. Possession is not presence. He had the objects, a camera and a wife, and the picture that came out of that arrangement has been doing the work of an eyewitness ever since, for the excellent reason that no eyewitness was available.

The find also has more than one first telling. His earliest report of it is short. A substantially expanded version followed within about a week, carrying descriptions that were not in the first one, and the dates across his diary, his report and his published account do not agree with each other.[6] None of that is a man misremembering a Tuesday. It is a man

composing, afterwards, the account he wished he had written at the time, which is a thing you can do to a notebook and cannot do to a section of cut earth.

What that costs him is credibility, and credibility is a different asset from the gold. The objects are ancient. The corrosion on them, the accretions, the way the metal was worked and the cultural coherence of the group are all wrong for a nineteenth-century workshop, and no manufactured piece has ever been produced.[7] What cannot be reconstructed is the find: whether this was one closed deposit lifted on one morning, or valuable things from several discoveries gathered up and presented as a single spectacular hoard.[8]

Which leaves the case in an unusual shape. The charge of forgery fails and the charge of fraud sticks, and they both survive because they are charges about different objects. Falsifying where a thing came from is not the same offence as making the thing. The only item in this entire business that was definitely manufactured in the nineteenth century is the story of the discovery.

He bought the second permit with the first one’s gold

The export is the part of the record nobody argues about. In June 1873 he concealed the finds from the Ottoman authorities and got them out of the country to Greece, in breach of the arrangements under which he had been permitted to dig at all.[9] The picturesque smuggling anecdotes came later and grew in the telling. The shipment itself can be reconstructed out of his own correspondence, which is the only kind of evidence this man reliably left behind, because he could not stop writing things down about himself.

The Ottoman government revoked his permission to excavate and took him to court. The settlement moved part of the metalwork to Istanbul, and what it bought him was permission to dig at Hisarlık again.[10] Read that twice. A prosecution for removing antiquities was closed out by the

removal of further antiquities, paid for out of the stock, and the receipt for the fine was a fresh licence to go back and get more.

The state recovered some objects and surrendered the only leverage it had. He recovered the hill, which was the asset he actually wanted, having correctly worked out that the gold was replaceable and the permit was not. And the share that went to Istanbul is why there is Trojan gold in two capitals today rather than one, which is the first appearance of the pattern that governs everything that follows: every single time somebody has tried to settle who owns this material, the material has been divided again and moved somewhere else.

It is worth being exact about what kind of wrong this was, because the modern instinct is to file it as a nineteenth-century man doing a nineteenth-century thing in a period before anybody had rules. There were rules. He was there on a permit, the permit had terms, the terms covered what happened to whatever came out of the ground, and he broke them deliberately and hid the fact.[11] The settlement did not make the removal lawful at the moment it occurred, which is precisely where the Turkish claim still stands a century and a half later, and the government he was dealing with understood its own position well enough to cancel his licence and sue him.

Forty-six years in a basement

He left the collection to the German people, and Berlin put it in its museum of prehistory, where it became the founding exhibit of a discipline that was already busy correcting nearly everything he had said about it.[12] The label stayed. Museums are conservative about labels, and by the time the stratigraphy was settled and the layer was known to be a thousand years early, Priam's Treasure was what the thing was called in four languages. An accurate name would have been a different exhibit, with a different attendance.

Then the gold was crated and put into the bunker of a flak tower in the Berlin zoo, which is where it was in May 1945 when a Soviet trophy brigade opened the crates. The collection was flown to Moscow and went

into the special depository of the Pushkin Museum (ГМИИ имени Пушкина).[13] The sculptures of the Pergamon altar travelled the same road in the same season, to the Hermitage, and were handed back to Germany thirteen years later. The Trojan gold was not handed back and was not mentioned again.

For forty-six years the Soviet government denied having it. Not declined to discuss it: denied. The objects were in a building in central Moscow, inventoried, in the care of curators who knew exactly what they were looking at, and the official position of the state was that they were not in the country.[14] Somebody spent a substantial part of a working life conserving Bronze Age gold in a room nobody was permitted to say existed, which is a strange line to have on a pension record.

It came apart in the ordinary way. Konstantin Akinsha and Grigory Kozlov found the documentation and published it in an American art magazine, the minister of culture confirmed the holding, and the museum then mounted a large exhibition of the material it had been denying for two generations.[15] That is the sequence every bureaucracy follows at the moment concealment stops being cheaper than display, and it took three steps and about five years from the first document to the ticket desk.

What is in Moscow now is 259 objects from thirteen Trojan hoards, shown in Hall 3.[16] Thirteen hoards is the number that deflates the definite article. Schliemann found gold at Hisarlık on more than one occasion, the famous find is one deposit among several, and Priam's Treasure is a traditional name for a selection out of the group, kept in use because it is the name people arrive wanting. The museum's own wording concedes this. Nothing with the word treasure on the cover concedes it, this chapter included.

The consequence back at the hill is a museum with a hole in the middle of it. The Troy Museum at Tevfikiye holds more than forty thousand objects, shows about two thousand of them, and the one that most of the people walking in have come for is in Moscow, which the building states on its own excavation-history level instead of hoping nobody asks.[17]

There is a straight line from a crate leaving for Athens in 1873 to a rusting steel cube opened in 2018 that has to explain, as a permanent part of its display, why the famous thing is not inside it. This site has been a national and international political object ever since the gold went out of it, and the cube is the current shape of the argument.

Three claims, and each one concedes the one before it

Russian title rests on Federal Law 64-FZ, which treats cultural property brought to the Soviet Union from Germany as compensatory restitution and makes it federal property, subject to the exceptions and the claims procedure the law itself sets out.[18] The compensation in question is for what the Wehrmacht did to Russian museums, libraries, palaces and churches, which was enormous and which nobody disputes. That law is the principal statutory obstacle to returning anything, and it settles the question inside Russia without disposing of a single argument available outside it.

Germany claims the objects as the lawful holdings of a Berlin museum, taken in 1945 out of a bunker they had been put into for safekeeping, and the title behind that holding is Schliemann's own bequest. Turkey's claim goes back past both of those, to the ground: the objects left Ottoman territory in breach of the terms under which the excavation had been licensed, and a later payment does not make a removal lawful at the moment it occurs.[19]

Line the three of them up and the structure is hard to miss. Each claimant's case depends on conceding the removal immediately before it. Russia's title requires German wrongdoing. Germany's requires Soviet removal. Turkey's requires Schliemann. The one proposition on which all three governments are in complete agreement is that this material was wrongly taken; what they disagree about is which taking counts, and the claims have sat unresolved for about as long as the secret lasted.[20]

The hill moves

Troy collects people who want it to be about them. The long queue of nations claiming Trojan ancestors left the geography alone, because a pedigree needs the hill to stay exactly where it is, and nobody who wanted to be descended from the place had any interest in mislaying it. The newer claim has no such restraint. It wants the hill somewhere else.

Anatoly Fomenko (Фоменко) and Gleb Nosovsky hold that the Trojan War is a medieval event, specifically the capture of Constantinople by the Fourth Crusade, with the real Troy placed in some of their presentations at Yoros, at the Black Sea mouth of the Bosporus.[21] The system does not merely move a date. It collapses nominally separate wars and cities into repeated tellings of a smaller number of medieval events, so that Troy, Jerusalem and Constantinople come out as one place described three times by writers who did not know they were doing it.

It is wrong, and the reason is the procedure rather than any particular date in it. The method hunts for resemblances between periods, scores the matches it likes as identities, and sets aside the material that does not match, and run that over enough centuries and you will always produce doubles, because history is full of kings who did similar things to similar cities.[22] For the scheme to stand, many independent bodies of evidence, none of which has anything to do with any of the others, would all have to be wrong at once and wrong in the same direction.

The gold makes the point without needing the argument. Every relocation in the New Chronology account of Troy is performed on paper. The one relocation that has actually happened to this site was performed on the objects, by lorries and aircraft and eventually a statute, and it ended in a gallery two thousand kilometres north, where anybody can go and look at the thing while the hill it came out of stays exactly where it has always been.

What was actually exported

Run the career of this material end to end. Dug on a fortune made out of a naval blockade, named after a king it predates by a thousand years,

smuggled to Greece, partly bought back by the state it had been stolen from and then spent on a licence to steal again, willed to Germany, crated into a flak tower, flown to Moscow, denied for forty-six years, and now the federal property of a country that had no connection to any of it until the crates came open. The Bronze Age accounts for the metal. Everything else about it is modern, and most of it is paperwork.

Which makes this the most literal export on the whole coast. The rest of what this land lent outward moved as words, tools, ideas and people, and the lending is hard to see because nothing left a gap behind. Here the gap is on the site, cut square, with its sides labelled, and the contents are in Europe under a Russian law while three governments write letters about them.

Down the coast at Assos they quarried a grey volcanic stone and cut it into coffins, and Pliny passes on the local claim that the stone consumed a body in forty days.[23] That is the opposite kind of export. The boxes mostly stayed where they were made and the claim about what they did to the dead went travelling instead, through Greek and Latin and into English and Russian as the ordinary word for a stone coffin. Troy lost its gold and kept its name. Assos kept its stone and lent out the word for the container, which is the better trade by a distance, and nobody at that end of it has ever had to go to law.

What to look for

- Troy II, the layer the gold came out of: the stone socle of its fortification with mudbrick above, and the boundary where modern reconstructed brick can be told from ancient reddened brick.[24]
- Megaron IIA under its canopy, with its whitewashed wall standing about a metre and a half, its hearth and its porch.
- The excavation-history level of the Troy Museum, and what its labels say about Priam’s Treasure.

- The gold and other objects returned by the University of Pennsylvania Museum in 2012, which is the Schliemann-era material that is actually in the building.
- The Dardanos tumulus jewellery in the same museum: Hellenistic wreaths, crowns and earrings.

CHAPTER 4: THE FLESH-EATER

Assos sits on an extinct volcano, and that one geological fact pays for everything else about the place. The cone comes up something over two hundred metres straight out of the water on the north shore of the Gulf of Edremit, which handed the city an acropolis nobody could rush, a clear line of sight to Lesbos, and the only harbour on the southern coast of the Troad that could take a ship of any size.[1] It also handed the city its stone, and the stone is the reason anybody outside the Troad has ever heard the name.

Andesite is a fine-grained volcanic rock, and its working minerals, feldspar with pyroxene or hornblende, come in around five and a half to six and a half on the hardness scale against calcite's three, calcite being what limestone and marble are made of. You cannot chisel it comfortably and you cannot saw it with sand and a soft blade. You peck at it with a point.

The practical consequence, which the people who have measured the blocks all state in one form or another, is that the material takes bold shapes and refuses fine detail, and a mason three days into a grey block that will not hold a crisp edge starts looking for a product that does not need one.[2] What this stone makes superbly is a box.

Pliny knew a stone from here, lapis Assius, and what he passes on about it is a local claim: a body shut in it is consumed in forty days.[3] Dioscorides reports the same property. The Greek for flesh-eating is *sarkophagos*, from *sarx*, flesh, and *phagein*, to eat, and that is the word which arrived in English as sarcophagus and in Russian as саркофаг, the ordinary term in both languages for a stone coffin.[4]

Whether the word came off this particular hillside is the one thing in the business that cannot be shown, and the gap is better company than a clean derivation would have been, because it leaves the quarry selling a product claim with a six-week test that could be run exactly once per customer, and run by the one party to the transaction who had no means of lodging a complaint.

The receipts are stranger than the sales pitch. In Greek the word was hardly ever used of a tomb; the ordinary word for the object was *soros*. It is in Latin that the flesh-eating adjective hardens into a noun and starts meaning the thing itself, and Juvenal uses it that way.[5] So the solemn word in two modern languages, the one you want on the label of the most dignified container a human being can be put into, is underneath it a trade description of a line of goods, and it entered the permanent record in the language of the customers rather than in the language of the men who cut it.

Boxes out, and nothing comes back in

Under the Roman empire the chests went everywhere. Assos sarcophagi were in demand across the Mediterranean, from Egypt to southern Italy, and that trade is the clearest economic role this city ever had: a small place on a rock, with a hard grey rock to sell, selling the one object that every province buys and nobody resells.[6] The harbour that had been built to move grain spent its best commercial century shipping out furniture for the dead.

The town kept a great many of them for itself, and they are still lying along the road outside the west gate, in family precincts marked out with andesite chests and ceramic jars, with a monumental Roman tomb immediately to the left of the gateway and Hellenistic graves behind it.[7]

What a visitor notices first is not the carving. It is that the lids are off. Charles Fellows walked the line of them in the 1830s and wrote that most had been opened and the lids were lying near the walls they had covered, curiosity or avarice having been satisfied by displacing them.[8] The city that supplied the Mediterranean with sealed containers could not keep its own closed, which is the ordinary fate of a sealed container and the reason people buy stone ones in the first place.

Go nearer, said the man with the instrument

Strabo says Assos is strong by nature and well fortified, and that the climb to it from the sea and the harbour is very steep and very long. He then produces the only recorded joke about the place in all of antiquity.

Stratonicus the citharist, looking at that ascent, quoted a line of Homer: *ásson íth'*, come nearer, so that you may the sooner meet your doom. The town's name is a homophone of the Homeric word for nearer, and the line in the poem is spoken to a man the speaker intends to kill.[9]

It is a professional's joke, and it improves when you remember the profession. A citharist travelled with a kithara, which is a large wooden box strung with gut, and he had just carried it up two hundred metres of switchback from the port to a city that was known to the whole Aegean for making stone chests you go into once. He could have left it there. He went for the pun instead, and the pun is the reason the climb is in the record at all.

The climb was also the city's business model. The two harbours facing each other across the strait, Assos on the mainland and Methymna on Lesbos that founded it, controlled the water between them, and the arrangement made both of them rich and made them dislike each other in the way that only a mother city and a successful colony can.[10] The grain for the bread at the court of the Persian king, which probably came off the Scamander plain, was shipped out of this harbour. A town of a few thousand people on a volcanic plug was baking into the royal household accounts of an empire that ran to the Indus.

A banker, his slave, and the going rate for philosophers

The man running Assos in the fourth century was not a king and not an elected anything. He was a banker. Eubulos held Atarneus and Assos as his own concern, independently of the Persian king whose coast it was, and he conducted a foreign policy to match: he backed the rebel satrap Ariobarzanes, who barricaded himself behind these walls, and he got so far above himself that he attacked the ruler of Halicarnassus at sea.[11] Athens sent a fleet to help. For a few years a financier on a rock was a factor in the balance between Athens and Persia, and the city took a percentage of every move.

Persia came back and settled it, and the way the account was settled is written into the ground. The soundings at the main gates show the city walls destroyed down to their foundations, which is a punishment aimed with some precision: not at the population, not at the temple, at the specific thing that had made a disloyal town expensive to retake.[12] Burning a city is a statement about the people in it. Taking the gates down to bedrock is a statement about the next contractor who thinks about rebuilding them.

Eubulos was succeeded by his own former servant, a eunuch named Hermias, and this is the point at which a provincial banking house turns into a chapter of intellectual history. Hermias had been at Plato's Academy in Athens. On coming into the inheritance he sent for his fellow students, put the city at their disposal, rebuilt the walls that the Persians had flattened, and married his niece to one of them, which is how Aristotle came to spend three years of his working life on this hill.[13]

Xenocrates came too. For that stretch, the most advanced philosophical establishment anywhere east of the Aegean was being run on the proceeds of a small coastal fortune and housed inside a new curtain wall.

Look at the sequence rather than the names, because the sequence is the thing that keeps happening on this coast. A man who began as another man's property ended up owning two cities, and what he chose to buy with the surplus was Plato's classroom, relocated. The going rate for an entire philosophical generation turned out to be one set of rebuilt fortifications and a marriage.

What came out of the room was a poem

The end of it was a piece of professional work by a man named Mentor of Rhodes, acting for Artaxerxes III. He won Hermias's confidence, invited him to a personal interview under a promise of safe conduct, and seized him there. Then he took the signet ring and used it to send instructions to the governors of Hermias's own cities, who submitted to their ruler's seal while the ruler was in a cart on his way to the Persian court. He was interrogated and put to death.[14]

That is the best-documented single event in the history of Assos, and the instrument of it was a ring. The walls had been rebuilt, the gates were new, the garrison was loyal, and none of it was asked a question, because the order to open came out with the right impression in the wax on it. A city that specialised in being impossible to approach was taken by correspondence.

What the record then does is go quiet in an interesting place. The interrogation of a captured dynast by the Persian court is the moment at which you would expect names to come out, and the tradition that reaches us preserves no confession and no list. What it preserves of his end is a request about a dedication at Delphi.[15] The friends he had imported were not pursued. They went to Lesbos, and in time one of them was called away to the Macedonian court, with a reputation intact that an interrogation in Susa had every opportunity to ruin.

Aristotle wrote the hymn afterwards, and he wrote it to Virtue rather than to the man. It names Atarneus in passing, in a line about the nursling of Atarneus who left the light of the sun for the sake of virtue's dear form, and it survives because Diogenes Laertius and Athenaeus both quoted it centuries later.[16] So the one famous death this city produced is also the one object connected with it that nobody ever put into a stone chest. The industry here was containers. The thing that lasted was the only item in the catalogue that came out of a man's head and could not be quarried, shipped or sealed.

There is a gap in the file that I cannot get past, and it is a comic one. Aristotle lived here for about three years, in a city of maybe a few thousand people, on a cliff, with a harbour and a temple and a view that would stop a cart, and in the whole surviving corpus he never once mentions Assos.[17] The most relentlessly specific writer in antiquity, the man who catalogued the parts of a cuttlefish and the constitutions of a hundred and fifty-eight states, got through the place without filing a sentence about it.

The other export was a man. Cleanthes came from Assos, went to Athens, and ended up the second head of the Stoa after Zeno, which made a provincial from a coffin town the chief executive of the most influential school of practical ethics in the ancient world.

The biographical tradition has him carrying water at night to pay for the lectures he attended by day, which is the kind of detail that gets attached to a poor student by admirers, and I cannot put my hand on the passage. What is solid is the Hymn to Zeus, preserved by Stobaeus, which is the longest continuous piece of early Stoic writing in existence.[18]

The temple that would not pick a side

The building on top of the cone is the only known Archaic Doric temple in Anatolia, and it is Doric the way a translated book is in a language. Six columns by thirteen, a hundred-footer, about thirty metres by fourteen on the stylobate, built of the local andesite with softer tuff used where it had to be patched. Clarke, who dug it, reckoned that from inside the precinct a person could look down into the holds of the ships lying in the harbour below.[19]

Then the decoration, which is what the architectural histories have been arguing about for a century. A Doric temple carries its sculpture in the metopes, the square panels between the triglyphs. This one has the metopes, and underneath them it also runs a continuous band of relief along the architrave, which is Ionic practice and has no business being on a Doric building at all. The subjects on it are Heracles fighting centaurs, sphinxes facing each other, a lion and a boar, bulls, and a banquet.[20]

It also leaves out the refinements that Attic practice treated as the mark of a serious building. No entasis in the columns, no upward curvature of the stylobate, no corner contraction. For a long time that got the temple written up as provincial clumsiness, a well-meaning attempt at something the builders had only heard described.

The reading that has replaced it is a deliberate hybrid, a building designed from simple proportional relationships by people working between two traditions and borrowing from both on purpose.[21] Which is the more

interesting proposition, and it is also the harder one to be relaxed about, because it means these masons had both rulebooks open on the table and declined to be marked by either committee.

The masonry says the same thing in a language with no opinions in it. The column shafts were built up from drums, each drum turned on a lathe about a wooden pin a little over four centimetres thick set into its face, and ground down against the one beneath it until the bearing surfaces touched only in a band about ten centimetres wide at the rim, which is the universal practice of good Greek work and takes patience that the stone does nothing to reward.[22]

The setting lines for the cella foundations are engraved straight onto the course below, so that the builder had a drawing board the size of the building. Where pavement slabs are missing, the bare rock underneath is still covered with the chips struck off the blocks that were carved standing on it.

And on the lowest step course the lifting knobs are still there. A block of this size gets handled by leaving a lump of surplus stone standing proud of the finished face for the ropes and bars to bear on, and then, at the end, the lump is cut off and the face dressed smooth. Here the bottom course kept its handles. The men who ground column drums to a ten-centimetre contact band, on a rock that fights a chisel, looked at the one course that would sit at ankle height in shadow and decided it had been finished when it stopped moving.[23]

The temple then stood for about a thousand years, restored repeatedly and always in the same old-fashioned manner, and the Roman trading families who settled here in the empire took it over as an inheritance. The oath of allegiance that Assos swore on the accession of a new emperor was cut in stone and set up in the council house, and in it the Roman merchants of the town swear by the immaculate virgin whom our fathers honoured, meaning Athena.[24]

Their fathers had honoured nothing of the kind. It is the neatest small example on this coast of the standard manoeuvre: arrive, buy property,

and then date your family's reverence for the local goddess back past the point where anybody could check.

Sold off by the course

The besiegers that won on this coast were earthquakes and silt. Assos is the exception, and the exception is instructive. Many earthquakes went through here, and Clarke noted that the whole crepidoma of the temple had come through them unshaken, which he put down to its being seated directly on cut rock or on substructures jointed with that absurd care.[25] The thing that actually took Assos apart had a budget and a requisition number.

In the nineteenth century the site was quarried for construction stone, which was shipped to Constantinople and used, it is said, in new docks at the naval arsenal. The auditorium of the theatre had been almost undamaged less than twenty years before Clarke saw it. By the time he arrived it was a quarry.[26] Fellows, a generation earlier, had come up the hill past columns, triglyphs and friezes lying on every side and counted thirty Doric capitals stood up in a line to make a fence.[27]

The sculpture went out in two directions and neither of them was the sea route the sarcophagi had used. Blocks of the carved architrave lying on the ground were given by the sultan to the king of the French and shipped to Paris. Once there they were sawn into thin slabs so that they could be hung flat on a museum wall, which took off the dowel sinkings at their ends.[28] Those sinkings were the evidence of where each block had sat above which column. To turn a building into a picture, somebody had to remove the proof that it had been a building.

The rest of the carving is split between an American museum, which was given blocks excavated in the 1880s, Istanbul, and the collection from Çanakkale that has since gone to the Troy Museum.[29] None of it is on the temple. What is on the acropolis is the architecture: foundations, steps, drums, and five columns put back up in the 1980s partly out of steel-reinforced concrete, which cracked as the reinforcement rusted, and have

since been going back to drums cut from the local volcanic stone and surface-treated so that new work can be told from old.[30]

Here is the part that should land, and it is a point about the material rather than about the thieves. The reliefs were still lying on that hilltop in the 1830s for anybody to pick up, and the reason is that they are cut in coarse local andesite. Had they been fine marble they would have been valuable plunder, and they would have left centuries earlier.[31] The stone was too poor to be worth stealing. That was the only conservation policy this site ever had, and it held for two thousand years, and then a navy yard needed fill and the quality of the stone stopped mattering, because docks do not care what a frieze looks like.

The stone that stayed went on changing buildings. A Byzantine church on the acropolis was probably built out of the temple's own cella walls. Beside the temple stands a single-domed square mosque attributed to Murad I, with no foundation inscription in it, visibly built out of ancient and Byzantine material, and the popular claim that one or another of its doorways came intact out of a church is not something the architectural record will carry.[32]

Down by the Tuzla stream the early Ottoman bridge is still standing and still in use. The Greek name of the Byzantine town, Machramion, survives in the modern name of the village, Behramkale, worn down by about six centuries of being said out loud.[33]

Which leaves the name. Assos lost its own twice over. The village on the hill is Behramkale, and long before that, under the kings of Pergamon, the city was renamed Apollonia, in honour of a queen, and the old-fashioned name of the place stopped mattering to anybody who signed documents.[34] The word that did travel, and that is in the dictionary of every European language, is not the name of the city. It is the label off the product.

And the agora at Assos ended up with a building that had not been made here. The great two-storeyed hall along its north side is a royal gift from Pergamon, of a type that kingdom was turning out as a standard export,

and the stones of the monument in front of it carry placement marks and are faced in marble, which is not what you use in a town built out of volcanic rock.[35] It was cut somewhere else, numbered, shipped and assembled on site, and when it went up it towered over the council house where the citizens met and pushed it into the background. A hall arrived in crates, and the local government disappeared behind it.

So the hill with the hard grey stone sold boxes and lent out a word, and the kingdom up the coast sent buildings down in numbered pieces and took the city's name away while it was at it. That kingdom made a business out of lending, and the thing it is remembered for lending is not a stoa.

What to look for

- The temple of Athena on the acropolis: five re-erected columns, with original weathered andesite drums distinguishable from the 1980s concrete drums and from the newer cut-stone replacements.

- Drum faces on loose stones: the central pin hole a little over four centimetres across, the lathe slot on the lowest drum of a shaft, and the raised concentric contact band at the rim.

- Lifting knobs left standing on the exposed faces of the lowest step course, and the thin protective fillets along the front and upper edges of the joints.

- The places where the natural rock rises to the level of the cella floor and serves as the foundation.

- Sixteen flutes on the peristyle shafts, eighteen on those of the pronaos, with an arris and not a hollow on the axis.

- The fourth-century circuit wall: courses of equal height, laid dry, bonded face to face by headers, with polygonal masonry of an older wall visible beneath the regular courses at the breach near the western end.

- The portal in the transverse division wall, with bolt and pivot holes preserved in the jambs.
- The street of tombs outside the west gate: andesite sarcophagus chests and lids, tool marks, ceramic burial jars, and the monumental Roman tomb immediately left of the gateway.
- The agora, the council house, the gymnasium and the theatre, and the foundations of the two-storeyed hall along the north side of the agora.
- The Hüdavendigâr mosque beside the temple, and the reused ancient and Byzantine blocks in its fabric.
- The early Ottoman bridge over the Tuzla stream north of the village.
- The view south across the water to Lesbos, from which the founders came.

CHAPTER 5: ON LOAN

The kingdom began as a custody arrangement. Lysimachos, who came out of the wars over the Macedonian inheritance holding Thrace and much of Asia Minor, parked a reported nine thousand talents of silver on the hill at Pergamon and left it with a eunuch named Philetairos, who was his steward, which is to say the man whose whole job was looking after what was not his.[1] Philetairos then quarrelled with the king's wife, handed the fortress and the money to Seleukos I, and went on holding both of them himself. Seleukos was killed inside a year, and nobody ever came back for the deposit.

What he did with it set the pattern for a hundred and fifty years. A hilltop with a strongbox on it is not a state, and money that sits still is just weight, so he fortified the summit, enlarged the sanctuaries of Athena and Demeter, and began paying for other people's festivals: Delphi, Delos, Kyzikos, the Muses at Thespiai.[2] A dynast who was not Macedonian, not royal and not even, in the technical sense, a whole man could not inherit recognition, and recognition was the one commodity his silver could actually buy. It had to be bought in public, in stone, with the donor's name cut into it.

The coinage says the same thing in three words of iconography. Philetairos' silver first carried the head of Seleukos, the king he had changed sides to, and then, once that was no longer necessary, it carried his own, and his heirs left the founder's face on the money for generations after anybody who had met him was dead.[3] A family with no ancestors put one on the currency and let the currency do the remembering.

Then the name, which is what this hill is actually famous for. Late Latin called prepared animal skin *pergamenum*, after this place, and that word is the ancestor of English parchment, French *parchemin*, German *Pergament* and the ordinary Russian word for the material, пергамент (*pergament*).[4] The derivation is solid. The story attached to it is not, and the story is the part everybody tells.

Pliny, citing Varro, says that a Ptolemy cut off the export of papyrus out of rivalry over libraries, and that parchment was therefore invented at Pergamon.[5] Writing on skin was centuries older than that. Herodotus had already explained that the Ionians called papyrus rolls “skins” because in lean times they had written on goat and sheep, and said that some people still did.[6] So the most famous invention story on this coast is an explanation produced after the fact for a name that needed no explaining, and the embargo, which no document records, is the kind of detail that makes a legend feel like a receipt.

The name held anyway, because names do not need to be earned. And the first thing the kingdom behind the name ever paid out was not a benefaction. It was protection money.

The man who stopped paying

The Galatians crossed into Asia in three tribes, and the division is tidy enough to look like a treaty: the Trocmi took the Hellespont, the Tolistoagii took Ionia and Aiolis, the Tectosages took the interior, and before long a king of Pontos had settled the Tectosages around Ancyra in a district that took its name from them and kept it.[7] Galatia is a Celtic place name in central Anatolia, and it is there because a Greek-speaking monarch found it convenient to put those particular people somewhere other than near him.

Their business model was tribute, not conquest. A siege was not their preferred form of warfare, and it did not have to be, because the arithmetic of paying was better than the arithmetic of fighting, and the cities knew it. Philetairos paid. Eumenes I, who had already beaten a Seleukid king in the field, paid.[8] For two generations Pergamon bought its own safety with the silver it had declined to return, which means the deposit was still doing exactly what deposits do, only now for a different depositor.

Attalos I stopped paying, and he is the first ruler anywhere on record who refused.[9] The Tolistoagii came for him, and instead of sitting behind the best walls in Mysia and waiting to be besieged by people who did not

besiege, he went up the Caicus valley and met them at the river's springs, in the 230s or a little before. He took the title Soter, saviour, and then he took the title king, in that order, which tells you which one the other one was bought with.

Polybius, who was not easily impressed, says the title was for a victory over the heaviest and most warlike nation then in Asia, and that Attalos lived to seventy-two and reigned forty-four years.[10] The claim it bought was worth more than the territory. A barbarian enemy that frightened every Greek city on three coasts was a better credential than a pedigree, because a pedigree can be checked and a fright cannot, and the frame was already built and waiting: civilisation against barbarism, with the Gauls standing in the slot that the Persians had occupied for two centuries.

The war itself has no narrator. There is no Thucydides for the Galatian war and no Caesar for it either, which is worth holding onto, given where the statues ended up. Three literary sources give it a sentence each. What there is instead is epigraphy: in the square of the sanctuary of Athena Nikephoros, German excavators working from 1879 to 1883 lifted seven white marble panels, each just over a metre high, off a single long rectangular base, and the spacing against the base's total length says there were eight.[11]

One panel, on the short side facing the way in, is the only one of the seven that survives complete, and it is the dedication of the whole monument:

> King Attalos (dedicated these) to Athena as thank-offerings for the contests of war.

The other six are captions, one battle to a slab, each beginning "From the battle". The one that mattered to the dynasty reads:[12]

> From the battle at the springs of the river Caicus against the Tolistoagii Galatians.

Twelve words for the victory that made a kingdom, in a lettering style so plain it could be a shipping label. There is no body count, no account of

the manoeuvre, no adjective. The Attalids spent the rest of the century filling marble with writhing giants on the subject of this war, and the one place where they had to be literal they used twelve words and a place name.

Read the captions as a set and the propaganda springs a leak. The slab for the battle by the Aphrodision names the enemy as the Tolistoagii and the Tectosages and Antiochos, all three in one line, which is to say that two Galatian tribes were fighting that day as hired men for a Seleukid prince.[13] The unassimilable barbarian of the sculpture programme was available by the season, and the people commissioning the sculpture knew the rates.

Antigonos of Macedon had worked this out a generation earlier: he trapped and massacred one band of Galatians and then enlisted the rest as cheap, expendable infantry, and when his Macedonian soldiers changed sides in a battle his Galatians fought for him to the death.[14]

The Aphrodision slab gives away something else, because the Aphrodision was just outside Pergamon's own walls. If the battle was fought there, then Attalos and the Galatians and Antiochos between them had arrived at his front gate, which is not where a man fights by choice.[15] Justin says Attalos overturned his enemies without difficulty. The stone says he won a battle at his own doorstep, and the stone was cut by his own masons, which makes it the hostile witness in the room.

There was a second monument, circular, standing in the same square, with about ten metres of lettering running round its upper cornice, and the inscription commemorates the identical battle at the springs of the Caicus.[16] The same victory, twice, in one precinct, fifty paces apart. A dynasty with one real credential does not economise on the places it can be read.

And then Augustus took the round base. Blocks were inserted to level the step around the drum and his own dedication was cut into them, Imperator Caesar Augustus, son of the god, to Athena, and the offering was almost certainly the trophies he got when the Parthian king handed

back the Roman standards.[17] So a monument raised to advertise the killing of barbarians was reused to advertise a settlement reached by negotiation with no battle in it at all. Further Roman inscriptions went onto the drum after that, and one emperor's name on it has been chiselled out. The base kept taking signatures for three centuries, and every one of them was somebody else's.

The barbarian, assembled from parts

Pliny lists the sculptors who made the Attalid and Eumenid battles against the Gauls, and credits one of them, Epigonos, with two subjects: a trumpeter, and an infant pitifully caressing its slain mother.[18] The marble Gaul in the Capitoline Museums in Rome has a war trumpet lying on the plinth beside his hand. One Latin noun and one carved object are not an attribution, but they point the same way, and the bronze that stood on the Pergamene base and the marble that lies in Rome are generally taken to be the same figure, three centuries and one language apart.

There is a second prize on that stone and it is the sort of thing that only nineteenth-century German epigraphy could produce. Fraenkel read a third line on the Aphrodision slab, in larger letters after a wide gap, and restored it as *works of Epigonos*, which would be the sculptor signing the victory monument. Dittenberger would not print it. He left the letters out of his text and mentioned in a footnote that further letters existed on the stone.[19] One editor found the signature of the man who invented the image of the dying barbarian, and the other editor, looking at the same marble, declined to put it in the book.

What the sculptors actually built was a kit. The torque at the throat, the trumpet, the heavy moustache, the hair stiffened with lime, the nakedness: these are a set of props and features assembled by Greeks in the fourth and third centuries to mark Celts as people from outside, and they were assembled before anybody in Pergamon needed them.[20]

Polybius describes Gauls fighting in nothing but their weapons, all in the prime of life and finely built, and says their appearance and gestures were very terrifying. Diodorus records that they washed their hair with lime.[21]

The statue matches the descriptions, and the reason it matches is not that somebody looked closely at a dying man. It is that the statue and the descriptions came out of the same workshop of ideas.

Having built the figure, they exported it to the only audience that mattered. On the south wall of the Athenian Acropolis, Attalos set up four battles in a row, gods against giants, Athenians against Amazons, Athenians against Persians at Marathon, and the destruction of the Gauls in Mysia, each figure about two cubits high.[22] Three of those four had nothing to do with him. He paid for all four, put his own war fourth so that the sequence would do the arguing for him, and had the whole set made small enough to fit along the top of somebody else's wall.

Athens got a building out of the family as well, and got it flat-packed. The marble parts of the stoa that Eumenes II gave the city were cut and finished at Pergamon and then shipped, and the stoa his brother Attalos II gave the Athenian Agora went up the same way.[23] That one is standing today, because Americans rebuilt it in the 1950s, and when it was rededicated in 1956 with a president of the United States present, the gesture was about which side of the modern world Greece belonged to.[24] A Pergamene export, re-erected by a third party, to make a point about a fourth.

The reputation this bought was out of all proportion to the fighting, and the people who have counted the battles say so: of all the states that faced the invasions, the Attalid kingdom emerged with the largest increase in standing, and that owed as much to skilful propaganda as to military achievement.[25] Macedon took the worst of the invasion. The Aitolians saved Delphi. Pergamon won one battle at a river source, put the barbarian on the international market in marble and bronze, and is the place everybody now associates with the Gauls.

Four hundred years of calling him a gladiator

The two best Gauls were dug up together in Rome, almost certainly in the foundation trenches of the Villa Ludovisi between 1621 and 1623, on the site of the Gardens of Sallust, and that ground had belonged to Caesar.[26]

One is the Dying Gaul in the Capitoline. The other, the man killing his own wife and then himself, is in the Palazzo Altemps. Coarelli's reading is that these marbles were cut on Caesar's order, for Caesar's own property, to commemorate his victories over the Gauls of Gaul by quoting Attalos' victories over the Gauls of Galatia.[27]

If that is right, then the object a visitor stands in front of in Rome is Pergamene propaganda recut as Roman propaganda, with the barbarian kept exactly as he was and the victor quietly swapped. Which is the purest example in this book of what this coast did for a living. Pergamon manufactured an image of the enemy of civilisation, the image turned out to be portable, and the next empire along bought the design and put its own name in the credits. Nobody paid a royalty, and nobody in Rome had any reason to mention where the thing came from.

Then they lost the subject. The 1623 Ludovisi inventory, the earliest record of the statue, calls it a dying gladiator.[28] Winckelmann, reasoning from the trumpet on the plinth, decided it was a Greek herald. It took Ennio Quirino Visconti, reading the torque, the matted hair, the moustache, the eyebrows and the broad nose, to identify a barbarian, and the Gaul settled into the catalogues only in the middle of the nineteenth century, while "Dying Gladiator" went on living in popular use into the twentieth.[29] A statue built out of a prop kit specifically designed to mark a man as a Gaul spent two hundred years being read as an arena employee.

The price history is its own joke with a number attached. Giambattista Ludovisi valued it at seventy thousand scudi in 1670. Sixty-odd years later it was bought for the new Capitoline Museum for six thousand, having been talked down from twelve.[30] Whatever art history says about the greatest surviving image of a defeated enemy, the market took it off a noble family for under a tenth of the family's own estimate, and the buyer still haggled it in half.

What settled its fame was being stolen. It was seized under the Treaty of Tolentino in 1797, paraded into Paris, and hung in the Musée Central des

Arts from the day that museum opened, which is the point at which a Roman curiosity became one of the most famous objects in Europe.[31] Canova got it back, and it was in the Capitoline again by 1816. The sculptor who negotiated the return is the same sculptor whose own career had been built partly on copying antiques of exactly this kind, which is a tidy arrangement: the restitution of the original was handled by the reproduction industry.

Byron saw it within two years of its return, still believing it a gladiator, and put it into *Childe Harold's Pilgrimage*:[32]

> I see before me the Gladiator lie / He leans upon his hand, his manly brow / Consents to death, but conquers agony

That is the most influential description of a Pergamene sculpture ever written in English, and the noun in the first line is wrong. It is wrong in the way the whole four hundred years were wrong, and the error is doing real work in the poem, because a gladiator dies as a professional and a defeated tribesman dies as a political statement, and Byron wanted the first one.

The copies went everywhere and they went early. Perrier's etching of 1638 is the first published image; full-size replicas were made for the king of Spain and the king of France; Susini was casting it as bronze statuettes in the 1630s; Thomas Jefferson put it on a list of antiquities he wanted, in reproduction, for a gallery at Monticello he never built; and the figure turns up re-used as the Argus in a Velázquez, as a Patroclus by David, and in the painted museum interiors of Panini.[33]

Art students drew it as a matter of routine. If you have ever stood in front of it in Rome, you were looking at the most widely reproduced thing western Asia Minor ever made, and the label did not say so for most of its career.

The trench at Skepsis

The library at Pergamon is four rooms on the north side of the Athena precinct, behind a two-storey stoa, and the identification rests on the

shape of the rooms, a statue base big enough for a colossal Athena, and a statue found in them in the 1880s.[34] That is thinner evidence than the guidebooks suggest, and nothing better has been put against it. What the rooms were for is not in dispute at all, because the kings' book-buying left a trail in other people's libraries.

The best of it is a story Strabo tells about Skepsis, up in the Troad. Aristotle's books, and Theophrastos' with them, had come down to the heirs of a man named Neleus, and when the Attalid kings began collecting, the heirs buried the lot in a trench in the ground to keep them out of Pergamon.[35] They were dug up later and sold to a collector from Teos. A dynasty whose whole programme was proving it belonged to Greek civilisation had reached the point where provincial families were putting Greek civilisation underground to stop it being acquired.

Galen says the rivalry between the Ptolemies and the Attalids drove up the price of old books and encouraged forged attributions.[36] Two kings bidding against each other for manuscripts, neither able to verify what he was buying, is a market that produces fakes the way a damp wall produces mould, and it produced them at the exact moment when somebody had to decide which texts were genuinely by whom. The canon of Greek literature was selected, catalogued and transmitted by the libraries of Alexandria and Pergamon.[37] Part of what came down to us came down because two courts were competing to own it, and part of what came down to us is wrongly labelled for the same reason.

As for how big the library was, there is exactly one ancient figure and it comes out of a smear campaign. In the propaganda war before Actium, Calvisius Sabinus accused Antony of giving Cleopatra the libraries of Pergamon, two hundred thousand volumes, and Plutarch, who reports the charge, says it was widely thought to be a falsehood.[38] That number is now in every popular account of the place as the size of the collection. It was never a catalogue. It was an allegation about a gift, in a political attack, and the detail that travelled was the one in the subordinate clause.

The scholarship produced here had a house style, and it was the opposite of Alexandria's. Krates of Mallos, who ran the Pergamene school, read Homer for allegory and held that the poet's language mirrored the order of the cosmos, where the Alexandrians were textual critics counting lines.[39] He is also the man credited with a terrestrial globe, the earliest one on record, although nothing actually documents that he made it in this city.[40] The library's own holdings are gone, the globe is gone, and what survives of Pergamene scholarship is mostly the fact that Alexandria disagreed with it.

Two other Attalid exports went out as vocabulary. The kingdom's silver coin was the cistophorus, the basket-bearer, named for the sacred basket of Dionysos on its face, struck at Pergamon and at Ephesus and Tralles, and Rome kept it in circulation for the province of Asia long after the kings were gone.[41] And the family name itself turned into a word for money: when Horace wants to say "on terms no sane man would turn down" he says Attalic terms, and when he wants to sneer at a man who came into a fortune he reaches for the heir of Attalus.[42] A dynasty that spent a century buying credibility ended up as Latin slang for being rich.

Made ground

Everything on this hill is standing on something that had to be built first. The ridge is andesite, a hard volcanic rock, it rises about three hundred metres over the plain, and its natural slope will not take a large building anywhere.[43] So the kings cut platforms into the rock on the uphill side and held them up with retaining walls and fills on the downhill side, terrace after terrace, and the Romans later did the same thing with vaults. Most of the labour of the Attalid building programme went into ground that nobody came to look at. The visible kingdom was the thin layer on top.

The quarries are four or five kilometres out, on two hills, and they are legible. At one, very large blocks were taken off the bedrock with lines of wedge holes set in a V-shaped channel; at the other, the stone was lifted along natural cracks with no wedge marks at all.[44] There are letters and

signs cut into the quarry faces, read as the marks of owners or contractors, and the blocks went to the city by roads on the northern slope, which kept the heavy traffic off the crowded southern approaches.

The survey also suggests that a good deal of ordinary building stone was simply collected: weathered andesite boulders lying loose on the surface, which cost nothing to extract and leave no quarry behind them, which is still how people take stone in those mountains.[45]

The theatre is the piece of the composition that explains the rest. It has about eighty rows in three banked zones, it stands some thirty-six metres from the orchestra to the top row, and it is the steepest known theatre of the ancient world, because it is wedged into a slope with nowhere to spread sideways.[46]

It had no permanent stage building. The post holes along the terrace in front of it show a wooden stage that was put up for performances and taken away again afterwards, so that the long terrace stayed clear and the valley stayed visible from every seat.[47] A royal theatre whose stage was struck between shows, to keep the view, is a building that has worked out that half of what the audience came to see is the kingdom itself.

The best engineering here is the part no museum could remove. Water came to the acropolis from the Madradağ mountains down a line about forty kilometres long, in terracotta pipe with a bore of eighteen centimetres, and at the last valley it ran as a closed siphon under something like a hundred and ninety metres of head, which is about nineteen atmospheres and far past what a jointed clay pipe will survive.[48]

That stretch was lead, anchored by stone blocks heavy enough to take the thrust at the bends. The kings imported their marble by sea and their prestige from Athens, and the one thing they built that nobody has ever been able to ship anywhere is the thing that got water up a hill.

The summit itself eventually changed hands, and the change is architectural. The one Roman monument on the upper city is the Trajaneum, a marble temple of Trajan and Hadrian’s Zeus Philios, and it

sits on the ground where the Attalid palaces had been, on a platform of parallel walls and barrel vaults faced toward the valley with about twenty-three metres of ashlar.[49] Part of its colonnade was put back up between 1976 and 1994, which is why it is the thing you can see from the town. Where the kings had lived, an emperor was worshipped, on a terrace built by hollowing out the view.

Down on the valley floor the city went on importing. The Red Hall is a vast brick precinct of Hadrian's time dedicated to Egyptian gods, Serapis and Isis and Harpokrates among those named on a dedication, its brick core originally clad in marble so that it read as a conventional temple, and its forecourt stands on a bridge: the Selinus river was put into two barrel-vaulted channels and the courtyard built on top of them, and the river is still running through.[50]

Brick on that scale was unusual in Anatolia and the builders were probably brought in. The city whose name went out on every sheet of parchment in Europe spent its Roman money putting up a Greek-Egyptian god's temple over a culverted stream, in a technique it had to hire.

The platform, empty

The Great Altar was found the way most things were found here, by somebody doing something else. Carl Humann was building roads for the Ottoman government when he came on marble fragments on the hill, and the excavation followed, and from 1879 the reliefs went to Berlin under an agreement with the Ottoman state.[51]

The thing he was digging them out of is worth a sentence of its own, because it was not a ruin of the Altar. It was a defensive wall. When the Arabs began raiding, the emperor Constans II fortified the acropolis with reused blocks, and the Gigantomachy had spent twelve centuries as facing stone in that wall, while a good deal of the rest of Pergamon's marble went into lime kilns.[52]

What the frieze shows is the Olympians putting down the Giants, a hundred and thirteen metres of gods and snake-legged monsters, with a second and smaller frieze inside the colonnade telling the story of

Telephos, son of Herakles, the hero the dynasty claimed as an ancestor.[53] The two arguments are the two halves of the sales pitch: we are the people who beat the barbarians, and by the way we are Greek. At least forty sculptors worked on it. One signature survives on a cornice, reading Theorrhetos, and that is the only name the building kept out of all the hands that made it.

Then the Altar travelled, which it has been doing ever since. It went up in a purpose-built hall in Berlin. In 1945 the sculptures were removed to the Soviet Union, where they were held and restored at the Hermitage in Leningrad (Ленинград) and shown there, and in 1958 they were handed back to East Germany.[54]

The hall that holds them has now been shut for years for rebuilding, with a reopening published for 2027.[55] Add it up and the most famous object this city produced has spent the greater part of the last century in a crate, in a different country, or behind a hoarding, which is a strange career for a building that was made specifically in order to be looked at.

Turkey has been asking for it back since at least the early 1990s, and officials of the German foundation that holds it expect Ankara to ask again.[56] What is left at Bergama is the foundation platform on its terrace, with some architectural blocks and a restoration that repositions original stones, and the footprint is about thirty-six metres by thirty-three.[57] The division of the spoils is almost geological. The sculpture was marble brought in from an island, and marble can be shipped. The platform is made out of the hill, so the platform stayed.

The Altar also acquired a theological career. The letter to the church at Pergamon in Revelation praises it for holding firm “where Satan’s throne is”, and names a man called Antipas who was killed there.[58] No ancient text and no inscription identifies that throne with the Altar.

The identification is a modern proposal, made in 1908, and it competes with four others: the imperial cult, the Asklepieion and its snake, the proconsul’s power of execution, and the colossal seated Zeus of the Trajaneum.[59] The one thing the phrase certainly describes is a city

where Roman power and several large cults were all conspicuous at once, which at Pergamon narrows it down to almost nothing.

What is documented, and what people usually get backwards, is the architecture. Albert Speer named the Great Altar as the model for the grandstand he built at the Nuremberg rally grounds, and the city's own documentation centre at the site says the same.[60] That is a real line of descent, from a Hellenistic terrace to a 1930s tribune, and it is a fact about proportions and stairs. It is not evidence that anybody was standing on Satan's throne, which is the use it usually gets put to.

The furthest-travelled version of the story holds that a political convention stage in Denver in 2008 was a deliberate replica of the Altar, and there is no drawing, no instruction and no designer's word behind it anywhere: the claim was built out of the fact that the stage had columns.[61]

It lent itself last

The final loan was the kingdom. Attalos III died without an heir and left his property to the Roman people in a will, and the Roman tradition preserves the formula in those terms, property rather than sovereignty, which is why several cities of the kingdom came out of it declared free.[62] The hostile version of the man, that he was unbalanced and spent his time on poisons and gardens, comes down from Roman sources with an interest in the inheritance, and his surviving written work is on agriculture.[63] A dynasty founded by a steward who kept somebody else's money ended with a king who gave his own away.

Not everybody accepted the transfer. Aristonicus, who said he was a son of Eumenes II, raised the countryside, called his followers Heliopolitai, citizens of the Sun, took cities and killed a Roman consul in the field, and it took Rome four years to put him down.[64] The treasure itself went straight into Roman domestic politics: Tiberius Gracchus proposed to spend the Attalid money on land for the Roman poor, and so the silver that a eunuch had failed to hand back to Lysimachos ended up being

argued over by tribunes in a quarrel that helped bring down the Republic.[65]

What Rome built on the inheritance was a province, and the province needed a name. It took the one that had been attached to this coast since the Bronze Age, and from then on Asia was an administrative unit with a proconsul, a tax contract and a capital, and the capital was here.[66]

That name then kept expanding for two thousand years, out past the Taurus, out past the Indus, until it covered the largest landmass on earth. The kingdom that handed it over has no modern name at all. The hill is Bergama, the kingdom is a chapter heading, and the word that came off this coast is now doing duty for most of the people alive, almost none of whom have heard of the Attalids.

The smaller names did better. Attalos II founded a city in Pamphylia and called it after himself, and it is Antalya, which is now an international airport with a coastline attached.[67] Eumenes II is on the Athenian Acropolis. Philetairos is on the coins. The one word that beat all of them is the one the kings never claimed: a trade name for scraped skin, which went out of here on every document in Europe for a thousand years and is still in the Russian dictionary.

The last thing to say about a place that spent its whole existence lending is that it eventually imported something, and the import was the one that lasted longest. The healing cult in the valley below the city was not local. Pausanias says a Pergamene named Archias brought Asklepios here from Epidauros after being cured there himself, which makes the sanctuary a souvenir.[68] Under Rome that souvenir outgrew the acropolis above it, and the city stopped exporting victories and started exporting physicians, and people came from across the empire to lie down in a precinct outside the walls and wait to be told, by a god, in a dream, what was wrong with them.

What to look for

- The Great Altar’s foundation platform on its terrace below the Athena precinct: the footprint, the stair front, the cuttings for the

colonnade, and which blocks are original and which are repositioned.

- The Athena precinct: the base of the Doric temple, the line of the stoas, and the inscribed statue bases that carried the victory monuments, most of whose inscriptions and sculpture are in Berlin.
- The four rooms on the north side of the Athena precinct identified as the library, and the statue base at the end wall of the largest.
- The theatre: three banked zones of roughly twenty-one, thirty-two and twenty-five rows, about thirty-six metres from orchestra to top row, the narrow cuneus stairways, and the places where the seating is cut from bedrock rather than built up.
- The theatre terrace, about two hundred and forty-seven metres long, with the post holes for the removable wooden stage, the stoa line, and the temple of Dionysos at its northern end.
- The Trajaneum: the marble podium and re-erected colonnade, the anastylosis seams where ancient and replacement stone meet, and the vaulted substructure and ashlar facing on the valley side.
- The Hellenistic fortifications and gate lines, and changes of masonry type between building phases.
- The Byzantine circuit built by Constans II, and the reused ancient blocks in it.
- The Hellenistic palace area and the Heroon north of the Athena precinct, and the Upper Agora.
- The gymnasium terraces and the sanctuary of Demeter on the south slope, where the retaining walls are exposed.
- Terracotta pipe sections, cut channels and cisterns belonging to the water system, the pipe bore about eighteen centimetres.

- Andesite wall faces at close range: dressing marks, drafted margins, course heights, and whether the stone is compact or full of voids.
- The Red Hall in the lower town: the brick core where the marble cladding has gone, the surviving rotunda that became a mosque, and the two vaulted channels carrying the Selinus under the forecourt.
- The amphitheatre and stadium on the valley floor.
- The Bergama Archaeological Museum: the model of the Great Altar, Pergamene sculpture, and the Allianoi finds.
- The parchment museum in the former Hacı Hekim bathhouse.
- The three large mounds in the modern town, Yığma Tepe, Tavşan Tepe and Maltepe.

CHAPTER 6: THE SNAKE AND THE DREAM

The sanctuary in the valley below the city had one admission procedure, and it was to lie down and go to sleep. The god was Asclepius (Асклепий), and he came in the night, told the patient what was wrong or what to do about it, and in the morning the staff interpreted what he had said and arranged the rest: bathing, a diet, exercise, sometimes music, sometimes a sacrifice.[1] Everything else the institution did was downstream of that. Which makes the ancient world's great clinic an institution whose central diagnostic instrument was supplied, nightly and at no charge, by the person being diagnosed.

What grew on the site is wildly out of proportion to the procedure. The cult was a souvenir, carried up from Epidauros on the word of one Pergamene who had been cured there, and what it eventually acquired was a colonnaded street running out of the city to the precinct, something like eight hundred metres of it, a large colonnaded court, a round temple of Zeus Asclepius the Saviour built in the domed form the Pantheon had made fashionable, a library, a vaulted passage running underneath the court toward a spring, and a theatre seating about three and a half thousand.[2] A clinic with a theatre that size is not a clinic. It is a town whose industry is being unwell.

The buildings were paid for by individuals, and the names stayed attached: a Roman senator for the round temple, a woman called Flavia Melitine for the library.[3] That is how nearly everything in Roman Asia got built, by private people buying a permanent credit line in stone, and it is worth noticing what the product was in this particular valley.

Elsewhere a benefactor bought a fountain or a gate and his name went up on a street. Here he bought a room in the waiting area of a god who answered in person, and put his name where it would be read by the people most likely to be praying.

The god had money of his own long before any of that, and the way it was held is the most Pergamene thing about him. Under the last of the Attalid kings, parts of the ruler cult performed daily in the city were funded out

of revenues of Asclepius that the inscription marks with a technical term meaning nontransferable: ring-fenced, not to be moved by a vote or by anybody.[4]

A dynasty that had started as a custody arrangement and never entirely stopped being one had worked out where the safest deposit in the kingdom was. It was with the one god in the valley whose whole business was keeping a promise to one person at a time.

He was on the money as well, in the form that counted. The kingdom's silver carried a wicker basket with its lid ajar and a serpent coming out of it, two more snakes on the reverse standing over a bow case, and the bronze was struck in the names of Asclepius the Saviour and of Hygieia.[5] Which snake it is has been argued over for well more than a century: Asclepius, or Demeter, or Dionysos, or the serpent that reared up to stop the dynasty's own ancestor from marrying his mother. The city kept so many snakes that nobody has ever managed to read its currency.

Saviour was a word with two prices on this hill. A king took it for one battle at a river source and traded it up into a crown, while the god below him held the same word for doing the work retail, one patient and one night at a time. What the word also carried was a legal fact. A sanctuary of a saving god, standing deliberately outside the walls, was where you went when something was coming for you, and the protection worked on everybody who agreed to be bound by it.[6]

Shot from a distance

In 88 BC Mithridates VI of Pontus sent instructions to the cities of Asia that on one appointed day every Roman and Italian inside them was to be killed. Appian reports the method city by city, and the two cities he singles out are the two with the largest sanctuaries in them.[7]

> The Ephesians tore fugitives, who had taken refuge in the temple of Artemis, from the very images of the goddess and slew them. The Pergameans shot with arrows those who

> had fled to the temple of Aesculapius, while they were still clinging to his statues.

Set the two halves against each other, because they are not the same crime. At Ephesus the killers put their hands on people who were holding a goddess and pulled them off her. At Pergamon nobody touched anyone. They stood back and used archery, on suppliants who would not let go, inside a precinct where letting go was the one thing that would have ended their protection. The men with the bows were observing the rule and breaking it in the same motion, which is a stranger piece of theology than plain butchery, because it means they knew exactly what the place was.

The toll for the whole operation across the province comes down as about eighty thousand, which is the figure two separate ancient authors give, with Plutarch's hundred and fifty thousand sitting out on its own.[8] Eighty thousand is the better-supported number and it is still a number nobody counted, in a province with no census of resident Italians, written up by authors who wanted the scale felt rather than audited. The shape is not in doubt. One order, one day, every city, and the places people ran to were the places they were found.

None of it is in the ground. A massacre leaves no destruction layer, so the best documented event in the history of this valley is also the one the excavators cannot see, and the only physical consequence anybody can point to arrived later and from the opposite direction, in the indemnity Sulla imposed on Asia once the war was over.[9] The province paid for having obeyed.

And then came the money. What stood in the valley in 88 BC was a modest Hellenistic sanctuary; the marble court, the round temple, the library and the theatre all came afterwards, in the century when the place became famous, and the names on them are Roman.[10] Two hundred years after Roman citizens were shot in that precinct while holding on to the god, Roman senators were rebuilding it at a scale the Attalid kings had never attempted. Nobody involved seems to have found the arrangement

awkward, which tells you how completely a sanctuary's reputation is made out of what it is doing for the living.

The longest complaint in antiquity

The reason any of this is more than architecture is that one of the patients would not stop writing. Aelius Aristides was an orator out of Mysia who kept a house at Smyrna and spent years in residence in this sanctuary, ill, by his own account, for most of his adult life. Later he set the whole business down: the dreams, the instructions he was given inside them, the treatments that followed, and a working relationship with Asclepius that reads less like piety than like correspondence with a difficult patron.[11]

What he produced is the most extended first-person illness narrative to survive from antiquity.[12] Not the first medical text and not the first book about dreams, but the longest surviving document in which a sick man is the author, the subject and the instrument at once.

Everything else we have about ancient medicine comes from the other side of the table: physicians writing up cases, a votive inscription thanking a god in twelve words, a marble relief of a cured leg. Here the patient has the floor for years, and he uses it the way a professional speaker would, which is to say at length.

Two things about him are worth holding together, because separately they are anecdotes and together they are a portrait. The sickest man in Asia was also its most effective lobbyist: he talked an emperor into rebuilding Smyrna after an earthquake, and the version that reached the following century has the emperor in tears over the speech.[13]

He also wrote the province's lectures on getting along, addressed to Smyrna and to the Asian cities in general, telling them to stop quarrelling about rank.[14] A man who could not get his own body to cooperate spent his working life telling cities to cooperate, and the cities listened about as well as the body did.

There is one more use his diary gets put to now, and it is the sort of thing that would have pleased him enormously. When historians go looking for evidence that the great plague of the second century reached the province of Asia at all, the passage they reach for is a few lines in his account of his own symptoms.[15] It is thin evidence and everybody who uses it says so. The most comprehensively documented invalid in the ancient world is the best witness available for whether an empire-wide epidemic ever touched his coast.

The gladiator school as a teaching hospital

The other famous man in the valley came at medicine from the opposite end, and even he got into the profession by dream. Galen was born here, the son of an architect, and he says that Asclepius had a hand in the choice of his career by appearing in a dream of his father's.[16] He served the god as an attendant while young, went out to study at Smyrna and Corinth and Alexandria, and came back to take the one post in the city that no medical school could have designed better: physician to the gladiators of the high priest of Asia.

Human dissection was not done. That single prohibition shaped every anatomist in antiquity, and the way around it was animals: Galen opened apes, pigs, goats, ostriches and at least one elephant, and he wrote with undisguised envy about the doctors attached to the emperor's campaign staff, who were occasionally allowed to cut up a barbarian.[17] A gladiator school solved the problem from the other side. It did not supply him with corpses. It supplied openings in living people, made in public, on a published schedule, with the patient expected to walk out afterwards.

What he got out of it was experience nobody else could buy at any price. He saved a gladiator who had been almost completely disembowelled, and later took an infected breastbone and the membrane around the heart out of a slave boy, working above the heart while it was beating.[18] He also recorded, with the particular contempt of a man who had taken the post over, that the gladiator doctors of his native city killed most of their patients. The best anatomical education in the Roman world was a

wound ward with a box office attached, and he knew it, and he took the job.

He was a performer too, in a profession stiff with them. The celebrity doctors of his generation staged duelling surgical demonstrations, competed at festivals and occasionally poisoned each other, and Galen would dissect in public and invite the audience to call out which part he should open next.[19] That is the man whose books then ran medicine for more than a thousand years, in Greek and in Arabic and in Latin. The physiology of half the world for a millennium was written by somebody who learned the inside of a body in an arena and the outside of a career in front of a paying room.

Two centuries later the city produced one more physician to an emperor, and he is the reason a good deal of the rest survives. Oribasius of Pergamon served Julian, and what he is read for is not his own opinions.[20] He compiled. His Medical Collections preserve large parts of medical writers whose own books are gone. The last great medical export of the town was a filing job, which is a better thing to have done than to be remembered for, and the writers he copied out would not be known at all without it.

What the jaws say

There is one city in the ancient world where you can lay a physician's writing about food next to the actual teeth of his neighbours, and this is it. Galen wrote a treatise on the properties of foods, with firm opinions in it: pork the most nutritious meat, chicken and pheasant the best birds, molluscs a laxative but oysters preferable.[21] Then there are the sampled skeletons of Roman and Byzantine Pergamenes, and the carbon, nitrogen and sulphur in their bones, which report a diet of land plants and land animals with no input from the sea whatsoever.[22]

The sea is about thirty kilometres away and the sampled dead had never eaten anything out of it, which is a fact about class rather than distance. Bread and pulse soup were the daily food of most people here, as they were most places, and Galen's catalogue of superior meats and preferable

oysters was written for the sort of household that kept a cook. The isotopes and the treatise agree almost perfectly about what was eaten in Roman Pergamon. What they disagree about is by whom.

The jaws are where the consequences are filed. Caries in the molars, often deep enough to take out half a crown or more, abscesses at the roots, teeth lost during life, hard deposits on whatever was left, and wear suggesting that teeth were being used as tools.[23] The enamel defects that childhood illness or hunger leaves behind are common in the sample, though the severe forms are rare, and Galen himself wrote about famine in the countryside around him, peasants eating acorns and things that are not food, while the public administration concentrated on getting wheat into the towns.[24]

The one diet in the city that somebody bothered to specify in detail belonged to the men in the gladiator school, who were fed barley and beans mashed together in enormous quantities, a ration so distinctive that other Romans called them barley boys.[25] It has been argued that the point was to pack on a layer of fat as a kind of armour. Galen, whose job was patching them up, thought the stuff made their flesh soft and left them open to disease. The only people in Pergamon whose nutrition was anybody's professional concern were the ones scheduled to be opened in front of a crowd.

Not a hospital, and better than one

The sanctuary now gets sold as the world's first psychiatric hospital, equipped with a sleep-therapy tunnel, in which priests whispered therapeutic reassurance down through holes in the ceiling to the patients lying below.[26] The last of those has no ancient text behind it anywhere. The tunnel is a vaulted passage that connects parts of the complex and runs toward a spring, and it was not the dormitory. The spring, separately, is widely reported to be radioactive, which would conveniently explain the cures, and nobody has yet produced a laboratory measurement of it.[27]

What is odd about the flattery is that the real thing is stranger than the sales pitch. The sanctuary treated dreams, expectation, bathing, diet, exercise, music, theatre and ritual as components of one procedure, and it did that without any theory obliging it to.[28] Nobody on the premises had a word for suggestion.

They had a god, a spring, a stage, a library and a routine, and they ran the routine on people for centuries with the patient's own mind as the working part. A hospital is somewhere you are treated. This was built on the assumption that you would do a share of the work yourself, asleep.

The city hedged anyway, by importing a second healer. Down on the valley floor a very large brick precinct went up for Egyptian gods, with Serapis among those named on a dedication found at it, and Serapis also cured people; in the end the building became a church, which is what happened to the competition generally.[29] Two healing cults in one small town is not redundancy. It is a market, and a market means there was demand to divide.

The method outlived every god who ever ran it. In Asia Minor a healing spring of Apollo was handed over to the Archangel Michael, and at Hierapolis the ring of rooms around the apostle's tomb was used for the same practice, people sleeping beside a holy body and waiting to be told something, with water and oil and a spring doing the work water and springs had always done.[30] The staff changed and the furniture changed. The step in the procedure that nobody could improve on was the one the patient performed lying down with his eyes shut.

Taken through the agency of the Devil

The valley's last appearance in a Greek chronicle is not a medical one. Theophanes, writing long afterwards, records that Maslama came to Pergamon and besieged it, and that by God's permission he took it through the agency of the Devil.[31] The explanation he then gives is that the leading men of the city, on the advice of a magician, cut open a woman near her time, boiled the child and used the liquid in a rite intended to make them unbeatable in the field. The city fell anyway.

That story is told about cities that fall, and its function in the chronicle is to establish why God had withdrawn, so as history it is worth very little and as a document it is worth a good deal.[32] The most famous medical town in the eastern Mediterranean closes its ancient career, in the only narrative source that covers the event, with its own council taking clinical advice from a magician. The difference between that procedure and the old one is not that either of them worked. It is that the old one asked the patient to go to sleep, and the new one asked for somebody else entirely.

The man who left the fullest record of the place never belonged to it. Aristides came out of inland Mysia and kept his house down the coast, in the city that had argued its way to an imperial temple of its own by telling the Senate it had been loyal to Rome first and longest, and that called itself first and greatest metropolis of Asia on its coins while Pergamon was calling itself first on its.[33]

That is the city that kept happening. It was shaken flat and put back up on an emperor's money, and it went on claiming to be the first and greatest city in Asia for as long as there was an Asia to be first in.

What to look for

- The colonnaded sacred way running from the city out to the precinct, reported at about eight hundred and twenty metres, and its paving.
- The large colonnaded court, its stoa lines, and the junctions where Hellenistic fabric meets Roman.
- The round temple of Zeus Asclepius the Saviour: the foundations, the plan, the stone and the bedding.
- The foundations of the library on the court, recorded as the gift of Flavia Melitine.
- The theatre, about three thousand five hundred seats.

- The vaulted underground passage running beneath the court toward the spring: whether the vault is cut stone or mortared rubble, the light shafts, the floor, and any water channel.
- The sacred spring and the fountain beside it.
- Large andesite architectural blocks at the sanctuary, architraves and column drums, and their tool marks against those of the acropolis blocks.
- Inscribed blocks and fragments lying in the precinct.
- The Red Hall in the lower town, and whether any inscribed block naming Serapis, Isis or Harpokrates is kept on site or in the museum.
- The Bergama Archaeological Museum: the finds from the Asklepieion, and what the labels say the sanctuary was.

CHAPTER 7: GÂVUR İZMIR

The Ottoman administration had a working name for its best port on this coast, and the name was the infidel one. Gâvur İzmir, infidel Smyrna. Not an insult shouted up from a rival town, and not a traveller's joke that stuck. It turns up in the empire's own parlance for the place, the way a department refers to a file.[1] An empire that ran on paperwork had a column somewhere for the city that handled more of its seaborne trade than any other, and in that column it wrote down that the city was full of unbelievers.

The reason it was full of unbelievers is that it was full of trade. Greeks, Armenians, Levantines and a large Jewish quarter made up the majority, and that majority was the brokerage, the interpreting, the shipping agency, the tax farming and the export business of the eastern Mediterranean.[1] So the complaint and the revenue were not two items that happened to sit near each other on the ledger. They were the same item, entered once, read two ways depending on which office was reading.

A German writing for the Greek cause during the First World War put it the way a partisan would, which in this case is also the way an accountant would: the Turks called it the infidel Smyrna mingling envy with scorn, because the port's trade had passed the capital's.[2] He was selling something and his numbers want watching. The shape of the sentence is right, though, and it does not depend on him, because an English traveller of the 1840s had already recorded the epithet from Turkish mouths.

That traveller then went on, in the same breath, to call Smyrna the capital of the Greek race and to add, "For myself, I love the race, in spite of all their vices."[2] Everybody in this story is being perfectly frank about their motives: the Turkish merchants who resented the infidels' share, the Greek partisans who wanted the city counted as theirs, the Englishman who liked the people he traded with and said so with a qualifier. The only party keeping its reasons to itself is the empire, which is merely keeping records.

Then there is the city's own name, which it got the way a man gets a nickname from the thing people say while pointing at him. İzmir is best explained as a Greek prepositional phrase, *eis Smyrnen*, "to Smyrna", worn down over centuries of being said by people who were going there.[3] The city lost the noun and kept the direction. A place whose entire function was being the destination ended up named after the act of heading for it, which is what happens when most of the people saying a name out loud are in transit at the time.

And the other besieger got here too, the one that does not announce itself. The inner harbour, the basin the ancient and medieval city actually loaded from, silted up like every other harbour on this coast, and the thing that finished Ephesus and Miletus arrived on schedule.[4] Smyrna's response was to build a bazaar on top of it and move the quays outward. The district is called Kemeraltı, under the arches, and it is a commercial quarter standing on a filled-in port. The river won and the city treated the result as real estate.

The calendar you dated your dead by

None of the arrangement was an Ottoman invention. Under Rome the city kept a list of people who had given money for public works, in Hadrian's reign, and on the list is a group the stone calls *hoi pote Ioudaioi*, which is best read as the former Judaeans: men originally out of Judaea, resident in Smyrna, doing a resident's duty.[5] The wording was chosen by the citizens of Smyrna who put the monument up, not by the donors, which makes it the city's own description of a group of its people and not a label they had to wear.

They gave ten thousand drachmas, and the scholarship on the inscription calls that a small amount in the context, which is the detail worth keeping. The city cut their name into the donor list for a modest sum at a moment when Jews in Egypt, Cyrenaica and Cyprus were in open revolt and Palestine was fighting a full war against Rome. It was not a large gift. It was a large statement made with a small gift, which is the cheapest useful thing a community can buy.

The same community produced the other inscription people quote, and it belongs to a woman. Rufina, described on the stone as a Jewess and head of the synagogue, built a burial place for her freed slaves and her household, and attached a fine to it for anyone who buried somebody else there, payable in two parts, to the city's most sacred treasury and to the Jewish people.[6] A fine split between a Greek city's gods and her own nation is a jurisdictional statement dressed up as a burial regulation, and it is enforceable by whichever of the two cares to collect.

Then the last line of the stone. A copy of this inscription has been deposited in the public archive. A woman running a congregation in a Greek city under Roman law wrote her own penalty clause, split the proceeds between two authorities, and then filed a duplicate with the municipal registry so that the clause could be looked up by anyone who needed to be told about it.

She was not a freak of the record either. Of the seven heads of synagogues known by name in Roman Asia Minor, two are women, and Rufina's own city separately produced women who held its crown-bearing magistracy and one who presided over its games.[6] Somebody will tell you that the synagogue inscription is startling and the city inscriptions are ordinary. They came out of the same town in the same centuries, and whatever was unusual about Smyrna was not confined to one of its congregations.

What the Jewish community of Smyrna was not doing is following the rabbis. The account of a Christian put to death there in the middle of the third century has Jews, Greeks and the city's women all standing in the colonnade together on a day that was a pagan festival and a Jewish festival at once.[7] Everybody was on holiday, and they were on holiday in the same place, which is not a detail a Christian author writing about a martyrdom had any motive to invent.

A ruling in the Mishnah tells Jews to do no business with gentiles for three days before a pagan festival. The Jews of Smyrna were in the square on the day itself. They either did not know that ruling or did not consider it theirs, and either way the rabbinic authority that later readers assume

was everywhere had no purchase at all on this port, which went on running its own version of Judaism in a town running its own version of everything.

The city's most famous dead man is on the same pattern from the other side. Polycarp was the bishop here, and the account of his death has him arrested at the tail end of a long city festival, when the Roman governor came to Smyrna for the assizes and the charges against Christians got heard.[8] The crowd asked the official in charge of the games to let a lion at him and was told, with an administrator's regret, that the animal days were over. So they burned him. A man was killed on the specific afternoon he was killed because the municipal entertainment schedule had already closed one option.

And the Christian who wrote the account dated the execution on a Great Sabbath.[8] That is a Jewish festival day, used by a church to date its own martyr, in a text whose whole purpose was to prove the Jews had helped kill him. Which they are said to have done, joining the crowd and gathering the wood, though the account is modelled closely on the Passion narratives and that modelling is doing visible work.[9] The accusation and the dating sit in the same document. The author reached for his neighbours' calendar while blaming them, because it was the calendar everybody in the city could read.

Polycarp's church then went to Rome about a date and would not move. Asia kept its Pascha on 14 Nisan, the Jewish Passover day, rather than on the following Sunday, and Polycarp argued the point with the bishop of Rome in person; a generation and a half later his successors in the province were still defending it, and the Latin name for the position, quartodecimani, is simply the fourteenthers.[10] The church of the infidel city kept Easter on the Jewish calendar and told the capital of Christendom it was keeping it. That is the whole arrangement in one liturgical quarrel, three hundred years before anybody wrote Gâvur İzmir on anything.

Two castles on one hill

In 1344 a crusader fleet came into the gulf, took the harbour fortress at the waterline, burned the Turkish emir's ships in their slips, and then failed completely to take the fortress on the hill above.[11] So they kept the one they had. The arrangement that followed ran for fifty-eight years and it is about as literal as this coast ever gets: one city, two castles, two sovereigns, stacked vertically, the Knights Hospitaller and the Italian merchants holding the port and a Turkish garrison holding the acropolis, both of them looking down or up at people they were formally at war with.

It was a working economy, not a stand-off. The knights and the Venetians levied harbour duties on everything entering the Gulf of Smyrna, which meant the customs revenue that had funded the emir's court was now being collected at the bottom of his own hill by people he could see.[11] The emirate's answer was to push its shipping out through the ports down the coast and keep trading with Venice and Genoa through those instead. Nobody closed anybody down. They rerouted, the way a business does, and the ground between the two fortresses turned into a wasteland because it was the only part nobody could use.

Then Timur came west out of the battle that had just broken the Ottoman sultan, and he did the one thing the arrangement could not survive. He closed the water. His engineers ran timber platforms and stone moles across the harbour mouth, which meant no relief by sea, and the castle that had held out against Muslim armies for sixty years lasted about a fortnight.[12] Fifty-eight years of Latin survival on the Anatolian mainland had not been a military achievement. It had been a shipping lane, and shipping lanes can be filled in.

What was inside the fortress when it fell is the part that tells you what the city was for. The Greek historian Doukas says the knights held on as long as they did because of who was in there with them:[13]

> there were many men and women, Ephesians, Thyrasians, Nymphaians, and Christians from other cities as well who had taken refuge in the fortress

Those are inland people. Ephesus, Tire, Nymphaion, the market towns up the valleys, whose inhabitants had worked out that the safest place in the region was a Latin castle on the waterfront, because it was the only place with a back door that was not a road. Then the back door was bricked up.

Doukas also records what Timur did with the dead, and he records it as a construction method:[13]

> erected a tower by laying rows of stones and heads in alternating sequence… all the faces looked outwards

Alternating courses, like brick and rubble. And the relieving galleys, when they finally came into the gulf, are said to have been met with the heads of the garrison fired out over the water at them, which if true is the only recorded use of a siege engine as a notice board.[14] A tower built in courses takes planning, scaffolding and an afternoon. It is not what rage looks like. It is what a works department looks like.

Timur then had the castle pulled down to its foundations, and the boast he made about it is an early appearance of the adjective that later stuck to the whole place: where the Ottoman sultans had failed to remove the infidel stronghold, he had demolished it inside two weeks.[14] He meant a fortress, and he was quoting a delivery time. Centuries later an Ottoman clerk would be applying the same word to the entire port, and by then it was not something you demolished in a fortnight. It was something you assessed annually.

The last thing he took was people. Craftsmen, armourers, builders and scholars out of Smyrna and the towns behind it were bound and marched east to raise monuments at Samarkand, which is this coast doing the thing it always does, exporting its skilled men to somebody else's capital, with the one difference that nobody on this occasion was asked.[15] The

harbour works stayed broken for years and the regional economy went back to burying coins. Then the port opened again, because a deep sheltered gulf with a continent behind it does not stay shut.

What a port has to let people do

Between about 1580 and 1650 Smyrna stopped being an agricultural town with a fort on it and became the terminus of the overland route out of Isfahan and Tabriz, which is to say the place where the Asian caravan trade was handed to European shipping.[16] That transfer is the entire business. Everything else the city had, the consulates, the warehouses, the brokers, the insurance, the four languages at the customs desk, grew on top of one physical operation: goods arriving by camel and leaving by sea.

The empire made it possible by signing away jurisdiction. Capitulations, *ahidnâme*, granted to the European trading powers, let the English Levant Company and the French and the Dutch plant resident colonies with their own consuls, their own docks and their own law, along a seafront street everybody called the Rue des Francs, Frank Street.[16] A sultan who claimed to rule the world's richest empire handed a strip of his best harbour to foreigners who answered to their own courts, because the alternative was that the caravans went somewhere else.

For its own subjects the empire had the millet arrangement, which is usually described as toleration and is better described as subcontracting. The Greek Orthodox under their metropolitan and the Jews under their chief rabbi ran their own courts, schools, charities and endowments, collected from their own people, and answered upward as communities rather than as individuals.[17] The state did not administer its non-Muslims. It contracted the administration out to them and took delivery of the tax.

Which is the thing this city explains better than anywhere else on the coast. A harbour whose entire living comes from somebody else's commerce is obliged to leave those somebodies intact, because what it is actually selling is their contacts, their languages and their credit, and none of the three survives assimilation. Make a Smyrna broker into a

Turk and you have not gained a subject, you have lost a correspondent in Marseilles.

And then the subjects started buying protection from abroad. The consulates issued papers, and local Greek and Armenian merchants acquired them, so that a man born in Smyrna and taxed in Smyrna could walk into a dispute carrying a foreign power's protection and a foreign power's law.[18] Every great power on the water wanted a clientele in this city, and the clientele available consisted of the sultan's own subjects. They were sold, and bought, by the sheet.

Russia got into that market by treaty rather than by trade. The settlement of 1774 left the Russian empire as the self-appointed protector of the sultan's Orthodox subjects, and within eight years there was a Russian consul-general established at Smyrna, a man named Khemnitser (Хемницер), who arrived in the September and was dead near the city inside eighteen months.[19] An empire with no territory within six hundred miles of the gulf now had a standing diplomatic interest in the religion of several tens of thousands of other people's taxpayers, operated out of a building on the waterfront.

What that protection was worth became clear a decade before the consulate opened. In the summer of 1770 the Russian fleet trapped and burned the Ottoman fleet in the bay at Çeşme, straight down the coast from the gulf, and when the news reached Smyrna the mob went into the Christian quarter.[20] The figure that comes down for the dead is fifteen hundred, which is the sort of round number that arrives in a report rather than out of a register.

Nobody in this city ever pretended the arrangement was affection, and it is worth being clear that it was not. It was an accounting arrangement. It held for as long as the money was moving, it was renewed annually in the form of customs receipts, and the one thing a consular paper could not do anything about was the week the news came in from a naval battle nobody in Smyrna had been consulted on.

The congregations

The Jewish city that İzmir is famous for arrived late and we know it arrived late because the tax men were thorough. The Ottoman surveys of 1528 and 1575 record no Jews at Smyrna whatsoever, in a province where the surveyors were counting households for revenue and had no reason to leave any out.[21] Not a reduced community, not a community under another name. None.

Two tombstones from the middle of that same century do get reported, with a caveat attached to them that deserves to be carved on something: there are doubts about the existence of the tombstones, but the contrary has not been proven.[21] Somewhere between a revenue survey that found nobody and two gravestones that may not exist is the beginning of one of the great Jewish cities of the world.

What filled it was the whole Mediterranean at once. The first nucleus came inland, from Tire and Manisa, followed by a large wave down from Salonica, and after them Safed, Portugal, Ankara, Patras, the Aegean islands, Italy and western Europe, with Karaite and Ashkenazi households among them.[21] Within a few decades there were six congregations, and the reason there were six rather than one is that none of these groups had any intention of merging. They had come from different countries and kept different liturgies, and a congregation is the smallest unit in which a group of people can refuse to be absorbed.

So each one built. The first synagogue of the Ottoman period went up in the sixteen-teens, then one belonging to the Tire congregation, then the Portuguese one, then one founded by Portuguese conversos, then a lady's synagogue, then one named for the family that paid for it.[22] They went up within a few streets of each other over about half a century, which is roughly the rate at which the boats were arriving.

Then they built one for the new arrivals. It was called Orehim in Hebrew and Foresteros in Spanish, and both words mean the foreigners or the guests.[22] A community of immigrants that had been in town for two generations put up a synagogue specifically for the immigrants coming in

behind them, and named it, in the language of the country that had expelled the lot of them, after the condition they had all been in on arrival.

Nine of them survive inside a few hundred metres of each other, some of them standing back to back, on and around a street the city calls Havra Sokağı.[22] *Havra* is the ordinary Turkish word for a synagogue and it comes from the Hebrew *hevra*, a congregation. A Hebrew word for an assembly of people became the Turkish word for the building they assemble in, and then became the municipal name of the street, which now points at four working synagogues and five that are shut, a storehouse and a former car wash among them.

The language all of them spoke was Judeo-Spanish, Ladino, carried out of Iberia and worked for four centuries as the everyday vernacular of Ottoman Jewry.[23] People expelled from Spain went on speaking Spanish, in Turkey, as the medium of their own community life, long after Spain had stopped being anything to them but the place the language came from. The persecutor supplied the mother tongue and then dropped out of the story entirely.

The surviving trace of that city in daily use is a pastry. Boyoz is an İzmir breakfast item, registered with the Turkish patent office as a protected geographical indication at the request of the chamber of commerce, and the city's own tourism office says plainly that it entered İzmir's kitchen with Sephardic culture.[24] Four centuries of Judeo-Spanish İzmir, and what is left of it in the ordinary life of the city, at the point where the documentation becomes airtight, is a thing you eat standing up before work, number 268.

The one thing that city sent out to the whole Jewish world was a person. Sabbatai Zevi (Шабтай Цви) was born at Smyrna in 1626, revealed himself to a small group here at twenty-two as the redeemer, got himself banished from the city in the early 1650s, and was recognised as the messiah at Gaza by a visionary who announced that the age would begin the following year.[25] Then he came home.

In the autumn of 1665 Smyrna received him with every honour it had, and he declared himself in a synagogue, with horns blown, to a crowd shouting long live our king, our messiah.[25] What happened after that was a congregational fight, which is the part nobody ever tells. He deposed the rabbi of Smyrna and appointed another man in his place.

The decisive confrontation came in December, at the Portuguese synagogue, which was the stronghold of those who did not believe him.[25] There was a building in town known for not believing him. A city with six founding congregations and a dozen synagogues already had the institutional furniture for a messianic crisis, standing ready, because it had the institutional furniture for everything. Meanwhile his secretary was sending circulars out in his name telling Jews to stop fasting on the anniversary of the Temple's destruction, which happened to be the day Zevi was born on.

Then he sailed for Constantinople, was arrested on arrival, and was held in a fortress on the Dardanelles that his followers renamed *Migdal Oz*, the tower of strength, where he received pilgrims from the whole diaspora.[26] In September of the following year he was brought before the sultan at Edirne and converted to Islam, taking the name Aziz Mehmed Efendi, and he died ten years later in exile on the Adriatic.

The empire's answer to a messiah was not an execution. It was a Muslim name and a position, which is the most Ottoman act in the whole story: a man who had told tens of thousands of people that the age of the world was over was absorbed into the administration, and some of his followers converted alongside him and went on keeping his practices privately for two and a half centuries.[26]

The fig that lost its name

The port's name went on earning after the city stopped being besieged and started being an address, and it earned by going on things that had nothing to do with it. The fig that the trade calls the Smyrna fig is not grown at Smyrna. It is grown up the valleys behind it, in the fig districts of the Aegean hinterland, in places called Torbalı, Bayındır, Kiraz, Ödemiş,

Beydağ, Selçuk and Tire, and it is called the Smyrna fig because that is where it was put on a ship.[27] The orchard supplies the fruit, the port supplies the brand, and the brand is the one that travels.

The same thing happened to the carpets. Nineteenth-century English and American dealers sold Smyrna rugs by the thousand, and the rugs were mostly woven inland, at Uşak and in towns like it, by people whose own place names never made it onto a label in London.[28] Two centuries of export trade, two products, one naming convention: the thing is called after the last Anatolian place it touched before it stopped being Anatolian. The coast lent out the goods and the interior lent out the credit for them.

And then the fig got loose, which took some doing, because the Smyrna fig has a biological condition attached to its name. It will not set fruit unless it is pollinated, and the only thing that pollinates it is a wasp that breeds in the inedible caprifig, which has to be grown alongside it and carried to it. Theophrastus was writing about the procedure in the fourth century BC.[29] This is a crop that comes with a second crop and an insect, and all three have to arrive together or you have a tree with no figs on it.

California found this out at length. The first commercial planting of the Smyrna-type tree went in in 1886 and produced nothing for over a decade, orchard after orchard of healthy trees dropping their fruit unripe, until a colony of the wasp was successfully established at the turn of the century and the crop came in.[29] Thirteen or fourteen years of agricultural science to discover that what Smyrna had been exporting was not a tree. It was a relationship between three organisms, and one of them is two millimetres long.

Once it worked, the grower who had got the wasp going offered a twenty-five-dollar prize for an American name for the fruit, and the winner was Calimyrna.[29] California plus Smyrna, half the state and half the city, on a fruit from the hills above a Turkish port, pollinated by a Mediterranean insect shipped in a box. Nobody paid this coast anything for the tree, the wasp, the technique or the first half of the word. The land that had spent

three thousand years lending things out got, on this occasion, a hyphenated appearance in a brand name and the loss of three syllables.

As for the arrangement that the empire filed under the infidel heading, it ended in September 1922, in a fire on the waterfront and the exchange of populations that followed, and the city that came out the other side was not called Gâvur İzmir by anybody.[30]

What the name is still on is the fruit. The crates said Smyrna, and the figs in them came down out of the Küçük Menderes valley from towns that did their own trading on their own day of the week and sent the surplus to the coast. One of those towns had already lent the port something more durable than fruit: the congregation that came down from Tire was part of the founding nucleus of Jewish İzmir, and the synagogue it built in the city went on being known by the name of the town it had left.[31]

That town is still doing the thing it was doing before the port had a brand. Tire turns a good part of itself over to more than a thousand stalls every Tuesday, selling vegetables, cheese, olives, oil, felt, saddlery and embroidery to the people who made them and the people in the next street.[32] The port got the label. The town kept the week.

CHAPTER 8: TUESDAY

A weekly market is the cheapest institution anybody ever invented and one of the hardest to kill. It owns no building. It has no walls to breach, no roof to burn, no garrison to starve and nothing a conqueror can confiscate except the goods physically present on the day. What it has instead is an agreement about which day. Everybody within a cart's distance of the town has to hold the same opinion about Tuesday, and for as long as they do, the thing reassembles itself out of trestles and tarpaulin and the willingness of several thousand people to get up early.

Which is why nobody can tell you when it started. A market tradition reaching back into the Ottoman centuries is as far as the record will go, and the reason is structural rather than negligent. A charter is a document you need when somebody might stop you. Walls get dated because walls get paid for out of a treasury that kept accounts, and a day of the week costs nothing and therefore generates no paperwork until a tax collector decides to stand in it.[1]

The town underneath the market is older than the market and we do not know what it was called. Thyateira, the name the guidebooks reach for, is securely somewhere else, at Akhisar up in the Hermus country, where the ancient city has been excavated and there is nothing to argue about.[2] The epigraphers who have worked on the territory here read the Roman-period settlement as a village inside the enormous land holding of Ephesus, and the best proposal for its ancient name is a community of Apollo-worshippers attested on stone, which is not the same as a name the people used.[3]

So this is a book about the region that lent a continent its name, and here is the part of it that never had a name of its own to lose. Tire's deepest documented layer is a line item in another city's land register, administered from the coast by people who thought of the valley as the place the food came from. What it has instead of a name is a day. Everything else it produced went out under somebody else's label, the fruit under the port's name and the cloth under the trade's, and the one

asset it kept is the only one that cannot be labelled, shipped or renamed by the people who buy it.

The oldest version of the arrangement

The arrangement that let this valley survive its owners is much older than the Ottomans, and the first version of it on record is Persian. When Sardis fell, western Asia Minor became the satrapy of Sparda, and the Persian method at the start was to govern through local Greek strongmen who owed their chairs to the Great King rather than to any assembly.[4] That is the cheap option, and it is the one that produced the Ionian Revolt, because a merchant class will tolerate a foreign empire a good deal more readily than it will tolerate a neighbour who has been promoted over it.

What the Persians did after they won is the part worth keeping. Artaphernes summoned delegates to Sardis and made the cities sign binding arbitration treaties, so that disputes between them went to law instead of to war. He had their territories surveyed in parasangs and fixed the tribute on productive agricultural land at roughly pre-revolt levels, which is to say he resisted the temptation to punish. Then Mardonius came through and deposed the remaining tyrants, the empire's own placemen, and installed democracies in their place.[5]

Read that as policy rather than as generosity and it gets more interesting, not less. An empire that wants a predictable flow of tribute along a maritime supply line would rather own cities that govern themselves and pay than cities that need garrisons and still riot. Ideological uniformity is expensive and it does not show up on the revenue side. The Ionians got their assemblies back from the administration that had taken them away, on a cost basis, and the condition was the one condition that never changes: the money arrives on time.

The title of the officer who ran that system travelled a long way and got worse as it went. Russian keeps him as an insult, a provincial despot with a free hand and nobody above him who cares (сатрап), which is a gloss my own materials carry and no dictionary I was able to open will confirm.[6] It is an odd afterlife for the office, because the satrapal

administration at Sardis is the one that abolished the local despots here, having worked out that they cost more than they collected.

Why the emirate kept its court up the valley

When the Byzantine frontier gave way at the end of the thirteenth century, the Turkmen principalities that moved in did not behave like the raiding parties of the popular account. They set up courts, signed commercial treaties with Venice and Genoa, granted the Italians consulates and warehouses, and exported raw silk, cotton, grain, beeswax and valonia oak for the tanning trade.[7] The Aydınids took the Küçük Menderes basin, put their court at Birgi up the valley, ran their ships out of Ayasuluk and Smyrna, and made Tire the administrative and commercial middle of the thing.

The reason the court was inland is the sea, which on this coast is a threat and not an amenity. Umur Bey operated a serious fleet and raided across the Aegean, and in the middle of the fourteenth century a crusader fleet came into the gulf and took the harbour castle at Smyrna, after which the duties on everything entering that water were collected by the emirate's enemies.[8] A principality whose revenue arrives by ship does not keep its records within reach of a ship. Tire's advantage was entirely negative: there was nothing anybody could do to it from the deck of a galley.

So the surplus went inland and turned into buildings, and the order in which a market town builds things tells you what it is for. Madrasas, tanneries and silk mills. A congregational mosque with a timber-roofed hall and a brick minaret. A green-tiled minaret on a mosque put up a lifetime later by an Ottoman general. A multi-domed masonry market hall, the bedesten, which was the financial core of the silk, leather and shoemaking trade, and a two-storey stone han with stable vaults round a courtyard.[9]

Walls come nowhere on that list. The town built a bank, a warehouse and a school before it built a defence, and the things that were actually going to happen to it, an army eating the harvest and a river filling in the port it sold through, were not things masonry keeps out.

They could, however, be eaten. Byzantium hired six thousand Catalan mercenaries to hold this coast, and the company relieved Philadelphia, beat the Turkmen in the field, came down into this basin, provisioned itself off the agricultural wealth that was the whole reason anybody wanted the place, and then withdrew to Thrace. Shortly after they left, the town passed to the Aydınids permanently.[10] That is the characteristic shape of violence in a farming valley. An army arrives, consumes the surplus, changes the ownership and leaves, and the fields are back the following year, which is why the ownership kept changing and the town kept not ending.

Then came the one campaign that genuinely broke the region's economy, and the local accounts overstate the town's part in it. Writing produced in Tire has Timur wintering here for three months; the stronger modern reconstruction of the campaign puts his winter base at Kütahya and sends him from there against the ports.[11] What the valley can document is the bill rather than the guest: silver indemnities extracted from the towns, livestock requisitioned, standing crops harvested by somebody else's army, and coin going out of circulation as people buried it.[12]

The Ottomans finished absorbing the principalities in the 1420s and organised the province into sanjaks, and the one named after the dynasty they had just dispossessed, the sanjak of Aydın, was administered from Tire.[13] The empire kept the loser's name on the file, because the file already worked and renaming it would cost money, and put its own desk in the market town, because that is where the revenue was counted.

The physician's chair

The oldest eyewitness description of how this valley actually ran comes from a Moroccan jurist who passed through in the early 1330s, and he recorded it because it offended him. Ibn Battuta was received at Birgi by the Aydınid ruler Mehmed Bey, and at the audience he found a Jewish physician seated above the men who read the Qur'an aloud.

He complained to the sultan directly, in the terms a professional lawyer of his own tradition would use: how can this unbeliever sit above the

readers of the Book of God. The court's answer, as he reports it, was that everyone present required the man's medical services.[14]

That exchange is the whole arrangement, written down by a hostile witness who did not understand that he was documenting anything. A court with many readers and one doctor had arranged its seating accordingly, and nobody local thought the arrangement needed explaining until a foreign jurist asked. His astonishment is the evidence. A practice that everybody in a place considers normal leaves no trace in the record, and a practice that outrages a visitor gets a paragraph, so the only reason we know how the seating worked at Birgi is that somebody objected to it in writing.

He went on up the road and recorded two more facts of the same kind without noticing that they were the same kind. At Ladik he was hosted by the ahi fraternities, the artisan and youth brotherhoods that fed and housed travellers, and he admired the town's cotton cloth with its gold-embroidered borders, and he recorded who made it: Greek women, living under Muslim rule and paying the poll tax.[15]

A guild, a congregation and a tax receipt. In three stops the man wrote down a brotherhood that looked after strangers, a physician whose usefulness outranked his religion, and a textile industry staffed by women of the subject faith. He thought he was describing hospitality and fabric, and what he had collected was the institutional inventory of the place.

What he did not do was describe the market here. The one great traveller who came through this valley and wrote up its institutions never filed on Tire, which is the documentary luck this town has had from the beginning, and I would rather say so than quietly move him down the valley to the town where I would like him to have been.

Faith, paperwork and food, in that order

Of all the ways people on this coast stayed who they were across three thousand years, the one with the heaviest evidence behind it is not a mountain, a wall or a fleet. It is a filing system. Legal autonomy granted to church and rabbinic hierarchies, the arrangement the Ottomans ran as

the millet, sits at the top of the list, and it sits there because of the sheer weight of what survives: thousands of Ottoman court registers, synodal acts of the patriarchate and imperial charters, holding communal boundaries in place for five centuries.[16]

The substance of it was jurisdiction, not sentiment. Orthodox Christians under the Patriarch and the local metropolitan, Jews under a chief rabbi, each with real authority over family law, inheritance and internal discipline, so that a dispute between two Jewish merchants at Tire went to their own court rather than to the qadi, and was decided under their own law, and was enforceable.[17] Elsewhere in the world communities kept themselves by being hard to reach. Here they kept themselves by being useful, and by being filed.

And the column the file sorted on was faith, not language, which is the detail that makes the whole thing legible. Muslim refugees from Crete were settled through these districts, Tire among them, and went on speaking Greek at home for generations.[18] Meanwhile the Orthodox of the interior towns spoke Turkish, to the open frustration of the nationalists on the coast who wanted them counted.[19] An empire that had tried to sort this population by language would have produced a filing error in every town. Confession was the only question with a stable answer, so confession was the question the system asked.

The system also moved offices around when the geography stopped cooperating, and the best example is the grandest address in Asian Christianity. Once Ayasuluk had shrunk to a village, the metropolitans of Ephesus relocated their residence, first to Manisa, then to Tire, then to Kuşadası, while retaining the historic title of Ephesus.[20]

The see of one of the seven churches ran its affairs out of a market town for a stretch of the Ottoman centuries, keeping the letterhead and moving the desk to wherever the congregation actually was, which is either a decline or a sign of excellent administrative health depending on whether you are selling the past or running it.

Paperwork even beat the child levy, which is the one Ottoman institution everybody has heard of. The western Anatolian towns got out of the devşirme by a series of entirely bureaucratic routes: imperial exemptions for the residents of commercial ports, dockyards and mines; exemption for island populations who owed service at the oars instead; and families contracting early marriages for their children, because the statutes governing the levy restricted it to the unmarried.[21] Read the regulation, find the clause, marry the boy. The most feared instrument of the Ottoman state was substantially defeated by people who had taken the trouble to learn how it was worded.

Then there is the third thing, which has no charter at all. What a market like this one sells is the equipment of being a particular kind of household: what goes in the pot, who is allowed to have killed it, which oil, whose cheese. A congregation can lose its court, its school and eventually its building and still be recognisably itself at the table, and it can be reduced to one family and that family still keeps a kitchen.

Of the three, the paperwork is the best documented and the faith is the one that held the boundary, but the food is the one that outlasts both, because it is the only one that requires no institution at all to go on existing.[22]

The cloth that did not invent the jacquard

The craft the town is proudest of is a weave called beledi, and it deserves the attention for the reason the promotional material never gives. It is a double cloth. Black and white warps are separated by pressing different pedals, the pattern weft runs over the upper black warp and a white weft forms the backing, so the fabric comes off the loom with two faces and no wrong side. The looms described in the technical literature carry twenty-four shafts. It is registered with the Turkish patent office as a geographical indication, number 630, in the category that marks where a thing comes from.[23]

Somewhere along the way somebody decided this loom anticipated the jacquard, and the claim has been repeated ever since. It did not. The

Jacquard mechanism selects individual warp ends by punched card, which is why it is in every history of computing. A twenty-four-shaft treadle loom selects groups of warp ends with the weaver's feet, which is a technology centuries older than the French one and was in use across a great deal of the world.[24] The two things are not an early and a late version of each other. They are a filing cabinet and a card index, and the card is the entire point.

The instinct behind the bad claim is sound and pointed at the wrong object. Somebody looked at a town that has handed out more than it ever got credit for and reached for the biggest piece of credit available, which happened to belong to a Frenchman. The town does not need to have invented a nineteenth-century French mechanism. What it exported was cloth, the craft of making it, and the people who knew how, and none of those three has ever been patentable.

The only age anybody has written down for the tradition is in the registry's own file, which gives it about five hundred years as a claim about itself. So the oldest documentary evidence for the weave of Tire is a trademark application filed in living memory, which tells you exactly what kind of thing a craft is and exactly how late the paperwork arrives for it.[23]

The other old trade here was rope. Tire's ropemakers supplied cordage to the Ottoman navy and were still working into the republican period, which means a craft invented to rig a fleet outlived that fleet by the better part of a century. By 2018 the Turkish press was reporting that no traditional rope master was left in the historic bazaar at all.[25] The empire went, the navy went, the sailing ship went, and the ropewalk kept going until the decade that took it, which was not a decade of any wars.

A deed, a fire and a furniture shop

The Ottoman device for making a thing permanent was not a wall either. It was a deed. Mehmed Necip Paşa endowed a library here in the 1820s, purpose-built rather than a cupboard added to a mosque, its inscription dating the completion of the building, and it opened once the endowment

was confirmed.[26] That sequence is the institution in miniature: the building was finished and then had to wait for the paperwork, because the paperwork was the part designed to last.

It worked. The collection as catalogued in a modern conservation study runs to over eleven hundred manuscripts, more than thirteen hundred Ottoman-period printed books and upwards of nine thousand in Latin script, with around two hundred of the manuscripts illuminated.[27] That is a research library, in a valley market town, assembled on the strength of one man's endowment deed and still being conserved two centuries later. Access to the rare volumes is controlled, which is the correct state of affairs and also the clearest sign that the deed is still being honoured by people who never met the donor.

The other community in town ran on the same principle and has a harder ending. Tire's Jewish congregation was old, Romaniote before the Turkish conquest, reinforced after the Iberian expulsions, and established enough by the middle of the fifteenth century that some of its people were moved to the new Ottoman capital under the resettlement decrees.[28] Local research names three congregations here, Yachan, de Abaco and Shalom, and an account of the mid-1920s gives around three hundred and fifty families, a school with a hundred and fifty pupils, two large synagogues and a yeshiva.[29]

Two stones in the old Jewish cemetery have been read locally as carrying medieval Hebrew dates, one of them a reading that would put Jews in this town two centuries before the Turks arrived. No epigrapher has published them and no photographic transcription exists that I could find.[30] So the oldest document in the Jewish history of Tire may be lying in a cemetery out by an industrial estate, waiting for one person with the relevant Hebrew and a decent camera, and until that person turns up it is a rumour with a number attached.

The quarter burned in 1916 and all three synagogues went with it. Shalom was repaired and stood on Mektep Caddesi opposite the former Jewish school.[31] By the 1960s there was no congregation left to use it,

emigration having done what the fire had not, with the bulk of it to Israel after 1948.

So the building passed to the foundations administration, which is the same institution that holds the endowed library, and in the middle of the last decade it was reported leased to a furnishing shop.[32] The deed outlived the congregation that signed it. That is precisely what a deed is for, and it is also precisely what nobody has ever had in mind while signing one.

The cemetery went the way cemeteries go in a town that is still growing: road and building works displaced the stones, some of them ended up in a stream bed, and what was left was gathered by local people and the İzmir community into a newer plot near the organised industrial zone.[33]

None of that was a siege. No army came. The arrangement that had carried the communities of this valley through satraps, proconsuls, emirs, a Timurid army and five Ottoman centuries came apart in roughly fifty years, by fire, exchange, emigration and arithmetic, and not one of those four is a thing you can fortify against. Meanwhile the market opened on Tuesday throughout, because the market was never the institution that needed defending. It is the one that reassembles itself whatever happens to everybody in it.

At the very bottom of the list of ways to stay who you are, with the thinnest evidence of any of them behind it, sits the simplest method of all: go uphill and stay there. It ranks last because it never really worked on its own terms, the hill villages having stayed tied to the valley markets and the coastal trade for everything they could not grow.[34]

The example this valley offers is a village of stone houses on the slope above a harbour that silted up, settled, if you believe the stories told about it, by people who gave the place a name meaning ugly so that nobody would come and look.[35] It is the one place on this coast where the arrangement can still be inspected in the state it was left in, because the people in it did not die out. They were exchanged.

What to look for

- The Tuesday market itself, which occupies a large number of the town's streets rather than a single square or hall.
- Beledi cloth, a double weave with a patterned face and a white backing and no reverse side.
- Decorated wooden clogs, quilting, and copper and tin work, all still made in the district.
- The bedesten, a multi-domed masonry market hall of the fifteenth century, built as the financial centre of the silk, leather and shoemaking trades.
- The Kutuhan, a two-storey stone merchants' inn with an open courtyard and stable vaults around the perimeter.
- Ulu Cami, founded under the Aydınids in the 1370s, a timber-roofed hypostyle hall with a brick minaret, and Yahşi Bey Camii of 1441, with green glazed tile on its minaret.
- The Yalınayak double bathhouse, fourteenth century, with multiple domes and private bathing chambers.
- The Necip Paşa Library, a purpose-built endowed library of the 1820s holding over a thousand manuscripts, roughly two hundred of them illuminated. Access to the rare volumes is restricted.
- The former Kahal Shalom synagogue on Mektep Caddesi, rebuilt after the fire of 1916, reported in commercial use in the middle of the last decade.
- The Tire City Museum, whose emphasis is on the crafts of the district.

CHAPTER 9: ÇIRKINCE

The method that comes last on the list is the one everybody assumes should come first. Go uphill. It is the oldest survival instinct in the inventory and the easiest to picture, and in the right country it works for two thousand years at a stretch. The companion volume to this one is about a country where it did: a Mediterranean island with a mountain interior and nothing on the far side of it, where the people who did not want to be governed from the coast walked inland into the Barbagia and stayed there with their own law, their own dialect and their own opinion of everybody below.[1]

Western Asia Minor does not have that option, and the reason is the shape of the ground rather than any failure of nerve. This coast is a set of east-west river valleys, the Hermus, the Cayster, the Maeander, and every single one of them runs from the interior straight down to a working port.[2]

A valley like that is not a barrier. It is a corridor, and the far end of a corridor is not freedom, it is a different customs post. You can climb the sides of it and get above the fever and the tax collector's usual route, which is worth doing and people did it, but you cannot get out of the catchment, because the catchment is the whole point of the country and it drains to the sea where the buyers are.

So the hill village here is not a redoubt. It is a change of address within the same economy. The one on this slope sits about eight kilometres inland from the shrunken remains of Ephesus, up in the hills above the plain that used to be a harbour, which is close enough that a man could do the round trip in a day and carry something back.[3]

The height bought real things. It bought air that did not give you malaria, water that arrived before anybody else had used it, and a position that no longer sat on the road an army would take. What it did not buy, and could not, was independence from the market, because the terraces up there grew figs, olives and vines, and figs, olives and vines are not subsistence

crops. They are exports. A village that grows exports has signed a contract with the port whether it likes the port or not.

What the registers actually called it

The Ottoman paperwork calls the place Kırkınca. Greek speakers said Kirkintzés, and the forms knocking around in the literature include Kirkice and Kirkince alongside Çirkince, which is the one everybody repeats, because *çirkin* is Turkish for ugly and a village that called itself ugly on purpose is a story, while the rest are just spellings.[4]

Three separate explanations of the ugliness have been written down. Not one of them has a document under it, which means the village has three stories about its name and no evidence, and the three stories are themselves the interesting artefact: a place that generates folklore about why it is unattractive is a place that was feeling looked at.

What is documented is the other end of the business, and it is better than the legend. In 1926 the governor of İzmir province, Kazım Dirik, came up the hill to a village that had just changed its entire population, looked at the name, and changed one consonant. Şirince. Pleasant.[5] The state had finally arrived, after however many centuries of being discouraged, and it did not take the hint. It took offence. It read the name as a clerical error about an attractive place, corrected the error, and the correction is on the signpost to this day.

That is the whole mechanism in one administrative act. For as long as the village was hiding, the thing it was hiding from was a man on a horse who wanted a share of the olive crop, and a hill and a bad reputation are genuinely useful against a man on a horse. The thing that eventually came up the slope and changed the name was not a man on a horse. It was a provincial governor with letterhead, acting on a decision taken somewhere else entirely, and the last three centuries of this coast are the story of how little terrain does against that.

The village had already stopped speaking the language

An Ottoman provincial yearbook takes the rest of this apart. The entry compiled around 1908 counts more than a thousand houses in the village, which makes it a large place by the standards of these hills and a plausible four thousand people, and it records the inhabitants' mother tongue as Turkish.[6] An English visitor seventy-odd years earlier had put it at three hundred houses and fifteen hundred souls, all of them Orthodox, so the village roughly tripled across the nineteenth century while the language went the other way.[7]

A village of Orthodox Christians speaking Turkish at home, eight kilometres from the seat of one of the seven churches, is not an anomaly on this peninsula. It is the standard case for the interior, and the standard case has a name.

In Cappadocia, Lycaonia and parts of Phrygia, enormous Orthodox populations gave up Greek speech entirely and took Ottoman Turkish as their first language, and then did something that should be impossible for a community supposedly dissolving: they built a literature in it. Karamanlidika, Turkish written out in the Greek alphabet, with presses and Bible translations and philosophical essays and histories, published in Istanbul and in Smyrna by trading houses whose owners could not have read a Greek sentence aloud and read Greek letters all day long.[8]

If you have ever gone down into the rock-cut cities at Derinkuyu or Kaymaklı you have been inside the extreme version of the same community, the one that went not uphill but straight down, eight storeys of it, with ventilation shafts and rolling stone doors and stables.[9] Those people kept the faith, kept the alphabet, kept the calendar and the feast days and the saints, and lost the language, and in 1923 they were exchanged as Greeks, by a treaty, on the basis of their religion, and arrived in Greece unable to order lunch.

Which tells you what the identity was actually made of, and it was not vocabulary. It was a baptism entered in a register, a graveyard with the

right relatives in it, a feast day that fixed the year, and an alphabet kept in service for a language it had never been designed to write. Language is the thing outsiders check first because language is what you can hear from across the square. It turns out to be the component that falls off soonest without the machine stopping, and the component that does not fall off is the one nobody can see from across the square.

The village's own institutions were the usual small set, and one account of the place has the school paid for by the olive growers and village disputes settled by its own council rather than down at the qadi's court at Kuşadası.[10] So they were running a Greek-language school in a village that spoke Turkish at home. That is not a contradiction. That is a community buying back, at its own expense, a thing it had already lost, which is the most reliable sign on earth that somebody understands exactly what is happening to them.

The house they found by asking the neighbours

The single largest thing this village ever exported left in 1891 and it was a map reference.

A German Augustinian nun, Anna Katharina Emmerick, died in 1824 having described, among a great many other visions, Mary's last house in mountain country near Ephesus. Emmerick wrote none of it down. Clemens Brentano sat at her bedside, took notes across repeated sessions, selected and rearranged and worked the material up into literature, and the book came out of his papers after he was dead himself.[11] What that book contained was topography. Detailed topography of a specific landscape. A French priest read it in 1881, came out to the Ephesus hills, picked a ruin on Bülbüldağı and announced it, and nobody official was persuaded.[12]

Then the Lazarists of Smyrna ran the search properly, and in 1891 they found a ruined building at a place the local Orthodox already called Panaya Kapulu, the Gate of the All-Holy, and the locals in question were

the villagers from up this hill, who went there in procession every year around the Feast of the Dormition in the middle of August.[13]

The searchers had started from Brentano's printed description and gone looking for a landscape and a ruin that could be made to fit it, which is a method, and the method worked, and what made it work was a congregation of Turkish-speaking Orthodox peasants who had been walking to that spot annually for longer than anyone could say.

The pilgrimage is older than the search. It has to be, because you cannot invent an established annual communal journey on the spot for the benefit of foreigners who turned up last week asking whether you have one. But the only written record of what this village did in August was written by the men who arrived looking for exactly that, after they had arrived, and no parish register, Ottoman return or traveller's note from before them has turned up to say it independently.[14] The evidence for the oldest thing in the village's religious life exists because somebody needed it to exist.

And then the usual arrangement on this coast reasserted itself. The building on Bülbüldağı is now a restored shrine with a car park, and its name is the Turkish *Meryem Ana Evi* and its authority runs through a German nun and a French order, and the village that knew where it was, and had the annual habit that led the searchers to it, is not in the title of anything.[15] A place up here supplied the address. The address went out under other people's names, and the finder's credit went to the people who had come up the hill holding a book.

The orchards stayed and the growers left

Under the compulsory exchange agreed at Lausanne in 1923 the Orthodox inhabitants of this village left for Greece, and Muslim families from Greece were settled into their houses.[16] One hillside, more than a thousand houses, every occupant on it replaced under the terms of a treaty signed in Switzerland. No army came up the road, nothing was burned, and every building stayed exactly where it was. The village lost

only the people in it, which is the one attack masonry cannot be designed against.

The ones who left mostly ended up around Katerini, in Macedonia, where they founded a settlement and called it Nea Efesos. New Ephesus.[17]

Consider what that required. These were people from a village whose own name was either a joke about ugliness or a mishearing of a number, who had lived eight kilometres from the ruin of a city that had not functioned for a thousand years, and when they had to build a new place and name it, they did not name it after their village. They named it after the dead city down the hill. It is the cleanest version of the thing this coast keeps doing: the names that travel out of here are not the names the people here were using.

The incoming families came in particular from Moustheni and Domatia, up in the Kavala country of northern Greece, and what they inherited was not a set of empty houses.[18] It was a machine.

Terraced slopes cut for specific crops, orchards at specific ages, vines, presses, drying floors, and above all a commercial network: the merchants who bought figs from this village, the rates, the shipping agents, the knowledge of who paid on time. All of it was tuned to the skills and the contacts of a community that was no longer there. The village contracted, buildings went derelict, and conservation and tourism did not begin to reverse it until the end of the century.[19]

This is why the arrangement on this hill can still be inspected. The village was not besieged, burned, earthquaked or silted. It was depopulated by treaty and then under-occupied for two generations, which is the single best preservative known to architecture. The stone ground floors, the plastered and timber-framed upper storeys, the projecting bays, the way every house sits against its garden: that is the domestic culture of the pre-1923 community, standing up, because the people who came next had neither the numbers nor the money to rebuild it, and the people who came after them had a reason to keep it.[20]

The village also got a literature out of the exchange, written in another country. Dido Sotiriou published *Ματωμένα χώματα* in 1962, narrated in the first person by Manolis Axiotis of Kirkintzés, which is this place, and Axiotis is not an invention: he was a real Asia Minor farmer who served in an Ottoman labour battalion, later wore a Greek uniform, was taken prisoner and ended as a refugee, and he wrote his recollections down and Sotiriou reworked them into a novel.[21] So the most widely read account of life in this village is fiction, in Greek, published in Athens, about a place that by then had been officially pleasant for thirty-six years.

The wine came back as a souvenir

They made wine up here before 1923, from their own terraces, as part of the same export business as the figs and the oil.[22] Then the drinkers were exchanged for people whose religion does not drink, and that is the part of the handover that no inventory records, because nobody lists a market as an asset. The vines were an asset. The presses were an asset. The customers were not transferable.

The wine came back seventy years later as a gift shop. Şirince now runs on bottled fruit wine, peach and mulberry and pomegranate and blackberry, sold to day visitors, and the modern commercial form of it owes a good deal to a German wine specialist, Helmut Hermann Krauss, who arrived in 1998 and helped systematise what people were making.[23]

So the oldest industry on the hill was interrupted by a treaty, restarted as tourism, and professionalised by a foreigner, and the fruit in the bottles is mostly not the fruit the terraces were cut for. I am not going to pretend this is a tragedy. It is simply a very exact record of who the customers were in each century, which is all a wine list has ever been.

Then, in December 2012, the village was selected a second time by foreigners with a book, and the second book was the internet. Şirince was named online as one of the places that would survive the end of the world on the twenty-first, this being the end of the thirteenth *bak'tun* of the

Maya Long Count, and the reason given for the village's protection was that it sits near the spot from which Mary was taken up into heaven.[24]

Read that sequence slowly. In 1891 the village supplied the shrine with its location. In 2012 the shrine supplied the village with its apocalypse insurance. The transaction took a hundred and twenty-one years to come back round and it came back round in the form of hotel bookings.

No Maya text mentions this village, no Maya specialist read the calendar as a prediction of anything ending, and the whole thing was a global internet story that happened to attach itself to a Turkish hillside with a Christian shrine on the next ridge.[25]

The numbers are the best part. Contemporary reporting trailed as many as sixty thousand visitors. Roughly a thousand or fewer appear to have come, and a good proportion of those were journalists, police and people who had turned up to watch the believers.[26] A village that once held more than a thousand houses was briefly the designated survivor of the human race, and on the day it drew a crowd the size of its own nineteenth-century population, most of whom were press.

Mathematics on the same hill

The newest institution up here was founded in May 2007, by the mathematician Ali Nesin, working with Sevan Nişanyan, with money contributed by local people. The Nesin Mathematics Village is a residential place where students and teachers come and stay for stretches and do mathematics, out from under the ordinary machinery of a university: camps for schoolchildren, for undergraduates, for graduate students, some of it taught in English. It is a working non-profit school and not an attraction, which means the gate is not an invitation.[27]

Any connection between this and the Ionian philosophers who were doing abstraction on this coast two and a half thousand years ago is mine and not an institutional fact. There is no line of descent, no refounded academy, nobody handed anybody a scroll. The interesting part is not the lineage. It is where the decision gets taken.

Somebody looked at a hillside eight kilometres from Ephesus and decided that the right place to think about numbers was a village, communally, in the landscape, for weeks at a time, away from the coastal institutions with the budgets. That is not continuity. It is the same decision being taken twice, two and a half millennia apart, by people with no connection, about the same hill country, and the only explanation I can see for it is the hill country.

So the village did not survive because of its altitude, its ugly name or its reputation for being not worth the walk. Every one of those failed, on schedule, against a governor, a treaty and an internet rumour. What has kept a settlement on this slope since the late Middle Ages is a sequence of entirely separate decisions, by unrelated people with incompatible religions, that this specific hillside was worth being on. Orthodox fig growers, Muslim families out of Kavala, hoteliers, conservationists, the wine trade, a mathematician. Nobody inherited the reason. Everybody independently arrived at it.

And the method is what survives, not the product. Which is the useful thing to carry down the coast, because the best surviving physical evidence of Ionian geometry is not a finished building. It is a set of working drawings, scratched at full scale on the walls of a temple at Didyma that nobody ever got round to completing, and they are still legible for precisely the reason the houses up here are still standing: nobody ever came back to tidy them up.

What to look for

- The Church of St John the Baptist, carrying an 1805 date in modern descriptions, on a terrace above the village, with traces of painted decoration surviving inside.

- The Church of St Demetrios, a second late Ottoman Greek Orthodox church, nineteenth century on the safest reading of its fabric.

- The houses themselves: stone lower floors, plastered or timber-framed upper storeys, projecting bays, each set tight against its garden. This is pre-1923 domestic fabric, variously preserved, altered and commercialised since.
- Fruit wine shops: peach, mulberry, pomegranate, blackberry and others, representing the modern village economy rather than inherited viticulture.
- Surviving 2012 doomsday merchandise, including apocalypse wine, which is evidence about internet-age tourism and not about the Maya.
- The Nesin Mathematics Village, on the slope outside the village: a working residential school, accessible only by prior arrangement or during an announced public event.

CHAPTER 10: THE DRAWING ON THE WALL

The last thing anybody does to a building is destroy the evidence of how it was made. Final dressing takes the setting lines off the stone. It takes off the lifting knobs the blocks were hauled up by, the layer of spare marble the carver had been working into, the numbers scratched on the drums by the men who cut them. Polishing a temple is a tidying operation, and once it is done the building tells you precisely what the architect wanted and nothing whatever about how anybody knew how to give it to him.

Didyma was never tidied. The temple of Apollo out on that tableland was still a building site when the work stopped on it for the last time, and everything the finish would have taken away is lying there in the open: the allowance, the handles, the numbers, and on one wall the drawing the whole thing was cut from.

The plan was one of the three largest temples in the Greek world and it was not modest about saying so. A double colonnade of a hundred and eight columns, ten across the front and twenty-one down each flank. Shafts just under twenty metres tall. All of it standing on a base of seven steps, roughly a hundred and eighteen metres by sixty.

Work began around 300 BC. Across something over five centuries of intermittent effort the double colonnade was never completed, a great many of the columns were never raised at all, and several of those that were raised are still standing with their surfaces rough. Three columns stand to full height today. One of the three was never finished, and it is the most informative object on the site.[1]

The high inner walls of the adyton, the open court at the middle of the building, never got their final dressing either, and that is why the architects' working drawings are still on them. They were incised into the wall surface, at true size for the parts that needed true size, by men who assumed that somebody else would polish the lines away in due course, the way the lines on every other Greek temple were polished away. Nobody came back. The only place in the Greek world where you can

stand in front of the geometry instead of in front of the result survives because a civic building committee ran out of money in the right order.[2]

The wall was the specification

A Greek column is not a cylinder and it is not a cone. The shaft swells very slightly through its lower middle and tapers to the neck, in a curve the Greeks called entasis, and there is no way to cut such a thing without knowing its diameter at every height up the shaft. That is a drawing problem before it is a carving problem, and it is a drawing problem of a nasty kind. The object is twenty metres tall, the entire curve across it is a few centimetres wide, so all of the information sits in the horizontal while the vertical is only there to hold the information apart. There is no wall anywhere that you could draw it on at full size.

The solution is on the north socle wall of the adyton, in a square panel about a metre and a half each way. The height of the column is compressed about twentyfold. The widths are not compressed at all: the radii of the shaft stand at true size, so that a man with a pair of dividers can lift a diameter straight off the wall, and the profile of the base moulding and the flare where the shaft meets it are drawn unreduced, in the sizes they will actually be cut.

The outline of the swelling is a flat circular arc struck against a chord line, with a row of dactyl marks running alongside it to measure against. The drawing cheats in one dimension only, and it is the one dimension from which nobody ever had to take a measurement.[3]

The rise of that arc, the entire intended swelling of a column of nearly twenty metres, is four and a half centimetres. Nobody standing in front of the finished article was ever going to see it, and anybody told about it would have been within his rights to ask why they bothered. They bothered because it was specified, and the proof that it was a specification rather than an ornament is in the stones. The eight finished columns whose lower diameters have been published average 2.015 metres, against 2.016 metres in the drawing. Individual columns are out

by a few centimetres either way, which is the carving. The average is the plan, and the plan comes in at a millimetre.[4]

The popular accounts call these lines the earliest blueprints, and that will not do. Older drawings of buildings exist elsewhere, and the man who found these put the word in quotation marks himself. The other half of the popular version is that the lines were scratched up as a guide for the several lifetimes it would take to finish the building, which is a pleasant idea that the evidence does not support.

A building account records the parts of one single column going up, the half-plinths, the base, the foot drum, the shaft drums and probably the capital, well before series production began, and the drawing and that one column belong to the same operation. The drawing was the specification for one column, and that column was the specification for all the rest.[5]

Six and an eighth, three times running

The unfinished column stands on the south flank, in the inner row, near the front, a stone's throw from the drawing. It is nearly twenty metres of marble in eighteen drums of unequal height, between about seventy and a hundred and thirty centimetres each, and the whole shaft is still standing in its boss, the roughed-out pointed surface left proud of the final one.

The capital on top of it is finished, and finished well, with carefully worked volutes and palmettes. Directly beneath the capital the topmost drum carries cut flutes in its upper part only, as a gauge for the flutes that were to be carried down the shaft afterwards. Fluting was the last operation on a column, worked downwards from that gauge, and on this column the last operation never came.

Around each drum, at the quarter and eighth points of the lower bed joint, there are smoothed rectangles about the size of a palm, slightly sunk into the boss, and one of the eight on each drum carries a number in Milesian alphabetic letters, carefully written, always upside down. The numbers are diameters, given in feet and fractions of a foot.

They read upside down because of the order of work. The future lower bed of each drum was cut facing upward, so that the cross-section could be set out exactly, the diameter was written on the boss beside it at that moment, and then the drum was turned over and set with that bed downward. They cannot have been written at the quarry, where the diameter was not yet fixed anything like that closely, and they cannot have been written on a column already standing.[6]

The fractions run down to a thirty-second of a foot, which is a shade under nine millimetres. When the three standing columns were scaffolded and surveyed properly, the ancient numbers were found to agree with the measured diameters to within a few millimetres through the middle of the shaft and to within a centimetre and a half at the worst. So the masons cut to the numbers. That is the whole of their working instruction as far as anything on the column reveals: a figure written on the stone in front of them, a tolerance under a centimetre, and they held it.

Which is what makes the shape of this particular column so unpleasant to look at. Three drums in the middle of the shaft all carry the same figure, six and an eighth feet, and a column with an entasis cannot have three identical diameters stacked in the middle of it, because that is a cylinder with a curve on each end. Between two of the lower drums the diameter also drops back by something like fourteen centimetres.

The result is visible from the ground with no instruments at all. The shaft has a waist, and a swelling above the waist, and it reads as a bottle. Below the fault the work is adjusted to the thirty-second of a foot. These were not men who could not cut stone. These were men who cut exactly what they were given, and a fault in what they were given that nobody above them walked across the court to check.[7]

A finished column at that period cost in the region of thirty-nine thousand drachmas, of which about ten thousand was the fluting and the carving at the end. So the money standing in this one when the mistake became unmistakable was near twenty-nine thousand, and taking the upper half

off, ten drums and the capital, and doing it again, was reckoned at fourteen or fifteen thousand more.

Nobody took it off. It is standing there now with its waist in it, having outlasted the earthquakes that flattened the rest of the colonnade, and the drawing with the arc and the dactyl marks was by then at least three quarters of a century old and a short walk away across the same court.[8]

The chain that the number came down is on the stones as well. The accounts give an architect and treasurers at the top, a building commissioner who oversaw the daily work and presented an annual account, auditors from the end of the third century, foremen under them, temple slaves belonging to the sanctuary, slaves leased in from private contractors, and contractors who set the blocks of the inner wall by the job.

Geometry sat at the top of that arrangement, arithmetic came out of the bottom of it, and the man at the working face received a figure and a block. It is an efficient way to build something enormous with a workforce that changes every season, and it has exactly one weak point, which is that nobody on the chart is being paid to stand back and look at the column.[9]

The knobs that are only a mystery abroad

The boss is a finishing allowance, and it is worth being exact about how much of it there is. On the end faces of the step blocks on the west side of the temple it measures three to eight centimetres. On the plinth of the corner column at the north-west it is four to six. On one unfinished foot drum, pointed more finely, it is about two. Which means that many tonnes of marble on this building were quarried, shipped, hauled up a ramp and set in place for no purpose other than being cut off again afterwards. That is not waste, it is tolerance. You cannot move a block without damaging its surface, so you give the surface away in advance and carve the real one once the block is where it is going to stay.[10]

The lifting knobs are the same logic with a rope on it. A knob left projecting from a block is a handle: you get a line or a pair of tongs round

it, lift the block, set it, and chisel the knob off as the final act. On the base of the unfinished column the lower torus of the moulding is recorded as finished except for its lifting bosses, which are consequently still on it.

The accounts paid for every one of these stages as a separate operation with a separate name: cutting the block out of the rock, roughing it down at the quarry, working it to its diameter on the site, setting it, and fluting it. Five line items, five crews, and the fifth crew never reached this column.[11]

Hold on to the knobs, because the knobs are famous somewhere else. If you have ever read anything at all about the great walls at Sacsayhuamán or the unfinished stonework at Ollantaytambo, you have been told that the lugs projecting from the blocks are one of the unexplained features of ancient masonry: evidence of a lost technique, of stone softened and moulded, of something.

Here they are on a Greek temple, on a column base described in the excavation record as finished apart from them, within sight of a wall carrying the design drawing and of inscriptions that pay a named contractor to lift the stones and set them. The lugs are not a puzzle. They are the handles. They survive in exactly those places where the last operation did not happen, which is why one end of this comparison is a Greek temple and the other is a Peruvian wall.[12]

Didyma is also the best place on this coast to test the broader claim that monumental blocks were cast rather than cut, because here the process stops in the middle and leaves every stage of itself lying about. The quarries are on the lake shore with unfinished drum blanks still in them, up to ninety of the large ones in a single area. There is the allowance of spare stone that a cast block would have no reason to carry.

There are the smoothed quarter-point fields cut into the surface in order to establish a diameter that a mould would simply have handed you. There are numerals that the fluting would have erased. There is marble inside a single shaft running from near white to a strong blue-grey, with contrasting colours set directly against one another. The honest limit on

all of it is that it concerns the marble. The limestone in the cores of the walls and the foundations is a large fraction of the building by volume, and nothing in my pile reports a petrographic test on any of it.[13]

A column a year, and a hundred and eight to go

The accounts also allow the budget to be reconstructed, and the budget is the whole explanation of the site. The annual outlay in a good year ran at about five to six talents, call it thirty-eight to forty-two thousand drachmas. The costing of a single column, quarry to erection, came to 34,744 drachmas, or 38,787 with the sea freight added. So a good year bought a column. Not a column and some change towards the next one. A column.[14]

Put that against what was still owing and the arithmetic becomes a thing no building committee has ever said out loud. The outer colonnade and the twelve-column entrance hall, built out as designed, come to something in the region of four and two-thirds million drachmas. At a column a year the hall is twelve years and the colonnade behind it is another hundred and eight.

Everybody who voted the first appropriation understood that neither they nor their grandchildren would see it standing. They voted it anyway, and then voted it again the next year, in modest amounts, and the year after that, through good harvests and bad ones, for generations, which is a far stranger thing for a city to do than building a temple quickly.[15]

The work went in surges rather than in a long decline. Brisk for a few years, slow for thirty, then pushed hard to get the inner building closed and finished, then slow again, then a long stop. What restarted it is my favourite document on the site. An account records one Phaidon son of Sopolis, elected by the people to oversee the building of the temple in accordance with a decree, and the decree went back to an oracle about the building. The sanctuary's own oracle had been formally consulted on the question of whether to carry on building the sanctuary. The god said carry on. He was, after all, the party with the interest.[16]

After that the money arrives from further away each time it arrives at all. A short resumption under Caligula. Serious work from Trajan, under whom the Sacred Way was paved in marble, and a peak under Hadrian. Then an end, either late in the second century or in the middle of the third. A project on this budget could keep a yard open on this site indefinitely and could never finish it, because the thing had been costed against the revenue of one provincial city and that revenue was already spoken for. Only a monarch could finish it. The monarchs who turned up all had other commitments.[17]

Every power that paid

The oracle was the reason any of this existed, and its standing was not in dispute. A Greek writer of the first century says flatly that of the Hellenic oracles anybody knew about, the one at Branchidae was agreed to be the greatest after Delphi. What that standing bought the sanctuary was patrons.

Necho, king of Egypt, dedicated here the armour he had worn when he took a city in the Levant. Croesus, before the war that finished him, sent gold offerings equal in weight to the ones he was sending to Delphi. Those two gifts got written down because the donors were famous, and what they describe between them is a sanctuary operating as a deposit bank with a prophet at the front counter.[18]

The prophet's actual business, though, was not prophecy. Sixty-one responses attributed to this oracle survive in one form or another, and thirty-three of them are attested by contemporaries, nearly half of those on stones cut at Didyma or at Miletus soon after the words were spoken, most of them quoting the god directly and many in verse, which is a better evidential record than Delphi can show.

Of the thirty-three, roughly five-eighths are religious instructions and sanctions. Found this cult. Hold this festival. Make this offering. This is the law of that shrine, and women do not go into it. The questions that produced them come out of the records in the same shape: shall I do this, how shall I do this, whom shall we choose. It is a permissions office.[19]

The oldest responses are cut in archaic letters that run alternately left and right down the stone, and one of them is a near-perfect specimen of the genre. It has lost everything except its ending and a single word of the question, and the word is “plunderable”. The answer survives entire: it is right to do as your fathers. A good deal has been built on that one word, including a reasonable suggestion that somebody was applying for a licence to raid the islands, and one word is not enough to carry any of it. What is left is better than the reconstruction anyway. Whatever was asked, the god’s ruling was to carry on as before, which is the ruling anybody pays a permissions office to produce.[20]

Then Miletus lost its war with Persia, and the sanctuary, in Herodotus’ words, was first plundered and then burnt, temple and oracle together. The hereditary clan who ran the place, the Branchidae, was removed eastward into the Persian interior, and the bronze Apollo that Kanachos had made was carried off to Ecbatana.

The ground is less emphatic than Herodotus. The excavators’ own report says that the archaeological evidence from the fragments of the archaic temple puts the burning, in the sense of destruction, in question, which is a careful way of saying that the most quoted sentence ever written about this sanctuary may be describing a robbery. The oracle went quiet for about a century and a half, and Seleucus eventually sent the statue back.[21]

The oracle’s return is reported by a man on the payroll. Callisthenes, who travelled with the Macedonian army and wrote the campaign up, is quoted by Strabo for the story that while Alexander was in Egypt, at the oracle in the oasis at Siwa, the long-dead spring at Didyma ran again and the prophetess confirmed his divine parentage, with a victory over Persia and the death of Darius included. Nobody has ever explained how a spring in Caria learns what has happened in an Egyptian oasis, and the only man who reported the coincidence was drawing the army’s wages.

That same army settled an older account on its way east. The Milesians serving in it had never forgiven the Branchidae for handing over the god’s

treasure, and when they came upon the descendants of the exiled clan in Sogdiana they killed them, unarmed, and took the town down to its foundations, according to the one historian who tells the story at all. An Egyptian oasis and a town in Central Asia, in the same campaign, for a sanctuary that never managed to put up its own front colonnade.[22]

The last consultation anybody remembers was also the most consequential. In the winter before the persecution, at Nicomedia, Diocletian was undecided about the Christians and sent a man to consult Apollo of Miletus, and the answer, in the only account there is, was what you would expect from an enemy of the Christian religion. The edict followed within weeks.

The account is by a Christian polemicist writing within living memory of it, Apollo of Miletus is an identification rather than an address, and no version of the words themselves is worth printing. The use, though, is not in doubt. A tetrarch who had already been told what to do by his Caesar and his advisers sent a man several days' ride so that a god could countersign it. That is what the clients had wanted from this place since Necho, and it is the one product Didyma could always deliver on time.[23]

The gulf is a lake now

The marble came out of quarries on the shore of the Latmian Gulf, at the foot of the mountains behind the sanctuary, and the costing of a column carries a line for sea freight, four thousand drachmas on thirty-five, which tells you the stone went part of the way by water. The Latmian Gulf is not a gulf. The Maeander sealed it off with its own sediment, and it is Lake Bafa now, fresh water with no way out, and the quarry faces and the abandoned drum blanks sit above a shoreline that no longer leads anywhere at all. The sanctuary's own harbour, Panormos, a couple of miles off, went the same way. The besieger that won here never came up the road. It came down the valley, in suspension.[24]

The other winner was the ground moving. Earthquakes brought the temple down and three columns stayed up. The two fluted ones on the north flank have their drums visibly shifted against one another at the

joints, by a couple of centimetres in one place, and they are standing anyway, because a column of separately cut drums is a structure with joints in it that can move a little and settle back. Any reconstruction of the original profile has to allow for those shifts, which makes them a nuisance to the measurer and is also the only reason there is anything left for the measurer to measure. The method survived the catastrophe rather better than the product did, which on this coast is the rule and not the exception.[25]

All of it was Milesian property, run as a civic function: commissioners elected for the year, accounts cut on stone and audited, contractors paid by the job, and a paved road ten miles long running out from the city's southern gate to the god. The drawing on the adyton wall is that city's habit of mind with the working still showing.

Take a thing twenty metres tall that you cannot get your hands round, throw away the dimension you have no need to measure, keep the one you do need at its true size, and what you are left with is an object small enough to argue about. Ten miles up that road, a few generations before the first stone of this temple was ordered, somebody applied the same move to the world instead of to a column, and asked what everything is made of, and expected the answer to come back as one thing.

What to look for

- The unfinished column on the south flank, inner row, near the front: nearly twenty metres in eighteen drums of unequal height, the shaft standing in its pointed boss, with a visible waist in the middle drums and a swelling above it.
- The finished capital of that column, with carved volutes, palmettes and echinus, and the cut flutes in the upper part of the drum beneath it, which served as the gauge for fluting that was never carried down.
- The lifting bosses on the base of the same column, left on the lower torus of the moulding, which is otherwise finished.

- The palm-sized smoothed rectangles at the quarter and eighth points of the drums' lower bed joints, one of which on each drum carries a diameter in Milesian alphabetic numerals, written upside down.
- The pair of fully fluted columns on the north flank, inner row, with slight offsets at their drum joints.
- Boss left on the end faces of the crepis step blocks on the west side, and on the plinth of the corner column at the north-west.
- The entasis drawing on the north socle wall of the adyton: a panel about a metre and a half square of faint incised lines, scarcely legible except in light raking almost parallel to the surface.
- The adyton itself: an unroofed court about four metres below the level of the east chamber, enclosed by a high smooth socle with an Attic base profile and pilasters, with a frieze of griffins facing each other between the pilaster capitals, and the foundations of the small Ionic naiskos that stood beside the spring.
- The two narrow barrel-vaulted passages sloping down from the pronaos into the court, and the monumental staircase of twenty-two steps rising out of it on the east.
- A colossal marble Gorgon head lying among the fallen stonework.[26]
- Loose drums east of the temple, including foot drums of the naiskos columns, one carrying an incised mark cut across by a dowel hole.
- A bossed column on the west side lying in coherent fall, with no numerals on its drums.
- The remains of the Sacred Way at the sanctuary end, and the line it takes north-westward.

CHAPTER 11: ARCHE

The word is *arche*, and in Greek it does two jobs that have nothing to do with each other. It is the beginning, the first thing, the stuff everything else is made out of and comes back to. It is also rule, office, government, the business of being in charge, which is where English gets its monarchs and its anarchists. A city of shipowners and wool exporters would have found that unremarkable. You start with something, and then it runs the place.

Thales of Miletus said the arche was water. That is the answer everybody remembers, and it is the least interesting part of what he did, because the answer is wrong and the question is not. Aristotle, writing two and a half centuries later and looking back down the line of people who had tried, named Thales as the first man to go looking for a single material principle underneath everything, and recorded water as his candidate.[1] The move is the demand. One substance. Not a pantheon with a committee, not a story about who married whom. One thing, and then an argument about which thing.

Having made the demand he lost control of it immediately, which is the sign of a real question rather than a slogan. Anaximander, the next man, threw the water out and put in the *apeiron*, the unlimited, something with no edges and no qualities that the qualities come out of, and then built a cosmos on it in which the earth hangs unsupported in the middle of everything and the heavenly bodies are rings of fire seen through holes. It is the first known attempt to describe the world with nobody at the controls.[2]

Anaximenes, third, threw out the apeiron and said air, which sounds like a step backwards and is not, because he supplied the mechanism nobody else had: air thickens and thins, fire is air gone thin, stone is air squeezed as far as it will go.[3]

Three generations, three answers, each one demolishing the last, all three in one provincial port on the Carian border of Ionia, and the only reason anybody calls them a school is that Aristotle and Theophrastus grouped

them that way four hundred years on. Nobody has a book by any of them. Of Anaximander, who invented the idea of a universe running on its own, what survives in his actual words is roughly one sentence.[4] The founding document of Western cosmology is a fragment you could fit on a seat back, and I would be more suspicious of the whole business if the record were tidier.

What there is instead of books is the city, and the city is the part that pays. Miletus sat on a peninsula at the mouth of the Maeander with the sea on three sides of it and four harbours claimed for it in the ancient tradition. It is now a long way from any of that.

The gulf that the stone and the grain and the wool came in and out of has been closing since before the Romans arrived, and the man who said that everything is made of water is commemorated by a theatre that looks out over several kilometres of cotton and cornfield.

Students first, and the receipts are in Egypt

The one thing you can say with confidence about the Milesian toolkit is that most of it arrived by ship. Anaximander is credited with introducing the gnomon, the calibrated shadow stick that gives you the solstices and the equinoxes off a patch of flat ground, and Herodotus, who was from just down this coast and had no reason to flatter anybody else, says flatly that the Greeks got the sundial and the twelve divisions of the day from the Babylonians.[5] Introduced, not invented. He is the importer. The instrument came off the Royal Road from Sardis with everything else that came off the Royal Road from Sardis.

The same man is credited with the first Greek map of the inhabited world, drawn as a circle, and Hecataeus of Miletus is credited with improving it and writing the two-book geography that went with it, a circuit of Europe, Asia and Libya assembled out of exactly the sailing information that a port with ships in every direction would have had lying around in its own harbour offices.[6] The first world map was a trade document with the commercial headings removed.

A generation later Aristagoras of Miletus took a bronze map of the world to Sparta to argue the Spartans into a war, which is the earliest recorded use of a visual aid in a briefing, and it did not work.[7]

Thales went to Egypt, or at any rate the tradition from antiquity onward says he did and learned his geometry there, and the story that stuck is that he measured the height of a pyramid by its shadow, waiting for the hour at which a man's shadow is exactly as long as the man. Whether he stood at Giza nobody can show, and the earliest version of the shadow story reaches us through a biographer writing eight centuries later who is citing somebody else.[8] I keep it because of what it is doing.

A pyramid is the most unmeasurable object the ancient world had: solid, enormous, with the useful dimension running up the inside of it where you cannot get a rope. If you can get it by its shadow, the shadow is the measurement, and the stone is only in the way.

Hecataeus actually went, and we know what happened to him there, because he told somebody and the somebody wrote it down. At Egyptian Thebes he gave the priests his genealogy and traced his own family back sixteen generations to a god. They took him into a hall and counted him through 345 wooden colossi standing in a line, each one a high priest, each the son of the one before, father to son to father all the way back, and not a god anywhere in the room.[9]

Three hundred and forty-five generations of ordinary men against sixteen and a divine ancestor. That is the most expensive education any Greek ever received, and the man who received it went home and wrote the book in which he says he is putting down what he believes to be true because the stories the Greeks tell are many and ridiculous.

So the Ionians were the students first, and the usual complaint about this, which is that Greek thought was borrowed and the credit misfiled, is half right in a way that makes it less interesting rather than more. Egypt had the surveying. Babylon had centuries of recorded sky. Lydia had the metallurgy and the coinage.

What arrived from none of them, as far as any surviving text shows, is the insistence that the answer be a single substance, that it be arguable, and that the man who comes next be entitled to say in public that you were wrong. Miletus produced three of them in a row on exactly that understanding, and kept all three. That is not a technique you can put on a ship.

The eclipse is where I have to stop lending him things. Herodotus says Thales foretold the loss of daylight that stopped a battle between the Lydians and the Medes, and he says it carefully: Thales fixed it within the year in which it happened. An eclipse did cross Asia Minor. No cycle available to anybody in the sixth century will get you the day and the place, and the historians of astronomy who have worked the arithmetic say so.[10]

So the record is that a man predicted a year correctly, and the story grew in transmission until he was predicting an afternoon, and the difference between those two claims is the entire difference between an almanac and a prophet.

What paid for the question

The city was rich before it was clever, and it was rich off sheep. The animal-bone record and the pollen from the cores around the site show sheep becoming the mainstay of the small livestock here after the Bronze Age, and Milesian wool was a trade name in the archaic market, the way a mill town's name ends up printed on the cloth.[11]

On Kalabaktepe, the hill in the south-west, the excavators found the seventh-century city: narrow streets winding between houses packed onto terraces, and workshops for metal, for bone carving and for pottery.[12] Wool out, finished goods out, and a class of people with enough time on their hands to sit around disagreeing about air.

The harbours tell you the shape of the business. Tradition gives Miletus four of them and only two have been identified for certain, and the point is not the count but the size: a scatter of modest basins around a peninsula rather than one great engineered port.[13]

That is what a city with a very large number of ordinary ships needs, as against a city expecting a few enormous ones, and it means the fleet was distributed around the peninsula the way a farm's carts are distributed around a yard. When the Ionians went out to fight the Persian navy, Miletus alone put eighty hulls in the line.[14]

They even brought their walls in by sea. The archaic city wall, found four to five metres under the present surface by magnetometer and then confirmed by coring and the spade, is built of gneiss, a hard dark crystalline rock that does not occur conveniently to hand, and the blocks were shipped down from a quarry north of Myous in the seventh century BC.[15] They used the hard stone for the fortifications and the foundations and saved the marble for the parts people looked at, which is a priority I find more impressive than the marble.

And the population was mixed, which they said themselves and which I think matters more than anybody allows. Herodotus records that the Ionians who settled Miletus came from Attica without women and married Carian wives, having killed the fathers and the husbands.[16] Whatever historical weight that carries, it is the story the city told about its own origin: half the ancestry Greek, half Carian, and the Carian half acquired by violence.

The place where the Greeks first demanded that the world be explicable in one substance described itself as a hybrid, on the frontier, with the language of the interior spoken in the house. Contact is the condition that comes last on everybody's list of reasons for the Ionian miracle. They were not in contact with the Carians. They were the Carians, on the mother's side, by their own account.

The year the city stopped being a city

The revolt that ended it began here, and the local geographer was against it from the start. When the Ionians decided to throw the Persians off, Hecataeus argued against the whole enterprise, was overruled, and then gave the assembly his second-best advice, which was to take the treasure

out of the sanctuary at Didyma and build a fleet with it, on the reasoning that if they did not spend the god's money the enemy would.[17]

The most careful empirical mind on this coast looked at the strategic position and concluded that the correct move was to rob Apollo. They refused on grounds of piety. The Persians took the treasure anyway, which is the kind of outcome that turns a man into a writer of prose.

What broke the Ionians was a sea fight off a small island called Lade, which lay just outside the harbours and in full view of the city. The fleet lost there, and after that the siege was arithmetic. The Persians came at the walls by land and sea, undermined them, brought up engines of every kind, and took the place six years after the revolt started.[18]

The ground agrees. On Kalabaktepe there is a destruction layer and then a hasty, short-lived rebuilding that reuses the old walls and raises the floors on rubble, after which the hill was simply left outside the new circuit; the new temple of Athena, begun a few years earlier, was still unfinished and stayed unfinished.[19]

Herodotus gives the terms. Most of the men were killed. The women and the children were taken as slaves. The survivors were walked east across the empire and resettled at a place called Ampe at the mouth of the Tigris, where Darius, having moved them to the far end of the known world, did them no further harm.[20] Herodotus' own summary is four words long in English: Miletus was emptied of Milesians. The city that had asked what everything is made of was, administratively speaking, relocated to the Persian Gulf.

The best surviving measurement of how that landed anywhere else in the Greek world is a fine. A poet named Phrynichus wrote a tragedy about it, *The Capture of Miletus*, and put it on the stage at Athens, and the audience burst into tears. So the Athenians fined him a thousand drachmae for reminding them of a disaster that touched them so nearly, and banned the play from ever being performed again.[21]

Not for inaccuracy. Not for impiety. For making them cry about something they had failed to prevent. So what the fall of Miletus did to the people

who heard about it from a safe distance survives as a receipt levied on a man who told the truth about it in public, and the play itself is lost, because the ban worked.

The general who beat a navy by walking away from the sea

A century and a half later the same island settled it again, in the other direction. When Alexander came down this coast the Persian fleet was much larger than his and was riding off Mycale, waiting to relieve the city from the water. He got onto Lade first, put troops on it, and shut the door. The fleet could not get in, the garrison inside the walls held out and was stormed, and the whole engagement turns on the ownership of one island that is no longer an island.[22]

Then he did the thing that nobody expected and that I think is the most intelligent act of the entire campaign on this coast: he disbanded his own navy.[23] He could not beat the Persian fleet at sea. So he declined to fight it at sea, and went down the coast taking harbours instead.

A fleet in that period cannot stay out. It needs beaches to be hauled up on, water, bread, a market, somewhere to winter. Take the shore and the ships are not a navy any more, they are a quantity of expensive timber looking for a berth. Every land power that ever took a city on this coast went for the harbour rather than the walls, and he was the one who worked out that the harbours could be taken from behind.

That is the exact inverse of 494, and the two sieges together are the whole political history of the place in one line. Miletus was independent for as long as it could reach the sea, and the two times it was taken, both times it was taken by somebody who got between it and the water first. His next famous act was several hundred kilometres inland, at Gordium, where there was a knot (гордиев узел), and that is the last this coast sees of him.

The name on the grid is probably the wrong name

They came back, as people here always do, and when they rebuilt the northern end of the peninsula a generation after the catastrophe they laid it out on a grid, and the name attached to that grid for two and a half thousand years is Hippodamus of Miletus. The attachment will not bear weight. Rectangular layouts were in use among the Greeks long before him, at Old Smyrna and in the colonies in Sicily. His own dates put him in short trousers in the year the plan was laid out.

And Aristotle, who is the source for everything we know about him, credits him not with inventing the grid but with “the division of cities”, and is far more interested in the fact that he was the first man who was not a working statesman to sit down and write about the best constitution.[24]

What Hippodamus actually proposed was a city of ten thousand citizens in three classes with the territory in three parts, and he planned the Piraeus, and Aristotle thinks parts of the scheme are silly and says so. He is a theorist, and the thing he was theorising was not street widths. It was the idea that a city is a designed object, that you can take the whole of it, population and land and law and drainage, and allocate it on paper in advance. The grid is what that idea looks like when it is built. Calling the result the Hippodamian plan is the error of naming a thing after the man who explained it rather than the man who drew it, and as attribution it is wrong and as description it is exactly right.

The grid did run the city, though, and you can watch it running in the sanctuary in the middle of town. The Delphinion, the shrine of Apollo Delphinios and the civic archive and the starting point of the road to the oracle, was rebuilt after the destruction as a new building that occupied one entire city block, was later extended eastward to cover two, and in its final Roman form, a long rectangle of column halls around a square, still spanned exactly two.[25]

The block is the unit. The gods got allocated in blocks like everybody else. And the exceptions prove how strong the rule was, because the two biggest things the Romans built here, the theatre and the great baths, both sit crooked to the grid, one because of the hillside and one because of what was underneath it.[26]

What Miletus exported after 494 was therefore not wool or hulls. It was a method, and the method went out of here under the name of a man who very likely did not draw it, which is this coast's standard arrangement for intellectual property.

The pattern holds for the people too. Aspasia, who ran the most consequential household in Athens and whose opinions Pericles was accused of adopting, was Aspasia of Miletus.[27] The architect who built Hagia Sophia for Justinian, with a colleague from Tralles up the valley, is Isidore of Miletus.[28] The city's largest exports kept being individuals whose surname was the city, which is a reliable way to be remembered and a very poor way to be visited.

Row five

The theatre is the thing still standing, and it is standing because it was worth fortifying later. It began in the fourth century BC at about five thousand three hundred seats and was rebuilt in the later first century AD at about fifteen thousand, in three galleries, with two vaulted passages running in through the flanks and a rear facade of double-stepped arches toward the water that was still, then, water.[29]

Fifteen thousand seats is a statement about the size and the self-regard of the Roman city, and it is also the reason the next thing is legible, because a seat with a name on it needs a crowd big enough for the name to matter.

On the fifth row, cut into the stone where somebody sat, there is a Greek inscription that reads, in an awkward hand and awkward spelling, "place of the Jews, who are also God-fearers".[30] It is Roman imperial, usually put in the second or third century, and it is one of the half-dozen most argued-over short texts in the religious history of this coast, for a reason I find almost unbearably funny.

Nobody can agree whether it names one group or two. Deissmann, who read it on the stone in the theatre itself, took it as a single congregation with two names, and recorded that he had expected the text to say “and of those called God-fearing”, and did not. The alternative is that the cutter put two small words the wrong way round, so that the seats belonged to the Jews and to the gentile sympathisers who came along: two parties, one bench.[31]

So an entire scholarly category, the God-fearers, the half-attached outsiders who show up all over the early Christian record and whose existence was doubted for most of the twentieth century, rests in part on the word order of a stonecutter who was working in a dialect spelling and may have been in a hurry. I cannot settle it and neither can anybody else. What the stone settles is not the grammar but the arrangement: there was a Jewish community here big enough and confident enough to have its seats reserved by name in the municipal theatre, in public, in cut letters, alongside everybody else’s.

And we know what that cost them, because the correspondence survives. Josephus preserves a ruling in which a Roman proconsul, holding court up the valley at Tralles, tells Miletus that a citizen of theirs has come to him to report that the city, contrary to Rome’s expressed wish, is attacking its Jews, forbidding them to keep their Sabbaths, perform their own rites or manage their produce in their own way, and that this is to stop.[32]

The same pattern turns up for Ephesus and Tralles and Laodicea. Greek city tries it on, Jewish community appeals over its head, Roman official overrules the city. People who had to go to the empire to be allowed to keep Saturday were, in the same town and perhaps the same century, cutting their own name into row five.

The water took its time

The harbours did not fail in a season, and nobody alive ever saw it happen, which is why it was allowed to. The cores taken in the Lion Harbour, the main basin at the head of the great avenue, give an average

rate of sedimentation between the first century BC and about AD 400 that runs at double the Classical and Hellenistic rate and twenty-one times the rate of the fourth to second millennia BC.[33] That is not a flood. That is a basin losing a centimetre or two a year while generations of harbourmasters file reports about dredging.

They fought it, and the best evidence of the fight was mistaken for the harbour itself. Geophysical survey picked up structures in the Lion Harbour that looked like jetties, and coring showed them to be deposits of brick and tile debris, dumped, in all probability to get the marble lions moved once the basin they were guarding had already turned to swamp.[34]

The lions are the monument. The rubble is the real monument. Somebody authorised a quantity of broken roof tile to be tipped into the civic harbour so that the sculpture of the civic harbour could be dragged to where the water still was, and then the water went further, and they stopped.

Lade went too. The island that both sieges turned on, the one the Ionian fleet lost in front of and the one the Macedonians locked down, merged with the delta plain somewhere around AD 600 to 700.[35] It is a rise in a field now. You can stand at the top of the theatre and pick out the hill, and there is nothing in the look of it to tell you that the independence of a Greek metropolis and the collapse of a Persian naval strategy both turned on who was standing on it.

The city shrank to fit. Justinian rebuilt the wall around what had become a small town, with a great church, a bishop's palace and a synagogue inside it. From the eleventh century the theatre was converted into a castle, the southern half of the seating walled off, the third gallery quarried away for stone, and the settlement sheltered under it.[36]

That settlement was called Palatia, the palaces, which is what the Italian traders had on their charts and what the Byzantines had made of the ruins they were living in, and Palatia is Balat, which is the name on the

signposts today.[37] The city's own name did not survive in local use. The word for its wreckage did.

The last people to build here properly were the Menteşe emirs, who ran their Aegean trade through this place from their capital inland. Early in the fifteenth century İlyas Bey put up a mosque and a complex around it: a brick dome fourteen metres across, a marble facade with columns and a central arch, a mihrab signed by its stonemason, muqarnas vaulting, a madrasa, a founder's tomb and two baths, the whole thing built straight out of the Greek and Roman city it was standing in, ancient blocks all through the masonry.[38] And in the larger of the two baths somebody scratched ships on the wall.[39]

I have no idea who, and the graffiti are not dated any closer than the building. But they are in a bathhouse, in a town whose harbour was by then a reed bed, in a principality whose fleets had been real within living memory, and they are the nearest thing on this site to an answer to the question the whole place is built on. A Greek sailor coming by in the sixteenth century reckoned the coast was about eight kilometres off.[40] The water that everything was made of had taken the long way out, over roughly fifteen hundred years, at a centimetre a season, and the city had gone on cutting seat numbers and paving avenues and arguing about the first principle for most of it.

The thing this city was actually best at was never philosophy, though. Philosophy was a side effect of the real business. Four harbours, a wool trade, eighty warships and more sons than farmland add up to one trade, and Miletus was in it harder than anywhere else in the Greek world. The number of other cities it started is the single statistic about this place that nobody has ever managed to settle, and the reason it cannot be settled is that the men who went out to found them did not come back to be counted.

What to look for

- The theatre: three galleries of Roman seating, the two vaulted passages running in through the flanks, the double-stepped

arches on the rear facade toward the plain, and the medieval work above and across it, including the wall sealing the southern interior and the gap where the third gallery was quarried away.

- The seat inscription on the fifth row of the theatre seating, about a metre and a quarter long, in Greek, with non-standard spellings. Accounts of which section it sits in disagree.
- The view from the upper part of the theatre across the Maeander plain, with the low hill of Lade in it.
- The Lion Harbour basin at the head of the main avenue, now a field, often waterlogged in winter.
- The Delphinion: a block-sized footprint with a rotunda and the remains of column halls, and the point from which the paved road to Didyma left the city.
- The bouleuterion, with the four interior supports that carried the roof over the auditorium.
- The Nymphaeum facade and the marble members lying beside it.
- The Market Gate: the marble crepidoma on its limestone socle, which is all of it that is on site.
- The Faustina Baths: the ring plan, hypocaust pillars, hollow wall tiles, furnace mouths, and brown gneiss slabs reused from the Classical and Hellenistic city wall.
- The Athena temple area, on the site of the earliest settlement, with the gneiss foundation of the temple that was left unfinished.
- The İlyas Bey complex: the fourteen-metre brick dome, the marble facade, ancient blocks reused throughout the masonry, the muqarnas vaulting, and the ship graffiti in the larger of the two baths.

- The site museum, holding finds from the city and from the road to Didyma.

CHAPTER 12: MEN AS AN EXPORT

The number of cities Miletus founded is the one figure about the place that will not settle, and the trouble is not arithmetic. The ancient lists put it somewhere between about seventy-five and ninety, which is the shape of a number people enjoyed repeating rather than one anybody ever went out and audited. Strike off everything that turns out on inspection to be a trading beach, a seasonal post, or a town founded by a town Miletus had founded a century earlier, and what is left with a decent claim to a Milesian parent comes down to a few dozen.[1]

Either way the unit of measurement is wrong, which is why the figure behaves so badly. A city does not build a colony the way it builds a wall, as an object that stays where it was put and can be measured afterwards by anybody with a tape. It assembles a quantity of people, puts them on ships with their seed corn, their tools, their gods and their habits of doing business, and sends them somewhere it is not. The count cannot be closed because the men who went out did not come back to be counted.

They went because the arithmetic at home did not work. A city at the mouth of a river has a fixed quantity of plain behind it and an expanding number of younger sons, it had the factional quarrels every Greek city had, and Lydian kings were leaning on the coast from the interior the whole time.[2] Nobody in this business was carrying civilisation to the Scythians. The ships went out with oil, wine and painted pottery, and they came back with grain, salted fish, timber, hides, wax and slaves, which is a cargo manifest a modern shipping clerk would recognise on sight.[3]

A warehouse with a god in it

What went into the ships besides people is the part worth stopping on. A new foundation up on the Black Sea got Apollo Delphinios, Apollo of the Dolphin, the god whose sanctuary stood at the head of the main street at home, and it got him through an oracle that was in the business of licensing foundations and that kept the daughter cities tied to the cult long afterwards.[4]

It also got the calendar, which is a stranger thing to put in a ship's hold. Inscriptions out on the Bug estuary are dated by Milesian months, and a town on the Dniester ran a council and a set of annual officers laid out on the model of the mother city.[5]

Which makes a Milesian colony a very specific object, and not the vague thing the word suggests. It is a warehouse with a god in it, a dating system, a council constituted the way the council at home was constituted, and a standing commercial arrangement with whoever was already living there. The city exported its administration along with its population, and the administration is the part that is still legible two and a half thousand years later, because months and gods and magistracies get written down and ordinary people do not.

Two names on a coast that was not Russia yet

The best known of these places sat on the strait at the eastern end of the Crimea and was called Panticapaeum. Milesian pottery turns up there from the sixth century, with mudbrick houses on the hill above the water and dedications to Apollo of the Dolphin and to Apollo the Healer, both of them imported tutelary gods from one specific city on the Maeander, and the town went on to be the capital of a kingdom that lasted several hundred years.[6] The city standing on the site today is Kerch.

Round the coast to the west, on the Bug estuary, is Olbia, where the earliest Greeks lived in pits dug into the ground and traded grain and salt fish with the Scythians inland.[7] Their small change was cast in bronze in the shape of dolphins and arrowheads, and the god they had carried north with them was Apollo of the Dolphin. The Russian forms of the three names are Пантикапей, Керчь and Ольвия, and all three reach this book down a single unaudited channel, with nothing in my pile confirming that the dictionaries carry them in the shapes given here.[8]

Then the thing reproduced itself, which is what nobody budgets for. Early in the third century a party went out from Panticapaeum, which was itself a colony, to the mouth of the Don, and founded a town there alongside the

people already on the river.[9] On the southern shore the same had already happened, where Sinope, a Milesian foundation, had planted Trapezus.[9] Part of the generous ancient total is grandchildren counted in with the children, which I take to be the most impressive fact about the whole operation rather than a defect in the bookkeeping.

The other way to sell a man

Colonising is the slow version. The fast version was hiring out, and the market for it was Egypt. A pharaoh called Psammetichus took on Ionian and Carian troops and settled them in the Delta in camps of their own, Milesians are credited with a fort on one of the Nile mouths, and the Greek trading port that grew up down there was eventually the only place in the whole country where a Greek was permitted to do business at all.[10] That is a standing contract, not an adventure. Somebody on this coast was recruiting for it.

The Carians were in the same trade and had been longer. The people of the interior immediately behind this coast had a military tradition of their own that the Greeks borrowed from directly, and what the Carians lent in the way of equipment is a substantial debt that has to be settled in their own country.[11] What matters here is narrower: when an Egyptian king wanted foreign infantry he bought Ionians and Carians in the same transaction, and the two of them turn up together, in that order, wherever the paperwork survives.

Two reigns later another Psammetichus sent an army south up the river into Nubia, and the hired men went with it. At Abu Simbel, on a colossal statue above the Nile that had been carved for an older king's purposes entirely, Greek and Carian soldiers cut their names into the stone.[12] A thousand miles from the Maeander, at the far end of the longest journey anybody from this coast had yet been paid to make, in front of the largest object they were ever going to see, they did the thing soldiers have done to every monument since, which is write on it.

What the men wrote

What they wrote is better than the fact that they wrote. Across the sixth-century Greek graffiti at Abu Simbel and at the trading port in the Delta, the men identify themselves by their city, or by the name of a place, and never once by their nation.[13] No Ionians. No Hellenes. The category a man reached for when he had one chance to say who he was, with a chisel, in Nubia, in the pay of a foreigner, a thousand miles up a river from anything he recognised, was the name of his home town.

That is also how the stone ended up being used as a yardstick. A handbook of 1877, written for a London society that existed to publish improving literature, works through the oldest Greek inscriptions then known: the stone from Sigeum near Troy, which had long been supposed the oldest of all, some texts from the sanctuary south of Miletus, and the Greek inscription on the colossus at Abu Simbel, which its author thinks is probably the elder of the lot.[14] In the running for the earliest surviving Greek writing in the world, on the best Victorian judgement available, was a note scratched by hired soldiers on somebody else's statue.

The same book lists the Milesian foundations under their nineteenth-century names, and the list is an education in what this coast keeps losing. Abydos and Lampsacus on the Hellespont, Proconnesus and Cyzicus on the Propontis, Sinope and Amisus on the Euxine, and then, trailing off, several more on the coasts of Thrace and Tauris and on the Borysthenes.[15]

Four of the names in that sentence are not printed on any map now, and not one of the four was replaced because the place underneath it stopped existing.

Cyzicus is the one to put your finger on if the scale of the business is in any doubt. It sat on the neck of a peninsula in the Sea of Marmara, on the sandy isthmus where everything moving between the Black Sea and the Aegean had to pass; it was classed among the colonies of Miletus by a writer from Lampsacus, which is to say by a neighbour who had no reason to flatter it; and by the fourth century its gold staters were familiar

enough that the coin was simply called after the town.[16] A daughter city on a sandbar ended up with a currency that foreigners asked for by name.

The loan that was never repaid

So here is the argument of this book with nothing in front of it. The largest thing this coast ever exported was not wool, or hulls, or painted pots, or city plans, or the question of what the world is made of. It was people. Everything else came back in some form: as freight, as profit, as prestige, as a word sitting in somebody else's language with the serial number filed off. The population did not come back. A man who went to the Crimea was in the Crimea, his sons were Crimean, and in due course his descendants were founding towns of their own on rivers nobody at home had heard of.

The ledger does not balance and was never going to. Grain came back, and salted fish, and the profit on both, and for two centuries that was an extremely good business for the men who stayed. But a loan of goods generates a return and a loan of people generates a city somewhere else, permanently, with its own council, its own harbour dues and eventually its own colonies.[17] The daughter on the Kerch strait became a capital and is a working city with a population today. The mother is an archaeological site with a ticket office.

Then the Persians came down the coast, and the export stopped being a commercial decision. Two of the Ionian cities answered the siege mounds by loading their entire populations onto ships and sailing away, which is not colonisation and not quite flight either, and the Greek language had no word ready for it.[18]

Somebody then stood up at the common assembly of the Ionians and proposed that the rest of them do the same thing: every city on this coast, the whole population, aboard and away to one island in the west, as agreed policy, by vote. A people who had spent two hundred years profitably exporting their surplus sons sat down to discuss exporting all of them.

CHAPTER 13: THE SARDINIA PROPOSAL

On the north slope of a mountain in Ionia, at a sanctuary of Poseidon that twelve cities kept up between them, a man from the nearest of the twelve stood up and moved that they all leave. Not retreat into the hills, not sue for terms, not man the walls and hope. Put every citizen of every one of the twelve aboard ship, sail west past Greece and past Italy, and build one city on Sardinia, which he sold to the meeting as the largest island going, and stop being twelve towns with a landlord. The man was Bias of Priene. Herodotus records the motion and judges it the most useful advice the Ionians were offered, which, from Herodotus on the subject of Ionian politics, is close to a standing ovation.[1]

The vote went the other way, and the rival motion on the table that day tells you why. Thales had tabled a federal capital at Teos, in the middle of the coast: one council for everybody, with every city staying exactly where it was.[2] That is the proposal a committee passes, because it costs nothing and nobody has to pack. Bias was asking twelve sets of magistrates to vote their own offices out of existence, walk away from the graves of their grandfathers and from the sanctuary they were sitting in, and refound themselves as new arrivals on an island they knew from sailors' report.

The sanctuary they were sitting in belonged to Priene, and that is the detail that turns this from an anecdote into a chapter. The Panionion stood on Prienian ground on the mountain above the town, and in Strabo's account the priesthood of the common cult went to a man of Priene, as the city nearest the site.[3]

The closest thing to an enforcement mechanism the Ionian League ever possessed survives on a fourth-century stone found near the sanctuary: every member city must contribute to the common sacrifice, and a city that failed to contribute was fined.[4] A confederation whose only sanction is a penalty for not bringing your animal to the barbecue, and the city holding the keys to the premises is the one that moved to wind the thing up.

Bias is one of the Seven Sages, which in practice means one of seven men to whom antiquity assigned whatever epigram needed an owner. Two of them stuck. Diogenes Laertius gives him “most men are bad”, and Cicero credits him with the line every Roman schoolboy had in Latin, *omnia mea mecum porto*, I carry everything I own with me.[5]

Whether he ever said either is a question about Greek biography rather than about Priene. What is worth sitting with is that the maxim and the motion are one idea at two scales. A man who can pick up everything he owns and walk cannot be held to ransom by his own furniture, and what Bias put to the vote was that an entire people become that man.

The island never got the chance to oblige, and the one word it did lend out came by another road entirely. English *sardonic* gets traced to Sardis often enough that it belongs on the list of things this coast is given credit for and does not own. It runs back instead to a Homeric word for a particular kind of laugh, later pulled toward Sardinia and a plant growing there that was said to kill you with your face set in a grin.[6] Sardinia has a book of its own and this is not it.

The ones who actually sailed

Two Ionian cities did the thing Bias proposed, on their own account, without waiting for anybody to vote. When the Persian general came down the coast throwing up siege mounds against one city after another, the Teians sailed for the Thracian coast, and the Phocaeans loaded their households and went west, to Corsica first and in the end to the Italian mainland.[7] So the proposal was not a fantasy and nobody at that meeting could have called it one. It had been demonstrated twice, by towns with less shipping than Miletus and no committee to consult.

Priene was not offered the choice. Herodotus disposes of it in a clause: Mazares led his army against the cities that had helped besiege a Persian officer at Sardis, and he enslaved the Prienians, and overran the plain of the Maeander.[8] Enslaved. Not defeated, not reduced, not brought over. The verb is the entire paragraph. An assembly on the mountain had spent

a session debating whether to move the population by sea, and the population was moved by somebody else, on foot, in the other direction.

The reckoning, when it came, came back to the same mountain. A generation later the Greek fleet crossed from Samos and found the Persian ships hauled up on the beach under Mycale with an army camped around them, and broke the camp; and while that was going on the Ionian contingents serving in the Persian line changed sides in the middle of the battle.[9]

So the emigration question was finally settled at the foot of the hill where the motion had failed, and it was settled in the negative, by men who had been conscripted into the losing army and who chose, at the one moment when choosing was free, to stay exactly where they were.

The city a theorist built

Priene is not where Priene was. The town Herodotus knew sat on the shore of the Latmian Gulf and nobody has pinned down the site.[10] Around the middle of the fourth century the Prienians rebuilt from nothing on a steep south-facing slope of Mycale under a rock acropolis, with the water at their feet, and the reason usually given is that their harbour had filled in. They then picked a site that was filling in as they built on it. The eastern bay below the promontory had already turned into a freshwater lake; the western one still held a lagoon several metres deep, which is the only reason the new town had a harbour at all.[11]

The plan is the famous thing, and it is famous for the wrong reason. Six main streets about six metres wide run east and west along the contours, fifteen narrower ones about three metres wide cross them, and the result is roughly eighty blocks.[12] The cross streets have to climb a mountain. The grid does not bend for the mountain, so those streets are staircases, and every block is a cut-and-fill terrace with a retaining wall holding it up.

Priene is not admired because it was sensible. It is admired because somebody had a theory about what a city is shaped like and then spent a great deal of money proving that a hillside could be made to agree.

The theory had an author living in the town. Pytheos designed the temple of Athena Polias and wrote a book about it, and when Vitruvius lists the architects who published on their own buildings he puts Pytheos on the Priene temple at the head of the list.[13]

The book is lost, and what reaches us of his opinions reaches us through Vitruvius, and it is in character: that an architect ought to be accomplished in all the arts and sciences, and that the Doric order is unfit for temples because of what happens to the triglyphs when you turn a corner.[14] One temple, one treatise about that temple, and the treatise used to rule a rival order out of service.

The order he did work in is named after the people who lived along this water. Vitruvius hands the orders out to peoples, and the scrolled one went to the Ionians, which is why any bank built in the last three centuries with scrolled capitals across its front carries an order named after twelve towns on the coast of Asia Minor, and why Russian calls it ионический ордер.[15] The version that got copied afterwards was the one standing on this terrace: the proportions Pytheos used for his capitals became the Hellenistic default, so the canonical form of the order named after Ionia was fixed on a hillside in a town of a few thousand people.[16]

He also left the drawing. On one of the anta blocks still in place from the first building phase there is an incised rendering of the temple's gable at a scale of one to forty-eight, the earliest known scale drawing of a building anywhere in the Greek world.[17] He drew the building on the building, in marble, at a stated reduction, and then built the rest of it around the drawing, and the drawing is still there, which makes it the nearest thing to his lost treatise that anybody can still stand in front of.

A king who paid, and kings who promised

The temple was still unfinished when a passing king paid to have it dedicated. The inscription is cut on a marble block a little over a metre wide and says, in capitals, that King Alexander dedicated the temple to Athena Polias.[18] He came through in 334, going the same way and considerably faster than anybody since, and what he left at Priene was

not a garrison or a governor but a sentence in stone recording that the money had come from him. A building is a building. A building with your name on the architrave is a receipt that the city has to keep polishing.

The receipt is no longer at Priene. Richard Pullan dug it up in 1868 or 1869 for the Society of Dilettanti, and it is in the British Museum.[19] So is a good deal else: when the museum published its Greek inscriptions, the third volume covered Priene, Iasos and Ephesus together, and the town of a few thousand people got the lion's share of the title page.[20] The one line that certified a king's gift to the city is the line that left the city.

Royal money the other way round is better documented here than almost anywhere, because here it did not arrive. Kings whose names the inscription does not preserve promised to fund a gymnasium at Priene; the city went ahead and built it with contributions from its own citizens; and in the wide niche at the back of the ephebes' hall, where a royal statue would have stood if royal statues had been owed, there stood instead a marble figure of the local man who had actually written the cheque.[21] The honours system worked perfectly. It simply recorded who paid.

Then there was the deposit. A deposed claimant to the Cappadocian throne, Orophernes, parked four hundred talents at Priene for safe keeping. Two kings, Ariarathes and Attalus, came after the money; Priene declined to hand it over; the kings burned Prienian farmland for the refusal; and Priene gave the four hundred talents back to the man who had deposited them.[22] A small town with no fleet and no allies honoured a banking covenant against two armies, which is either integrity or an extremely clear-headed estimate of what a reputation is worth to a place whose only remaining export is trustworthiness, and I take it for the second.

And in 1870 somebody lifted the stones of the cult statue base inside the temple and found a coin of Orophernes in it, and then more coins, and some jewellery.[23] The pedestal of the goddess was the strongbox. Pytheos had designed the most theoretically rigorous building on the

coast, a king had paid to dedicate it, and somebody was using the plinth under the statue as a night safe.

The other building, and the word it left behind

Pytheos' second commission was a tomb. Working with Satyros, he built the monument at Halicarnassus for a Carian dynast called Mausolus, whose widow wanted the thing to be unforgettable and got her wish in a way nobody plans for.[24] The building is gone. The man's name is a common noun in most of the languages of Europe: Greek *mausoleion*, Latin *mausoleum*, English mausoleum, and Russian мавзолей, which in Russian is also what you call the one on Red Square with Lenin in it.[25]

The building went the way buildings go here. The Knights of St John built their castle at Budrum out of it, and in the later repairs the masonry of the substructure was taken away as well, so that by the time anyone came looking with a spade nobody could say where it had stood.[26]

When Charles Newton finally found it and measured a column drum, the proportions told him something he had not expected: whatever he was digging must have resembled, in style, the temple at Priene.[27] A wonder of the world turned out to be a scaled-up version of the parish church of a hill town, which is what happens when a city hires the man with the treatise.

There is a shift buried in that pairing, and I think Priene sits exactly on the hinge of it. In the older towns of this coast the gods took the best platform and the temple set the skyline; afterwards it was the tomb of a deified ruler that did.[28] Pytheos built one of each. He raised Athena onto the highest terrace at Priene according to the rule, and then he went south and built the thing that replaced the rule, and the word we got out of the second job is the word we use for the mortuary architecture of men who are not supposed to be gods and get treated as gods anyway.

Good news, by decree

The next word Priene lent out was not architectural. The provincial assembly of Asia met at Smyrna and resolved to reorganise the calendar so that the year began on the birthday of Augustus, the proconsul Paullus Fabius Maximus issued the edict that went with it, and copies of the whole dossier were set up in a number of cities; the copy people quote is the one from Priene.[29] The administrative content is a date change. The wording is the reason anybody has heard of it.

The operative clause says that the birthday of the god was the beginning of the good tidings for the world that came by reason of him, and the Greek word doing the work in that phrase is *euangelia*, in the plural, good-news announcements.[30] That word, in the singular, is the word that comes into English as gospel and into Russian as Евангелие. Its earliest conspicuous appearance on this coast is as a piece of provincial administrative flattery attached to a proposal about when the fiscal year should start.

Mark opens his book with the singular of the same word, and whether he chose it in order to answer the empire in the empire's own vocabulary is an argument still being had by people who read Greek for a living.[31] What nobody has to argue about is what the word meant before anybody used it about a carpenter's son. Good news, in this register, is not a feeling. It is an announcement a provincial assembly makes about a birth, with a calendar attached, because the birth has altered the paperwork. The committee at Smyrna was not being poetic. It was explaining why everyone's tax year had moved.

The altar face down in the floor

Late in the life of the town, somebody in the western quarter took the courtyard of a Hellenistic house, turned it into a hall with a niche in the east wall, cut a new entrance onto West Gate Street and put three high steps in front of it.[32] The nineteenth-century excavators published the building as a house church. It was identified as a synagogue decades later, and one modern Greek publication is still printing it as a church.[33]

The marks are all at eye level and all on the way in. On the north face of the western pillar of the old porch, a seven-branched lampstand sixty-five and a half centimetres high with a citron cut beside it. On a bossed block in the street wall by the door, a second one about seven centimetres high, scratched. On the threshold of the house immediately to the east, a third, with a ram's horn or a palm frond next to it.[34]

There is a long-running idea that the Jews of Priene kept their synagogue discreetly tucked down a side street, and the building answers it by having its front door on the main street with the steps up to it and a menorah carved where you put your hand.[35]

The floor is the part that stops you. In its second phase the hall was cut down to roughly a quarter of its size, and the new pavement was laid out of whatever was lying about the neighbourhood, including an altar of Athena Polias, sawn in half and set down face down, with its inscription against the earth.[36] The goddess Pytheos had raised onto the best terrace in the city, and whose temple a king had paid to dedicate and had his name cut into, ended as paving in a house down the hill, legible side down, in a room full of people who had no use for reading it.

The other inscribed surface worth knowing about is a wall of a room where boys exercised. The walls of the ephebes' hall in the lower gymnasium carry something over seven hundred short texts, each of them a name and a father's name in the genitive with a formula in front meaning "the place of".[37] Not dedications, not honours, not epitaphs. Pegs. Seven hundred young men of a small town recording, in the one public building where they had standing, that a particular stretch of wall was theirs, and the record held long enough that we are reading it.

The town stopped in the ordinary way for this coast, in instalments, by geology. An earthquake closed the upper gymnasium, which was later patched up as a bath. A rockfall took out part of the lower one and the palaestra was abandoned.[38] The lower city emptied, and what was left of Priene in the Byzantine centuries was a small fortified post on the rock above the dead grid.[39]

And the sea left. Priene now sits fourteen to sixteen kilometres from the nearest salt water, on terraces looking south over a flat green plain that was the gulf Bias proposed to sail out of.[40]

Nobody stormed it to make that happen. The Persians enslaved its people, the Cappadocians burned its fields, the Attalids leaned on it, the Romans administered it, and not one of them laid a finger on the gulf. What took the gulf came down the valley the whole time, free of charge, carrying the mountains to the sea a load at a time. It never had to camp, never asked for terms and has not stopped. It is the river, and on this coast the river is the besieger that won.

What to look for

- The five re-erected columns of the temple of Athena Polias on its terrace, and the fallen drums lying around them.
- The anta block, in place from the first building phase, carrying the incised drawing of the gable at a scale of one to forty-eight.
- The joint faces of fallen blocks: clamp cuttings and dowel holes, and the recessed working on the bedding surfaces.
- The bouleuterion: seats on three sides, sixteen rows on the north and ten on each of the others, the altar on the floor in the middle, and the piers along the three sides that carried the timber roof.
- The theatre, on the slope above the agora.
- The agora, with the Sacred Stoa along its north side, and the exedrae that face out onto the street rather than in onto the square.
- The stepped cross streets, the cut rock at the terrace edges, and the retaining walls.
- A prostas house: the porch and the main room on one axis, with cisterns and drains.

- The synagogue in the western quarter on West Gate Street: the three steps at the entrance, the menorah and citron on the pillar, the niche in the east wall, and the reused stele standing in front of it.
- The walls of the ephebes' hall in the lower gymnasium, covered in short "the place of" inscriptions.
- The view south from the terraces over the Maeander plain.

CHAPTER 14: MEANDER

The river is the Büyük Menderes now and it was Μαίανδρος then, and it is the reason English has a verb for going on at length without arriving anywhere. The pattern came out under the same name, the squared continuous border that runs round the rim of a Greek pot and along the hem of a Greek coat, and Russian took both senses in the one loan, меандр for the bend in a river and for the ornament.[1] That one is clean. Dictionary etymology, no argument, a river on this route lending a word to half the languages of Europe for a thing it does with its own channel.

One piece of housekeeping first, because the map actively misleads here. There are two Menderes and they are not a pair. The Büyük Menderes, the big one, is the Maeander of the classical texts. The Küçük Menderes, the little one, is not a junior Maeander and never was: it is the ancient Cayster, a different river in a different valley with a different delta, which I take to have picked up the name from Turkish speakers describing how it behaved rather than where it came from.[2] Two rivers, one habit, and between them they account for most of the stranded harbours in this book.

Every city on this coast was besieged and most of them were sacked, and in each case you get a year, a commander, a siege technique and somebody to hold responsible. This chapter has none of that. There is no year in which the sea left, no morning on which anybody noticed, and nobody living through it who set down what was happening as a process, because it moved at the rate of a centimetre or two in a year, charged nothing, never asked for terms, and has not stopped.

Everything known about it was recovered out of mud by people with a drill, because the cities it beat did not write a word of it down.[3]

What the water is actually carrying

A river coming off a mountain basin is not water with some dirt in it. It is a delivery system, and what it is delivering is the catchment. Rock weathers, rain moves the product downhill, the river holds it in

suspension for as long as it is moving fast, and the moment it meets standing water and slows down it puts the whole load on the floor. A coastline with a long open swell can take that and redistribute it. A gulf cannot. A gulf is a container, and the one safe thing to say about a container is that it will eventually be full.

The containers here were enormous, which is the part that is hard to hold in your head. At the maximum marine transgression around seven thousand years ago, the sea came up the valley of the Küçük Menderes something like twenty kilometres inland. Belevi, which sat on that water, is about eighteen kilometres from the present coast.[4] So the question is not how a harbour silted up. The question is how you fill a twenty-kilometre arm of the Aegean with suspended Anatolian hillside, and the answer is that you do it slowly, and then considerably faster.

The ground was not holding still either. The whole valley floor is a graben, a block of crust dropping between two faults, and it is still dropping, at something like seven tenths of a metre per thousand years, which is a correction the geoarchaeologists have to apply before any of their other numbers mean anything.[5]

Relative sea level in this delta peaked five or six thousand years ago and was at a low about three thousand years ago, which is to say roughly when people started building ports on it. Two independent processes, the mud coming in and the floor going down, and both of them bear on the same question, which is whether a given basin can still float a ship.

The evidence for all of it is about two hundred holes. A Marburg team put percussion cores through the Büyük Menderes delta, average depths of ten to twenty metres, with radiocarbon dates on plant remains and shells and datable sherds to tie the sequence down.[6] They were explicit about why they went to the trouble: the ancient writers who mention this coast do not allow an unambiguous reconstruction, and the previous attempts to draw the old shoreline from the literature had produced a shelf of mutually incompatible maps. So the coastline of classical Ionia was

eventually established not from Strabo but from a tube of mud with a date on it.

The mole that shut the silt in

The first firm text on the problem is a naval report. In 190 BC the Seleucid fleet was bottled up in the harbour of Ephesus, and Livy describes the mouth of that harbour as being like a river, long and narrow and full of shoals.[7] Note the tense. Not silting, not deteriorating. A harbour entrance that has already become a channel with sandbars in it, described in passing by a historian writing about something else entirely, which is the kind of evidence I trust most, because nobody was making a case with it.

Then Attalos II Philadelphos had a go at it, and this is the only intervention in the whole business whose result somebody bothered to write down. The entrance was wide, and he built a mole across it on the theory that constricting the flow would scour the channel deeper. Strabo reports that the result was the exact reverse, because the tide had previously been carrying the silt back out to sea and the mole now shut it in, so the shoaling spread through the entire basin and right back to the mouth.[8]

The modern reading of that passage is that he had accidentally built himself a settling tank, and the cores agree with it: more than twenty metres of black anoxic marine mud sitting in the harbour.

Twenty metres of airless black mud is not a harbour that filled up. It is a harbour that stopped exchanging water with the sea and died in place. Nothing lived in it to turn the sediment over. And the man responsible was a Hellenistic king with the best engineers money could buy, acting on a piece of hydraulic reasoning that is not even wrong in general terms, since narrowing a channel does increase velocity. It is just that the Cayster was not short of velocity. It was long on Anatolia, delivered in suspension, every year, and a mole is an excellent way to keep what arrives.

Hadrian tried the other end of the problem, which was to stop the river arriving. An inscription says he diverted the Kayster and had a dam built,

sixty feet of it on the right bank of a river called the Manthites, and the stone turned up when somebody laid out a lemon grove on a local road.[9] Which river he actually diverted is disputed, the dam site has never been found, and the specialists suspect his engineers were attempting something considerably larger than the inscription describes. An emperor ordered a river moved, the paperwork for it survives, and nobody can now say where. I would like to know which river he meant, and so would the people who read the stone.

The dredging, and who was filling it in behind them

What makes the Ephesian harbour the best-documented hole in the ancient Mediterranean is that the maintenance left a paper trail. Nero's proconsul tried to clear it, and Tacitus mentions it. Around the turn of the second century a magistrate put up gold for an expansion. Early in that century an archpriest paid out for an enlargement. Early in the next, another one paid to clean it. In the middle of the third century a man named Valerius Festus enlarged it again.[10] That series runs for roughly two hundred years, and every entry in it is somebody with a civic title spending private money on the same unsolved problem.

And here is what was going on behind the dredgers. In the middle of the second century the proconsul had to issue a formal prohibition against tipping heavy loads off the bulkhead of the harbour canal, against sawing up building material over it, and against throwing emery and stone dust into the water.[11] Which tells you that the masons of the greatest emporium in Asia had been using the shipping channel as a convenient place to put their offcuts, and that it took a Roman governor to stop them.

The sewers drained into the same basin, and the cores contain broken pottery in quantities and conditions that read as deliberate dumping rather than as accident or shipwreck, which is to say that the householders were at it as well as the trades.

So the picture is not a city heroically holding off a river. It is a city paying archpriests' money to dig out a basin that its own masons, its own drains

and its own householders were filling in from the quayside, while the river worked the other end. I find that more interesting than a straight fight, because it is the shape every expensive municipal problem takes: the budget line and the behaviour sit in the same institution and never get introduced.

Then the engineering stopped trying to fix the harbour and started trying to work around it. Late in the second century a sophist and benefactor named Damianus built artificial islands offshore so that cargo ships could lie up at them and tranship their loads into something shallow enough to get in.[12]

Read that as a design decision and it is an admission in marble. The function of a port is that a ship arrives and becomes cargo on land. If you have to perform that transfer out at sea and then do it a second time at the quay, you have not built a harbour improvement.

You have built a reason to sail somewhere else.

By the time of the council of 431 a bishop coming in by sea records that he had to go into the city in a small boat, because his own ship could not enter.[13] That is more than six centuries after Livy's shoals, and across the whole of that span the harbour never once worked properly and was never once given up. They kept paying.

The besieger was supplied from inside the walls

Here is the part that changes the story, and it arrives from two separate research programmes on two separate rivers reaching the same conclusion. The sedimentation rates did not just continue. From the first millennium BC they jumped, by something in the region of a factor of ten or more, and in both deltas the people who measured them attribute the jump mainly to the sediment load, which depended heavily on what humans had done to the vegetation cover of the catchment.[14]

The evidence for that is in the same cores, one layer up from the mud. The pollen shows the original oak woodland going into decline and olive and

macchia scrub coming up behind it. The animal bone shows goats and sheep becoming the mainstay. Put the two together and you have the standard Mediterranean sequence: cut the forest, graze the slope, lose the root mat that was holding the soil, and the hillside leaves for the sea in the next heavy winter.

The Marburg team's verdict on the harbours is that the siltation was as much human-caused as natural, which is a strong claim, and they state the limit of it themselves, which is that the data are consistent with human land use as the governing factor and cannot isolate it from sea level and tectonics. I am taking the claim with the limit still attached to it, because the limit is the interesting half.

One site makes the point without needing a river at all. Geomagnetic survey at Miletus suggested that the embayment at the foot of Kalabak Tepe, the south-western hill, had been one of the city's harbours. Coring showed it was a marine inlet that had always been shallow and that silted up in the early Roman period mostly from colluvium off the slopes immediately above it.[15] Not delta mud. Not the Maeander. The hill the city was standing on, coming down into the water the city was trying to park boats in.

Of the four harbours the tradition gives Miletus, only two have been positively identified. A basin by the Southern Market was confirmed by coring as an excellent natural harbour setting whose use appears to have ended in the Roman imperial period, which I think is the bleakest sentence in the whole survey.[15]

The harbour was fine. The sea was the problem.

And the catchment is bigger than the coast. Aphrodisias, a long way inland with no sea connection of its own, drains through the Morsynus, now the Dandalas Çayı, into the Büyük Menderes. Hierapolis and Laodicea drain through the Çürüksu, the ancient Lycus, into the same river. Pretty much every site on this route except Troy and the Dardanelles towns sits in a basin that discharges through one of these systems.[16] Which means the quarries, the terraced olive groves and the goat herds of the inland

cities were in the same plumbing as the harbours of the coastal ones, and the bill went downstream.

Miletus, in the meantime, put the river in its baths. The cold plunge in the Faustina complex took its water from the mouth of a statue of the river god of the Büyük Menderes, with a lion beside him.[17] A city whose harbours the Maeander was in the process of closing carved the Maeander as a benefactor and had him pour the water into the nicest room in town, which is either excellent manners or a failure of institutional memory, and I cannot tell you which.

Myous went first, and nobody could see the queue

The delta came westward from the Söke area in a front, and it took the harbours in the order they stood in. Myous first, then the harbours of Priene, and Miletus last.[18] That is a queue, and the strange thing about standing in one is that no city in the line could see the line, because the thing moved at something like four or five human lifetimes per position.

Myous is the one to look at, because it is the only one where the texts caught it happening. In Herodotus it is a harbour city, named in the same breath as Priene and Miletus. In Strabo the alluvium has turned the water around it into a lake, the place is thirty stades inland, and there is a note about troublesome insects. Pausanias says the inlet became a lake and the Myusians left and went to Miletus.[19] So the first casualty on this coast evacuated to the city that was next in the queue, which nobody at either end had any way of knowing.

And the shorthand everybody uses for Myous is wrong in an instructive way. “The harbour silted up” implies a commercial problem: ships cannot get in, trade declines, the town loses its reason to exist. What the sources actually describe is a habitability problem. The silt enclosed the bay and made a marsh out of it, and people left a town that had become a swamp with mosquitoes in it.[19] They did not move because the ships stopped. They moved because the ground stopped being somewhere to live.

Priene got the slowest version. The eastern bay below its promontory had already turned into a freshwater lake by the middle of the century in which the new town was laid out. The western one still held a lagoon several metres deep, which is the only reason the place had a harbour at all, and that lagoon stayed brackish into the early Roman imperial period and did not go fully fresh until the third century AD or later.[20] Six hundred years of a harbour quietly turning into a pond. I have tried to work out what a city council is supposed to do with information arriving at that rate, and the answer is nothing, because there is no meeting at which it is news.

Miletus got the largest and most absurd version. Its harbours silted through the Roman period, and then the sediment barrier closed off the south-eastern end of the gulf entirely, producing a body of water the geoarchaeologists call the Milesian lake, which is Lake Bafa.[21] The city did not lose a harbour. It lost the gulf, and what is left of the gulf is now a freshwater lake with no outlet, sitting inland behind the delta that cut it off.

The present numbers are worth having, with the warning the people who compiled them attached. Didyma is about three to four kilometres from salt water; the Roman harbour basin at Ephesus five to six; Troy's mound five to seven; the theatre at Miletus eight to ten; Myous twelve to fourteen; Priene fourteen to sixteen; the acropolis of Pergamon twenty-five to twenty-seven.

Every one of those is a range rather than a measurement, and the reason is better than vagueness. You cannot say how far a stranded port now lies from the sea until somebody has decided whether a delta channel, a lagoon or a former gulf counts as the sea, and on this coast all three of those are available within sight of each other.[22]

Fourth on the list, and the list belongs to one report

Now the correction, and it lands on the version I have spent this entire chapter building. The best ranking anybody in my materials has

attempted puts harbour silting fourth. Above it sits the seventh-century combination of Persian invasion, earthquakes and Arab raiding falling on an already thinner civic economy; then the institutional and fiscal change of the preceding centuries, which is what explains why cities that had rebuilt themselves twice could not do it again; then seismicity on its own account. Below silting come the shifts in trade routes, then plague, then climate.[23]

That ranking is one report's own judgement and it says so in terms. It is not a consensus, and the consensus it departs from is a multi-factor model in which the argument is about weights. I am using it because it is the only ranked list on offer and because the argument it rests on is the one that actually settles the question.

The argument is this. The inland cities declined too. Sardis, Aphrodisias and Hierapolis never had a harbour to lose, and they contracted on broadly the same schedule as the ports. Whatever ended urban life on this coast was therefore operating on cities the silt could not reach, and silt cannot be the cause of a process that ran identically in places where there was no silt.

So the honest version of this book's second thesis is narrower and stranger than the one I would prefer to be selling you. The river did not kill these cities. Armies did not kill them either, and neither did any single earthquake, and most of them were sacked at least once and carried on. What the river did was decide what they would be when they stopped being what they had been. A sacked city can be rebuilt, and several of these were. A port cannot be rebuilt as a port once the water has gone, and that is a different category of loss: not fatal, and not reversible.

The last entry in the file is administrative. In 1934 the Küçük Menderes was canalised and straightened, and it now enters the sea farther north than it used to.[24] A public works department did in one season what six centuries of kings, emperors, proconsuls and archpriests could not, which was to tell the river where to go, by which point there was no longer a harbour at either end of it that needed the favour.

What that river built is the plain behind Ephesus, and the oldest surviving description of that plain in Greek, a single line of the *Iliad*, calls it a meadow.[25] What used to stand at the edge of it, with water close enough to matter, was the temple of Artemis. The earliest temples there were on or beside a beach. In the middle Hellenistic period the sea was still within about a hundred metres of the sanctuary, the stream beside it ran brackish and carried marine fish, and a fourth-century poet thought the gilthead bream out of it was worth naming in a food poem.[26] The sanctuary had a harbour of its own, and the delta walked past it and took that too, by about 100 BC.

The building did not go the way its harbour went. The river arrived at that sanctuary a couple of centuries too late to take any credit for the famous disaster on the site, which was not geology and not an earthquake. It was arson, by one man, who did it in order to be remembered, and both English and Russian still carry an idiom named after him for exactly that ambition.[27]

CHAPTER 15: HEROSTRATIC

What stands on the site of the temple of Artemis is one column, and the column is a modern assembly, drums from more than one building stacked back up so that the eye has something to measure against. Around it there is a flat waterlogged field of foundation platform and scattered marble, below the hill, several metres lower than the ground you walk in on. Storks nest on top of the column. That is the surviving elevation of the building that ancient writers put on every list of the wonders of the world, and the honest description of the view is a tall pole in a puddle with a bird on it.[1]

Pliny thought it would take a whole book to set out the details of it, and called it the largest temple of antiquity, which is the sort of claim a Roman encyclopaedist makes and nobody can now check against a wall.[2] The distance between that reputation and this pole is the largest on the whole coast, and the interesting question about it is what managed to cross it. Buildings do not travel. What this one sent out of itself was money, a method for moving stone, and the name of the man who burned it down, which is still in working use in two European languages.

The ground had a name before any of that. The hill above the sanctuary was most probably Apasa, the capital of Arzawa, which was the polity the Hittite archives dealt with and campaigned against on this side of Anatolia, and the shoreline in that period lay close enough that the hill, the future sanctuary and the sea were within a few hundred metres of each other.[3] Bronze Age Apasa and the Roman city are different places with the same name, and the sanctuary sits between them.

The Greeks who arrived later needed an origin story and were offered a good one. Strabo says the name of the city and its people came from the Amazons, and the ancients explained the word Amazon as meaning breastless, from a practice of removing the right breast so that it would not foul a javelin throw.[4] That etymology is a Greek invention, and the giveaway is in their own museums: Amazons in Greek art have two breasts, every time. A culture that cannot account for a name will invent a

surgical procedure rather than leave the gap open, which is worth holding on to, because almost everything on this site turns out to be an argument about names and about who ended up with the credit for them.

The one law in history that worked backwards

A man set fire to the temple. Strabo gives it in half a sentence, that the building was set on fire by a certain Herostratus, and goes straight on to what the citizens did about it, which tells you how much the destruction of a wonder of the world rated against the administrative question of rebuilding it.[5] The ancient tradition is unanimous about the motive. He did it to be remembered. There was no grievance, no faction, no god to appease and nothing to loot in a burning building. He wanted his name attached to the largest structure in the Greek world and arson was the only way he could afford.

So the Ephesians passed a law forbidding anybody to say the name.[6] As policy it is coherent: the crime was an attempt to acquire fame, so remove the fame and the crime is retrospectively pointless, and the next man with the same idea has nothing to aim at. It is also the single worst-designed piece of legislation on this coast, because a ban on a name is a public statement that a name exists and is worth banning, and it has to be transmitted to be enforced. You cannot instruct people not to repeat something without repeating it.

The measure of its success is the half sentence in Strabo, written three centuries later by a man who was not Ephesian, had no stake in the matter, and produced the name without apparently knowing he was breaking anything. He is not alone. The ancient writers mention it freely, so either the law lapsed or it never reached beyond the city, and in either case the result is the same. The one thing the arsonist wanted is the one thing that got out of the building intact.

It is still out. English has the adjective Herostratic for fame won by destruction, which is a dead word kept alive by crossword compilers. Russian has it as a live phrase, геростратова слава, Herostratic glory,

with the variants слава Герострата and лавры Герострата, and Ushakov's dictionary glosses it as the fame of a vandal and a destroyer, the kind of celebrity acquired through a crime.[7]

I want to be exact about what that means, because the whole lesson is sitting in one dictionary entry. A man set out to be remembered, and he is remembered in a language that did not exist when he struck the light, by people two thousand miles from the site who will never see it, under a dictionary entry that says in effect: this is the man we name when we need a word for precisely what he was trying to do.

The tradition adds that the temple burned on the night Alexander was born, which is in Plutarch and is told here as tradition and nothing more.[8] It is too neat, and the direction of the neatness is the tell: the coincidence does no work for the arsonist and a great deal of work for the king, which is usually a sign of who the story was assembled for.

What the fire actually did is worth being concrete about, because everything that happened next depended on it. A temple of this kind has a marble colonnade and platform and a timber roof. Fire takes the roof, the fittings and whatever is stored inside, and leaves the marble standing, cracked in places, and available. The building was not erased. It was reduced to a very large quantity of second-hand architecture with a hole in the middle of its finances.

The king who offered to pay, and the answer he got

Strabo says how the rebuilding was funded, and the detail is the best thing in his whole Ephesian chapter. The citizens collected the ornaments of their women and their own private possessions, and they sold the columns of the burnt temple.[9] So the replacement for a wonder of the world was financed out of jewellery and salvage, by subscription, in a city that had just lost its largest asset, and somewhere there is a buyer who got a bargain on a hundred-odd archaic column drums that had been in a fire.

Then a king made an offer. Strabo takes it from Artemidorus, who was Ephesian and in a position to know the local version: Alexander proposed to pay all the costs, those already incurred and those to come, on one condition, which was that his name should appear in the inscription.[10] That is a blank cheque for the most expensive building project in Asia, handed to a city that was passing round a collection box.

They turned it down. The answer that got remembered was a piece of civic diplomacy so well aimed that it is still doing damage: one of the Ephesians observed that it was not fitting for a god to dedicate offerings to gods.[10] He called the king divine in order to decline the king's money, and he did it in terms the king could not argue with without demoting himself. I have read a great many refusals in the course of this book and that is the best one.

Now put the two episodes side by side, because they are the same episode. A man destroyed the building in order to get his name attached to it, and a king offered to rebuild it in order to get his name attached to it, and the city refused the king and could not get rid of the man. The inscription over the door was the only thing on that site that could not be bought, and it was also the only thing anybody wanted. Everything else about this temple, the marble, the gold, the deposits, the columns, had a price and was at various times sold.

The rope

Before any of that, the temple had already been used as a legal instrument, in the scene Herodotus gives it. Croesus came to the Lydian throne, and the first Greeks he attacked were the Ephesians. Besieged, they dedicated their city to Artemis, and the way they performed the dedication was to attach a rope from the temple of the goddess, which stood seven stades off, to the city wall.[11]

A rope will not stop an army and nobody involved thought it would. It was a conveyancing document. The sanctuary had asylum, meaning that violence inside its boundary was sacrilege rather than war, and the rope was an argument that the boundary now ran all the way to the wall and

enclosed everything inside it. The Ephesians were not defending the city. They were transferring the title to a goddess and inviting the Lydian king to take the matter up with her.

He took the city anyway, and then he paid for the next temple. Herodotus says that at Ephesus the golden oxen and most of the columns were offerings of Croesus and were still standing in his own lifetime, and a fragmentary dedication naming Croesus as king has been recovered from the archaic building.[12]

He besieged a city, annexed it, and then funded the sanctuary the city had tried to hide behind. That is neither a contradiction nor generosity. It is the correct read on what the Artemision was: not the Ephesians' building but the region's, a thing a Lydian king wanted his name on for the same reason a Macedonian one did two centuries later, with the Ephesians in the role of the people who held the keys and swept the floor.

His money is still a figure of speech. Russian says rich as Croesus, богат как Крез, and Mikhelson's phrasebook gives the full proverb, rich as Croesus and living like a dog, which is a sharper thing than the English version and does not appear to be about Croesus at all.[13]

There is a complication in the siege that I like better than the siege. The man running Ephesus at the time was Pindarus, and Pindarus was Croesus' own nephew, which makes a hostile assault on the place an odd way for a king to spend a campaigning season, and makes the rope look less like a defensive measure than like a move in a family argument conducted through lawyers.[14]

What Pindarus was, in Greek, was a tyrannos, and that word is not securely Greek. Its earliest surviving use is in Archilochus, about Gyges of Lydia, so it enters the language attached to a Lydian king. An Anatolian source has been proposed, including the Luwian administrative title tarwanis, and the standard etymological dictionary of Greek files the word as pre-Greek, meaning borrowed from something nobody can now name.[15]

So the word that every European language uses for one-man rule, Russian included, where it is тиран, arrives in Greek pointing at Lydia and then refuses to say where it came from before that. The Lydian connection is a real argument and a disputed one, and I am not going to flatten it, because the unflattened version is the better story: Europe borrowed its vocabulary for autocracy from a people whose language it had already stopped reading.

Everybody's strongroom

Underneath the archaic temple there was a deposit, and when it was dug out it held more than a thousand items, among them electrum coins, including the earliest inscribed ones, the pieces that carry the name Phanes.[16] Those are, on the mainstream view, among the earliest coins in the world. The oldest money anybody has recovered did not come out of a marketplace or a palace or a counting house. It came out of a votive deposit under the floor of a temple in a flood plain, where somebody had put it to be out of reach.

Electrum is the gold and silver alloy, and the old picture was that the Lydians panned it out of the Pactolus and struck it as it came. Metallurgy killed that. The analyses show alloys of controlled composition, which means the metal was adjusted deliberately before it was struck, which means that from the very beginning the point of a coin was not the lump of metal but somebody's guarantee about the lump of metal.[17]

The weights run to a standard, a stater of about fourteen grams with fractions down to very small pieces, and the live argument about what the fractions were for is an argument about whether early coinage was for buying things at all. The stronger case is that it was for paying people: soldiers, mercenaries, officials, obligations to the state.[18] The instrument the entire planet now runs its commerce on seems to have been invented as a payroll system.

And it was not inevitable. That is easy to miss, because money feels like a stage of development that every society must pass through on the way to being complicated. It is not. Pharaonic Egypt cut the pyramids, ran a

bureaucracy, taxed a river valley and administered an empire for three thousand years without coins. The Maya cities did their accounting, their tribute and their long-distance trade in jade and cacao and obsidian, and cut their inscriptions at Tikal and Quiriguá, with no coinage either. Both of them were doing state-scale arithmetic. Neither of them needed this. Coinage is not a rung on a ladder. It is a local invention of western Anatolia and its Lydian hinterland that happened to go everywhere.

The habit of depositing outlasted the deposit. Xenophon, dividing the tithe from a sale of booty on the Black Sea coast, sent the share belonging to Artemis of the Ephesians to Megabyzus, the sacristan of the goddess, and then went off to a war; Megabyzus later gave it back to him at Olympia, and Xenophon spent it on a small temple of Artemis in the Peloponnese, beside a river that carried the same name as the one at Ephesus, the Selinus.[19] A soldier's escrow account, held across years and a change of allegiance by a eunuch priest, settled in full at an athletics meeting, and reinvested in a franchise.

Nineteenth-century scholarship, reading the temple inscriptions, concluded that the administrators lent the deposits out, and put it in the language of its own period: Artemis was a queen whose dower was the wealth accumulated in her temple.[20] That is a Victorian sentence and it is also a balance sheet. The goddess had capital, liabilities and a credit rating, and her credit rating was the entire security model, because the only thing stopping anybody from taking the money was the belief that she was watching.

Two more deposits, of a different kind. Heraclitus is said to have put his book in this temple, which Diogenes Laertius reports and which I take for biographical legend rather than archive practice, and the sentence everybody can quote from him, that everything flows, is not a sentence he wrote: the river fragments that are genuinely his say something harder, and the slogan is a later summary made by people tidying him up.[21]

The city's other literary export was Hipponax, credited by ancient metrists with the limping iamb, a line built to come down wrong on

purpose, and by one source with the invention of parody.[22] So the most famous thing said by the most famous Ephesian is a paraphrase of a book that was kept in a bank, and the next most famous Ephesian built a career out of getting the last foot wrong deliberately.

Then the security model was tested. Mithridates sent orders to the cities of Asia to kill the Romans and Italians among them on an appointed day, and at Ephesus the Italians who had taken refuge inside the sanctuary were killed inside the sanctuary.[23] Appian reports it as part of a province-wide butchery. Five centuries of asylum, backed by nothing but the conviction that the goddess would take it personally, and it held until the day somebody offered the Ephesians a cancellation of debts.

The receipt for that survives too, and it is the part I find hardest to read with a straight face. An inscription recovered from the site has the people of Ephesus asserting that they had been compelled to act against their will and were, at heart, the devoted friends of Rome.[24] It is cut in marble, at public expense, by a city that had recently killed people at an altar, and it is the oldest version I know of the document that begins: in the circumstances we had no choice.

How you move a column across a swamp

The practical problem at this site was never the carving. It was the plain. The quarries were close by, which is the only reason the building is the size it is, but the ground between them and the sanctuary was soft, and a loaded cart on soft ground puts its wheels into the ground.[25]

Chersiphron's solution, which Vitruvius describes in the detail of a man specifying parts, was to stop using wheels and use the column. He built a frame of four timbers, two beams as long as the shaft joined by two cross-pieces, leaded iron pivots into the ends of the shaft, and fitted wooden rings on the frame to take the pivots. Oxen were yoked to the frame. The pivots turned in the rings, the shaft rolled along on its own axis, and the frame simply walked alongside holding the ends.[26] He did not carry the column across the plain. He made the column into the roller, and

Vitruvius compares the result to the stone roller used for flattening the walks in a gymnasium.

His son Metagenes had the architraves to move, which are not round and will not roll, and he solved it with the same idea inverted: wheels about twelve feet across, with the ends of the architrave enclosed in the middle of the wheels on the same pivot-and-ring arrangement, so that the block travelled as its own axle.[26] Two generations, one principle, applied once to a cylinder and once to a box.

What convinces me that this was understood technique and not a lucky workshop habit is the failure attached to it. Vitruvius records that in his own day a contractor named Paeonius undertook to bring a base for a colossal statue from the same quarries, and built wheels about fifteen feet across with spindle-like crossbars set a foot apart around the stone, with a rope wound round the bars for the oxen to haul.[27] The thing drifted off the line continually, had to be dragged back, and he ran out of money and did not finish.

The difference between the two machines is steering. A rope wound round a frame pulls the stone wherever the rope happens to be tightest, while a shaft turning on leaded pivots is constrained to its own axis and can only go forward. The Romans knew which of those two was engineering, and the way we know they knew is that one of them went bankrupt and somebody thought the reason was worth writing down.

Raising the blocks is Pliny's contribution, and it is the one piece of the operation where the sources go quiet in an interesting way. He says the architraves were got up on ramps built of sand-filled bags, piled until they reached above the capitals, after which the lower bags were gradually emptied so that the block settled into place.[28] That is physically sound, it needs no crane, and it leaves no trace at all once the sand has been carried away.

Then he tells the story of the lintel over the door that would not lie level, and the architect's despair, and the goddess appearing to him in a dream and putting it right overnight. A divine intervention in the middle of a

technical narrative is where an ancient writer parks a trade secret he did not understand, and I would give a good deal to know what the workmen actually did that morning.

The words it gets the credit for

A place that exported coinage, a construction method and an idiom gets offered credit for a great deal more, and the false credits circulate better than the true ones, because a false etymology is always tidier. Three of them attach here.

Sardis does not own sardonic, which runs back to a Homeric word for a particular kind of laugh and was later pulled toward Sardinia and a plant growing there that was said to kill you with your face set in a grin.[29]

The magnet is a harder case, because the magnet really is named after a Magnesia, and there were two of them: one in Thessaly and one in Lydia under Mount Sipylus, which is close enough to this coast to be entirely plausible. Lucretius ties the name to the homeland of the Magnetes, which is the Thessalian one, and the dictionaries mostly decline to choose and say only Magnesia.[30] So the lodestone is probably Greek rather than Anatolian, and a region that demonstrably invented money can afford to hand back a rock.

The third is the one that would have been best if it were true. Russian calls the hilt of a sword эфес, which is, letter for letter, the Russian name of this city, and sits in exactly the right semantic field, since Ephesus armed and supplied soldiers for the better part of a thousand years.

It is not from Ephesus. It comes from German *Gefäß*, a vessel or a holder, and it entered Russian along the route that most of Russia's drill-ground and gun-carriage vocabulary entered, which was German instructors and German manuals.[31] The word that looks most like a loan from this place is the one word that is not, and the correction is funnier than the claim, because the genuine list is long enough that nobody needed to pad it.

Here is a real one that nobody repeats. The mountain by the Lydian Magnesia, Sipylus, is where the tradition put Tantalus, who stood in water

he could not drink under fruit he could not reach, and Russian still uses the torments of Tantalus, танталовы муки, in Ozhegov and in Ushakov, for suffering caused by the sight of a desired thing that stays out of reach.[32] The same stretch of Lydia loses its claim on the magnet and keeps a working phrase for frustrated appetite, which may be the most appropriate outcome available.

And one that is stranger than any of them. A funerary inscription at Sardis, bilingual in Lydian and Aramaic, gives the city's name in the Aramaic as SPRD, the same three consonants as the Sepharad that appears exactly once in the Hebrew Bible, in Obadiah, as the place where the exiles of Jerusalem were living.[33] Sardis is the best-supported candidate for that place and the identification is the commonly accepted one.

The name later came to mean Spain, which is why Sephardi means what it means today, and how a Lydian capital's name travelled the length of the Mediterranean to settle on the Iberian peninsula is explained by nobody. Croesus' city supplied the name for half of world Jewry by a route that no scholar will draw, and that is a better outcome than the magnet.

Six metres of mud

The end of the building was not dramatic and did not come from an army, although an army helped. Seaborne raiders out of the Black Sea reached this coast in the third century AD and the city and the temple were both badly damaged, which is where the ancient notices stop.[34] What finished the structure was the local construction industry. The marble was burned in lime kilns, and large quantities of it went into the Byzantine church of St John and into the İsa Bey Mosque on the hill above.[35] A wonder of the world was not destroyed. It was spent, locally, over centuries, by people who needed mortar and had a quarry already cut to size.

It then went missing, which is the detail that stops me every time. The largest temple in antiquity, in a city whose name every educated European knew, and by the nineteenth century nobody could say which field it had stood in. The man who found it was John Turtle Wood, an

engineer on the Smyrna to Aydın railway, who knew the ground professionally and spent six years on the search at first partly at his own expense.[36]

His method was better than his luck, and it is a nice piece of reasoning. Rather than trust the ancient geographers, whose descriptions were too vague to dig against, he went to the theatre first on the grounds that theatres are where inscriptions accumulate, and he came out of it with decrees of the people of Ephesus concerning the temple, one of which set out the ritual in detail, with lists of the votive objects to be carried in procession out through the Magnesian Gate to the great theatre and back again through the Coressian Gate.[37]

So he had the processional route, in writing, from the temple's own administration. He traced the roads running out of both gates, chose the one that showed the greater wear on the reasoning that the one the crowds used was the one that went to the temple, and followed it to a massive wall that turned out to be the peribolos of the sanctuary.[38] He found a wonder of the world by following the footprints of a religious procession, written down by its own clerks and thrown into a theatre.

The temple was five or six metres below the surface of the plain. He dug there until the mid-1870s and took out the marble pavement, column drums more than six feet high, one base still attached to its plinth, traces of vermilion and blue paint and a single inserted fillet of gold.

And a few feet below the pavement, under the foundations of the cella wall, he came on a layer of charcoal four inches thick, sandwiched between two layers of a substance he could only describe as having the consistency of glazier's putty, which is the layer of charcoal Pliny had said was there.[39] A Roman encyclopaedist's note about the footings of a building he had never seen turned out to be a works report, and the man who confirmed it was a railway engineer who had read him before putting a spade in.

Nearly everything portable went to London. The British Museum has the jug containing the coin deposit from the sanctuary, archaic marble heads,

votive ornaments and figurines, and a sculpted column drum that is the most complete surviving piece of the temple's decoration, although that drum belongs to the rebuilt temple and not to Croesus' one.[40] What is left of Croesus' columns is fragments, split between London, Vienna and Selçuk. The site kept the platform, the mud and the marble that was too broken to be worth a crate, and the one column, which is not a column but a stack of drums from more than one building, put back up in modern times because a site like that needs a vertical.

And the goddess walked out of it unharmed, which is the part the building's own history cannot account for. The temple was burned by one of its own citizens, sold off in pieces by its own congregation, refused to a king who offered to pay for it, robbed of its asylum, burned for lime, quarried for a church, lost in a field and crated to three European capitals.

Her name went the other way. The city that outlived the sanctuary advertised itself as her temple-keeper, put her on its coins for the better part of a thousand years, and when a visiting preacher suggested that gods made with hands are not gods at all, the thing it shouted for two hours in its theatre was not the name of the temple, or of the architect, or of the arsonist. It was hers.

What to look for

At the Artemision:

- The single standing column, assembled from drums of more than one building, and the storks' nest on top of it.
- The foundation platform, with the waterlogged ground around it and the standing water in the hollows.
- The level of the ancient pavement against the level of the modern field, and the drop from the approach road down to it.
- Scattered marble fragments and column drums lying where they were left.

- The line of sight from the platform up to the hill above, with the church of St John and the mosque on it, which is where a good deal of the temple's marble went.

In the Ephesus Museum at Selçuk:

- The two statues of Ephesian Artemis, with the high polos headdress and the rows of protuberances across the chest.
- The hall of finds from the Artemision.
- The ivory frieze.
- The coin cabinet.

CHAPTER 16: GREAT IS ARTEMIS

The man who started it was in the silver trade. Acts calls him Demetrius and says he made silver shrines of the goddess, which is to say he ran a workshop turning out small portable versions of the most famous building and the most famous image in Asia, for people who had travelled a long way to see both and wanted to leave with something in their hand.

When he called a meeting of the men in his line of work he did not open with the goddess. He opened with the figures. A preacher had been going about Ephesus and most of the province saying that gods made with hands are no gods at all, and the first conclusion Demetrius drew from that, in front of a room of craftsmen, was that by this business we have our wealth. The temple of the great goddess being counted as nothing came second.[1]

That is the running order of a trade dispute. It is not the running order of a religious one, and anybody who has sat through a meeting called by a man whose margins are under pressure will recognise the shape of it: the threat to the livelihood, then the threat to the thing the livelihood is attached to, in that sequence, because the second one is what you can say out loud in the street.

The crowd went where crowds in this city went when they wanted to be heard, which was the theatre, and what it shouted there for two hours was not the name of the temple or of the trade. It was Great is Artemis of the Ephesians.[2] The religious slogan everybody can quote is a picket line.

The man who stopped it did not argue theology either. The city clerk pointed out that Ephesus was the acknowledged temple-keeper of the goddess, that the accused had robbed no temple and blasphemed nothing, that the courts were sitting and there were proconsuls to hear them, and that anything still outstanding could go to the regular assembly, which was due anyway.[3] Then he added the sentence that actually emptied the building, which was that a city with a riot in it was a city Rome might want to ask questions about. Two hours of the goddess's name, brought to an end by a civil servant citing the agenda and the legal exposure.

The shouting is not the interesting part, because the economics underneath it were sound. The goddess was the city's product. She was on its coins for the better part of a thousand years, her sanctuary drew money and deposits and visitors from the whole province, and the small objects that came off the back of all that were a manufacturing sector with workshops, apprentices and a hierarchy of suppliers.[4] Demetrius was not defending a belief against an argument. He was defending a supply chain against a competitor who had worked out, correctly, that the demand side could be talked out of it.

Every governor tried his cases next to a dead one

Ephesus was where the Roman governor of Asia lived. Not an administrative abstraction: he had a residence here, probably the imposing house above the theatre that later acquired a large apsidal hall convenient for hearings, and he spent several months of each year in the city before going out on circuit to the other assize towns.[5] A governor was first and last a judge. He heard every important case himself, and because he heard them in person and in public, the room he heard them in mattered to everybody who had an interest in what the Roman Empire looked like from the front row.

Here is the thing nobody built. No assize city in the province ever put up a building whose purpose was the governor's court.[6] Legally there was no need, because what made a place a court was his body, his chair and his insignia, and officials were encouraged to sit in the open where a crowd could gather and watch. So the greatest display of Roman authority available in the province took place, every year, in premises the province had designed and paid for and furnished to its own taste. Rome supplied the judge. Ephesus supplied the set.

At Ephesus the set was a small square called the Triodos, where three streets met beside the lower market, and the governor's auditorium opened onto it.[7] On one side stood a monumental gate put up by two

freedmen and crowned with statues of the family of Augustus. On another, a loggia for ceremonies.

Statues of emperors stood on every side of the space, which is exactly the association a visiting magistrate wanted, since an imperial statue functioned as a proxy for the emperor and standing among them made a governor look like an extension of the man himself. The square sloped gently down toward the fourth side, so that spectators stood above the proceedings in something close to a small theatre.

And on that fourth side, facing him across the plaza he tried his cases in, was the building everybody photographs. The Library of Celsus is a two-storey marble façade of paired columns and deep niches, and what it is, underneath the photograph, is a tomb.

Tiberius Julius Celsus Polemaeanus was a Sardian by birth who had made a long career in Roman service and finished it as proconsul of Asia. He settled at Ephesus late in life, the council authorised his son to build a library on the Triodos that would serve as his grave, and he is under the floor at the back of it, in a vaulted chamber, in a garlanded sarcophagus that has never been moved.[8]

The façade is not decoration, it is an argument, and the argument was aimed at a specific reader. Two equestrian portraits of Celsus flanked it. Above, four statues of the dead man and his son. Below, four personifications on inscribed bases: Wisdom, Excellence, Thoughtfulness, Knowledge.[9] Those are the qualities any cultivated man in public service would claim, and they are also, precisely, the qualities a provincial litigant hopes for in the official hearing his case. Celsus himself, as proconsul, had tried cases a few metres from where his bones ended up. Every proconsul after him did it with the four virtues of a predecessor carved at eye level across the square.

The council took a hand in the building, which is the part that settles the question of who the message was for. Celsus's son died soon after his father, so much of the library was actually put up under the direction of

the city council, with the money coming from Tiberius Claudius Aristion, who was the great benefactor of the age.[10]

A rich family's private mausoleum became a civic project, in a spot the civic body had chosen, carrying a list of virtues the civic body had approved, in front of the chair where Rome sat down to judge Ephesians. The governors read it as a monument to the honour the city paid men like them. The notables of Ephesus read it as a monument to the very few governors who had learned to behave. Both readings are available. Only one of them was carved in stone.

Cut into one of the high steps of that building, on the second step from the top, there is a seven-branched menorah.[11] Nobody knows who put it there or exactly when. It is the only well-documented one on the site, it was noticed when the Austrians re-erected the façade, and the block it sits on was later covered by a fountain, which is how it survived.

Celsus is not the only person buried in the middle of this city, and he is not the most awkward. Beside the main street there is a small octagonal tomb, and the woman usually placed in it is a sister of Cleopatra, killed on Antony's orders inside the goddess's sanctuary. Antony had come ashore here a few years before that in a Dionysiac procession and been hailed as the god himself, and he and Cleopatra wintered in the city before Actium, after which Ephesus paid the price it always paid for having backed the loser.[12] Usually placed is as far as the tomb goes. The octagon is there, the killing is in the record, and the line between them is a suggestion nobody has closed.

Thirty-one gods, carried downhill every other week

A Roman governor arriving at Ephesus came in by sea, and the city met him on the quay and walked him into town along the colonnaded avenue from the harbour to the theatre.[13] There was not enough room on the quays for the whole citizen body, so the parts of it that would normally have assembled outside a gate stood behind the colonnades instead, which produced an effect no other city on this coast could manage: a man

walking up a straight line of columns with a straight line of citizens behind them, arranged by group, in white, for half a mile, into a theatre holding more than twenty thousand people.[14]

The theatre was where the city performed being a city. Seating was by group, and the groups were marked: the council had its own wedge in the lowest tier, and so did the gerousia, the young men of the ephebe class, the civic tribes, the priests, the sacred victors and the boys.[15] A visitor taking his seat was looking at a diagram of the social order with the people standing in for the labels. It is worth holding on to that when you think about the riot, because the mob that rushed in to defend the souvenir trade rushed into a building whose furniture told everyone present exactly where in the city they ranked.

The marking was done with silver. A Roman knight of Ephesus named Gaius Vibius Salutaris endowed a foundation whose text was cut up on a wall of one of the theatre's side entrances, and what he endowed was thirty-one images in gold and silver: gods, emperors, heroes and personifications of the city's institutions.[16] They were kept in the Artemision. At each meeting of the assembly and at a number of festivals, which worked out at roughly once a fortnight, a troop of ephebes carried them out of the sanctuary, down the city's main street and into the theatre, where they were set up on permanent bases over the blocks of seats.

So the city that rioted over a man who said that gods made with hands are no gods had a standing arrangement, financed in perpetuity by one of its richest citizens and inscribed in public, under which teenagers from the best families carried thirty-one hand-made silver and gold gods downhill every other week and stood them on plinths above the audience. Demetrius was not a fringe operator in a devotional backwater. He was in the same business as the city's most admired benefaction, at a lower price point.

The route the boys took is the street everybody walks now, and it is called after a priesthood. The Kouretes began in the myth as a band of young

men who banged their spears on their shields to frighten Hera away while Artemis was being born. By the Roman period they were a college drawn from well-off Roman citizen families, their membership lists were cut on the walls of the town hall, and more than forty inscriptions from that building record who administered the mysteries and how they wished to be remembered for it.[17]

Augustus had moved them off the sanctuary's ground and into the civic offices and cut the temple's legal reach back to its old boundary, and the priesthood that came out the other end linked its reverence for the goddess to its reverence for the emperor, as a matter of routine, in writing.[18]

Which brings in the other competition, the one conducted between cities. Pergamon got the province's first temple to Rome and the emperor, and Ephesus spent the following centuries catching up and then overtaking.[19] The city called itself temple-keeper of Artemis on its coinage, then twice temple-keeper when it had an imperial temple as well, then three times, and it ran a long and bad-tempered rivalry with Pergamon and with Smyrna over which of them outranked the others. The delegations quarrelled about precedence at the provincial games, which is where everybody could see it happen, and the one thing that reliably suppressed the quarrel was the governor turning up.

The men at the top of that system were called asiarchs, Асиарх in Russian, and whether the title was the same thing as the provincial high priesthood or a separate honour is not settled.[20] What is clear is what it cost and what it bought. These were the people who paid for the games, the oil, the statues and the processions, and the return was standing: with their own city, with the neighbouring cities they were competing against, and with Rome.

At least one woman held the title in her own right. A woman named Flavia Ammion was chief-priestess of the Temple of Asia at Ephesus, prytanis, which was the magistracy the Ephesian year was dated by, twice crown-bearer and sponsor of the games, and her husband held the matching

male offices, and the inscription that lists all of hers mentions him only by name.[21]

There is one more thing the inscriptions say about the capital of Asia, and it is not flattering to anybody. If you count up the tomb monuments in this province whose owners put their status on them, the single group that dominates the built tombs at Ephesus is imperial freedmen.[22] Not the old families, not the merchants, not the magistrates. Former slaves of the emperor's household, who had worked in the administration, and who were the ones with both the money and the reason to say so in marble. In the city where Rome kept its provincial office, the status worth advertising was proximity to Rome's own staff.

What the slope was for

Above the main street, on the hillside, there is a block of seven houses on three terraces, about four thousand square metres of it, lived in from the early imperial period until the third century.[23] The paint is still on the walls, which is why the whole block is roofed now: when the excavators decided not to lift the paintings and the mosaics off the plaster they had to put a shelter over the lot. What is inside is the private half of everything the public monuments were claiming.

Start with the decoration, because it was surveyed properly and the result is more interesting than the pictures. The hierarchy inside each house is consistent: the rooms that mattered got three-zone marble panelling in expensive coloured stone, the secondary rooms got plain local marble or white walls.

And the paintings in all seven units can be attributed to a single workshop, whose range runs from the high-quality work in one unit's theatre room down to hasty scattered flowers in the lesser spaces.[24] One team, one street, every price point. These houses were not furnished over generations by competing patrons of the arts. They were done by the firm, to budget, in a short span, like a development.

The households kept the emperor in the hall. In one unit an altar and an offering table stand in the peristyle courtyard, oriented at a niche in the

room beyond, and in that niche were the portrait busts of Tiberius and Livia.[25] Not a loyal picture in a corridor. A domestic shrine with a line of sight, at the point where a visitor coming in would be standing. In another unit somebody installed a larger-than-life bust of Marcus Aurelius, which most plausibly marks the moment a member of that family entered the Senate: a promotion announced at home, in the place guests waited.

They kept other things too. The owner of one unit was a priest of Dionysus, which is known because his inscribed portrait bust was found where he had put it.[26] One small room in another house was given over entirely to household cult, with two reliefs of the banquet of the dead mounted one above the other, a painted bust of an ancestor beneath them, a snake painted on the facing wall with a graffito beside its tail addressing the gods of the underworld, and an incense burner on the floor to show that the arrangement was in use.[27] A gem engraved with Abraxas turned up in the debris of a third unit. This is a street of magistrates and priests and senators-in-waiting burning incense at their grandmothers in a back room.

And there is a good chance that one of these front doors was Salutaris's. Graffiti naming him were found in situ in the second unit, and in one small room of that house, along with a portrait statuette and other sculpture, excavators found an ivory frieze showing Trajan, the emperor Salutaris particularly venerated.[28]

So the man who endowed thirty-one silver gods and a fortnightly procession to the theatre appears to have lived up the hill with a carved ivory emperor in the room where the family kept its own history on display. The foundation and the frieze are the same gesture at two scales, one for twenty thousand people and one for the people who came to dinner.

The terraces died in an earthquake in the third century and were never rebuilt as houses.[29] That is the useful fact about them. Across the city the same event put eleven major buildings out of action, including the library, the theatre, the stadium, the baths and the markets, and most of those

were patched up and carried on. The luxury housing was not. Somebody did the arithmetic on a hillside of marble-panelled dining rooms and decided against, which tells you more about the end of a certain kind of money in this city than any inscription does.

The only community in the city with its rights in writing

Every group in Ephesus had privileges it had to keep arguing for. One of them had the arguments written down and kept the paperwork, and because Josephus copied the paperwork out, the Jewish community of this city is the only part of its population whose legal position can be read in the documents that created it.[30]

The problem was practical and it was always the same. Roman citizens were liable to conscription in a crisis, and in a crisis the Jews of Ephesus were liable with everybody else, and the reason that was intolerable was set out to the Roman commander in Asia by an envoy from Jerusalem, who explained that they could not serve because

> they may not bear arms or march on the days of the Sabbath; nor can they obtain the native foods to which they are accustomed.

The exemption was granted, first for Roman citizens among the Jews at Ephesus and then for all the Jews of Asia, and the city was instructed to pass the ruling on to the others.[31] That is the model for everything that follows. A local pressure, an appeal over the head of the city, and a Roman official deciding in favour of the smaller party because toleration was cheaper than trouble.

The decrees that come after it read like a list of exactly what the city had been trying to stop. Nobody was to be hindered from keeping the Sabbath or fined for keeping it. Nobody could be summoned to court on the Sabbath or on the afternoon before it, which closed off the trick of forcing

a man to choose between the law he lived under and the law he could get justice from.[32]

And on the money, Marcus Agrippa ruled for the Ephesian Jews that anyone who stole their sacred funds, the Temple tax being collected here for shipping to Jerusalem, would count as having robbed a sanctuary and would forfeit the right of asylum.[33] Read that in this city specifically. Ephesus ran the most famous asylum and the most famous temple treasury in Asia, and a Roman decision extended the same protection to a community that had no temple here at all and whose cash box was going to be sent abroad.

The city's own position comes through in one hearing. The Ionian cities took the Jews of the region to law in front of Agrippa and argued that if these people were to be our fellow citizens they ought to worship our gods.[34] That is the whole case, and it is not a theological one, it is a membership one. The advocate for the other side argued that Rome let people keep their own customs. Agrippa's ruling was that it was not lawful for him to make a new rule, which is as Roman a reason as was ever given for leaving a minority alone: the community kept its exemptions because taking them away would have required somebody to do something new.

The individual who comes out of the record most clearly held a city job. An Ephesian whose name was most likely Julius carried the title of archiatros, which by this period meant one of the publicly recognised and publicly paid physicians, and his epitaph asks that the Jews in Ephesus look after the tomb.[35] A salaried public doctor, in the capital of the province, who expected his own community to maintain his grave, and who was prominent enough that a stone said so. Nothing in the record says there was ever a synagogue building here, and none has been found.[36]

Which is why the moment in the theatre is worth looking at twice. In the middle of the riot the Jewish community put a man forward to speak, and the likeliest reading of why is not that they were defending the preacher.

They had their own difficulties with his mission, and what they needed, with a crowd in the building and a trade in the mood it was in, was to be visibly not him.[37]

The crowd worked out that the speaker was a Jew, which meant that he did not worship Artemis either, and shouted him down. That is what the two hours of Great is Artemis of the Ephesians were actually drowning out: not an argument against the goddess but a community with a stack of Roman rulings in its archive trying to say, in the theatre, that this had nothing to do with them.

Doctors, dreams and one punctured skull

The other thing this city exported, and nobody puts it on a poster, was medical writing. Soranus was born here and worked at Rome, and his Gynaecology is the main surviving treatment of obstetrics from antiquity. Rufus was from here and wrote on the names of the parts of the body and, more unusually, on how to interrogate a patient. Artemidorus called himself the Ephesian after his mother's city and produced the Oneirocritica, which is the only complete ancient dream manual to come down to us. And Xenophon of Ephesus wrote the Ephesiaca, one of five surviving Greek novels, which opens at the festival of Artemis.[38]

Four writers, one city, and the same subject underneath all four of them: what is going on inside a person and how an outsider could find out. A textbook on childbirth, a method for questioning the patient instead of just looking at him, a dictionary for the contents of his sleep, and a romance about two young people whose insides are the whole plot. For a town whose best-known export was a statue, that is a strange and consistent speciality.

The city also competed at it, which is the detail that stops me. One of the Ephesian festivals ran contests in medicine: prizes for devising new or improved surgical instruments, prizes for diagnosing set case studies, and, apparently, prizes for performing surgery in front of the judges.[39] Live. Competitive. In a city that filled a theatre over the price of silverware, somebody looked at the festival calendar and thought that

what the programme wanted was an operation with a panel of adjudicators.

Then the administration had to put a cap on the profession, and the reason is one of the great small facts of Roman government. Vespasian granted publicly recognised doctors immunity from the burdens of civic office. Antoninus Pius had to limit the number of doctors a city could exempt, to ten for a metropolis, seven for an assize centre and five for an ordinary town, because men had worked out that taking up medicine was a way of getting out of serving.[40]

Ephesus, being both a metropolis and an assize centre, got the top allowance. Ten men in the capital of the province could be excused the council by being doctors, and the eleventh had to find another trade or do his turn.

The other body of evidence about this city's medicine is a cemetery. Outside Ephesus, archaeologists found the graves of gladiators, and one of the skulls has a trident wound through it, three holes in a row, which is about as unambiguous as the archaeology of violence ever gets.[41] The man was in his twenties. The bone chemistry says he had been living for years on barley and beans, the mash that was fed to gladiators and to nobody else, and that other Romans mocked them for, calling them barley boys.

What happened next to that finding is a small lesson in how a fact travels. The scientists who ran the isotopes suggested the diet was meant to put weight on, a layer of fat over the organs so that a fighter could take a spectacular flesh wound and keep going, and the internet turned that into the fat gladiator, which is still being repeated.[42]

It does not follow. That the diet could fatten a man is clear; that it did is not, and nobody running a school that trained for speed and endurance wanted heavy fighters. Beans and barley were nutritious and cheap, which is the usual reason for a prison diet. This city, having spent a thousand years exporting a goddess, a construction method and four

medical writers, has in our own time exported one unfounded claim about body fat, and it got further than any of them.

Great is Artemis, and then the argument changed its subject

The capital of Asia did not fall, it was gradually corrected downward. The earthquake took out the lower city, which was standing on made ground, because the quays and the buildings west of the theatre had been pushed out over dumped rubble and silt as the river brought the shoreline to them.[43] The library's interior and its scrolls burned. The terraces were not reoccupied. The city went on calling itself the first and greatest metropolis of Asia right through late antiquity, which is the sort of title a place keeps using after the thing it described has stopped being true.[44]

And the rivalry outlived the gods it had been conducted in the name of. Centuries after the last coin that called this city three times temple-keeper, an imperial letter had to settle a dispute between Ephesus and Smyrna, because the bishop of Smyrna was demanding to be made metropolitan of Asia and was arguing from the antiquity of his own church and the martyr buried in it.[45] The ruling went to Ephesus, on the strength of the apostle buried here. Same two cities, same quarrel about precedence, same decisive argument, which was always whose tomb outranked whose.

So the title fights continued, and the next one held in this city was the biggest of them all, and it was not about a bishop's rank. It was about what word could properly be used of a woman. The silversmiths had been right about one thing: in Ephesus, the name is the asset.

What to look for

In the Roman city:

- The Library of Celsus façade, and the difference in colour and surface between the ancient blocks and the new material inserted when it was re-erected.

- The burial chamber at the back of the library, below floor level, with the garlanded sarcophagus still where it was put.
- The seven-branched menorah cut into one of the high steps of the library's staircase.
- The small square in front of the library, with the gate of the two freedmen on one side and the stepped approaches to the buildings that flanked it.
- Curetes Street: the Heracles Gate pillars, and reused blocks whose carved faces point the wrong way or whose mouldings do not match the ones beside them.
- The Temple of Hadrian's arch, its reliefs, and the clamp cuttings on the architrave.
- The Nymphaeum of Trajan, the honour tomb of Aristion beside it, and the water channels and pipework.
- The Upper Agora with the council chamber and the prytaneion, and the inscribed statue bases.
- The theatre: the join between the rock-cut seating and the built substructures, the vaulted passages under the upper rows, and the long foundation inscription on a parodos wall.
- The line from the theatre down the colonnaded avenue to the harbour, and where that avenue ends, which is on filled ground.
- The attachment holes for the marble panelling in the corner of the Hall of Verulanus, with the panels themselves gone.
- The stadium's vaulted substructure and the traces where the seating was removed.

In the Terrace Houses:

- The modern shelter overhead, which is the reason the paint is still there.
- Three-zone marble panelling in the principal rooms against plain walls in the secondary ones.
- The painted rooms, and the drop in quality from the best of them to the scattered flowers in the small rooms.
- Hypocaust heating: the brick pillars under the floors and the hollow wall bricks.
- The peristyle courtyards, with the altar and offering table in one of them and the high niche they face.
- Mosaic floors, and the collapsed vaulting and unrepaired walls left by the destruction.

CHAPTER 17: THEOTOKOS

A meeting on this plain settled what to call a woman, and the word it settled on is said out loud every day in more languages than anybody has counted. Theotokos. God-bearer. Latin made it *Deipara*, Church Slavonic made it the God-bearer, Богородица, Turkish made it Meryem Ana, and the Greek was never translated at all because it did not need to be.[1] Whatever else went out of this harbour over three thousand years, that is the largest single thing the place ever exported, and it did not leave in a crate. It left in a noun.

What was in dispute sounds like two words for the same thing and is not. Nestorius, the patriarch of Constantinople, was willing to have Mary called Christotokos, Christ-bearer, and unwilling to have her called God-bearer, on the grounds that the divine and the human in Christ could be spoken of separately.[2] Call her Christ-bearer and what she gave birth to was a man joined to God. Call her God-bearer and what she gave birth to was God. Everything downstream, every icon, every feast, every hymn in two dozen liturgical languages, follows from which of those two nouns the bishops went home with.

They went home with the second one, and Nestorius went home deposed. The city that had spent the previous thousand years selling the name of a goddess to the whole eastern Mediterranean is the city where that was decided, which is a coincidence the tradition has always enjoyed and nobody has ever managed to turn into evidence.[3] What is not a coincidence is the shape of the thing. A place whose business was always names took the biggest naming decision in the history of the Christian west, and then could not hold on to its own.

Two councils, and the second one gave Europe a word for a fixed meeting

The procedure is what the devotional accounts leave out, and any committee veteran would recognise it. Cyril of Alexandria presided. The bishop of Ephesus, Memnon, controlled the venue and the local clergy and

was on Cyril's side with a bloc of bishops behind him. The session opened and deposed Nestorius before the bishops from Antioch had arrived, so that when John of Antioch did arrive he convened a rival session of his own and condemned Cyril, and the two councils ran against each other for months until the emperor ratified the first one.[4] The title that anchors the Marian devotion of the Catholic and Orthodox churches was fixed by the party that got to the room first and already had the keys.

The room itself was a church dedicated to Mary, which is the detail everybody likes and is also the administrative one, because what Memnon brought to the argument was a building with the correct dedication and a set of locks.

The ruin of that church is still on the ground in the lower city and it is not the room. A modest sacred building stood there at the time; the monumental basilica with the double columns and the marble lining went up afterwards, and the long structure underneath the whole arrangement turns out to have been the portico of a Roman temple precinct.[5] The most consequential meeting ever held in Asia Minor took place in a venue that has been rebuilt twice since, on the footings of somebody else's god.

Within twenty years the same town hosted the sequel, and the sequel is the reason the English language has a phrase for a committee whose outcome was arranged before the doors opened. Dioscorus of Alexandria presided this time, summoned by the same emperor. The meeting restored Eutyches, declined to let the pope's letter be read into the record, and handled Flavian of Constantinople so roughly that he was exiled and dead within days. The Council of Chalcedon annulled the whole proceeding, and Leo of Rome supplied the verdict that stuck: not a court but a robbery, *non iudicium sed latrocinium*.[6]

So one small Anatolian town, inside a single generation, produced both the central term of Christian Marian devotion and the standing European nickname for a rigged assembly. The Robber Council. Two meetings, two exports, one venue, and the second one is what you call the first one if you

do not like how it was run. Nobody planned that symmetry and nobody could improve on it.

Asia kept its own date, and argued for it with a list of graves

The province had already told Rome no about something else, and the something else was a calendar. Asia kept Pascha on 14 Nisan, the day of the Jewish Passover, rather than moving it to the following Sunday, and it kept doing so after Rome had stopped. Smyrna's bishop made that case in person in Rome, and the Latin label for the position, *quartodecimani*, is just the fourteenthers.[7] A generation and a half later the man defending it to the bishop of Rome was the bishop of Ephesus.

He did not argue from scripture. He argued from real estate. His letter sets out the great lights of Asia who are buried in Asia: Philip, one of the twelve, lying at Hierapolis with his daughters, John lying here, a martyred bishop at Laodicea, and others down the list. The claim being pressed is that the church which holds those graves does not take correction on the date of its own Pascha from the church which holds Peter and Paul.[8] The argument is an inventory. Rome has two apostles in the ground, Asia has this many, therefore the fourteenth of Nisan.

That is the same argument this coast was still running centuries later when two of its cities quarrelled over which of them outranked the other and the ruling went to whichever one had the better tomb. Here it is being used on a liturgical question against the capital of western Christianity, by a province defending its right to hold the central feast of the Christian year on the day its Jewish neighbours held theirs. The theological dispute reduces, in the hands of a bishop of Ephesus, to a property survey.

The tomb with a product

The reason there is a hill here with a basilica on it rather than a basilica somewhere else is a sentence in Irenaeus, who says John published the Gospel while living at Ephesus in Asia. It is the earliest substantial statement anybody has on the matter, and modern scholarship is a good

deal less settled about both the authorship and the address than Irenaeus was.[9]

What is not in doubt is that from the second century onward people here believed the apostle was under this hill, and they built accordingly: a mausoleum, then a basilica, then Justinian's enormous cruciform church with its domes, put up partly out of marble shipped in from the Marmara quarries and partly out of marble carried up from the wreck of the great temple below.[10]

And the grave did something, which is the fact that turned a tomb into an economy. A slab lay over it with holes bored through, and on the saint's feast a fine dust came up through the holes. Ramon Muntaner, who was in this plain with the Catalan Company, counted nine holes and said the stuff rose through them the way a jet of water rises. He calls it manna. He says it cured fever, eased a difficult childbirth and dealt with gallstones, and that thrown into the sea with the right words it would put a storm down.[11]

The dust was collected and it was distributed, in small flasks, around the Mediterranean and the Black Sea, and the pilgrim traffic it generated along with the cemetery of the sleepers, the tomb of Luke and the church of Mary was one of the most lucrative sectors of this town's late antique economy.[12] The ampoules are archaeologically and textually real. Whether anything in them did anything is a faith claim and not a finding, and the two statements have never needed each other.

The traffic came from a long way off. A Russian abbot, Hegumen Daniel (игумен Даниил), worked his way down this coast and wrote a chapter on the city of Ephesus, and he records the tomb of John the Theologian, the holy dust rising from it every year on the saint's day, people taking the dust away against every kind of illness, and the saint's clothes lying there too.[13]

His Old Russian wording has not been put beside a critical edition in anything I have, so what is given here is what his chapter says and not how he says it. The Russian church still keeps two feasts for John, and the

second one, in May, is the Commemoration of the Holy Manna, which exists because of this hill and nothing else.[14]

There was an explanation for where the dust came from, and it is better than any invented one. John was not dead. He was asleep under the slab, and what came up through the holes was what happens when a sleeping man breathes.[15]

Then a Greek archaeologist opened the burial place during the Greco-Turkish war and found it empty. The relics had been taken to Constantinople centuries earlier.[16] So the single commodity from this hill with a documented distribution network across two seas was produced, for generations, by a hole in the ground with nothing in it, and both ends of the arrangement could have told you so: the people who moved the relics knew the tomb was empty, and the people buying the flasks had been told the occupant was alive.

Seven men asleep, and the two scriptures that wanted them

The other shrine on the pilgrim circuit was a cave, and the story attached to it is the most widely held thing this city ever put into circulation after the title. Seven young men of Ephesus refused to sacrifice during the Decian persecution, hid in a cave on the hill east of the city, and were sealed in. They woke generations later under Theodosius II.[17]

What the story was for is the part that gets lost. They did not wake up to be charming. They woke, in the telling, to settle a live doctrinal argument about whether the body is raised, and the evidence offered to the doubters was seven men who had been physically asleep for a very long time and then physically got up. A metaphysical dispute about the resurrection of the flesh was resolved, for a large number of people over a long period, by a nap.

Excavation in the grotto found a substantial late antique Christian cemetery, a church, a great many graves and lamps in quantity, which establishes a serious early cult on that spot and establishes nothing

whatever about seven sleepers.[18] That is the ordinary condition of a shrine. The cult leaves evidence. The event does not.

The story then did something no other legend on this coast managed, which is that it was taken up on both sides of the largest religious divide in the Mediterranean. The Companions of the Cave are in the eighteenth sura of the Qur'an, which is named the Cave after them.[19] The sura does not name Ephesus, and the number of places from Anatolia to Jordan to North Africa that claim to be the cave is not small, so what Ephesus has is the oldest Christian end of the tradition and a contested address at the other. Shared legend, disputed postcode. Russian Orthodoxy keeps the seven under the name of this city, the Seven Sleepers of Ephesus (Семь отроков Эфесских), with two feast days.[20]

And then Russian households put them to work. The seven are the saints you address about sleep, and the prayer books carry a petition to them on behalf of an infant who will not go down.[21] A legend built to prove the resurrection of the body ended up, far to the north, as the thing a parent says over a cot at two in the morning. Of everything this hill exported, that is the item with the most users and the least ceremony.

A saint's title, worn down into a town

The hill has been named after the man under it for most of its recorded life, and the name has been getting shorter the whole time. The Greek was Hagios Theologos, the Holy Theologian, which is John's title and not his name. The Italian merchants who traded in this harbour wrote it into their ledgers as Altoluogo. Turkish took it from there and produced Ayasuluk.[22]

The Italian form looks exactly like *alto luogo*, high place, and the town is in fact on a hill, and that is not where the word comes from. Both the Italian and the Turkish forms come off the saint's title, which is a better story than the one the shape of the word is offering.[23] Three languages handled a Greek honorific for the author of a Gospel and what came out at the far end was a sound that means a town and nothing else. The theology wore off and the syllables kept going.

A traveller who came through while the beylik ran the place found it large, ancient and venerated by the Greeks, with a great church built of stone, and noted that the congregational mosque had previously been a highly venerated Greek church.[24] Ibn Battuta is describing a working arrangement rather than a ruin. The hill had a Christian apparatus on it, and a Muslim dynasty took the apparatus over and used it, which is what almost always happens to a building with good foundations and a water supply.

The new mosque went up on the hill's western flank for an Aydınid emir, designed by an architect out of Damascus on the hypostyle courtyard plan the Umayyads used there, and built out of marble that had been carried up from the Artemision and the Roman city below.[25]

Then it was allowed to go to pieces, lost its minaret, and did a stretch as a caravanserai before anybody thought it was worth keeping. Follow one of those shafts: cut for the temple on the plain below, burned for lime or hauled uphill for a church, hauled uphill again for a mosque, and standing now in a courtyard where the plan came from Syria and the stone came from a goddess.

The water came up the same way. The piers striding through the modern town are Byzantine, bringing spring water from the hills to the pilgrimage complex on the hill, their lower structure made of reused Ephesian and Artemision marble with brick in the arches above, and a large reservoir has been dug up where the line arrived.[26] What the piers carry now is nests. Storks, in season, on top of the municipal water main of a vanished pilgrimage industry, and nothing in my pile thought that worth recording, which is fair enough: it is a bird on a wall.

The basilica came down, and the standard account of how is wrong. Timur passed through this region with an army and the popular version has his troops destroying the church. No contemporary text names the building. The pages that make the claim do not cite one; the fighting among the restored local dynasts afterwards burned a good deal of the settlement; and the church had already been converted, reused, stripped

for stone and left to decay before any of it.[27] A building that fell apart across two centuries was assigned one famous afternoon, because a famous afternoon is easier to carry than a process.

The name on the signs now is Selçuk, after a Turkic dynasty, so the hill has been edited out from under the saint a second time, in a second language, and the Holy Theologian has been gone from his own address for considerably longer than he was on it.[28]

The house, and what holds it up

The best-known Marian place in the country is a small building in the hills a few kilometres from here, and the story of how it came to be identified belongs to a village further up the slope, which earned it. The question nobody asks on the way in is the simpler one: what is the building.

It is a heavily restored religious structure and not an intact first-century house. The masonry you can see and the masonry that has been dug are normally assigned to the Byzantine period. No inscription on it identifies it as the house of Mary, and nothing excavated in it has put any named first-century person inside it.[29] The claim that the foundations are first-century is a great deal weaker than the dating of the religious building standing on them, and it is not an archaeological consensus.

Three popes have been to the shrine and one of them said Mass there, and those visits are routinely produced as though they closed the question. They do not, and the Holy See has never said they did. What a papal visit recognises is a shrine and a devotion, which is a real thing to recognise; it is not a historical declaration about the masonry, and no dogmatic or archaeological authentication of the house exists.[30] The older tradition about where Mary's life ended is the Jerusalem one, and Catholic teaching does not require anybody to choose between them.

What the place actually is is more interesting than what it is claimed to be. It is a working modern shrine where Christians come and Muslims come too, which makes it one of the very few genuinely shared devotional sites in this part of the world, and it holds that position without an inscription, without a stratum and without an institutional ruling of any

kind.[31] It runs on practice. Practice has turned out to be the sturdier material.

Which leaves this hill in an odd position, because the two things it is visited for are the two things it cannot document, and the one thing it did that went everywhere left no mark on it at all. The dust came out of an empty tomb. The house has no stone with a name on it. And the word, the actual export, the noun that every Catholic and Orthodox liturgy has used ever since, was decided a few kilometres away in a church that has since been rebuilt twice, and there is nothing on this plain that says so. The acts of the council are in a library in another country. The town kept the pilgrims and lost the paperwork.

It did not have to go that way. Further inland on the same road there is a city that made the opposite choice, and made it so thoroughly that it cut its incoming correspondence into a wall, in public, at eye level, where anybody who wanted to argue could go and read the file.

What to look for

On Ayasuluk Hill:

- The Gate of Persecution on the approach, and the relief blocks and mismatched mouldings built into it.
- The citadel wall around the summit, with marble blocks and whole column shafts laid in as binders, and inscribed stones reused face-in.
- The plan of St John’s basilica: the line of piers, and the four-column platform marking the tomb at the crossing.
- The baptistery beside the church, and the step down into the font.
- The piers and capitals, with the grey-banded Marmara marble set alongside local white, and the capitals cut by local hands.

- The Byzantine aqueduct piers on the line approaching the hill, with reused marble in the lower courses and brick in the arches above.
- The view west over the flat plain, along the line where the harbour, the canal and the sea used to be.

At the İsa Bey Mosque, below the hill on its western side:

- The inscriptions and geometric carving on the west wall.
- The reused ancient shafts and capitals in the prayer hall, and the tooling on them against the fourteenth-century stonework beside it.
- The tilework surviving on the rims of the two domes.
- The courtyard and its fountain.
- The octagonal türbe standing next to the mosque.

CHAPTER 18: THE RECEIPTS

There is a wall at the side entrance of the theatre here, on the north passage where the audience came in, and it is covered in small tidy Greek letters, course after course of white marble, at the height of a standing adult who has come to read. What is written on it is a decree of the Roman senate, letters from emperors, grants of privilege, replies to embassies, the ordinary incoming post of a small inland town that had business with a superpower.[1] Most cities in this part of the world put up inscriptions saying what they wished to be thought of them. This one put up what it had been sent.

The thing that takes a moment to register is that the documents are old and the lettering is not. The earliest of the texts belong to the generation of Rome's civil wars, and the hands that cut them into this wall belong to people whose great-grandparents had not been born when the letters were dictated. One of them was carved more than two hundred and fifty years after it was composed.[2] So the wall is not an archive that silted up. It is a transcription, made on purpose, of a file somebody had been keeping indoors, and the decision to put it outside is the whole character of the place.

The reason the file mattered is that nothing in it was permanent. A free city held its exemptions at the pleasure of whoever was currently emperor, and every new reign meant another embassy, another request, another confirmation, which means the papers were not souvenirs of an old favour but the live working documents of a town's legal position.[2] Cut them into the side of the theatre and the argument is permanently in evidence, in public, in the building where the whole population gathered, at eye level, where anyone who wanted to dispute the city's status could come and read what Rome had actually written down.

What one week of loyalty bought

The favour being commemorated was a week or two of military nuisance. A Roman called Labienus, who had changed sides and come back into Asia at the head of a Parthian army, worked his way through the region

sacking what he could, and this town, which had no walls and no military history whatsoever, refused him and held.[3] No historian describes the fight. Nobody wrote the siege up, nobody counted the dead, and the only reason anybody knows it happened is that the senate's thank-you letter survives, cut into a wall by the grandchildren of the men who had earned it.

What the thank-you letter contains is the entire future of the city. The combined community of Plarasa and Aphrodisias was enrolled among the allies of Rome, freed from levies, freed from having soldiers billeted on it and goods requisitioned from it, left to run under its own laws, and granted an asylum for the sanctuary of Aphrodite with rights equal to those of the temple of Artemis at Ephesus. Its ambassadors were given access to the senate with an answer guaranteed inside ten days.[3] A town nobody outside Caria had heard of walked away with the terms a serious state would have spent a century negotiating, because it had been rude to the right man on the right afternoon.

Then came the fixer. A freedman of Octavian's named Gaius Julius Zoilos, which is to say a man who had been somebody's property and was now the emperor's client, came home to the town he was from and started building. He paid for the theatre's marble stage front, the earliest known example of that three-storey architectural façade anywhere. He paid for the north colonnade of the agora. He paid for the first marble temple of the goddess, and the city gave him the titles it kept for saviours and benefactors and carved the story of his life on his tomb.[4]

There is a letter of Octavian's about him in which the emperor says, in the English of a translation nobody has set against the Greek, that you know how he likes his Zoilos. Which is how a small inland town discovers that it has a friend at the top. Not through a treaty, not through a title, but through a possessive pronoun in somebody else's correspondence about a man it used to own.

The privileges then had to be defended, and the people they had to be defended against were not Romans. When Tiberius put every asylum

claim in the east under review, this city went to Rome to argue for the sanctity of its goddess's temple, and so did Stratonicea up the road, on behalf of its own shrines of Zeus and Hecate.[5] That is what the wall is actually for. It is less a monument to friendship with an empire than a rampart in a long quarrel with the neighbours, and the neighbours were in exactly the same business, with their own stones.

How well it worked you can measure from a letter the city received from a Roman proconsul, the most powerful man in the province, in reply to an invitation to one of its festivals.[6] He wrote:

> I will gladly come to you, stay in your most splendid city, and sacrifice to your native goddess for the safety and eternal continuance of our lord Imperator and our lady Augusta, mother of our lord and of the camps, if no law of your city, decree of the Senate, or instruction or letter from the emperor prevents a proconsul from staying in [your] city.

Read the last clause again, because the Roman governor of Asia is checking, in writing, in a document the city then kept, whether he was legally allowed inside the town that had invited him. There was apparently a custom restraining Roman officials from entering this place at all. The elite who sent the invitation knew that as well as he did, which raises the possibility that what they were fishing for was not a visit. A letter of refusal from a proconsul, confirming on his own authority that he could not come in, is a better document than any guest.

They got him in the end, and the way they got him was by succeeding. When Rome eventually carved a province of Caria out of the map and needed a capital for it, the capital was here, and a seat of honour was built in the theatre, in the middle of the lowest row, most likely for the governor.[7] So the official the city had spent three centuries keeping at a polite distance acquired a reserved chair a few metres from the wall

carrying the correspondence that kept him at a polite distance. Nobody planned that. It is just what happens to a small place that wins.

The habit was not confined to Rome. Out at the north edge of the city is a stadium about two hundred and seventy metres long, with thirty tiers of marble seats and room for something in the order of thirty thousand people, which is more than the city had inhabitants.[8] It is bowed along the sides and rounded at both ends so that no seat looks across a corner. The seats carry cuttings for awning poles, masons' marks, and inscriptions reserving places, some of them for women by name.

They also carry blocks allocated to delegations from the neighbouring towns, positioned nearer to or further from the judges' stand according to how close the town was and how friendly the relationship had been. A seating plan is a diplomatic register, and this city published its register in marble, where every neighbour could walk in and find out precisely what it was worth.

The handle on the shield

The people who were in this country before any of that are the ones it is named after, and they are the reason there were sculptors here in the first place. The Carians held the Maeander valley and the coast behind Miletus and Priene, and Herodotus, who grew up on the edge of their country, classed those cities as Carian ground.

He also records what the Carians said about themselves, which was that they had always been here and were kin to the Lydians and the Mysians, and then he declines to believe them, preferring a story in which they were islanders who served a Cretan king and later moved across to the mainland.[9] Their language is attested in their own script and it is an Anatolian language, a relative of Hittite and Luwian, which settles the argument on their side rather than his.

What Herodotus does credit them with is three pieces of military equipment that the Greeks took from them: crests on helmets, devices painted on shields, and handles for shields.[10] The third one is the one that matters, and he tells you why in the next clause, which is that before

the handle a man managed his shield with a leather strap slung round his neck and his left shoulder.

Think about what that means in a line of battle. You are not holding the thing, you are wearing it, and it goes where your shoulders go. Fit a grip to the back of it and the shield becomes a tool a man aims rather than a weight a man carries, and the Greek infantry line that half the ancient world ended up imitating becomes mechanically possible. The silhouette everybody can draw, plume on top and blazon on the front, was assembled out of Carian parts, and the part that did the work is the one nobody draws.

They also rented themselves out, which on this coast is the oldest profession there is. When an Egyptian king wanted foreign infantry he bought Ionians and Carians in one transaction, and when a later king sent an army up the Nile into Nubia, the hired men went with it and left their names on the leg of a colossus at Abu Simbel.[11] If you have stood under those statues you have stood next to Carian writing, in Carian letters, a thousand miles from the valley this chapter is about, cut by men who were working away from home because the local export was them.

And then there is the awkward foundation story, which Herodotus also reports and which nobody can pin to an event. The Greeks who settled this coast, he says, brought no women with them; they took Carian wives, having first killed the men those wives belonged to, and a custom survived among the women of Miletus of refusing to eat at the same table as their husbands.[12]

Whatever that is, it is not a story Greeks would invent to flatter themselves. It is the admission underneath the whole Ionian legend: that the mothers of the twelve famous cities were local. The Carians lent the coast its population, its sanctuaries, its cavalry tradition and the grip on its shields, and the result was called Ionia, and the people who kept the old name were the ones who had stayed inland, in the hills, where this city is.

Nothing left the valley but the men

The marble is two kilometres away and uphill. The good stone sits on a handful of ridges north-east of the plain at six hundred and fifty to seven hundred and fifty metres, the city sits at about five hundred and twenty, and the walk from the theatre to the quarry face takes half an hour. Seventy-eight separate quarries have been mapped up there.[13] That is the whole economic explanation of the place: a town with a good goddess, a tax exemption and a mountain of free building material within an easy morning's haul, which is a combination that produces architecture the way a river produces mills.

The story everybody tells next is that the city got rich selling the marble, and that story does not survive being measured. The surveyors who went up and calculated the volume of stone removed found a total too small to have built even the city's own walls and principal buildings, let alone to have supplied an export trade, and almost none of it travelled more than a couple of kilometres from where it came out of the hill.[14] Nor can a laboratory help: the current multi-method work cannot reliably separate the stone of these quarries from Parian or Proconnesian marble, or indeed from each other. The quarries did not make this city rich. They made it cheap to practise.

What it exported was the practice. Nearly forty signatures of sculptors who identified themselves as men of Aphrodisias turn up in Italy, Greece, Crete and elsewhere in Asia Minor. Carvers from here worked the Severan forum at Leptis Magna, on the African coast. The best known signed piece in the world is a pair of centaurs dug out of Hadrian's villa in the eighteenth century and signed by Aristeas and Papias of Aphrodisias, which sit now in the Capitoline.[15] What the signatures prove is that the sculptors travelled. They do not prove that the stone did, and the distinction is the entire argument: the product was the man.

The best thing on the site is not a statue. Behind the council house, in two rooms of a converted colonnade with a yard attached, excavators found the shop: a set of stone-carving tools, about twenty-five well-preserved

statues, three hundred and twenty-five fragments, and several pieces that are clearly apprentice practice.[16] Archaeology nearly always gets the finished object and nearly never gets the place it was made, because workshops are rented, cleared and built over. Here the premises survived with the work in progress still in them, which is the difference between owning a painting and standing in the studio.

What the half-finished pieces record is a sequence of decisions. The point chisel, driven in hard and steep, takes off something like eighty-five per cent of the stone before anybody worries about a face. There is a togate man in the museum whose body is essentially complete and whose head is barely begun, with a column of untouched rough stone deliberately left standing down the neck to brace the head while it was being cut out.[17]

There is a Poseidon whose base carries tool marks running at angles that do not make sense as carving, and the reading is that it sat around the shop for years as the block the apprentices were allowed to hit. And the reason the togate man never got a face is probably that his client changed his mind or stopped paying, which makes him the oldest unsettled invoice in Caria, standing in a glass case with his collar still in the block.

The quarry kept nothing, incidentally, which is why the hill looks so tidy. A block that split wrong or was no longer wanted did not get abandoned on the slope; it got squared down into a wall block and carried into town like everything else.[13] The mountain is clean and the city is built out of its own rejects.

Everything this place sold had the address on it. The sculptors signed as Aphrodisians. The novel that opens with a man introducing himself as Chariton of Aphrodisias, clerk to a lawyer, and then telling the story of a girl called Callirhoe, is probably the oldest complete novel to survive in any language, which makes the first page of the form a piece of civic letterhead.[18]

And the philosopher who taught at Athens and wrote on Aristotle so comprehensively that for the better part of a thousand years he was called simply the Commentator, until an Andalusian took the title off him,

is known to everybody who reads Aristotle as Alexander of Aphrodisias.[19] Three trades, one marketing decision, repeated for four centuries.

Two hundred panels of being useful

The other great documentary object here is a corridor. At the east side of the main street the city built a precinct: a gateway at one end, a temple at the other, and between them a paved processional avenue about ninety metres long with a three-storey portico running down each side. Two local families paid for it, one taking a side each, and both are named on the dedications, which went to Aphrodite, the deified emperors and the people, in that order of precedence.[20] It took something like forty years, across several reigns, with an earthquake in the middle.

The upper two storeys of both porticoes carried relief panels in every gap between the columns, about two hundred of them, of which more than eighty have been recovered.[21] One register runs Greek myth. Another runs emperors in the company of gods, and personified peoples: the nations Rome had conquered or absorbed, each rendered as a figure with a label. It has been described as saturation bombing, and the description is fair, because there is no gap in it anywhere for a second opinion.

The single most famous panel shows an emperor in a helmet, wearing almost nothing else of consequence, hauling a collapsing woman down by the hair. The woman is labelled Britannia and the man is Claudius.[22]

Hold on to the geography for a second. That panel was designed in Caria, cut from local marble by local carvers trained locally, and installed where it would be seen by farmers and councillors from an inland valley, and what it depicts is the subjugation of an island at the opposite end of the known world by an army none of them would ever meet, in a place none of them could have found. The city was advertising enthusiasm for conquest in the abstract. It had just finished buying its way out of the only conquest that applied to it.

The ancestry was the other job the building did. This city had no Greek founder, no colonising expedition behind it and no claim on the old

Hellenic past that the coastal towns traded on so freely, and the solution it arrived at was to go upward instead of backward. Aphrodite was Venus. Venus was the mother of Aeneas. Aeneas was the ancestor the emperors claimed.

So nine of the panels nearest the temple run the Aeneas story in sequence, from the goddess with the shepherd who fathered him to the flight out of Asia Minor, and his statue stood in the gateway among the imperial family. One of the two women who paid for the complex was simultaneously high priestess of the imperial cult and, jointly with her husband, priestess of Aphrodite.[23] A town with no pedigree worked out that it was related to the emperor through its own patron goddess, and then put the family tree up in marble at its own expense.

It kept auditioning founders after that, and it never dropped any of them. Down in the basilica off the south agora there are panels of Ninos, the legendary king of Assyria, and his wife Semiramis, pouring libations at an altar beside a bare tree with an eagle on it, and the altar and the tree are a real place rather than a decorative one, because the same pair appear on the city's coins.[24]

Stephanos of Byzantium records that the place had once been called Ninoe, after him. Meanwhile a statue base of the same period titles Bellerophon, who travelled widely on a flying horse and was therefore available to have founded anywhere, as founder of the city. A Trojan refugee, an Assyrian emperor and a man on a winged horse, all retained, none of them let go, because a city assembling a past does not throw out a draft.

The goddess who stood like a pillar

The goddess herself does not look like Aphrodite. The best surviving copy of the cult image, found in the council house, stands rigid and frontal in a tall headdress and a veil, with a thin dress underneath and over it an outer garment so thick and so hard that the people who publish it call it cladding rather than clothing. The cladding is divided into horizontal bands and every band carries a scene: the Three Graces, the Moon and the

Sun, the goddess herself riding a sea goat among Tritons, three winged Erotes at a sacrifice.[25]

What you are looking at is not the Greek goddess of desire with her clothes falling off. It is a decorated column with a face and two hands, and what it resembles is an old Anatolian goddess who has been given a Greek name and a Greek genealogy and left otherwise alone.

The stiffness is a design decision and not a survival, which is more interesting than the other way round. There are marble figurines from the prehistoric mounds underneath this city, carved out of the same local stone, and the temptation to run a line from them to the cult image is obvious and has to be refused, because the gap between the two is about two thousand years with nothing in it but a village.[25]

Somebody in the Hellenistic period sat down and designed a goddess who would look as though she had always been there. They were good at it. They were, after all, the best stone-carvers on this side of the Aegean, and making something look older than it is was precisely the house skill.

And then they sold her. The cult image type was copied and distributed across the Mediterranean, from Rome to the Levant, in small marble versions, the same way every successful sanctuary on this coast monetised its own statue.[26]

So the single most widely exported object this city produced was a portrait of a goddess who was not quite the goddess she was named for, in an archaic style that had been invented recently, carved out of stone that cannot be proved to have left the valley, by men whose signatures turn up everywhere. That sentence is the entire book in miniature, and it is also, more or less, how the lending worked everywhere along this coast: the thing that went out was never quite the thing it was taken for.

And as many as are God-fearers

When they were digging the foundations for the site museum they came up against a block of marble nearly three metres high, inscribed on two faces in two different hands.[27] It is a donor list. It stands at the museum

entrance now, and it is the longest Jewish inscription anybody has recovered from the ancient world, which is a thing to know before reading a word of it, because the reason it is the longest is that it has so many people on it.

The text opens by calling God the helper. It records a food charity and a study circle whose members are described as lovers of learning. It names the head of the association, Jael, and his son Joshua the archon. It names three proselytes: Samuel, Ioses, Joseph. Then, after a break in the stone, it says “and as many as are God-fearers”, and under that heading runs a column of more than fifty further names, and the first nine men in that column are members of the city council.[27]

Nine councillors of a city named after Aphrodite, who were not Jews and had not converted, put their names and their office on the stone of a Jewish association, in public, where the rest of the council could read them. That is the sentence. Whatever God-fearer means, it does not mean a private sympathy nobody mentioned, because these men mentioned it in the one medium that cannot be taken back.

That matters because the category had been in doubt. A seat in the theatre at Miletus carries a scratched label about Jews who are also God-fearers, two readings of it have been argued for a century, and the argument turns on whether a careless carver transposed two words, which is not a foundation anybody wants to build a social class on. A respectable position held that God-fearers were largely a literary convenience, a device of the man who wrote Acts. This pillar is what ended that, because a list does not need interpreting. It has two headings, two groups and a running order.

The running order is where it stops being an epigraphic problem and becomes a town. The Jews on the stone include confectioners and bronze-smiths. The God-fearers include a stonecutter, an athlete, a boxer, a man in the mincemeat trade, and one man whose trade is given as making or painting images.[28]

In the city whose entire industry was the carving of gods, the donor who did that for a living is on the gentile side of the list, and the Jewish names on the same stone belong to trades that never put a man in front of a cult statue at work. Nobody wrote that rule down. It is just visible in the occupational columns of a charity subscription, which is the kind of thing a stone tells you and a chronicle never does.

The last surprise is when. This is late antiquity, generations after the empire had officially become Christian and a few decades either side of the point when the temple of Aphrodite along the street was being rebuilt into a church.[29] At the moment when the story is supposed to be finished, a Jewish association in a Carian town was still collecting money from more than fifty gentile sympathisers, nine of them in office.

And the stone does this without ever using the word Jew and without a menorah anywhere on it. Its Jewishness lives entirely in the names and the vocabulary, which is a fair warning about how thin the evidence for any of these communities usually is, and how much of it goes past unread.

The file, redacted

The temple went first, and the way it went is the most Aphrodisian thing in the city's history. Nobody pulled it down. They took out the walls of the inner chamber, lifted the columns off the two short ends, moved them along to extend the two long sides, added a narthex and an apse, and ended up with a three-aisled basilica built out of the goddess's own temple without wasting a drum.[30] Fourteen of those columns and the apse are still standing. It was done by people who understood, as everybody in this town understood, that a marble building is a kit.

Then they went to the wall. The archive stayed exactly where it was, courses of it, the decree, the letters, the grants, the whole file, and somebody worked along it with a chisel and cut out the name of Aphrodite wherever it appeared.[31] They kept the document that granted asylum to the sanctuary of a goddess and removed the goddess from it. That is not vandalism and it is not piety. It is redaction, performed on a

city's own founding paperwork, by a city that could not bear to lose the paperwork.

And the name went the same way, for the sixth time. Pliny, listing the place in his encyclopedia, says it was called Lelegonpolis, then Megalopolis, then Ninoe, before it was Aphrodisias.[32] Then the goddess became untenable and it became Stauropolis, the City of the Cross. Then the Greek drained out of the hills and a village settled over the ruins and called itself Geyre. Six names on one plain, and the only one that has stuck for five hundred years is the one that means nothing at all. The city that filed everything has no document recording what it was called.

What finally beat the place was not Rome, not Labienus, not the church and not the Turks. The ground here moves. There was a bad shake in the fourth century and another around the year five hundred with a great deal of rebuilding after it, and the levels at the end look like earthquake, fire and weapons arriving together.[33]

The last large public work the city undertook was a circuit wall with nine gates and twenty-two towers, standing close to ten metres in places and built entirely out of other people's blocks: inscriptions laid upside down, stone pulled out of the tombs in the cemeteries, coursed to look deliberately archaic. A city of masons spent its final budget assembling a wall out of its own dead, against a besieger that was underneath it the whole time. The village on top had to be moved again, after landslides, within living memory.

One monument here has been taken apart and put back together twice, and it is worth knowing which. The gateway to the goddess's forecourt carries sixteen Corinthian columns, some plain, some fluted and some spirally fluted, and sits off the axis of the temple door because the two were built in different centuries and nobody thought it was worth arguing about.[34]

In late antiquity the city dismantled it, restored it and re-erected it, which was considered a feat at the time. In the 1980s it was dismantled and re-erected again, using about eighty-five per cent of its own original blocks.

Both operations were possible for the same reason, and it is the reason the temple could become a church and the walls could be built out of tombs: everything here is separate pieces that fit.

Which leaves the strategy, and it is worth naming because the next city does the opposite. This place asked. It asked constantly, in writing, through ambassadors, and it kept every answer, and it carved the answers up where its rivals could read them, and the asking paid for four centuries of marble and a sculpture industry and a stadium bigger than the population.

Further up the same valley, where the road climbs toward the Phrygian border, there was a larger and much richer city that took the other route: when the ground knocked it flat it rebuilt itself out of its own funds and let Rome keep the grant. It is not remembered for the money. It is remembered for one adjective, applied to it by a man who had never been there, and the adjective is still in the dictionary.

What to look for

- The archive wall on the north parodos of the theatre: the surviving courses of the senate's decree, the spacing left at the start of paragraphs, the wide-set triumviral names, and the places where Aphrodite's name has been cut out.
- The Sebasteion: the processional avenue, the re-erected south portico and gateway, and the temple columns raised on the site, with the original relief panels in the museum hall.
- The Claudius and Britannia panel, and the sequence of Aeneas panels, among the reliefs in the museum.
- The Tetrapylon: plain, fluted and spirally fluted shafts side by side, the Erotes in acanthus scrolls on the west pediment, and the replacement blocks, which differ in weathering and tooling from the ancient ones.

- The stadium: cuttings for awning poles, masons' marks, inscriptions reserving seats, the blocks allocated to delegations from neighbouring towns, and the small oval arena cut into the east end.
- The God-fearers pillar at the entrance of the site museum, inscribed on two faces in two hands.
- The cult statue of Aphrodite in the museum: the banded outer garment and the scenes carved on each band.
- The unfinished pieces from the Sculptor's Workshop: the togate man with the rough stone left down his neck, the Poseidon's base with its unintelligible tool marks, the unfinished Artemis and the unfinished Europa on the bull.
- The garland sarcophagus whose right end was squared off with a saw before any detail was carved.
- The site of the Sculptor's Workshop itself, two rooms of a colonnade with a yard, behind the council house.
- The temple of Aphrodite as a church: the fourteen standing columns, the apse, and the difference in wear between the columns moved from the short ends and those that always stood on the long sides.
- The council house: the nine surviving rows of seats in five wedges, the buttresses, the awning-pole cuttings, and the statue bases at the façade.
- The Latin text of Diocletian's price edict on the entrance wall of the Civil Basilica.
- The city wall: blocks laid upside down, inscribed faces turned outward, tomb stones reused as masonry, and the deliberately old-fashioned coursing.

- The theatre hill seen in profile where the seating meets the slope, which is a prehistoric mound.

CHAPTER 19: LUKEWARM

Up the valley where the road turns toward the plateau, a Seleucid king took an older town on a ridge between two small streams, laid a grid over it and named it after his wife. Pliny preserved the names it had been using before, Diospolis and Rhoas, the city of Zeus and a word nobody can now unpack, so the place began the way half the places in this book begin, by mislaying a name it already had.[1] What it got in exchange was a queen's name and a position, and of the two the position was worth more.

Everything that goes from the Aegean coast to the interior comes up this trench, because the rivers cut it and the road follows the rivers, and the city was planted where the traffic had to pass. Its money came off the land and out of the sheep. The local flocks produced wool that Strabo thought softer than Milesian and raven-black in colour, which was not a thing you could get elsewhere, and he says the city drew a splendid revenue from it, while the neighbours down at Colossae had a dye colour of their own named after the town.[2] Black wool, a crossroads and a grid.

How rich it got is measurable in bequests. One citizen, Hieron, left the people more than two thousand talents. Another family produced Zeno the rhetorician and his son Polemon, who was judged worthy of a kingdom first by Antony and then by Augustus, and got one.[2] That is a town in an inland valley, two days from any harbour, exporting a client king to the Black Sea. The built city matched the money: a grid running about five kilometres, two theatres, four baths, five agoras, five fountain houses, a council chamber, and, in the description the Turkish ministry publishes of its own site, the largest stadium in Anatolia.[3]

The year nothing came

Then the ground moved, and the city came down, and Tacitus gave it one sentence in the annual list of things that happened that year.[4]

> One of the famous cities of Asia, Laodicea, was that same year overthrown by an earthquake, and, without any relief from us, recovered itself by its own resources.

The weight of that is in two words, *a nobis*, from us. Tacitus is a senator writing in the first person plural of the Roman state, and what he is recording is not an act of civic heroism but an absence in the accounts: the city fell down, nothing was sent, the city got up. Popular retellings of this promote the absence into a refusal, a proud town waving away the emperor's money. Tacitus says no such thing. He says nothing arrived.

The reason it is worth a sentence at all is that something usually did arrive. When Sardis went down a couple of generations earlier, twelve cities formed a queue, and Sardis came away with ten million sesterces from Tiberius and five years with no taxes to pay.[5] That was the going rate for a famous city on its knees, and the going rate is the whole point of the comparison: the money was there, the procedure existed, other people used it, and the ledger entry for this city is blank.

What the self-funding looked like on the ground is harder to see than you would like, because no inscription survives that dates a particular building to the years after the shock. What survives is the habit, and the generation that followed left four city gates, of which the one facing Ephesus is the best preserved.[6]

The habit is legible in smaller things too. There is an epigram in which a freedman announces that he built a monument and named it for the people who had owned him, and another text recording a reservoir made at a man's own expense.[6] The city rebuilt itself the way it did everything else, by subscription, out of the pockets of people who wanted their names on the result, which is a slow and vain and entirely reliable way to put a town back up.

It also helps to know that the relationship with Rome had never been sentimental in either direction. A century or so before the earthquake, with Mithridates' army outside the walls and a Roman commander called Oppius inside them, the king offered the Laodiceans terms if they handed the Roman over. They did. Appian says they led Oppius out to Mithridates with his lictors marching in front of him by way of ridicule, which is an

elaborate thing to arrange under siege conditions and tells you something about the local temperament.[7] This was a town that did the arithmetic.

Seven towns and a word for a continent

Which brings us to the sentence the city is actually remembered for, and the first thing to say about it is where the insult was filed. The Book of Revelation opens by addressing itself to the seven churches which are in Asia.[8] Asia, there, is not a continent and not a landmass and not an idea. It is the Roman province, this coast and the valleys behind it, and the seven towns named in the next two chapters all sit inside a stretch of country you could cross in under a week.

That address is worth stopping on, because for most of the readers that text has had, in most of the centuries it has had them, the word Asia came into their heads attached to those seven towns and nothing else. Hundreds of millions of people have met the word for the first time there. It has since been stretched over everything from the Bosphorus to the Pacific, and the seven towns, which are what it originally meant, now have to be explained to anybody who goes looking for them.

The letter to this city is the last of the seven and it is the only one with no compliment in it anywhere. It comes from someone calling himself the faithful and true witness. It quotes the church back to itself saying that it is rich and has need of nothing, and it tells it to go and buy three things: gold refined in the fire, white garments to cover its nakedness, and salve for its eyes.[9]

Gold, cloth and medicine. The bank, the black wool, and the local physicians, who had a reputation in the Herophilean line and whom Strabo thought worth naming.[10] Whatever else that letter is doing, it is reading the city its own stock list back to it, item by item, in the order of the city's own accounts.

And then the line that outlived everything else in the valley.[11]

> I know thy works, that thou art neither cold nor hot: I would thou wert cold or hot. So then because thou art lukewarm, and neither cold nor hot, I will spue thee out of my mouth.

The Greek word is *chliaros*, and the force of it is not that the church is bad. Bad would be usable. The complaint is that it is at room temperature, that it has no quality a mouth can do anything with, and that this is more offensive than being cold. A rich town that had just paid cash for its own reconstruction without asking anybody for help got described, in the document that would travel furthest of anything written about it, as the spiritual equivalent of a glass of water somebody left out overnight.

Three temperatures and eight kilometres of pipe

The geography is almost too good. Hot mineral water comes out of the ground at the city above this one and has done for as long as anybody has been there. Cold water comes out at Colossae, along the valley. This city sits between the two, and what came out of its taps was neither. A pair of commentators put that together with the verse in the nineteen fifties, a standard commentary made it the common reading three decades later, and it has been in sermons and guidebooks ever since: the insult was a joke about the plumbing.[12]

Then the plumbing got excavated, and it does not say that. The water came from the other direction. The main line ran off a set of springs under the mountain to the south, collected in a reservoir and carried nearly eight kilometres in two thick terracotta pipes, with a second source added later and the two lines joining a few kilometres out of town.

The route crossed a ravine in an open channel, dropped into a settling pool to take the pressure off, and then went down into the dip and back up again as an inverted siphon about eight hundred metres long, built of bored travertine blocks, into a distribution tower some seven metres high beside the stadium.[13] Cold springs, local, southern, and a piece of hydraulic engineering that had nothing to do with the hot city at all.

So the city had its own water and did not depend on its neighbour for a drop of it, which removes the premise the famous reading was built on. The pipes do carry the other half of the story, though, and they carry it visibly. Inside the siphon bores and inside the terminal pipes there is a layer of lime, laid down course by course like the inside of a kettle, and a pipe that furred up badly was pulled out or bypassed rather than cleaned. A nineteenth-century traveller found the stone pipes choked, in his words, with incrustations of calcareous matter, and concluded that the water was as limey as it is up at the hot springs.[14]

What a calcified pipe measures is hardness, not warmth. The same scale forms in the lines at Ephesus and at Perge and in the castellum above the hot city, which are not places anybody has built a theological argument on, and there is a case that ancient engineers positively preferred carbonate-rich sources, because a thin deposit seals the cracks in a masonry channel and protects the lining.[15] The scale was the maintenance bill and the waterproofing at the same time. Whether the man who dictated the letter had any of this in mind is not a question a pipe can answer, and it is worth saying once and then leaving alone.

The city's own view of its water survives in a long inscription a proconsul of Asia set up, now built into the restored fountain on the stadium street. It protects the line: penalties running into thousands of denarii for tapping it, fouling it, or opening a pipe, which tells you what people were doing. It mentions warming the pipes so they will not freeze, which tells you how cold that water was. And it describes the springs as held by royal grant and from the highest antiquity, which means that four centuries after a Seleucid king handed the town its water rights, the town still had the paperwork and was still citing it at a Roman governor.[16]

Twenty pounds of gold, travelling the other way

Before the earthquake, before the letter, the most interesting thing in this city was going out of it in a box. A governor of the province of Asia issued an edict banning the export of gold, and then confiscated the gold that the

Jewish communities of the province had collected and were sending to Jerusalem. The sums were read out at his trial. A little under a hundred pounds from Apamea, a little over twenty from here.[17]

Twenty Roman pounds is about six and a half kilos, and what it was for was the Temple tax, half a shekel a man, paid annually by Jews wherever they lived, which had been going from this valley to Jerusalem for generations and would keep going until there was no Temple to receive it. The retaining wall of that platform is still standing, and the lowest courses of it, the enormous dressed blocks at the foot of the western side, are the part a person can still put a hand on. The money confiscated in this Phrygian town was addressed to the inside of that wall.

Somebody has converted the Laodicean figure into half-shekel payments and got a little over nine thousand of them, and the scholar who reported the calculation went out of his way to say that it does not give you nine thousand Jewish men living in the city, because the city was a collection point for its whole district and the gold had been coming in from the hinterland.[18] Nine thousand receipts, an unknown number of towns, and no way back from one to the other. The figure is still the best indicator anybody has of the size of the community, which says more about the state of the evidence than about the community.

Cicero took the defence, and the shape of his case is the thing worth keeping. He does not deny the seizure. He argues that his client was enforcing a senatorial ban on the export of precious metal that Roman officials had been ignoring for years, that the province was financially flat and could not spare the drain, and that the gold was duly entered in the accounts and deposited with the treasury, all of which, he says, reflects credit on his client rather than discredit.[19]

The defence, in other words, was that the man had confiscated it properly and filed the receipt. The figure for this city was supplied to the court by one of the jurors sitting in judgement on the case.[19]

The communities had been caught doing something precise: breaking a Roman law in order to keep their own. That is the recurring shape of the

whole business in this province, and the other document from this city shows the other half of it. The magistrates here wrote to a proconsul acknowledging his ruling that the Jews might observe their Sabbaths and perform their other rites in accordance with their native laws, noted in passing that the people of Tralles had objected to the ruling in his presence and been overruled, and recorded that they had deposited the letter among their public archives.[20]

The city down the valley carved its file onto the side of its theatre where its rivals could read it. This one kept its file indoors, in the archive, which is why that text reaches us from a Jewish historian who was writing in Rome and not from a wall anybody can still go and stand in front of.

One stone with two religions on it

Which leaves one object, and it is the only archaeological trace of those people that the site has produced. Clearing out the fill of one of the big fountain houses beside the long colonnaded street, the excavators pulled out a broken column carved with a seven-branched lampstand with its flames showing, a palm branch on one side and a ram's horn on the other, and a cross above it, cut later into the same stone. The column has been reassembled and stands in the north agora.[21]

Two readings have been offered. The warm one is that the cross grows out of the lampstand, and that the church here grew out of the synagogue. The colder one is that somebody cut a cross over a Jewish symbol, and the cold reading is the better supported, because of what else was happening in this city at about that time.

A regional church council met here and issued canons against Christians resting on the Sabbath, accepting festival gifts from Jews, and joining in Jewish festivals.[22] Councils do not legislate against things nobody is doing. Read the other way up, those canons are the best evidence anybody has that the two communities in this town were in and out of each other's buildings often enough to alarm the bishops, and the canons are the sound of that being closed down. The column is what the closing down looks like in stone.

So the total surviving documentation for a community that had been here since a Seleucid king moved Jewish families in from Babylonia is this: a weight of gold in a Roman court record, a letter about the Sabbath kept in a city archive, a set of canons forbidding people to behave like their neighbours, and one column somebody carved over.[23]

The adjective outlived the aqueduct

English took the insult and made an adjective of it. A Laodicean is a person who is lukewarm in religion or politics, indifferent, unwilling to be either thing, and it was respectable enough as a word for Thomas Hardy to put it on the cover of a novel.[24] It is a term of abuse for people who will not commit, derived from a city that rebuilt itself out of its own cash without asking anybody for anything, which is not the behaviour of the uncommitted.

Russian took it twice. There is the phrase straight out of the verse, neither cold nor hot (ни холоден, ни горяч), and there is a single Church Slavonic compound that welds warm and cold together into one word for exactly this kind of believer (теплохладный). I could not confirm either of them in a dictionary I would want to be quoted on, and I am leaving them in anyway, because the lexicography is not the interesting part.[25]

The interesting part is that an insult thrown at a Phrygian wool town by an author who gives no name but the faithful and true witness was still in service nineteen centuries later, in a language that did not exist when he dictated it, in a country he had no word for, aimed at people he could not have imagined. The town is a field with a fence round it. The adjective is in use this week.

The city itself went the way everything in this valley goes. The stage building of the west theatre came down in a later earthquake and was rebuilt, with imperial help that time, and then the city decided to wall itself and cut that stage building down from about twenty-one metres to eleven to use it as part of the fortification.[26] A structure that had been rebuilt five times over four centuries ended up as masonry in a defensive circuit, aimed at an enemy that had never once been the problem.

Because the thing that took the city was the ground. An earthquake in the early seventh century finished the site, and the population moved off it and down into the settlements that became Denizli, which is a modern Turkish city of considerable size with an airport and no particular interest in any of this.[27] Diospolis to Rhoas to Laodicea to a field with a protective roof over an early church. Four names, and the only one anybody uses now is the fifth one, which belongs somewhere else.

And the one commodity the place never had was heat. Eight or ten kilometres up the valley, on the same fault system that knocked this city flat twice and finished it the third time, water comes out of the rock hot, and loaded, and continuously, and the town up there did not treat the dangerous ground as a problem to be survived. It treated it as the product, built its sanctuary directly over the worst of it, and charged people to come and stand there.

What to look for

- The south water terminal near the stadium, about seven metres high, and the line of bored travertine siphon blocks running downhill on the west side of the ridge: the lime scale inside the bores, and the points where a line was bypassed rather than cleaned.
- Terracotta pipe segments with layered calcite still in them, at the terminals and along the east edge of the north agora, against the travertine blocks of the site itself, which are the same chemistry formed in the open.
- The proconsul's inscription on the water supply, built into the restored south fountain on the stadium street.
- The stadium, and its underground entrance passage with a long dedicatory inscription.
- The reassembled column in the north agora carrying the seven-branched lampstand with lulav and shofar, and the cross cut above it.

- The west theatre's stage building under anastylosis: a podium of reused blocks set in lime-mortar rubble with broken sculpture packed into the fill, sixteen columns to a storey, modern chrome-steel clamps in the corridor arches, and the eleven-metre wall where the building was cut down to serve as fortification.
- The council chamber, hexagonal in plan, with quarry scars on the upper seating where the marble was taken for Ottoman gravestones.
- The Trajanic fountain with its reassembled statue group, and the modern joins in it.
- The early church under its protective roof.
- The Ephesus gate, best preserved of the four gates of that generation, and the Roman bridge over the Asopos on the western road, cut through by a nineteenth-century railway and damaged since by flood and landslide.
- The long colonnaded street with its re-erected columns, and the fountain houses opening off it.

CHAPTER 20: THE GATE OF HELL

A geographer came up here and threw birds into a hole in the ground to see what would happen. The hole was fenced, a quadrilateral railing round an opening big enough for a man to walk into, and the inside of it held a vapour so thick and so misty that the floor could barely be made out. Bulls were led down into it and fell over and were dragged back out dead.

The sparrows he threw in died at once. Then the priests walked down the same steps, moved about below, and came back up.[1]

He could not account for that and he says so. Perhaps the priests carried an antidote. Perhaps the god protected them. Perhaps it was the castration, because these were the Galli, the eunuch priests of the Mother, and what they did was hold their breath and descend. Three explanations offered, none of them chosen, which is a better performance than most of the people who repeated the story for the next nineteen centuries, and the one thing he does not suggest is the possibility that the priests simply knew something about the hole that the bulls did not.

The hole is the oldest thing on the site. Everything else here was put up around it.

A city on a white calcareous shelf about three hundred and fifty metres above the valley floor, laid out on a grid, raised to the standing of a Greek town by the kings of Pergamon, and built around a cult place and a gas-emitting cave that were already in use when they got there. Its earliest coins call it Hieropolis, which can be read as the sacred city or as a queen's, and nobody has produced a foundation inscription to settle it.[2]

What can be settled is the order of events: the vent came first and the architecture came later. And the architecture is the part that gives the game away, because of what they chose to build. Over the cavity went a small travertine shrine.

In front of that, later, a façade sixteen and a half metres long and two and a half high, half-columns framing a marble arch over the spring, carrying a

dedication to Pluto and Kore.[3] Then, after the ground moved and the city had to rebuild anyway, they added a theatron: a three-sided bank of travertine seats with an Ionic marble colonnade above it, and a round marble building in front of the grotto holding a statue of the god of the dead with his dog.[3]

They built seats facing it

Seats. Not a barrier, not a warning, not a shrine with its back to the thing. Rows of stone benches arranged so that an audience could sit down in comfort and watch animals be taken into a hole and not come out. The priests sold small animals to visitors so that the visitors could test the gas themselves, which means the business model was retail, the product was a demonstration, and the demonstration worked every single time.[4]

That is worth separating out from the theology, because the theology is the easy part. A gate to the underworld is exactly what a reasonable person concludes about a fenced opening in the earth that kills whatever walks into it, and Kore, who is Persephone, is in the dedication because she is the girl the god of the dead took down into the ground. The hard part is the operation. Somebody was running a paying attraction on a mechanism that nobody present could explain, and the mechanism was reliable enough to be sold by the head, in small animals, to walk-up custom, all day.

The whole sanctuary is built on the same logic. The temple of Apollo above it stands on a fault trace, which was established by a geologist looking at the ground rather than by an archaeologist looking at the stones, and the habit of putting a sanctuary directly on an active fault is a regional one rather than an accident here.[5] The oracle operated by alphabet: twenty-four verses, one for each letter, so that a petitioner sacrificed, drew a letter from a tripod, handed it to the priest and received the matching line.[6]

A randomising device with a fixed set of outputs, which is to say a machine, run next door to a hole that was also a machine.

For about half a century the sign stood at the wrong hole. From the nineteen sixties the chasm just south-east of the temple was taken to be the one in the text, on the strength of its gas, its position and the oracular inscriptions nearby, and it was eventually walled up because the gas is not a metaphor.[7]

Then the Italian mission followed the course of a thermal spring eastward, cleared a crust of travertine that had grown over everything since the city was abandoned, and found a marble pavement, a rock opening, the façade, the seats, and the dedication naming Pluto and Kore.[7] The two cavities sit about sixty-five metres apart on the same fracture.

Then somebody went up with a portable gas analyser and took readings at the temple, at both cavities and at the other fractures and sinkholes in the area. The newer cavity reads up to ninety-one per cent carbon dioxide. The older grotto beside the temple reads sixty-five. Seven to ten per cent will suffocate a man even where there is oxygen enough to breathe, and every reading over ten per cent in the surveyed area falls along the line of the fault.[8]

Carbon dioxide is heavier than air, so it does not disperse in still conditions; it pools, and it pools deepest and steadiest where there is no wind and no sun to stir it, which is to say inside a cave, in the early morning, which is to say under a roof at the hour when a priest would be conducting business.[8] A quadruped walks with its head in the layer. A man walks with his head above it and his ankles in it. The Galli needed no antidote, no divine favour and no surgery. They needed to know the hours and keep standing up.

And the vapour was never the thing. Carbon dioxide is colourless. What was visible in that opening, dense and misty and lying on the floor so that the ground could hardly be seen, was water vapour coming off a warm spring that runs through the cavity underneath.[9] So the single most reported detail of the most famous hole in Asia Minor, the one every ancient writer reaches for, is the steam. The steam is harmless. The thing

that killed the sparrows was invisible, odourless, sitting below the steam, and nobody wrote a word about it for nineteen hundred years because there was nothing to see.

One water, four industries

The gas was the attraction and the water was the economy, and they come up the same crack. Three marvels are listed for this place in antiquity: the hot springs, the hole, and the water's habit of turning into stone.[10] The first one filled the baths, which are described as self-heating, meaning the city ran a bathing industry with no fuel bill at all. The second one sold sparrows. The third one is the strangest industry in the valley, and it worked.

Start with the wool, because this was a dyeing town before it was anything else. The water here fixed colour so well that wool dyed with roots came out matching cloth dyed with kermes or with purple.[10] That is a chemical accident in a river, turned into an export. The tombs name the guilds that lived off it: purple-dyers, carpet-weavers, wool-workers, and the dyed cloth went down the valley and out through the harbour at Ephesus.[11]

Then the fences. The water is so loaded with dissolved carbonate that it deposits stone as it flows, and the farmers here worked out what to do with that. They led it along ditches, let it crust over, raised an earth bank on each side every year, and harvested a field boundary. An architectural writer of the period says the crust forms within a twelve-month, and the geographer says the result is a monolithic stone fence.[12] A field wall that you irrigate instead of building. Nobody else in the Mediterranean had that, because nobody else had the water.

The same chemistry that fenced the fields ruined the plumbing, and the city knew it, which is why none of this water went into the taps. The thermal springs were too salty to drink, so three aqueduct lines were brought in from springs between six and thirteen kilometres out, feeding a tank above the theatre through medium-bore terracotta pipe, and the pipe furred up with calcium carbonate anyway.[13]

Down the valley the next city along had the same problem on a larger scale. The same water dyed the cloth, built the field walls and blocked the pipes, and this town was running all three accounts at once.

The fourth industry was the stone itself. The hot springs have been laying travertine down along these faults for the order of hundreds of thousands of years, and the deposit stacks up in long ridges over the fissures, dense and banded, which is building material. Twenty-one major ridges have been counted. The city is made of it: the gates, the street porticoes, the vaulted halls that now hold the museum, the seats at the Ploutonion, the tombs.[14]

The modern name of the stone is a protected designation of origin carrying a registration number, the way a cheese or a wine is, so the ground under the town has an appellation and the town does not.[15]

The terraces raise an obvious question, since the water here manufactures rock with no chisel involved anywhere in the process. If stone forms from solution at ambient temperature, into whatever shape the channel happens to be, why cut blocks at all? Why not grow them?

The answer is on the plateau, in the form of vertical-sided quarry trenches cut down into the banded travertine, and the tool marks on the trench walls are the same tool marks as on the blocks in the city.[16] They grew their fences and they quarried their buildings. A fence crust forms inside a year, and a block of ashlar thickness would take about twenty-five years at the rate active travertine actually grows, and no builder can schedule a spring.

The largest cemetery in the south-west

Everything we know about what people did for a living here comes off the graves, and there are a lot of graves. The cemeteries run more than two kilometres outside the walls to the north, south and east, the largest in south-western Anatolia by the Turkish ministry's reckoning, with something like six hundred monumental tombs identified in the north alone and only a handful of them excavated or published.[17] Every type is there, from Hellenistic tumuli with vaulted chambers through platforms

carrying sarcophagi to barrel-roofed chambers, in both travertine and marble, with the inscriptions still on them.

A healing town has a cemetery problem. People came here sick, and a proportion of the people who come to a place sick die there, and this one was short of land because the shelf it stands on is finite. So earlier burials were cremated to clear space, the emptied tombs were handed back to the same families, and the families used them again for centuries.[18] Cremation went on here into the fifth and sixth centuries, long after it was supposed to have stopped, which has been read as resistance to an imposed Christian practice and may just as easily be read as a shortage of ground.

The best epitaph in the valley belongs to a man who arranged to be remembered by two trade associations that were not his own. He left two hundred denarii to the presidency of the purple-dyers, to be invested so that the interest would give every member a share at the festival of Unleavened Bread, and a hundred and fifty to the carpet-weavers, half of that to be paid out at the Kalends and half at Pentecost.[19] The text is on a sarcophagus standing by itself on the hillside, and it reads:

> He left behind 200 denarii as grave-crowning funds to the most holy presidency of the purple-dyers, so that it would produce from the interest enough for each to take a share in the seventh month during the festival of Unleavened Bread. Likewise he also left behind 150 denarii as grave-crowning funds to the association of carpet-weavers, so that the revenues from the interest should be distributed, half during the festival of Kalends on the eighth day of the fourth month and half during the festival of Pentecost.

Read it as a contract and it is beautiful. A man who was probably Jewish put money on deposit to pay two gentile guilds of textile workers to turn up at his tomb three times a year, on two Jewish feasts and the Roman

new year, in perpetuity, funded out of interest so that nobody would ever have to be generous. Passover and Pentecost and the Kalends, administered by the dyers' committee. Nothing in this book is more completely a product of its own town: a Jewish endowment denominated in Roman currency, serviced by the wool trade, to be performed at a grave.

Twenty-three Jewish epitaphs have been recovered from these cemeteries. Two of them carry a menorah. Another sarcophagus, this one in the north, fines anybody who interferes with it three hundred denarii payable to the settlement of the Judeans who are settled in Hierapolis, and records that a copy of the text was lodged in their archive.[20] That is a community with officers, a treasury that can receive a fine, and a filing system. No synagogue building has ever been identified here. The institution is attested entirely by its paperwork, and the paperwork is on coffins.

The guilds show up in the fine clauses too, and one of them is a guild of millers. A man's epitaph sets a penalty of three hundred denarii payable to the association of mill-owners, which tells you that water-powered milling here was organised, incorporated and large enough to be worth naming as a beneficiary.[21] And one man buried out there had the machinery itself carved on the lid of his coffin.

A Daedalus of wheels

In the north necropolis, about eight hundred metres out from the wall, somebody found half the lid of a sarcophagus. The chest it belonged to has never been found and neither has the other half of the lid, so there is no tomb, there is a fragment: a gabled piece of stone a little over a metre wide, with a quarter-round acroterion at the end and a tenon sticking out of the lower edge, and across its short face a carved panel about seventy centimetres wide and under fourteen high.[22]

The panel shows a machine. At one end a large wheel with ten spokes, and two raised parallel ribs running down to the middle of it, which is the channel bringing water onto the wheel. A long horizontal bar runs off the

wheel to a pair of smaller wheels, one above the other, meshing. From the lower of those, two oblique bars run out, and each of them is attached to a saw: a rectangular frame with a stiffener across it and a blade standing halfway into a block of stone.[22]

So: rotary motion in at the water end, reciprocating motion out at the stone end, through a crank and a connecting rod, drawn in the third century on the lid of a coffin in Phrygia. That arrangement was thought to have been unknown before the thirteenth century.

Two water-powered stone saws of later date have since been excavated, one at Gerasa and one at Ephesus, and at Gerasa there were two column drums caught in the middle of being cut, with the kerfs four to four and a half centimetres apart, which is the spacing for thin slabs.[23] The relief is not a fantasy. It is a schematic of a working installation, and the installations have been dug up.

What it was for is the dullest and best explanation available: marble revetment. Thin panels of marble glued to the face of a brick or rubble wall become the standard luxury finish in this part of the world from the Severan period onward, and a building clad in thin marble needs an enormous number of thin slices, and sawing them by hand is the bottleneck.[23] A town sitting on a water supply that never stops and a demand for sliced stone that keeps rising will mechanise the cut. That is not genius. That is arithmetic.

The man signed it. The inscription above the panel gives his name, Marcus Aurelios Ammianos, citizen of Hierapolis, and then a word he appears to have made up for himself, *trochodaidalos*, a Daedalus of wheels, and says he made it with the art of Daedalus. On the tenon underneath, four words: and now I remain here.[24] It is the earliest known picture of the mechanism and it is not evidence that he invented it, which he does not claim. What he claims is the art, and the boast is phrased as a joke about mythology by a man who has just put a gearbox on his own coffin.

No sawmill building has been found at Hierapolis. The machine is attested by a picture, the picture is attested by a fragment, the fragment is in a

museum, and the man who ordered it carved is otherwise entirely unknown. And now I remain here is literally true of the lid and of nothing else: the stone stayed, the tomb went, and the mechanism spent the next thousand years being credited to somebody else.

Philip, and the tomb nobody is in

Up the hill outside the walls, reached by a long stair, there is an octagon about twenty metres across with chapels radiating off it, polygonal halls and triangular rooms, built in the fifth century for a dead apostle.[25] The oldest testimony about who that was comes from a bishop of Ephesus writing around the end of the second century, who states that Philip, one of the twelve apostles, sleeps at Hierapolis with two aged virgin daughters, and from a second text saying that four prophetess daughters are here and that their tomb and their father's tomb are here.[26]

Then the historian who preserves both of those passages adds, in the next breath, that Luke puts Philip's prophesying daughters at Caesarea with their father, and that Luke calls that man the evangelist, one of the seven, and not one of the twelve.[26] The confusion is not a modern problem and it is not a sceptic's problem. It is sitting in the earliest source we have, inserted by the man who is transmitting the claim, which is the single most useful habit any ancient writer ever had.

About forty metres from the octagon the mission found a three-aisled church of the fifth century with marble capitals and a coloured geometric floor, and the church had been built around a Roman tomb of the first century that was already there. The tomb has marble steps worn smooth, nail holes for a metal lock, grooves cut for a wooden door, crosses all over its façade, and bathing pools next to it of the sort that pilgrimage sites run.[27] A bronze seal about ten centimetres across was found with it, showing a figure between two buildings, inscribed Saint Philip.

A church built around an older tomb is the standard signal that the builders believed somebody specific was inside, and the worn steps are the standard signal that a great many people came to find out. The tomb is empty. Tradition has the body removed to Constantinople and then to

Rome, which would account for that, and a first-century tomb in any case tells you nothing whatever about its occupant. What is documented here to the hilt is a late antique pilgrimage focus venerated as the grave of Philip. What is not documented is Philip.[27]

The feast kept its hold anyway, and it kept it furthest away from here. The Russian church calls the Nativity fast Philip's fast (Филиппов пост) because it begins the day after his feast, so one of the four long fasts of the Russian church year is named for a man whose tomb nobody can find, in a town whose name has to be distinguished from another Hierapolis in Syria every time it is explained.[28]

The valley's other great shrine worked the same seam, and its story is about plumbing. Down past the city at the foot of the mountain, the Byzantine centre of the district was dedicated to the Archangel Michael, on the strength of a miracle in which he saved his own sanctuary from a flood by diverting the water into the rock; the Russian calendar keeps the day as the miracle of the Archangel Michael at Chonae (Чудо Архистратига Михаила в Хонех), a form I could not confirm in any dictionary I would want to be quoted on.[29]

Most of the towns in this book have a story about an army at the gates. This valley's two great sanctuaries were both founded on the same event, which is water vanishing into a hole in the ground, told centuries apart by two different religions.

Two men did get out of here with their names attached. One was born a slave in this town, was freed in Rome and taught in Greece, and the handbook his pupil compiled out of his lectures has kept him the most-read Stoic teacher of the Roman period.[30]

The other was bishop here in the early second century, and his few surviving sentences, quoted by somebody else, are the earliest named statement anybody has about how two of the gospels came to be written: that Mark wrote down what Peter remembered, and that Matthew compiled the sayings in the Hebrew dialect.[31] A town with a hole in it

exported a philosophy and a bibliography, and both of the men who carried them out left and did not come back.

The pool is priced separately

At the centre of the site there is a pool of warm water with marble columns lying in it. The columns are the old civil agora. The pool is what happened when the ground opened under the agora in an earthquake and a spring came up through the break, and the result is now operated inside the archaeological site at a separate charge, which is to say that an admission fee is still being collected at this city for access to a hole the earth made.[32]

It is marketed as Cleopatra's. No ancient source puts her anywhere near it, no early tradition attaches her name to it, and the earliest appearance of the story is in hotel literature and tour commentary; the Mark Antony version is the same thing with a bow on it.[33] The pool itself needs none of that. It is a collapsed public square full of hot mineral water, and the toppled columns in the bottom of it are the most honest exhibit on the site.

The bubbles that come up past the swimmers are carbon dioxide leaving the water.[34] Same gas. Same fault. It kills in a cave because it collects there, and it is harmless in an open pool because it goes straight up into the sky, and the difference between the Ploutonion and the swimming is a roof. Two attractions, two revenue streams, two thousand years apart, running off one crack in the floor of a valley, and the only thing that changed was which effect of the gas the customer was being sold.

The terraces are younger than the ruins

The white terraces on the slope below the city are the reason anybody who has never heard of Hierapolis has heard of this place, and they are not ancient. The oldest of the self-built channels in the system has been dated at around twelve hundred years, with deposition since in distinct phases and the pools now at the top of the slope under a century old.[35] The ruins up the hill are older than the famous white thing below them. Whatever the Roman city looked out over, it was not this.

The mechanism is simple and it is not biological. Water charged with carbon dioxide dissolves carbonate underground, rises along the faults, and reaches the surface, where the air has far less carbon dioxide in it than the water does. The gas comes out of solution, the water turns supersaturated with calcium carbonate, and the carbonate drops out as stone, fastest over a lip where the flow goes turbulent, which is why each pool builds its own rim and the rims build the staircase.[36] Something like thirty-five tonnes of stone a day comes out of the water across the system.

There is life in it, seventeen kinds of cyanobacteria, sixteen diatoms, five green algae, in soft mats on the surface and in a hidden layer two to five millimetres down inside the rock, and they affect the texture here and there without driving the process.[36] The brown and green staining is them. The white is not. The white is the gas leaving.

And the terraces are now closed to feet, after the decades when hotels were built on top of the formation and the water was piped off to fill their pools and the slope went grey and dry. The hotels came down, the road across the lower terraces was shut, private cars were banned, bathing was confined to designated spots, and the flow was put back on the stone.[37] The ministry's own documents now describe the surface as a flow with an output to be sustained, which is the correct way to think about it, and it took the hotels to get anybody there.

Because the fault did all of it. It brought up the carbon dioxide, which made the cave, the cult, the oracle, the priests and the gate receipts. It brought up the hot water, which made the baths, fixed the dye, fenced the fields and furred the pipes. The water laid down the travertine, which made the terraces, the twenty-one ridges, the quarries and the blocks the city was cut out of. Spring activity and travertine deposition in this basin have been shown to be controlled by tectonics and not by climate.[38] Every asset this town ever had came up one crack.

Then the crack presented its invoice. When the walls went up in late antiquity the city built them by demolishing its own necropolis, its north theatre, the north agora, the gymnasium and the shops, with the northern

stretches made mostly of tomb blocks, so the defensive circuit was the cemetery, rearranged.[39] The enemy it was aimed at was not the one that mattered. A survey of the standing remains found walls and irrigation channels offset along the line of the fault, with a small downthrow to the south-west and the worst damage of all coinciding with the trace.[40]

The theatre came down in a later shock, the population drained off the shelf into the foothills, and the city was effectively deserted by the later medieval period, by a process of repeated damage and contraction rather than a single event anybody can date.[41] What the earth did next was keep depositing. The water never stopped, and the water does only one thing, which is to turn itself into rock wherever it goes. On the northern edge of the site, out among the tombs, there is a mausoleum that the spring deposit has already grown over and sealed inside itself.[42]

What to look for

- The newer Ploutonion cavity: the travertine façade with its marble arch and half-columns over the spring, the rusticated finish of the Doric portico against the polished marble above it, the three-sided bank of theatron seats, and the rock opening itself, which is fenced because the gas is current.
- The older grotto beside the Temple of Apollo, walled up and signed, about sixty-five metres from the newer one and on the same fracture.
- The replica of Hades with Cerberus standing in front of the grotto; the original is in the museum.
- The Temple of Apollo: a late rebuild on an older podium, with reused blocks in it, the marble stair, and the second-century fountain in front with a Byzantine retaining wall made out of the temple’s own precinct wall.
- The Frontinus Gate at the north end of the main street, three travertine arches between round towers, and the Doric pseudo-porticoes in travertine running the length of the street.

- The theatre, with the reliefs on the stage front replaced by replicas, the originals in the museum’s theatre hall: the birth of Apollo and Artemis, Marsyas, the abduction of Persephone, and a Severan coronation scene.

- The water tank above the theatre, where terracotta pipe from the drinking-water lines shows the carbonate encrustation.

- The museum, housed in the vaulted travertine halls of the Roman baths, for the theatre reliefs, the Apollo statue found in the theatre in the nineteen seventies, the fluted marble sarcophagi, and the sawmill lid of Marcus Aurelios Ammianos if it is out of store: ten spokes, a gear pair, two saw frames each with its blade in a block, the two ribs of the water channel, and the tenon with its four words.

- The north necropolis along the Tripolis road, for travertine against marble sarcophagi, lid shapes and the tenons and sockets that fixed a lid to its chest, tumuli with vaulted chambers, and long Greek epitaphs carrying fine clauses.

- In the same cemetery, the sarcophagus whose fine is payable to the settlement of the Judeans resident in Hierapolis.

- The Glykon sarcophagus, standing alone on the hillside where the walkway to the martyrion ends and the stair begins, with its text on the long north-west face.

- The Byzantine north gate and wall, built from tomb blocks, theatre blocks and agora blocks, with inscribed funerary pieces and cornice fragments in the facing, and the lion, panther and gorgon brackets.

- The octagonal martyrion on the hill, its radiating chapels and its stair, and the three-aisled church about forty metres off with the first-century tomb at its centre: worn marble steps, nail holes, door grooves, crosses on the façade, and the pools beside it.

- A quarry trench on the plateau, vertical-sided and cut down into banded travertine, with tool marks on the trench walls that match the marks on the city's blocks.
- The mausoleum on the northern edge engulfed by spring deposit, where natural travertine meets worked masonry at a visible interface.
- The Antique Pool, the fallen columns of the civil agora lying in it, and the bubbles.
- At the terrace rims: the layering in broken edges, the rimstone dams, the soft green and brown mats on the surface, the darker endolithic band a few millimetres down, and fresh white deposit forming under a few centimetres of water.

CHAPTER 21: WHERE ASIA WENT

A Greek geographer working in Alexandria set the eastern edge of the inhabited world at two countries he called Serica and the Sinae, which is where the silk came from.[1] Everything between his own coast and that edge was Asia. The word had been in Greek since Homer and in Hittite clay for centuries before that, and the thing it was originally fastened to was a wet plain behind one harbour, a distance you could walk across in a morning.

Nobody did that on purpose. There was no conference and no decree, and no geographer ever stood up and announced that the eastern third of the world would be called Asia from now on. The word simply kept being the handiest container anyone had, and it got promoted every time somebody needed a bigger one.[1]

Hecataeus of Miletus sorted his material into Europe and Asia. Herodotus used Asia for everything beyond the Aegean and for the whole Persian sphere, and when he wanted the seaward end of it he wrote Lower Asia, as though the word had a top. By the Alexandrian's time the top was in China, or at least in a country he had heard produced silk, and it took another thirteen or fourteen centuries of medieval travellers' reports and Renaissance mapping to attach that edge of his Asia to a real Pacific coastline.[2] The word got to the far side of the continent well ahead of anybody who could confirm it was there.

And the word never gave up its old job while it was taking on the new ones. While Asia in the geography books ran out to the silk country, Asia in the files was a Roman revenue district with a governor sitting at Ephesus, and when Diocletian broke that province into smaller ones, one of the pieces kept the name: a Byzantine province of Asia covering the coast from the Gulf of Adramyttium down to the Maeander.[3]

So the same word, in the same language, under the same administration, meant both half the world and about a week of coastal sailing, and nothing in the record suggests that anybody ever found this awkward enough to write down.

Nobody here ever had a name for here

The name was available to be taken because there was nothing to take it from. Every empire that owned this coast kept records, and not one of them had a word for the whole of it. The Hittites, who kept the best files, wrote of Wiluša and Mira and the Šeḫa River Land and Lukka and Karkiya and Millawanda, and Arzawa for the large western kingdom, and Aššuwa for the coalition that lost a battle to them, and nowhere in all of that is there a term for the peninsula.[4]

The pattern holds as the owners change. The Assyrians had Luddu for Lydia and Mušku for Phrygia and nothing collective at all. The Persians held the place for two centuries, and in the king's own lists of the lands he owned, cut into stone where everybody could see them, this coast appears as Sparda and Yaunā: the Sardis country, and the Ionians.[5]

Two entries and no heading. The man who owned western Asia Minor had no word for western Asia Minor, and he was not being evasive about it. Nobody had one, and nobody appears to have wanted one.

Which means that every name this land has carried for the whole of itself was issued out of an office somewhere else, by somebody describing where it was in relation to where he was standing. Aššuwa was filed on the plateau. Asia was Greek for the far shore. The province was an area of taxable yield with a proconsul attached. The people actually living here went on identifying themselves by city through every change of management, and a man from Priene was from Priene, which is a smaller unit of loyalty than a region and a considerably more durable one.[6]

The Greeks noticed the problem early and did nothing whatever about it. Herodotus already treats Europe, Asia and Libya as three names laid over one continuous landmass, and he stops to ask why women's names were handed out to them. He reports a Greek belief that Asia was called after the wife of Prometheus, and a Lydian claim, made at Sardis, that it came from Asies son of Cotys, whose descendants were still a recognised clan in the city when he was writing.[7]

So the oldest surviving objection to the word is that it is somebody's wife, and the oldest surviving counter-claim is a family at Sardis insisting it is their great-grandfather. Both are guesses about a word that was already far too old to explain, made by men who had no way of doing better, because the tablet carrying the earliest form of it was lying under a hill on the central plateau and would not be read for another two thousand years and more.

The word went up and the land went down

Rome made the name permanent by making it fiscal. A dead king left his kingdom to the Senate, Rome fought a war over the inheritance and then organised the territory as a province, and after that Asia was not a region in a book but an address with a yield.[8]

When Diocletian subdivided it the name went two ways at once: a reduced province still called Asia, alongside Lydia and Caria and Hellespontus and two Phrygias, and above all of them a diocese called Asiana. The coast was now a subdivision inside an adjective formed from its own name, which is roughly what happens to a word that has been promoted over its own head.

Then it came off the coast altogether. The empire called itself Rhomania and its eastern lands anatolai, and the district that held Ephesus, Smyrna, Sardis, Hierapolis and Laodicea was the Thrakesion, named for Thrace.[9] Thrace is across the water, in Europe. Why the coast that produced the word Asia ended up filed under a European one is not in anything I have. What is in the record is the list of towns inside the district, and it is most of this coastline, administered under a name borrowed from the other side.

After that the namings come from further out each time. Arabic geographers called the whole thing al-Rūm, the Romans, which is what the inhabitants called themselves, and the Turkish state built over them took the same word and was Rūm. The Byzantine term for sunrise finished the job, and the land is Anadolu.[10] In 1923 a treaty exchanged populations and the Greek-speaking coast of Asia Minor stopped existing.

Named by the Hittites for being trouble, by the Greeks for being over there, by Rome for being taxable, by the Arabs after a city in Italy, and by the Turks after a compass direction: five namings and five foreign desks, and not one of them from the ground.

There is a tidier story about all this and it is wrong. The derivation everybody likes takes Asia from the Akkadian verb for going out and, of the sun, rising, and pairs it with the verb for going in and setting, which gives you Europe and Asia as sunset and sunrise, two halves of a single elegant idea. The objection to it is not sentiment. It is that no borrowing chain has ever been demonstrated, and that the pairing is precisely the shape an explanation takes when two names have been forced into opposition long after the fact.[11]

The joke is that the rejected etymology turned out to be an accurate forecast. The land really is named after the sunrise. Not in Akkadian and not in the Bronze Age: in Greek, from Constantinople, by clerks who meant east of where they were sitting, two thousand years after the word Asia was already in use, and that is the name on the road signs today. The right answer arrived by the wrong route, in the wrong language, attached to the wrong one of the two names, and nobody got any credit for it.

None of the naming made the slightest difference to the ground. All the way through it the rivers went on building new land in front of the harbours until the harbours were fields, and the sea that every one of these cities was founded to face is now kilometres away from the ruins of it.[12]

Where Europe decided to stop

The eastern limit of Asia was never a problem, because it was simply wherever the maps gave out, and the maps kept going. The western limit was a problem, because Europe had to end somewhere and the two edges are the same line. Before the eighteenth century the proposals on the table included the Don, the Ob and the Yenisei, which between them cover most of a continent, and choosing among them was not the kind of question a geographer could lose an argument about.[13]

A description published in 1730 by Philipp Johann von Strahlenberg put the main boundary along the Ural mountains, which is where it still runs. Vasily Tatishchev afterwards said that he had given Strahlenberg the idea in conversation about ten years earlier. Priority cannot be settled: Strahlenberg published first and Tatishchev claimed first, and the modern habit is to credit them together and move on.[14] So the question of where Asia begins was answered in the seventeen twenties by two men in Russia, and the only part of it they could not agree on was which of them had thought of it.

Even then it took another century to finish. Maps went on disagreeing about the southern end of the line, running it along the Volga, or the Don, or the Emba, or the Ural river, in various combinations, until the Ural river and the Caspian won by attrition.[14] A word coined for one wet plain in western Anatolia now begins, by international convention, at a river on the far side of the Black Sea, in a place that had nothing to do with any of it, and the convention was reached by cartographers quietly disagreeing with each other for a hundred years about which of four rivers to use. Nobody on this coast was consulted. Nobody on this coast had been consulted about the word since the Bronze Age.

What a loan keeps

Make a list of the things this coast invented, named, or had named after it, and keep only the entries that survive a check, and you reach twenty without leaving antiquity.[15] The entries that fail the check are mostly the ones everybody repeats, which is how that usually goes. Twenty is a lot. Twenty is more than most countries manage, and this is a strip of coast you can drive in a day.

What is interesting is not the number. It is that in nearly every case the thing that travelled was the sound and the place came off it somewhere en route. A word leaves here attached to a river, a city, a king or a mountain, and arrives somewhere else attached to a pattern, a material, a temperament or a metal, and the people using it perfectly correctly at the

far end have no reason on earth to know where it started. The loan is not repaid and it is not even remembered as a loan. It is just vocabulary now.

Take the two metals. On a mountain in Lydia the tradition put Tantalus, standing in water he could not drink under fruit he could not reach, and his daughter Niobe, turned to stone over her dead children. Two metals that occur in the same ores were named for the pair, tantalum for the father and niobium for the daughter, because the chemist who named the second one wanted the family relationship kept.[16] The mountain is not in the periodic table. The grieving family is, in two boxes, with the kinship intact and the geography gone.

Or take the direction of travel, which was not one way. The southern half of Greece is the Peloponnese, the island of Pelops, and the Greeks' own tradition made Pelops an immigrant from Lydia or Phrygia; Herodotus calls him the Phrygian.[17] So the Greek heartland carries the name of a man their own sources say came off this side of the water, and this side of the water carries a Greek word for being on the far side of it, and the two names crossed in mid-channel without either population being asked.

Asia is the same operation at the largest scale available. The word kept its shape the whole way to the Pacific and shed its address inside the first thousand kilometres, and it now names the biggest landmass on earth. The strange part is that it is doing that job accurately. There is nothing the matter with the word. It describes something real and enormous and it describes it well. It just does not describe the thing it was coined to describe, and it has not done for a very long time.

The past tense

Once the word had a continent inside it, this coast needed a qualifier to get back to itself, and for about a thousand years it had one. The qualifier did its best work late: it became standard in western European geography and history during the Renaissance and the early modern period, which is to say that it was most useful to the people furthest from the thing it described.[18]

Then the qualifier went too, and what replaced it on European maps was Natolia, a clipped form of the Greek word for sunrise that had reached the mapmakers through Italian charts.[18] The replacement name for the land that named Asia was therefore a foreign abbreviation of a foreign word for a time of day.

An atlas of 1570 carries a sheet of the peninsula, and the title engraved across it reads *Natoliae quae olim Asia Minor nova descriptio*: a new description of Natolia, which was formerly Asia Minor.[19] *Olim* is the Latin for once, or formerly. Three thousand years after a scribe on the central plateau filed the trouble beyond the mountains under a name beginning Aš, the name stood on a printed map of that same coast in the past tense, with the new one in front of it.

APPENDIX G: ENDNOTES

Superscript numbers in square brackets in the body text refer to the per-chapter endnotes below.

Preface: The Filing Cabinet

1. Hittite archive at Hattuša (Boğazköy) for Wilusa, Apasa, Millawanda and Ahhiyawa: research report 01, sections 2.3 to 3.3, drawing on Beckman, Bryce and Cline, *The Ahhiyawa Texts* (2011); Perplexity A01 for the name correspondences. Wilusa as Ilios and Apasa as Ephesus are the majority reading, resting on the later Greek names and the geography rather than on an excavated Bronze Age inscription. Millawanda as Miletus is accepted by nearly all specialists, on the form of the name, the geography, and Niemeier's excavation of a Mycenaean-style settlement at the site. Ahhiyawa as the Mycenaean Greek world, at least in part, has been the clear majority view since the decipherment of Linear B; Forrer proposed it in 1924 and Sommer's 1932 philological objections are no longer regarded as decisive. These readings are used in preference to the sceptical alternatives because the Hittite texts place Ahhiyawa overseas, reachable by ship, with a foothold at Millawanda, and no competing geography fits. Report 01 also makes the point this paragraph rests on: almost all the political information about Bronze Age western Anatolia comes from the Hittite archive, because the western polities left no archive that can be read.

2. Herodotus 1.94 on the Lydians as the first to strike coined gold and silver; Claude A12, lexicon completion and audit, which grades the claim high because modern numismatics agrees that the earliest coins, in electrum, came from Lydia and Ionia in the late seventh century BC (Kroll, Sardis Expedition). Sardis itself sits off the route of this book. Herodotus' companion claims in the same chapter, that the Lydians also invented retail trade and dice, are graded low and are not used.

3. Claude A12: the name *parchment* from Pergamon carries a dictionary etymology and is graded high. The invention story is Pliny, *Natural History* 13.70, citing Varro, and A12 rejects it as an invention claim because Herodotus 5.58 already has the Ionians writing on skins (διφθέραι, *diphtherai*). The name and the invention are two separate claims, which is why one survives here and the other does not.

4. Claude A12: *meander* from the Maeander, Greek Μαίανδρος, dictionary etymology, high confidence. Note that the modern Küçük Menderes is the ancient Cayster and not the classical Maeander (Perplexity A01).

5. Claude A12 and research report 07, section 2.2: Anaximander of Miletus is credited with the first Greek map (Agathemerus 1.1; Strabo 1.1.11, citing Eratosthenes) and Thales with the earliest recorded attempt at a material first principle. Both are ancient attributions rather than documented firsts, which is why the sentence says where the tradition puts it rather than asserting the fact. A12 also notes that the gnomon was introduced here rather than invented, since Herodotus 2.109 has the Greeks taking it from the Babylonians.

6. Research report 02, section 2.2: Herodotus 2.152 to 2.154 for the Ionian and Carian soldiers Psammetichus I settled in the Nile Delta, confidence high. What those men later cut into the monuments of Egypt is approved outward link L8, allocated to chapters 12 and 18, and chapter 12 opens on it.

7. The Kumarbi cycle alongside the succession myth of Hesiod's *Theogony* is approved outward link L2 in the assignment, which rates the parallel high and the transmission route moderate. It appears nowhere in research report 01 or anywhere else in the corpus behind this book, and the body sentence marks that gap rather than asserting a route.

8. Research report 07, sections 2.1, 3.6 and 4, resting on Brückner, Müllenhoff, van der Borg and Vött, “Holocene coastal evolution of western Anatolia”, CIESM Workshop Monographs 24 (2004), and on about 200 percussion corings in the Büyük Menderes delta: Miletus as islands in the Latmian Gulf at the Holocene sea-level peak; the Priene relocation of about 350 BC onto an embayment already turning to fresh water; and the 1560 report by a Greek sailor that the coast lay about eight kilometres off. Lake Bafa as the surviving enclosed eastern part of the Latmian Gulf is verified high in Perplexity A10a. Brückner’s team stresses that the ancient literary evidence allows more than one delta scenario, which is why the corings and not the ancient geographers carry this paragraph.

9. Perplexity A01: the Hittite annals conventionally assigned to Tudḫaliya I/II (CTH 142 and associated fragments). High confidence that the tablet names twenty-two opposing lands and that *Wilušiya* and *Taruiša* stand near the end of the readable list of fourteen; moderate for the date of about 1430 to 1400 BC, which is chronology-dependent, and for the equations with Ilios and Troy. A01 rates the Wilusa equation stronger than the Taruiša one and warns only against treating the pair as two separately known cities, which this text does not do.

10. Helmut Theodor Bossert, *Asia* (Istanbul, 1946), as reported in Perplexity A01: moderate confidence. The competing derivation from Akkadian *aṣû*, “to go out” and, of the sun, “to rise”, is graded low by A01 for want of a demonstrated borrowing chain, and the Lydian tradition at Sardis recorded by Herodotus 4.45, that Asia was named from Asies, is an ancient etymology rather than a linguistic one. Aššuwa is used because it is the only candidate attested in the right place and securely centuries earlier than Greek Ἀσία. A01 records that no universally accepted phonological derivation from *Aššuwa* to Ἀσία exists.

11. Research report 01, section 2.4: a Mycenaean-type sword found at Hattuša carrying a Hittite inscription describing it as booty from Assuwa, confidence moderate. The report notes that the weapon may have been in Assuwan rather than Mycenaean hands, which is why the sentence claims only what the inscription says.

12. Homer, *Iliad* 2.461, Ἀσίῳ ἐν λειμῶνι Καϋστρίου ἀμφὶ ῥέεθρα, per Perplexity A01: high confidence for the text and for the Cayster landscape, the plain of Ephesus and the Artemision. A01 records a competing reading in which Ἀσίῳ is the personal name Asios, giving "the meadow of Asios"; the geographical adjective is used here because A01 rates it the more natural function of the transmitted accentuation and syntax.

13. Perplexity A01: Attalos III's bequest of Pergamon to Rome in 133 BC, high confidence, and the organisation of the territory as the province of Asia in 129 BC following the war against Aristonicus, high confidence.

14. Perplexity A01: Paulus Orosius, *Historiae adversus paganos* 1.2, written about AD 416 to 417, as the earliest securely identifiable use of Latin *Asia minor*, moderate confidence. A01 could not verify any Greek occurrence of ἡ μικρὰ Ἀσία earlier than Orosius, and could not substantiate the claim that the phrase was already standard in classical antiquity.

15. Perplexity A01: Greek ἀνατολή, "rising" and especially sunrise, high confidence; Byzantine administrative use of the plural ἀνατολαί for the eastern territories, high confidence; medieval Turkish *Anadolu* developing from the Byzantine Greek term, moderate. A01 notes that the seventh-century Anatolikon theme was a central Anatolian military district and did not originally name the whole peninsula, so the credit here goes to the administrative plural rather than to the theme.

16. Max Vasmer's etymological entry Азия, as reported in Perplexity A01: Old Russian and Church Slavonic Асия direct from Greek Ἀσία, high confidence; the modern Азия reinforced or reborrowed through Polish *Azja* or German *Asien*, high confidence; Малая Азия principally through German *Kleinasien*, which stands closer to Greek Μικρὰ Ἀσία than Latin *Asia minor* does, high confidence. A01 could not establish a first dated Russian occurrence of either modern form.

17. Research report 02, section 4: the Ionian coast remained under Persian authority until Alexander in 334 BC, confidence high. The individual episodes previewed here are sourced in the chapters that carry them.

18. The 1922 to 1923 endpoint, per the assignment's twentieth-century constraint, which allows it one or two sentences and no narrative of the war or the population exchange.

Chapter 1: The Narrows

1. Perplexity A09, high confidence: Greek Ἑλλήσποντος, "sea of Helle," with the fall from the golden ram at Apollodorus, *Library* 1.9.1. A09 is explicit that this is an ancient primary-text tradition and not a historical account of the strait, which is why it is told here as myth and in one breath.

2. Perplexity A09: "Dardanelles" through European usage from Dardanos, the legendary ancestor and the settlement of that name on the Asian shore, high confidence; Turkish *çanak*, "bowl" or "earthenware vessel," plus *kale*, "fortress," high confidence. A09 rates the pottery explanation of *çanak* genuine but the chronology of the compound only moderate, and records that no sufficiently authoritative Ottoman toponymic study was found establishing when Çanakkale displaced Kalʿa-i Sulṭāniyye. The body therefore gives the etymology and not a date.

3. W. S. W. Vaux, *Greek Cities and Islands of Asia Minor* (1877), note to chapter 1: average breadth of the Hellespont about three miles. A nineteenth-century handbook, used here for a period measurement because no modern survey figure for the width appears in the material behind this book. Treat it as an order of magnitude and not as a datum.

4. Vaux, same note, for Homer's πλατύς, "the broad," which Vaux thinks too generous; for Herodotus 7.35 calling it δολερὸς καὶ ἁλμυρὸς ποταμός, "a treacherous and briny river"; and for the current being strong enough that a well-manned boat could not be pulled straight across. Herodotus' epithet is preferred to Homer's here because the outflow from the Black Sea is the feature every later episode in this chapter turns on.

5. Perplexity A09, high confidence: Hero a priestess at Sestos, the lamp, Leander's nightly swim from Abydos, the storm and the two deaths. A09 notes that the surviving extended ancient versions are literary, particularly Musaeus' *Hero and Leander*, and warns specifically against turning them into local history, which is why the body marks the story as a poem in the clause that tells it.

6. Perplexity A09, high confidence: Byron's swim from the European to the Asian side on 3 May 1810 with Lieutenant William Ekenhead, completed in one hour and ten minutes, per Byron's own account in Moore, *Letters and Journals of Lord Byron*. The verse is *Don Juan* II.105, quoted by Vaux, who also supplies the point that Leander swam against the stream and the modern swimmers did not.

7. Vaux: Abydos at the narrowest part of the Hellespont, opposite Sestos.

8. Vaux: Abydos, Lampsacus and Parium on the Hellespont among the colonies of Miletus.

9. Vaux, who places the bridge “a little above Abydus” and dates it 480 BC; Perplexity A09, high confidence, for Herodotus 7.33 to 7.36 and the destruction of the first bridges by a storm.

10. Herodotus 7.35 for the three hundred lashes and the pair of fetters. Perplexity A09 reports the same passage as the water being “whipped and fettered” without the count; the count comes from this chapter’s assignment brief, which cites 7.35 directly. Herodotus’ chapter 35 carries further punishments in some readings, and none of them is asserted here.

11. Perplexity A09, citing Encyclopaedia Iranica on the literary framing of Herodotus book 7 and on Aeschylus’ earlier treatment of the bridging as a subjugation of the elements.

12. Perplexity A09, high confidence: replacement pontoon bridges constructed from ships after the loss of the first pair.

13. Vaux for Aeolis contributing sixty ships to Xerxes’ armament, and for the Aeolian cities passing to Persia on the success of Cyrus. Research report 02, section 4, carries the general point that the Ionian coast remained under Persian authority for centuries afterward. The body makes no claim about the proportion of the army raised on the Asian shore beyond the sixty ships.

14. Perplexity A10b, high confidence for the Turkish forms Kalʿa-i Sulṭāniyye and Kilīdü’l-baḥr, “lock of the sea,” and moderate confidence for the construction window: “the early 1460s, probably beginning in 1461 or 1462,” with contemporary narrative evidence placing Kilitbahir’s completion by 1464 to 1465. The commonly printed 1452, which tourist literature ties to the 1453 siege, is not used: the official Çanakkale Gallipoli Historical Site authority dates Kilitbahir to 1462 to 1463, Perplexity A09 judges the later date better supported for the surviving paired programme, and Kilitbahir carries no foundation

inscription, so the exact completion year is unresolved and the body gives the decade only.

15. Perplexity A09, high confidence: the artillery lines of the two castles overlapped so that passing ships could be stopped, inspected or fired upon.

16. Perplexity A09, high confidence: Ottoman activity on the European side predates 1354, but the earthquake of that year facilitated permanent occupation around Gallipoli, with Süleyman Paşa, son of Orhan, as the central figure. A09 cautions against treating 1354 as the first Ottoman presence in Europe, which the body does not.

17. Gemini A04 for the fabric of Çimenlik: rectangular outer curtain wall with corner bastions, central three-storey square keep, incorporating spolia from ancient Abydos. Gemini reports are the weakest tier in this book's precedence order and their own confidence labels do not count as verification; nothing else in the material confirms the Abydos spolia, which is why the body says the keep "is said to have" used it. The curtain-and-keep description is corroborated indirectly by A09's account of the castle and its museum.

18. Perplexity A09, high confidence, for the trefoil inner fortress at Kilitbahir; Gemini A04 for the heart-shaped outer rampart around it. The functional reading of the three lobes as gun platforms facing three ways follows from A09's statement that the castle was built to bring artillery fire to bear on passing vessels, and is an inference rather than a quotation.

19. Perplexity A09, high confidence: the Calverts as an English Levantine consular family at the Dardanelles, Frederick Calvert British consul from 1846 to 1862 and Frank Calvert later United States consular agent for decades. Gemini A07 for the Russian vice-consulate at the Dardanelles, which is weakest tier and

uncorroborated; it is used because A09 independently establishes the Russian treaty interest in the strait that such a post existed to serve.

20. Claude A06, section 7.1, high confidence: Law 2510, the İskân Kanunu or Resettlement Law, appeared in the Official Gazette on 21 June 1934; a *New Perspectives on Turkey* article states that attacks against Jews started in Çanakkale on 21 June 1934, and a Turkish study of the press records that the first physical attacks took place there on the day the law was published. A06 notes conflicting dates in popular sources, 5 June in one and early July in another, and concludes that threats and boycotts ran through June, physical attacks from 21 June, and the worst violence in Kırklareli and Edirne in early July. The body states only the 21 June coincidence, which is the best-supported element.

21. Perplexity A10b, item 2, high confidence for the identification: Emilio Vitali, also recorded as Emili Vitali and Émile Vitalis, a Jewish Italian-Levantine merchant and Italian consular representative at Çanakkale, out of whose wealth the clock tower was financed. Three things around it are not settled and so are not in the body: whether he paid for it in his lifetime or left the money in his will; the sum, which circulates as ten thousand gold coins, as ten thousand gold francs and as a hundred thousand gold francs; and his rank, where A10b prefers vice-consul and notes that the grander consul-general belongs to the popular retellings. The tower stands at Çanakkale. The clock tower at Konak in İzmir is a different building and the two are frequently confused.

22. Perplexity A09, high confidence: the bronze bombard cast by Munir Ali in 1464 in two screw-connected sections, presented by Sultan Abdülaziz to Queen Victoria and now held by the Royal Armouries at Fort Nelson. A09 specifically warns against

describing it as an exhibit in the Çanakkale Naval Museum, which is why both the body and the list say where it actually is.

23. Perplexity A09, high confidence: on 18 March 1915 a combined British and French fleet attempted to force the Narrows, lost capital ships to an unobserved minefield and to the coastal batteries, abandoned the naval attempt, and the campaign went ashore the following month. A09 corrects the popular reading in which the mines alone were decisive: they worked as one element of an integrated defence of coastal guns, observation and minesweepers that could not operate under fire. The episode is given here in one sentence because the only part of it this book needs is that the strait was still shut.

24. Perplexity A09, high confidence: the Dardanelles were central to Russian policy because they controlled the route from the Black Sea to the Mediterranean, and the Treaty of Küçük Kaynarca of 1774 opened passage to Russian commercial vessels.

25. Perplexity A09, high confidence: Russo-Ottoman agreements of 1798 and 1805 admitted Russian naval forces under alliance conditions.

26. Gemini A07 for the operational account: Vice-Admiral Dmitry Nikolayevich Senyavin, the Second Archipelago Expedition, the forward base on Tenedos, the blockade of the Aegean mouth of the strait, the Ottoman breakout under Seydi Ali driven back beneath the fortress batteries in May 1807, and the blockade's contribution to the food riots and the Janissary revolt that deposed Selim III. Perplexity A13 did not complete its Çanakkale sweep and lists a primary operational account of the May 1807 action, and the Old Style to New Style date conversion, as unverified, directing that only separately verified Senyavin material be retained. The body therefore gives no day-date and no ship counts, and keeps to the blockade, the repulse and the

political consequence, which is the shape every available account agrees on.

27. Perplexity A09, high confidence: the 1833 Treaty of Hünkâr İskelesi as the high point of Russian influence over the straits regime. Gemini A07 for the secret article closing the Dardanelles to foreign warships whenever Russia was at war, quoting the French text and citing Martens' treaty collection; weakest tier, and used because A09's independent characterisation of the treaty as the high point is only intelligible with the article in it.

28. Perplexity A09, high confidence: the 1841 London Straits Convention restored the peacetime principle that the Ottoman straits were closed to foreign warships. A09 also records the Montreux Convention of 1936 as the framework now in force, which this chapter does not reach.

29. Gemini A07: the secret Constantinople and Straits Agreement of March to April 1915, negotiated between Sazonov, Buchanan and Paléologue, assigning Russia the city, Thrace to the Enos-Midia line, both shores of the Bosphorus and the Dardanelles with the Gallipoli peninsula and the Çanakkale coastline, and Imbros and Tenedos. Weakest tier and uncorroborated in the verification layer; it is used because the agreement is the only thing in the record that makes the 1915 collision legible, and because Perplexity A09 independently establishes the Russian strategic interest it expresses.

30. Gemini A07: the agreement voided by the fall of the Romanovs in March 1917, and the Soviet publication of the secret treaties in *Pravda* in December 1917 with a renunciation of annexationist claims to western Anatolia and the straits. Same tier and same caution as note 34.

31. Perplexity A09, high confidence, for approximately 26,000 members of General Kutepov's First Army Corps assigned to

Gallipoli after Wrangel's evacuation, with most transferred during the second half of 1921 and remnants remaining until 1923, and for Turkish scholarship placing Russians in Gelibolu from 22 November 1920 to 5 May 1923. Perplexity A13, item 10, verifies that sequence, and item 11 corrects the single headline number: Shkarovsky gives about 29,000 for the corps in the camps while another account gives 25,868 military personnel and 1,688 civilians, and A13 directs that any figure be tied to a population and a date rather than printed as absolute. The body prints the range for that reason.

32. Голое поле, "bare field," the camp's own name for Gallipoli, verified against Perplexity A13. The name works twice over, as a near-transliteration of Галлиполи and as a flat description of the ground, which is why the men there kept it.

33. Perplexity A13, item 12, verified at high confidence: the memorial erected and consecrated in 1921, destroyed or severely damaged by the earthquake of 1949, and reconstructed on 17 May 2008. A13 records that sources differ over whether to call the post-earthquake condition collapse, destruction or later dismantling, but not over the sequence. The memorial was raised in 1921, brought down by the earthquake of 1949 and rebuilt in 2008; only the rebuilding date is in the body, because the other two are chronology rather than content.

34. Research report 04, section 2, on Herodotus 7.43: Xerxes climbing to Priam's citadel, the sacrifice of a thousand oxen to Athena of Ilion, the Magi's libations to the heroes killed at Troy, and the panic in the camp that night. Report 04 rates it high that Herodotus reports this and moderate that it is literal history, and notes that the passage is the earliest firm evidence for the sanctuary of Athena at Ilion.

35. Research report 04, section 2: the Spartan admiral Mindaros imitated the gesture in 411 BC.

36. Research report 04, sections 2 and 3.5: Korfmann's lower town is accepted as existing, while its size, the function of its ditch and its trade role are disputed, with Kolb prevailing on population and tone but not on the existence of Late Bronze Age occupation south of the citadel. Report 04 states flatly that Korfmann's "trade city" is unproven, and that Troy mattered first as a fortified harbour at the mouth of the Dardanelles and later as a place with symbolic weight. The body follows that ranking rather than the popular toll-gate account.

Chapter 2: The Files

1. Research report 01, sections 3.2.3 and 3.5, on the treaty between Muwatalli II and Alaksandu of Wilusa, catalogued CTH 76 and concluded about 1280 BC: the history of relations, the earlier king Kukkunni, the confirmation of Alaksandu, the loyalty and military obligations, the promise of Hittite protection, and the list of divine witnesses including Apaliunas. Report 01 rates it high that the treaty exists and contains this material. The report also warns that a vassal treaty recalls history in a way designed to justify obligations, so the narrative inside the document is the Hittite court's version; nothing above rests on that narrative, only on the fact of the file.

2. Research report 01, section 3.2 and summary item 3, and research report 04, section 2.2: Wilusa as (W)Ilios, rated moderate to high and held by a large majority of Hittitologists and Aegeanists, on the name, the geography implied by the texts, the Wilusa and Taruisa pairing, the personal name Alaksandu, the god Apaliunas and a Luwian hieroglyphic inscription at Beyköy. The sceptical alternatives are not adopted because nothing else fits the geography the Hittite texts require. Report 04 is the source for the Luwian hieroglyphic seal from Troy VIIb1 being the only script find from the mound, rated high, and for the point that the equation therefore rests on texts kept elsewhere.

3. Research report 01, sections 3.2.3 and the source-criticism section: Alaksandu compared with Greek Alexandros, the second name of Paris in the *Iliad*, confidence moderate, with Linear B usually cited as attesting a form such as a-re-ka-sa-da-ra, a reference report 01 did not itself check. Report 01 is explicit that the connection with the Trojan prince is a suggestion rather than a proof and that a Greek-derived name need not imply Greek rulers at Wilusa. That is the reading used here, in preference both to treating the identification as settled and to dismissing it, because the name is the one element of the Wilusa case that is independent of geography. Alexandros in this note is Paris, not the Macedonian.

4. Research report 04, section 3 on the destruction stratum: Troy VIIa has fire, weapons and bodies, but a date after the collapse of the Mycenaean palaces and continuity of population into VIIb1; Troy II is too early by about eleven hundred years; the reading that treats VI and VIIa as one long city is rated moderate as Korfmann's view and low as a testable proposition. The same section carries the Troy VIIb3 evidence for the ruined Late Bronze Age wall and house being used for worship and feasting, which report 04 rates low to moderate and calls memory continuity rather than event continuity. The weaker claim is the one used, because it is the only one that bears on this chapter's subject.

5. Herodotus 7.43 for Xerxes at the citadel of Priam in 480 BC and the sacrifice of a thousand oxen to Athena of Ilion, per research report 04, section 2: high that Herodotus reports it, moderate that it is literal history. The episode is told in full in chapter 1 and is named here only to put the first member in the sequence.

6. Arrian 1.11.7 to 1.12.1, per research report 04, sections 2.5 and 3: the sacrifice to Athena at Ilion in 334 BC, Alexander's own armour set up in the temple, the consecrated arms taken away and

carried before him by the shield-bearing guards, the sacrifice to Priam on the altar of Zeus the household god deprecating Priam's wrath against the descendants of Neoptolemus, and the wreathing of the tomb of Achilles with Hephaestion at the tomb of Patroclus. Report 04 calls this the best-documented act of memory politics at the site. Strabo 13.1.26 adds offerings, civic privileges, tax immunity and a plan for a larger temple, at moderate confidence through secondary summaries; those additions are not used, because the armour is the transaction that carries the point.

7. Perplexity A14, dossier 1, high confidence: Kritoboulos places Mehmed's visit during the 1462 expedition against Lesbos, after the crossing of the Hellespont, at IV.72 to 73 in Riggs's layout (Book IV chapter 11 in Reinsch's critical edition, where A14 notes the final section subdivision should be checked against a physical copy). High confidence that Kritoboulos has Mehmed examine the ruins, the size, the position and the advantages of the site and ask after the tombs of Achilles, Ajax and the other heroes. The short quotation reproduced in A14 is "God has reserved for me … the right to avenge this city and its inhabitants"; the remainder of the speech is given here in close paraphrase because Riggs's 1954 translation is in copyright.

8. Perplexity A14, dossier 1: high confidence that Kritoboulos introduces the words with the Greek equivalent of "he is reported to have said" and not as something he heard, and that he was a learned Greek client of the Ottoman ruler writing in an explicitly classical manner and shaping Mehmed as a successor to the great monarchs of antiquity; moderate that Mehmed probably visited and may have held such views, given his documented court culture and the copying of Greek classics for his circle, and high that the polished antithesis cannot be quoted as his verbatim speech. A14's instruction is to write that Kritoboulos reports the speech rather than that Mehmed declared it, which is what the

body does. The Russian form Мехмед II is verified against A14. The visit is historical evidence and the oration is literary evidence about how the conquest could be represented.

9. Research report 04, section 2.6: Pompey as patron of Athena Ilias after 63 to 62 BC, and Julius Caesar's benefactions of 48 BC citing the city's loyalty and the Julian claim to descend from Venus through Aeneas, from Lucan 9.964 to 999 and Suetonius, *Divus Julius* 79.3, both through secondary citation, confidence moderate.

10. Perplexity A14, high confidence: the seventh-century *Chronicle of Fredegar* makes the Trojans ancestors of several peoples and gives the Franks and Turks a common migratory ancestry, deriving the Turks' name from a legendary king Torquotus or Torcoth, discussed in Márta Font, "The Ethnonyms Turci, Turchi in the Medieval Western Sources". A14 is explicit that this is legendary ethnogenesis and not evidence of any relationship between Bronze Age Trojans and Turkic peoples, which is how the body uses it.

11. Geoffrey of Monmouth's Brutus, a great-grandson of Aeneas, as the Trojan founder of Britain. This is one of the four Trojan descent claims this book set out to cover, and it is the only one of them that no report in the material behind the book touches at all. It is therefore given exactly as far as the book's own list gives it, with nothing added from recall, and Britain appears as a frame rather than as a subject.

12. The reading that the Trojan pedigree was attractive because the Trojans lost is this book's own, inferred from the pattern in notes 9 to 16 and not taken from any source. It is the explanation the evidence suggests rather than one anybody in the material argues for.

13. Perplexity A14: high confidence that the Trojan-Turk tradition was European before it was Ottoman, and that part of its attraction was the resemblance between Latin *Teucri* and *Turci* together with the medieval habit of assigning prestigious Trojan founders to nations; moderate confidence that Andrea Biglia, Coluccio Salutati and Poggio Bracciolini entertained versions of the theory, A14 noting that their formulations and degrees of commitment differed, which is why the body says they entertained it; high confidence for Giovanni Mario Filelfo's *Amyris* of the 1470s as the strongest literary acceptance, with the conquest of Greek territory figured as Trojan retribution.

14. Perplexity A14, high confidence: Enea Silvio Piccolomini used *Teucri* and in his 1436 *Audivi* accepted some relationship between Turks and Trojans; as Pius II he repudiated it in *Constantinopolitana clades* of 1454 and *Solent plerique* of 1455, classifying the Turks as Scythians and objecting to their being granted the Trojan name claimed by Romans. Source: Michael von Cotta-Schönberg, *Collected Orations of Pope Pius II*. The link between the repudiation and 1453 is the obvious chronological reading and is not asserted by A14 as a motive.

15. Perplexity A14, high confidence: Steven Runciman, *The Fall of Constantinople 1453*, chapter XII, mentions a letter supposedly from Mehmed to Pope Nicholas V, circulating in France decades later, expressing surprise that Italians oppose Turks when both descend from Troy, and Runciman's wording treats it as apocryphal; no Ottoman original, diplomatic register entry or contemporary papal receipt has been identified. High confidence that it belongs with the fifteenth-century *Sultansbriefe*, and that Laudivio Zacchia's *Epistolae Magni Turci*, first printed in 1473, are original Latin compositions and not translations. A14 records at moderate confidence that the Nicholas V item has not been matched to a particular manuscript, author or first printed edition, so no manuscript history is given above.

16. Perplexity A14, high confidence: the searchable 1930 scan of *Türk Tarihinin Ana Hatları* uses the forms “I inci Turova (Troie)” and *Turovalılar*, describes Troy’s foundation, and lists “Dardanlar … ve Turovalılar” among the Hittites’ allies at Kadesh, but the passages located do not explicitly say that the Trojans were Turks. High confidence that the book does argue more broadly that early Aegean populations came in waves from Asia and were not originally Greek; moderate that this framework encourages the assimilation of Anatolian and Aegean civilisations into a Central Asian migration narrative. A14 is a verification report and overrides the popular claim, which is why the body states the correction rather than the claim.

17. Claude A03, section 2.1, and research report 04, section 2.6: Appian, *Mithridatic Wars* 53, in Horace White’s 1899 translation, for Ilion’s appeal to Sulla, Fimbria’s congratulation of the Ilians as friends of the Roman people, his demand to be admitted because he too was a Roman, his ironical remarks on the relationship existing between Ilium and Rome, the indiscriminate slaughter, the burning of the town and the torture of those who had communicated with Sulla. A03 rates the event high and the scale moderate, and records that it found no excavation report quantifying an 85 BC destruction layer at Troy, with the excavators’ impression of less total destruction than Appian implies left unverified. The body therefore reports Appian’s account as Appian’s and makes no archaeological claim about the burning. A03 also notes that Appian himself makes the comparison with Agamemnon.

18. Appian, *Mithridatic Wars* 53, as quoted in Claude A03, section 2.1: “Some say that the image of Athena, called the Palladium … was then found unbroken, the falling walls having formed an arch over it.” Appian’s own “some say” is preserved in the body, which attributes the detail to him rather than asserting it.

19. Claude A12, lexicon completion and audit, high confidence: *palladium*, from Παλλάδιον, the image of Pallas on which Troy's safety depended, hence a safeguard. A12 adds that the chemical element named by Wollaston in 1803 is named after the asteroid Pallas and so goes back to the goddess rather than to the statue, which is why the body claims the word and not the metal. The Russian палладий is verified against A12.

20. Research report 04, section 2.6: Sulla's victory over Fimbria brought benefactions, and the Ilians dated a new civic calendar from 85 BC, which is the Troy IX of the stratigraphy.

21. Research report 04, section 2.6, for the tax-farmers' illegal taxation of the sacred land of Athena Ilias in the 80s BC, the pirate attack of 80 BC and Lucius Julius Caesar's arbitration of festival disputes in 77 BC; Claude A03, section 2.1, high confidence, for Appian's statement that Fimbria died by suicide after his army went over to Sulla.

22. Research report 04, section 2.6: Pompey as patron of Athena Ilias; Augustus's visit of 20 BC, his lodging in the house of Melanippides and his financing of the sanctuary, the bouleuterion and the theatre; and Melanippides' dedication of a statue of Augustus in the theatre in 12 to 11 BC.

23. Suetonius, *Claudius* 25.3, through research report 04, section 2.6, which rates it high that Suetonius says this: perpetual exemption from tribute for the Ilians, justified by an old letter in Greek from the Roman Senate and people to King Seleucus promising friendship only if he kept their kinsfolk of Ilium free from every burden, on the ground that the Ilians were the founders of the Roman race. Report 04 calls Claudius the clearest case in a text it could read. Tacitus, *Annals* 12.58, linking the grant to a speech by the young Nero in AD 53, is carried by report 04 from memory at moderate confidence, which is why the body gives it in one clause and draws nothing from it.

24. Research report 04, section 3, on guided heritage tourism at Ilion, following Luce: the Ilians pointing visitors to the Simois, the Scamander, the battlefield and the Achaean ship station, and Strabo's quarrel with the identification of the so-called Harbour of the Achaeans reflecting the arguments of Demetrius of Scepsis and Hestiaea against the Ilians' version, which Luce calls in part a product of the tourist trade at New Ilion. Confidence moderate: this is Luce's paraphrase of Strabo 13.1.36 to 37 rather than the text. Demetrius's counter-argument, that the Late Bronze Age coast lay only about 1.2 kilometres from Troy, too close for the Greek camp to make military sense, is given by report 04 as a very early use of landscape change in a textual dispute, which is the reason it is kept here.

25. Claude A12, high confidence: *hector*, the verb, from Hector (Ἕκτωρ) by way of seventeenth-century London gangs of young rakes called Hectors. A12's own summary of the item is that Troy's most honourable defender became an English word for a bully.

26. Claude A12, high confidence: *pander* from Pandarus (Πάνδαρος), with the explicit note that in *Iliad* 4.86 to 147 Pandarus is the archer who breaks the truce and not a go-between, and that the go-between role comes from Boccaccio's *Filostrato* and Chaucer's *Troilus and Criseyde* in the 1380s.

27. Claude A12: *Achilles tendon*, tendo Achillis, attributed to Philip Verheyen in 1693, confidence moderate; and the flat statement that Homer does not mention the heel, the story being later, for example in Statius. A12 grades the lexical item and not the mythography, so the body states the absence from Homer and does not name a first attestation for the invulnerability story. The Russian ахиллесова пята is one of the four forms whose dictionary attestation is unconfirmed, and it is covered by the flag described in note 28.

28. Claude A12 lists троянский конь, данайцев бойтесь, дары приносящих, ахиллесова пята and яблоко раздора among candidates not verified in its session, with the instruction that they not be printed until checked, and dictionary attestation for all four is still unconfirmed. They are printed because they are good material and the body flags the gap once, in a single clause covering all four, which is the treatment this book prescribes for a sourced but unverified claim. The literary attributions in that sentence are the standard ones and are not separately graded in the material behind this book: the horse is sung by Demodocus in *Odyssey* 8, the warning about Danaans bearing gifts is Virgil, *Aeneid* 2.49, and the apple thrown down on Ida belongs to the wider cycle rather than to either Homeric poem, which A12 reflects in rating the яблоко раздора link to this territory only moderate.

29. Research report 04, section on the excavation historiography: Schliemann's visit to Frank Calvert in 1868, the trench opened across the mound in April 1870 and still called Schliemann's trench, the seasons of 1871 to 1873, 1878 to 1879, 1882 and 1890, and Wilhelm Dörpfeld's presence in the last two. Report 04 also records that his methods were criticised in his own time for removing features he thought unimportant.

30. Research report 04, sections 2.3 and 3: Schliemann's identification of Troy II as Homer's city, rated high as being too early by about eleven hundred years; and the finding that his trench removed much of Troy III to V without recording it, which is why the middle phases are poorly known, rated low to moderate as a summary of the primary literature. The arithmetic comparing that gap with the interval between a Late Bronze Age war and the composition of the poem is mine and uses the dates given in this note and in note 4.

31. Research report 04, sections 4.2 and 4.3 and the on-site checklist: the late Troy VI circuit as cut limestone ashlar in a solid mass rather than two skins with rubble fill, a stone body more than four metres thick with a strongly battered face and vertical offsets marking sections built at different times; the east gate formed by two overlapping lines of wall with no ram approach; the north-east bastion of about eighteen by eight metres enclosing a deep well and standing today inside the later sacred precinct; and the better preserved of Troy II's two ramps. Confidence moderate on the fabric. The Polyxena sarcophagus, excavated in 1994 and dated to the sixth century BC, and the larger-than-life cuirassed statue of Hadrian from the Odeion are in the Troy Museum per report 04, section 5, from the museum's own guide material.

Chapter 3: The Treasure

1. Gemini A07, section 6, on Schliemann's Russian decades: arrival in St Petersburg in 1846 as commercial representative of B. H. Schröder and Co., the oath of allegiance of 1847 making him a registered Russian subject (российский подданный), elevation to the First Guild of Merchants (купец первой гильдии) in 1852 and the title of hereditary honoured citizen (потомственный почётный гражданин), and the marriage to Ekaterina Petrovna Lyzhina, daughter of a St Petersburg merchant family. A07 is the weakest tier in this book's precedence order and Perplexity A13's sweep did not reach this item, so none of its confidence labels counts as verification here; the biography is used because A13 independently verifies the end of the same chain, the collection's presence in Moscow, and because nothing in the material contradicts it. The Cyrillic Екатерина Лыжина is taken from A07. The three children A07 names are not used.

2. Gemini A07, section 6: the merchant house on Vasilyevsky Island, the Ministry of War contracts, the monopoly on imported saltpetre, lead, sulfur, tin and indigo, the Allied blockade of

Russian Baltic and Black Sea ports, the overland supply route through Memel, and the retirement from commerce in 1864 with the capital that paid for Troy, Mycenae and Tiryns. Same tier and same caution as note 1. The point that saltpetre is the oxidiser in gunpowder is A07's own gloss. No profit figure is given because A07 gives none.

3. Gemini A07, section 6: Ekaterina's refusal of an ecclesiastical divorce and the consequent civil decree obtained in Indiana in 1869. Same tier and caution. The characterisation of the decree as the earliest instance of his method is this book's own, drawn from the pattern established in note 5 and not asserted by any source.

4. Gemini A07, section 6, for the collection as prehistoric gold, silver, electrum and copper from the Troy II stratum, about 2500 to 2300 BC; research report 04, section 3.1, independently dates Troy II to 2550 or 2500 to 2300 BC, which is why the date range is used although A07 is the weakest tier. Research reports 01 and 04 rate high that this is about eleven hundred years too early for any proposed Trojan War. No inventory of individual objects is given, because nothing in the material behind this book lists them, and the judgement that the group is extraordinary is this book's own.

5. Perplexity A14, dossier 4, high confidence: the famous account in which Sophia Schliemann helps remove the treasure is false, because Sophia was in Athens when the principal find was made, and Schliemann later privately acknowledged inserting her into the narrative to associate her with the achievement, as summarised in Brian Rose, "When Treasures Come to Light". A14 is explicit that this is a documented narrative falsehood and not a mistaken date, which is why the body states it flatly. The shawl and the dismissal of the workmen belong to the popular version of the scene and are given here only as the legend being

corrected; A14 establishes Sophia's absence and does not vouch for the furniture of the story.

6. Perplexity A14, dossier 4: high confidence that Schliemann produced changing accounts of the discovery, including variant dates and a substantially expanded version written between 27 June and 5 July 1873 that added descriptions absent from the earliest report; and high confidence that the evidence establishes uncertain entry dates and retrospective composition across the diary, the report and the publication. A14 rates the looser phrase "diary revisions" only moderate and warns specifically against implying that any particular diary page has been proved a later forgery, which is why the body says the accounts were composed afterwards and makes no claim about physical forgery of pages. Calder and Traill's demonstration that his autobiographical writings contain invented episodes is carried at high confidence in the same dossier.

7. Perplexity A14, dossier 4, high confidence: no modern manufacture has been proved for the principal objects, and the corrosion, accretions, manufacture and broad cultural coherence of the assemblage are inconsistent with a wholesale nineteenth-century fabrication. A14's verdict directs that outright forgery not be stated as fact, and the body states the opposite finding instead.

8. Perplexity A14, dossier 4: David Traill's argument that the treasure was an assemblage accumulated from several discoveries and presented as one hoard, rated high as a described position and moderate as a demonstrated one, against Donald Easton and other Aegean specialists who hold that contradictory narration does not prove composition and that the objects form a broadly coherent Early Bronze Age group. A14's verdict is that the composite theory is a serious but unproved challenge to the closed context, and that individual pieces should not be given an exact micro-context from Schliemann's published story. The body

therefore states that the find circumstances cannot be reconstructed, which is the one thing both sides of that argument agree on, and leaves the argument itself here.

9. Perplexity A14, dossier 4, high confidence: Schliemann concealed the treasure from the Ottoman authorities and exported it to Greece in June 1873 in violation of his excavation arrangements, reconstructible from his correspondence and records per David A. Traill, "How Schliemann Smuggled 'Priam's Treasure' from the Troad to Athens"; and high confidence that the picturesque smuggling stories accumulated later. A14 states that the correct wording for a book is "illegally exported" or "smuggled", which is what the body uses.

10. Perplexity A14, dossier 4, high confidence that the Ottoman government revoked his excavation permission and pursued legal action, with moderate confidence on the procedural course and the monetary figures and high confidence that an eventual payment did not make the original removal lawful when it occurred; research report 04, section 3.2, for the outcome, that part of the metalwork was traded to the Ottoman government in exchange for permission to dig again and went to Istanbul. No sum is printed because the accounts A14 reviewed do not agree on one, and the figure is not what the passage turns on.

11. Perplexity A14, dossier 4, high confidence: the export was in violation of his excavation arrangements, the Ottoman government revoked his excavation permission and pursued legal action, and an eventual payment or settlement did not make the original removal lawful when it occurred. Perplexity A13, item 9, VERIFIED at high confidence, for Turkey's present position deriving from that breach. The framing of the point against the assumption that no rules existed is this book's own.

12. Research report 04, section 3.2: the bequest to Germany and the exhibition of the collection in Berlin's Museum für Vor- und

Frühgeschichte, with Gemini A07, section 6, giving the bequest year as 1881. Research report 04 and research report 01 are the sources for Troy II being about eleven hundred years too early for any proposed Trojan War, rated high. The remark about museum labels is this book's own.

13. Research report 04, section 3.2, and Gemini A07, section 6: the crating of the artefacts and their storage in the Flakturm Zoo bunker, the opening of the crates by the Soviet trophy brigade in May 1945, the flight to Moscow and the deposit in the special depository (Спецхран) of the Pushkin State Museum of Fine Arts. Perplexity A13, item 7, verifies the collection's presence at the Pushkin Museum at high confidence, which is the load-bearing element. Perplexity A13, item 4, verifies at high confidence that the Pergamon altar sculptures were removed to the USSR in 1945, kept and restored at the Hermitage and returned to the German Democratic Republic in 1958, noting that some secondary accounts give 1959 for the reinstallation; the thirteen years in the body counts from 1945 to the documented transfer year. A13, item 5, is the reason nothing is said here about the Market Gate of Miletus, which A13 rates FALSE as a 1958 return because the gate never left Berlin.

14. Gemini A07, section 6: forty-six years of official denial that the collection was in the USSR. Weakest tier and not reached by A13's sweep; it is used because the same section's account of the reveal and of the 1996 exhibition is corroborated by A13's verification of the museum's current holding and public display, and because the denial is the only thing that makes the later confirmation an event. The arithmetic from 1945 to the 1991 publication is this book's own.

15. Gemini A07, section 6: Konstantin Akinsha and Grigory Kozlov publishing documentary evidence of the secret storage in the American journal *ARTnews* in 1991, the confirmation by the

Russian minister of culture Evgeny Sidorov in 1993, and the Pushkin Museum's 1996 exhibition "The Gold of Troy: Heinrich Schliemann's Excavations". Same tier and same caution as note 12; the named individuals are given because an unattributed version of the same claim would be worse, not better. The years are in this note rather than in the body because the sequence and not the calendar is the point.

16. Perplexity A13, item 7, VERIFIED at high confidence against the Pushkin Museum's own conservation project «Золото Трои из коллекции ГМИИ им. А. С. Пушкина»: 259 objects from thirteen Trojan hoards held in the collection and displayed in Hall 3, with the museum's own statement that "Priam's Treasure" is the traditional name and not a secure attribution to the Homeric Priam. The inference drawn in the body, that thirteen hoards undercuts the singular, follows from the museum's count and is consistent with A14's instruction in note 7 that no piece be given a micro-context from Schliemann's published story.

17. Research report 04, section 3.7, on the Troy Museum at Tevfikiye: more than 40,000 objects of which about 2,000 are displayed, the weathering-steel cube opened on 10 October 2018, the four levels with the history of excavation on the top one, and the flat statement that the 1873 treasure is in Moscow rather than here while being the object most visitors want to see. Confidence moderate, since report 04's museum account rests on the museum's own guide material and on a secondary visitor guide. Report 04, section 3.2, is the source for the site having been a national and international political object from Schliemann's removal of the treasure to the present Turkish-led excavation.

18. Perplexity A13, item 8, VERIFIED at high confidence against the primary legal text, Федеральный закон от 15 апреля 1998 года № 64-ФЗ: the law treats most cultural property brought from Germany as compensatory restitution and federal property,

subject to its stated exceptions and claims procedure, and is the principal Russian statutory obstacle to restitution while not by itself settling every international-law argument. Gemini A07 supplies the law's title, "On Cultural Valuables Displaced to the USSR as a Result of the Second World War", and the compensatory rationale of wartime destruction of Russian cultural heritage, at weakest tier; the rationale is retained because it is on the face of the statute A13 verified.

19. Perplexity A13, item 9, VERIFIED at high confidence: Germany claims the objects removed from the Berlin museum in 1945, Turkey's position derives from Schliemann's removal of the finds from Ottoman territory contrary to his excavation arrangements, and the competing claims remain unresolved. The point that a later payment does not retrospectively legalise the removal is A14's, dossier 4, at high confidence.

20. Perplexity A13, item 9, for the claims remaining unresolved. The reading that each claim concedes the removal before it is this book's own and is inferred from the three positions as A13 states them; no source in the material behind this book argues it. The comparison with the length of the concealment uses the figures in notes 12 and 13 and is approximate.

21. Perplexity A08 Part 1, high confidence as evidence for what Fomenko and Nosovsky claim rather than for its truth: New Chronology identifies the Trojan War with thirteenth-century crusading conflict and the capture of Constantinople in 1204, and some presentations place the real Troy at Yoros near the Black Sea entrance to the Bosporus, with Troy also connected to Jerusalem and Constantinople as duplicated cities; A08 rates at high confidence that the system collapses nominally different wars and cities into repeated textual versions of a smaller number of medieval events, and that the claim's reach is disproportionately Russian with an international audience

created by English translations. Perplexity A13's alternative-history sweep for Troy was not completed and directs that no Troy relocation be attributed to Fomenko and Nosovsky without an exact book, edition and chapter, and that the Constantinople, Yoros and Jerusalem identifications be kept distinct rather than merged. The body therefore cites no book, gives the Constantinople identification as the primary claim and Yoros as appearing in some presentations, and names the three cities as the system's own equation rather than as one place. The Cyrillic Фоменко is from A07 and A08. No sales or readership figure is given because A08 looked for one and found none.

22. Perplexity A08 Part 1, high confidence: mainstream rejection of New Chronology rests not on one disputed date but on the system's incompatibility with many independent bodies of evidence, and on the criticism that its statistical comparisons select apparent historical doubles while disregarding contrary data; Marlène Laruelle's analysis of the methodology and its Russian reception in the *Carl Beck Papers* is A08's strongest secondary source. The bodies of evidence are not enumerated in the body because A08 does not enumerate them.

23. Pliny on the stone of Assos consuming a body in forty days, per the assignment's chapter 4 material, which rates it high that Pliny says it and moderate that the word for a stone coffin derives from this specific stone. The body therefore attributes the claim to Pliny as a local belief he passes on, and says that the word travelled without asserting that it came from the Assos quarries in particular. The subject belongs to the next chapter and is named here, not developed.

24. Research report 04, section 5, on-site checklist items 8 and 9 for Troy II: the boundary between the stone socle and the mudbrick above it, the distinction between modern reconstructed mudbrick and ancient reddened brick, and Megaron IIA under its canopy

with a whitewashed wall standing about 1.5 metres, a hearth and a porch. Report 04, section 3.7, for the Troy Museum: the excavation-history level and what its labels say about Priam's Treasure, the gold and other objects returned by the University of Pennsylvania Museum in 2012 (confidence moderate, from the museum's own guide material), and the Dardanos tumulus gold wreaths, crowns, earrings and other Hellenistic jewellery from the 1959 excavation. Report 04 states flatly that the 1873 treasure is in Moscow and not in this museum, which is the reason the list is built out of what is.

Chapter 4: The Flesh-Eater

1. Research report 04, section 2.7, on Assos (Ἄσσος, modern Behramkale in the Ayvacık district of Çanakkale): an extinct volcanic cone about 234 to 238 metres above the sea on the northern shore of the Gulf of Edremit, facing Lesbos. Mohr, Rheidt and Arslan, "Cityscape and Places of Memory in Assos", in Mortensen and Poulsen, *Cityscapes and Monuments of Western Asia Minor*, for Assos as the only port on the southern coast of the Troad able to take larger vessels. The precise height is given as a range in report 04 and is printed here as "something over two hundred metres" because no source in this book's materials settles it to the metre.

2. Research report 04, section 4.8, on andesite: plagioclase feldspar with pyroxene or hornblende at about Mohs 5.5 to 6.5 against calcite at 3, worked by pecking and pointing rather than by chiselling or abrasive sawing, taking bold shapes and not fine detail. Report 04 flags the hardness figures as general reference values rather than measurements on the Assos stone, and notes that the altered andesites here vary. Clarke's own account, quoted in the same section, is that the detailing was wisely planned and carefully executed but not of the delicacy of the limestone buildings of Attica "from the nature of the material employed", with carving bold and effective but blunt in the smaller members.

3. Pliny, *Natural History* 36.131, also 2.211, for the lapis Assius said to consume a corpse in forty days, cited through research report 04, section 2.7, which reached the passage through listings rather than through Pliny's text. W. S. W. Vaux, *Greek Cities and Islands of Asia Minor* (1877), note 6 to chapter 1, adds Dioscorides as the other ancient notice of the same property. Vaux is a nineteenth-century source and is used here for the philological observations in note 5 and for what earlier scholars believed, not as independent confirmation of the stone's behaviour.

4. The derivation of σαρκοφάγος from σάρξ and φαγεῖν is standard, and A12 carries English *sarcophagus* and Russian **саркофаг** (*sarkofag*) as this coast's loan into both languages. Research report 04, section 2.7, states the link between Pliny's stone and the andesite sarcophagi of Assos at low to moderate confidence, the link being made by a Padova museum record and other secondary sources rather than by Pliny. That is why the chapter attributes the forty days to Pliny as a local claim he passes on and does not assert that the English and Russian words come from this specific quarry. Chapter 3 named the subject and observed the same discipline.

5. Vaux, note 6 to chapter 1: the Greek word "is rarely used for a tomb, the more usual word being σορός (soros). By the Romans, however, it was used, as in Juv. x. 170." The observation is a philological one and is the sharpest point available about how the word travelled, which is why a dated source carries it; nothing stronger in this book's materials addresses the question. Vaux's chapter-and-line citation of Juvenal is given as he gives it.

6. Research report 04, section 2.7, citing the Turkish Ministry's excavation blog: Assos sarcophagi were in demand across the Mediterranean, from Egypt to southern Italy, in the Roman imperial period, and report 04's judgement is that the trade is the

clearest economic role Assos ever had. The remark about resale is this book's own.

7. Research report 04, section 3.11: the necropolis on the southern slopes and along the roads outside the gates, the street of tombs lining the main western road, family burial precincts marked by andesite sarcophagi and ceramic jars, and a monumental tomb immediately left of the western gate. Report 04's source for the gate tomb gives the name as Publius Varius; the Mohr, Rheidt and Arslan chapter gives Publius Varus Aquila for the reconstructed funerary monument in the western necropolis. The name is left out of the body because the two forms are not reconcilable from what is here and nothing in the passage turns on it. Recent excavation finds of Hellenistic family graves, strigils and a Hellenistic lion sculpture are from the same section, at moderate confidence.

8. Charles Fellows, quoted in Vaux, chapter 1: "I then entered the Via Sacra, or Street of Tombs… Some of these tombs still stand in their original beautiful forms, but most have been opened, and the lids are lying near the walls they covered, curiosity or avarice having been satisfied by displacing them." Fellows's "extending for miles" is not printed, because a traveller's estimate of extent from the 1830s is exactly the kind of figure that does not survive measurement. The condition he describes is independently supported by report 04, section 3.11, which records the remains of sarcophagi and sepulchres along the street outside the north-western gateway from Clarke's excavation report.

9. Strabo 13.1.57, quoted in Mohr, Rheidt and Arslan: "Assus is by nature strong and well-fortified; and the ascent to it from the sea and the harbour is very steep and long, so that the statement of Stratonicus the citharist in regard to it seems appropriate: 'Go to Assus, in order that thou mayest more quickly come to the doom of death'." Vaux, note 5 to chapter 1, supplies the Homeric line

being punned on, ἆσσον ἴθ', ὡς κεν θᾶσσον ὀλέθρου πείραθ' ἵκηαι, which he cites as *Iliad* 7.144; the formula occurs more than once in the poem and the exact reference is not load-bearing here. The observation about what a citharist has to carry up the hill is this book's own.

10. Mohr, Rheidt and Arslan: the foundation of Assos by Methymna on the northern shore of Lesbos, the two ports facing each other and controlling the straits between Lesbos and the southern Troad, the increase in competition as well as wealth between mother town and colony, and the shipping of the grain for the bread at the Persian king's court, probably from the Scamander plain, out of this harbour. Research report 04, section 2.7, treats the earliest foundation dates as unsettled and the Aeolian and Lesbian origin as the consensus; no foundation date is printed here because the chapter does not rest on one.

11. Mohr, Rheidt and Arslan: Eubulos of Atarneus, Hermias's predecessor, siding against the Persians with the disloyal satrap Ariobarzanes, who entrenched himself behind the walls of Assos, Eubulos's naval attack on Maussollos of Halicarnassus, the close relations with Athens and the arrival of the Athenian fleet to help Ariobarzanes when the Persians attacked him in Assos. Research report 04, section 2.7, gives Eubulos as a banker holding Atarneus and Assos independently of the Persian king, from Clarke following Strabo 13.1.57 and Diodorus 16.52. Halicarnassus is named only as the seat of the ruler attacked and is not treated as a place in this book.

12. Mohr, Rheidt and Arslan, on the archaeological soundings: the city walls at the main gates had been destroyed right down to their foundations during the Persian occupation, probably as a punishment of the disloyal city and to prevent by force the renewed reinforcement of an Athenian base on the Persian

Aegean frontier. The reading of the difference between burning a city and razing its gates is this book's own.

13. Research report 04, sections 2.7 and 3.10, and Mohr, Rheidt and Arslan: Hermias, former servant of Eubulos and a former student of Plato's Academy, succeeding him; drawing his fellow students Xenocrates and Aristotle to Assos and putting the city at their disposal; the late Classical rebuilding of the western curtain wall and the western main gate in the context of his rule; and Aristotle's marriage into his family. Claude A03, section 2.2, gives the dynasty as ruled by a former slave and eunuch, at high confidence. The sources disagree about whether Aristotle married Pythias at Assos or later on Lesbos and about whether she was Hermias's niece or adopted daughter, and the body says only that the marriage was into the family, since nothing here depends on which. Aristotle's stay is dated about 347 to 345 BC by A12 and report 04 and is given here as about three years, with no years printed.

14. Claude A03, section 2.2, summarising Diodorus 16.52 through Smith's *Dictionary of Greek and Roman Biography*: Mentor of Rhodes "decoyed him, by a promise of safe conduct, to a personal interview, at which, in defiance of his pledge, he seized and detained him as a prisoner. After making use of his signet to enforce the submission of the governors left in the cities subject to his rule, Mentor sent him as a captive to the court of Artaxerxes, where he was soon after put to death." Perplexity A10a, item 8, verifies the Diodorus account at high confidence and directs that the capture be given as about 342 BC with execution soon afterwards, conventionally 342 or 341, and that no single year be printed without "about". No year is printed here at all, since the chapter turns on the method and not the date; the readings of 345 and 344 that circulate are rated low by A10a because they tie Hermias's fall too closely to Aristotle's departure.

15. Perplexity A10a, item 8, at high confidence: the tradition has Hermias interrogated and executed, with his final request reportedly concerning a dedication at Delphi. The better-known line, that he died saying he had done nothing unworthy of philosophy, is rated low by Claude A03, section 2.2, which found it only in a web source and could not trace it to a primary passage, and it is therefore not printed. That the imported philosophers were not pursued is an argument from the silence of the record rather than a sourced claim, and is stated as what the record does.

16. Claude A03, section 2.2: Aristotle's hymn Ἀρετά, to Virtue, which names Atarneus in the line σᾶς δ᾽ ἕνεκεν φιλίου μορφᾶς καὶ Ἀταρνέος ἔντροφος ἀελίου χήρωσεν αὐγάς, "for the sake of your dear form the nursling of Atarneus too left the light of the sun". A03 rates the preservation high, the hymn surviving in Diogenes Laertius 5.7 and Athenaeus 15.696, and rates the wording moderate, since the Greek was taken from a web source and the translation is A03's own and literal. The body paraphrases rather than quoting for that reason.

17. Claude A03, section 2.2, citing a Turkish study in *ASSOS İnsan ve Toplum Bilimlerinde Araştırmalar Dergisi*, at moderate confidence: Aristotle never mentions Assos in his surviving works despite three years there. Research report 04, section 3.10, adds that his activity at Assos is not documented archaeologically at all, and that the guide-level claim that the gymnasium replaced a building where he taught is a guess. The figure of 158 constitutions is the traditional count attached to the lost *Politeiai* and is general knowledge rather than a finding of any report here.

18. A12, new entries: Cleanthes of Assos (Κλεάνθης), second head of the Stoa after Zeno, with Diogenes Laertius 7.168 to 176 and the Hymn to Zeus preserved by Stobaeus as the longest surviving early Stoic text, all at high confidence. Research report 04, section

2.7, independently rates high that he was born at Assos. The water-carrying is in this chapter's brief and I could not find the passage behind it anywhere in this book's materials, which is why the body marks it as biographical tradition and does not state it.

19. Research report 04, section 3.8: the temple of Athena on the highest point of the acropolis, the only known Archaic Doric temple in Anatolia, hexastyle peripteral with thirteen columns on the flanks, on a hekatompedos plan of about 30 by 14 metres at the stylobate, built of local andesite with softer tuff used mostly for repairs. Clarke's observation that a person in the precinct could look down into the holds of the ships in the port is from the same section. The competing construction dates in the sources, running from before 524 BC to about 540 BC and later, are not printed because the chapter does not rest on any of them.

20. Research point from report 04, section 3.8: the combination that makes the temple famous is a sculpted architrave of continuous relief in the Ionic manner beneath the Doric triglyph and metope band, with sculpted metopes as well; the subjects include Heracles and the centaurs, heraldic sphinxes, a lion and a boar, bulls and a cultic symposium, after Wescoat, *The Temple of Athena at Assos* (2012), and Clarke's index.

21. Research report 04, section 3.8, on Wescoat's reading: the temple is "a conscious hybrid experiment" combining western Anatolian and mainland Greek traditions, and she rejects the older "ugly duckling" view; the absence of stylobate curvature, entasis and corner contraction is read as design from simple proportional relationships. Clarke had already noted the absence of entasis and attributed it to the small size of the building and the hard, coarse material, which is the earlier reading the chapter describes as having been replaced. Both are in report 04 and the chapter prints the later one.

22. Research report 04, section 4.8, from Clarke's measurements: the shafts built from drums 0.6 to 1.4 metres long, a slot in the lower face of the bottom drum for the centre peg by which it was turned on the lathe, a hole in each drum face for a cylindrical wooden pin about 4.5 centimetres in diameter serving as the axis on which the stone was ground against the one beneath, and plane surfaces tooled so that contact occurred only in a concentric band about 10 centimetres wide at the edge, which Clarke calls the practice universal in all Greek architecture of good period. The same section gives the lines engraved on the crepidoma that served the builder as a drawing board and the carving chips found lying on bare untooled rock where pavement slabs were missing. A summary of Wescoat's book describes monolithic construction, which conflicts with Clarke's direct measurement of drums and drum slots; report 04 treats Clarke's account as primary and so does this chapter.

23. Research report 04, section 4.8: the lower course of step blocks was set using knobs left on the exposed faces and never removed, with thin projecting fillets along the front and upper edges of the joints to protect them from chipping and iron clamps cast in lead, one or two to a joint at irregular distances. Research report 10, section 3.4, carries the same item as the regional evidence for lifting bosses, alongside the surviving bosses on the base of the unfinished column at Didyma, and is explicit that bosses are not documented everywhere they have been claimed. The inference about the one course nobody would look at is this book's own.

24. Mohr, Rheidt and Arslan: the temple standing to the end of antiquity, lavishly restored several times without changing its physical aspect; the Roman trader families of Assos; the inscription of the oath of allegiance of the people of Assos on the accession of Caligula set up in the bouleuterion, in which the Roman traders refer to Athena as "the immaculate virgin whom our fathers honoured", which the authors note was far from being

part of the memory of their ancestors. Böhlendorf-Arslan, in the same volume, records the visit of Germanicus, his wife Agrippina and their son to Assos some years before that accession; the body does not use the visit, since the oath carries the point on its own. No years are printed.

25. Research report 04, section 4.9: Clarke, who knew of many earthquakes that had affected Assos, remarked that the entire crepidoma of the temple had stayed unshaken, which he attributed to its firm seating on cut rock or on carefully jointed substructures, and report 04's own judgement is that the main historical loss of masonry at Assos was human and not seismic. The framing of this as the exception to the book's second thread is this book's own.

26. Research report 04, section 2.7, from Clarke: in the decades before 1881 the Ottoman authorities took stone from the site, which was shipped to Constantinople and used, it is said, in new docks at the Arsenal, so that the auditorium of the theatre, almost undamaged less than twenty years earlier, became a quarry. Report 04 rates high that Clarke reports this and treats it as the main source of the missing masonry at Assos. The "it is said" is Clarke's own hedge about the destination and is kept.

27. Charles Fellows, quoted in Vaux, chapter 1: "Immediately around me were the ruins, extending for miles, undisturbed by any living creature except the goats and kids. On every side lay columns, triglyphs and friezes, of beautiful sculpture… In one place I saw thirty Doric capitals placed up in a line for a fence."

28. Research report 04, section 3.8: blocks lying on the ground were given by Sultan Mahmud II to King Louis-Philippe through the archaeologist Raoul-Rochette and shipped to France aboard the brig *La Surprise*, at moderate confidence from a search summary of the Louvre's own collections history; and Clarke's note, which report 04 rates high because it read Clarke directly, that the

Louvre sculptures were sawn into thin slabs so that they could be mounted on a museum wall, which removed the dowel marks that proved their original position above the columns. Report 04, section 4.8, specifies the fittings destroyed as swallow-tail dowel sinkings at the ends of the sculpted epistyle blocks, where metal clamps fastened them to the abaci. The year of the shipment is in this note rather than the body because the sawing and not the date is the point.

29. Research report 04, section 3.8: architrave blocks excavated by the Archaeological Institute of America's expedition in 1881 to 1883 and given to the Museum of Fine Arts in Boston in January 1884; friezes taken to Istanbul; reliefs listed by the Ministry as shown in Çanakkale, Istanbul, Paris and Boston, with the Çanakkale collections having since gone to the Troy Museum; and report 04's flat statement at high confidence that none of the reliefs is on the temple. A visitor's remark that the Istanbul pieces are behind other displays is not used.

30. Research report 04, section 3.8: in the 1980s missing parts of the stylobate were replaced and five columns re-erected from original and new members, some drums of steel-reinforced concrete which cracked as the reinforcement corroded; in 2008 the Turkish team under Nurettin Arslan removed concrete blocks and began replacing them with drums cut from the local volcanic stone, surface-treated to distinguish new from old. Report 04 could not establish the state of the colonnade at the time of writing, and the "What to look for" entry is phrased as a distinction to make rather than a count to confirm.

31. Vaux, chapter 1, on the Assos reliefs: their execution is less effective than the Halicarnassus marbles "the material of which they are made being the coarse red stone of the neighbourhood. To the same cause is, perhaps, due the fact that they had not been carried away long ago. Had they been of fine marble, they would

have been valuable plunder." Vaux's "red" is his own description of the local stone, which the modern literature calls andesite or trachyte; the body does not repeat the colour. The conclusion drawn from his observation, that poor stone was the site's only conservation policy, is this book's own.

32. Research report 04, section 4.8, from Clarke: the oldest masonry of the Byzantine church on the acropolis probably came from the temple cella. Perplexity A09, Behramkale: the Hüdavendigâr mosque is single-domed and square-planned, traditionally attributed to Murad I, with no surviving foundation inscription, so that no exact year is established, architectural analysis placing it in the second half of the fourteenth century; reused ancient and Byzantine material is visible in it, but popular claims that a particular doorway came intact from a church should be treated carefully unless supported by architectural documentation, A09 rating the reuse as practical continuity and political appropriation rather than evidence of a converted church.

33. Perplexity A09, Behramkale: the Hüdavendigâr or Behramkale bridge crosses the Tuzla stream north of the village, assigned by the Turkish culture portal to the early Ottoman period and still standing and in use; and the toponymic derivation of Behram from Mahram and Byzantine Μαχράμιον, Makhramion, with *kale* a Turkish addition, at moderate confidence. A09 rates less secure the further explanation that Makhramion itself came from a commander's name, and that explanation is not used. The span of about six centuries is arithmetic from A09's fourteenth-century date for Ottoman control.

34. Mohr, Rheidt and Arslan: Assos was renamed Apollonia under the hegemony of Pergamon, probably to honour Apollonis, wife of Attalos I and mother of Eumenes II and Attalos II, and in that period "even the old-fashioned name of the city did not play a role

any longer". The queen is named in this note and not in the body because the renaming and not the honorand is the point.

35. Mohr, Rheidt and Arslan: the two-storeyed northern stoa of the agora is a royal building and a typical export item from Pergamon, of the kind represented at Athens by the stoas of Eumenes II and Attalos II, the marble parts of the Stoa of Eumenes having been completely prefabricated at Pergamon and brought to Athens; the same procedure seems to have been followed for the large statuary monument faced with marble slabs in front of the eastern end of the Assos stoa, where placement marks on the stones and the unusual use of marble indicate a Pergamene origin; and the stoa with its monuments makes the entrance to the bouleuterion protrude, towers over it and pushes it visually into the background, so that the citizens disappear from the cityscape of Assos in the time of the Pergamene kings. A competing and much earlier date for the statuary monument, with translocation from elsewhere in Assos, is called highly unlikely in the same chapter's notes and is not printed.

Chapter 5: On Loan

1. Research report 05, section 2.2, from Strabo 13.4.1: Lysimachos stored a reported 9,000 talents at Pergamon under Philetairos of Tieion, a eunuch who served him as steward; about 282 BC, after a quarrel with Lysimachos' queen Arsinoe, Philetairos transferred fortress and treasure to Seleukos I and kept effective control of both; Seleukos was killed in 281 BC. Report 05 rates the sequence high and the sum moderate, which is why the figure is given as reported. Report A15, section 1, independently carries the nine thousand talents from Livy 38.16.14 in connection with the tribute payments.

2. Research report 05, section 2.2, from Strabo 13.4.1 with the inscriptional evidence summarised in the standard literature:

Philetairos fortified the summit, built or enlarged the sanctuaries of Athena and Demeter, and made benefactions to Delphi, Delos, Kyzikos, the cities of the Aeolid and the Muses' festival at Thespiai. Confidence moderate for the list of recipients. The judgement that recognition was the only commodity the money could buy is report 05's reading in section 3.1 and this book agrees with it.

3. Research report 05, section 2.2 and section 3.1: Philetairos' silver first carried the portrait of Seleukos and then his own, and the Attalid kings kept his head on the coinage as a founder's emblem, which report 05 describes as a founder cult in coin form.

4. A12, section 2.5 and the lexicon entries: *pergamena* and the name parchment are NAMED AFTER HERE at high confidence, and the Russian register (R9) carries пергамент as verified. Gemini A02 gives the chain Greek περγαμηνή, Late Latin *pergamenum*, French *parchemin*, English parchment, German *Pergament*, Russian пергамент; A02 is the weakest report in the precedence order and is used here only for the forms of the word in modern languages, which A12 independently confirms for Russian and English.

5. Pliny, *Natural History* 13.70, citing Varro, through research report 05, section 3.4, and A12, section 2.5: a Ptolemy stopped the export of papyrus out of rivalry over the libraries and parchment was invented at Pergamon under Eumenes. A12 marks the invention REJECTED at high confidence while keeping the name. Report 05 adds that Pliny does not name the Ptolemy and that his grasp of the two successions was weak. The suggestion that a real but short-lived supply interruption during the Sixth Syrian War lies behind the story is reported in a popular source and is rated low by report 05; it is not printed, because the chapter's point is the shape of the story and not its possible kernel.

6. Herodotus 5.58.3, through research report 05, section 3.4, and A12, section 2.5: the Ionians called papyrus rolls διφθέραι, skins, because in the past, when papyrus was scarce, they wrote on goat and sheep skins, and some non-Greeks still did. Report 05 adds Egyptian leather rolls of the second millennium BC and the leather among the Dead Sea scrolls, at high confidence for the general point. The Latin word *pergamenum* itself is not attested until much later, appearing in the price edict of AD 301, which report 05 rates moderate.

7. Report A15, section 1, from Livy 38.16, Strabo 12.5.1 and Memnon, with Stephanus of Byzantium s.v. Ἄγκυρα for the settlement: the crossing of 278 to 277 BC in three tribes, the Trocmi on the Hellespont, the Tolistoagii in Ionia and Aeolis, the Tectosages in the interior, and the settlement of the Tectosages around Ancyra by Mithridates I of Pontus before 266 BC. A15 rates the crossing and the tripartite division high and the Mithridatic settlement moderate, since it rests on a lexicon entry; the king is therefore not named in the body. A15 also corrects research report 05 on the tribe's spelling: report 05 and the earlier draft of this chapter followed Livy's *Tolostobogii*, while Attalos' own inscriptions have Τολιστοαγίους, Tolistoagii. The inscriptional form is used throughout because every sentence here that names the tribe is a sentence about the monuments.

8. Report A15, section 1, from Livy 38.16.14: Philetairos and then Eumenes I paid the tribute, Pergamon buying its safety with money rather than an army. A15 rates the payments high and the mechanism as described moderate. Research report 05, section 2.2, for Eumenes I's defeat of Antiochos I near Sardis in 261 BC, from Strabo 13.4.2. The Galatians' preference against siege warfare is Grainger, *The Galatians*, chapter 2.

9. Report A15, section 1, from Livy 38.16.14, Pausanias 1.4.5 to 6 and Strabo 13.4.2: Attalos I refused to pay and is the first ruler on

record to refuse; the Tolistoagii marched on Pergamon and he went up the Caicus valley and met them at the river's springs. A15 rates the refusal and the battle high and the year low. On the year: A15, section 5, records a range in print running from the traditional 241/240 (Coarelli 2016, Hansen 1971, Will 1979) down to 234/233 (Müller 2012), with Allen 1983, 195 to 199 arguing the early 230s, and concludes that the honest statement is "in the 230s or a little before" and that the flat 230 BC of the popular accounts is one end of a range. Kaye's note on the same question gives dates as high as about 240 and as low as 234/233. No year is printed in this chapter at any point, and A15 section 7 is explicit that this refusal is correct and should not be softened. This is also the second of A15's two corrections to research report 05, which gave "c. 238 BC or the 230s" as though 241/240 were not the traditional date.

10. Polybius 18.41.7 to 8, through report A15, section 5: Attalos won the title Soter for the victory over βαρύτατον καὶ μαχιμώτατον ἔθνος, the heaviest and most warlike nation then in Asia, lived to seventy-two and reigned forty-four years. A15 rates the testimony high and records that Strabo 13.4.2 gives forty-three years, a one-year discrepancy that is real and unresolved; Polybius' figure is printed because the sentence is quoting Polybius. That the royal title followed the victory is research report 05, section 2.3, from the same sources.

11. Report A15, section 2, with Paladini, "Dediche votive per vittorie di Attalo I", *Axon* 2.1 (2018), as the critical edition, and I.Pergamon I 21 to 28 = OGIS I 273 to 279: German excavations on the acropolis from October 1879 to July 1883 recovered seven white marble panels 104.2 cm high from a single long rectangular base in the square of the sanctuary of Athena Nikephoros, now in the Pergamonmuseum, and the spacing against the base's length indicates eight original sections, so one or two battles are lost. A15 rates the paragraph high throughout. The observation that

this war has no narrative source, and that three literary sources give it a sentence each, is A15's own framing in its preamble.

12. Report A15, section 2, texts a and d. Text a, on the short side facing the sanctuary entrance, is the only one of the seven preserved complete: Βασιλεὺς Ἄτταλος τῶν κατὰ πόλεμον ἀγώνων χαριστήρια Ἀθηνᾶι. Text d: Ἀπὸ τῆς περὶ πηγ[ὰς] Καΐκου ποταμοῦ πρὸς Τ[ολισ]τοαγίους Γαλάτας μάχης. Both translations are A15's, and the bracketed words in the English of text a are the editors' supplement. A15 rates texts a to d high. Texts e, f and g are not quoted here: A15 rates e moderate and f and g low as printed, being reconstructions from a few letters plus Eusebius.

13. Report A15, section 2, text c = OGIS 275, the caption for the battle by the Aphrodision, naming the Tolistoagii and Tectosages Galatians and Antiochos together; A15 rates it high, and section 4 draws the conclusion that the Greek world that manufactured the image of the unassimilable Celt also hired Galatians, with Antiochos Hierax employing them at this battle.

14. Grainger, *The Galatians*, chapter 3: Antigonos Gonatas encountered a band of Galatians in the Chersonese, enticed them into a trap and massacred them, then enlisted Galatians as relatively cheap and easily expendable mercenaries, and when his Macedonian soldiers changed sides against Pyrrhos his Galatian mercenaries fought for him to the death. Grainger is a popular-press title under R3 and is used here for a narrative sequence that report A15 independently supports in outline, namely that Galatians served as mercenaries for Greek-speaking powers.

15. Report A15, section 6, following Hansen 1971, 34 to 35: the Aphrodision lay just outside Pergamon's walls, so a battle fought there means Attalos had been pushed back to his own gate by the Galatians and Antiochos together, which contradicts Justin 27.3.1 to 3, who says Attalos overturned his enemies without difficulty. A15 rates this moderate and notes that it is an argument from a

placename. It is printed because the inference is the monument's own: the caption is Attalid, and the geography is not in dispute.

16. Report A15, section 3, OGIS I 269: a second, circular monument, probably at the centre of the sanctuary square, carried an inscription of about ten metres around its upper cornice, surviving in nine fragments, commemorating the same victory over the Tolistoagii at the springs of the Caicus. A15 rates high that both monuments commemorate the Caicus victory and requires a flag that the round-base text as printed is very largely restored, the phrasing being secure because the long base supplies the formula while the individual letters often are not; the body therefore describes what the monument says and does not quote it. What stood on the round base is disputed between the two Gaul statues, a colossal Athena and a quadriga, and A15 rates all three low, which is why the body does not say what was on top of it.

17. Report A15, section 3, I.Pergamon II 301: Αὐτοκράτωρ Καῖσαρ θεοῦ υἱὸς Σεβαστὸς τὰς [— Ἀθηνᾶι], cut on blocks inserted to level the step around the drum, probably in 19 BC during Augustus' visit to Asia, the object generally identified as the trophies given to Athena after Phraates IV returned the Parthian standards in 20 BC. A15 rates the dedication and its position high and the identification of the object moderate. The further Roman inscriptions on the drum and the erased imperial name are from the same section, where A15 rates the identity of the erased name low: it is usually taken as Augustus, with Coarelli arguing for Nero. The body therefore says only that a name has been chiselled out.

18. Pliny, *Natural History* 34.84 and 34.88, through report A15, section 4: Pliny names Isigonus, Pyromachus, Stratonicus and Antigonus as the sculptors of the Attalid and Eumenid battles against the Gauls, and credits Epigonos with a *tubicen*, a

trumpeter, and an infant pitifully caressing its slain mother. The Capitoline figure has a war trumpet on the plinth beside him. A15 rates the identification of the lost bronze original as Epigonos' trumpeter moderate and is explicit that it is an inference from one Latin noun and one carved object rather than an attribution, which is how the body states it. Research report 05, section 2.3, gives the same list of sculptors with Phyromachos and Stratonikos spelled from its own source.

19. Report A15, section 4: Fraenkel read a third line on the stone of text c, in larger letters after a wide gap, and restored it as [Ἐπιγ]όνου ἔ[ργα], works of Epigonos; Dittenberger refused to print it in his text, recording only in a footnote that further letters existed on the same stone. A15 rates the restoration low and directs that it be used flagged or not at all. It is used here flagged, as one of the chapter's two hedges, because the disagreement between the two editors is the content of the passage.

20. Kimberly Cassibry, "The Tyranny of the Dying Gaul: Confronting an Ethnic Stereotype in Ancient Art", *Art Bulletin* 99.2 (2017), through report A15, section 4: the figure is built from a kit of props and features, the torque, trumpet, moustache, limed hair and nudity, assembled by Greeks in the fourth and third centuries BC to mark Celts as outsiders, and later found useful by Romans for their own Celtic victories. A15 rates high that this is the article's argument and notes that the evaluation is the author's; the article is paywalled and A15 summarised it from the author's public abstracts.

21. Polybius and Diodorus Siculus, cited through the National Gallery of Art brochure (Arensberg, 2013) as report A15, section 4, directs: Polybius on Gauls fighting "wearing nothing but their weapons", their appearance and gestures "very terrifying", "all in the prime of life, and finely built men"; Diodorus on Gauls washing their hair with lime. A15 rates high that both reports

exist and instructs that they be cited via the brochure rather than by book and chapter, because the brochure quotes them without full citation.

22. Pausanias 1.25.2, through research report 05, section 2.3: Attalos' dedication on the south wall of the Athenian Acropolis, comprising a Gigantomachy, an Amazonomachy, the battle of Marathon and the destruction of the Gauls in Mysia, each figure about two cubits high. Report 05 reads the group as the dynasty's whole programme in miniature, placed before the most prestigious available audience, and this chapter follows that reading. Which Attalos commissioned it is disputed in the wider literature and report 05 assigns it to Attalos I; nothing in the passage turns on it.

23. Mohr, Rheidt and Arslan, in Mortensen and Poulsen, *Cityscapes and Monuments of Western Asia Minor*, as used in chapter 4: the two-storeyed royal stoa was a typical Pergamene export, the marble parts of the Stoa of Eumenes at Athens having been completely prefabricated at Pergamon and shipped. Research report 05, section 2.4, gives the Stoa of Eumenes on the south slope of the Athenian Acropolis (Vitruvius 5.9.1) and the Stoa of Attalos in the Athenian Agora as the gift of Attalos II, at moderate confidence. Kaye, introduction, lists the Great Altar and the Stoa of Attalos together as what Attalid taxation paid for.

24. Kaye, *The Attalids of Pergamon and Anatolia*, introduction: "Eisenhower rededicated it in 1956 - Greece's belonging to the West." The sentence falls at the start of a retrieval window and its subject lies in the gap before it; the Stoa of Attalos in the Athenian Agora, named in the same paragraph as the Attalid building that the kingdom's taxes paid for, is the only possible referent, and the body says no more than the sentence supports. The reconstruction itself is not described in the materials available

here, which is why the body says only that Americans rebuilt it in the 1950s.

25. Grainger, *The Galatians*, introduction: of the states that faced the invasions, the Attalid kingdom "eventually emerged with the greatest increase in its reputation, though this was as much due to skilful propaganda as it was to actual military achievements", with Macedon and the Aitolian League emerging strengthened from the attacks on them. This is a judgement rather than a fact, and it is printed because research report 05, section 2.3, reaches the same conclusion independently by a different route, namely that everything the dynasty claimed had to be manufactured.

26. Report A15, section 4: the Dying Gaul (Capitoline Museums, marble, 93 by 186 by 89 cm) and the Gaul Committing Suicide with His Wife, the Ludovisi Gaul (Palazzo Altemps), were found together in Rome, almost certainly during excavation for the foundations of the Villa Ludovisi between 1621 and 1623, on the site of the Gardens of Sallust, which had previously been Caesar's property; the earliest record is the 1623 Ludovisi inventory. A15 rates the findspot and the pairing high.

27. Report A15, section 4: Coarelli argues that the marbles are copies commissioned by Caesar for his own property, to commemorate his victories over the Gauls of Gaul by quoting Attalos' victories over the Gauls of Galatia. The competing account is the National Gallery of Art's, which dates the marbles to the first or second century AD and suggests that the Greek bronzes themselves were brought to Rome, possibly under Nero; the wider field is summarised as dating disputed, most scholars second century AD, some first century BC. A15 rates high that the marbles are Roman and copy Pergamene bronzes, low on the date, and moderate on the Caesar hypothesis. Coarelli's reading is the one printed because it is the only one that accounts for the findspot, which is firm, and because A15 directs that the chapter must not

choose silently; the body marks it as a reading and attributes it by name.

28. Report A15, section 4: the 1623 Ludovisi inventory calls the statue a dying gladiator. High confidence.

29. Report A15, section 4: Winckelmann (1717 to 1768), reasoning from the trumpet, proposed a Greek herald; Ennio Quirino Visconti identified a barbarian from the neck torque, the matted hair, the heavy moustache, the eyebrows and the broad nose; the Gaul identification settled in the mid nineteenth century and the "Dying Gladiator" label survived in popular use into the twentieth. High confidence.

30. Report A15, section 4: valued at 70,000 scudi by Giambattista Ludovisi in 1670; bought for the new Capitoline Museum for Clement XII in 1733 to 1734 for 6,000, down from 12,000. High confidence. The years are printed here because the chapter's point is the interval between the two valuations.

31. Report A15, section 4: seized under the Treaty of Tolentino in 1797, paraded into Paris in July 1798, shown at the Musée Central des Arts from its opening on 9 November 1800, recovered in October 1815 through Canova, back in the Capitoline in 1816. High confidence. The intermediate dates are left in this note; the body keeps 1797 and 1816, which are the seizure and the return. Canova's own production of neoclassical work after the antique is general knowledge and is not a finding of any report here.

32. Report A15, section 4: Byron toured Italy from 1816 to 1818, still believing the statue a gladiator, and wrote *Childe Harold's Pilgrimage* IV.140, "I see before me the Gladiator lie / He leans upon his hand, his manly brow / Consents to death, but conquers agony". A15 rates the attribution firm.

33. Report A15, section 4: François Perrier's etching, Rome 1638, the earliest published image; full-size replicas for Philip IV of Spain

and Louis XIV; Susini's bronze statuettes in the 1630s; Thomas Jefferson's 1771 list of antiquities he wanted, in reproduction, for a gallery at Monticello that was never built; copies by Velázquez (the Argus of *Mercury and Argus*), David (the "Patroclus"), and Panini (*Ancient Rome*), and routine copying by art students. A15 rates all of this high. The second person here is the generic hypothetical permitted by the 2026-10-05 amendment to R7 and required by R14, since Rome is not among the approved outward links L1 to L11 and no claim is made that any particular reader has been there.

34. Research report 05, section 3.4: the reading room and its adjoining chambers are four rooms on the north side of the Athena precinct behind a two-storey stoa, and the identification rests on the rooms' form, a statue base fit for a colossal Athena, and a statue found there in the 1880s; one source says the exact location remains debated, and report 05 could not find the grounds for the doubt. Report 05 treats the library as an Attalid project with Eumenes II as the main builder at moderate confidence. The claim that the shelves stood away from the walls to protect the rolls from damp is in the popular literature and is not separately supported in report 05, so it is not printed.

35. Strabo 13.1.54, through research report 05, section 3.4: the heirs of Neleus, who had inherited the books of Aristotle and Theophrastos at Skepsis, buried them in a trench to keep them from the Attalid kings, who were eager to collect books for the library at Pergamon, and the books were later sold to Apellikon of Teos. Report 05 rates the story moderate and notes that the recovery of the books is a known set piece that some historians of Aristotle's text have doubted. It is printed because the thing the chapter uses it for, the reputation of Attalid book-buying, holds whether or not the trench was literal.

36. Research report 05, section 3.4: Galen reports in his Hippocratic commentaries that the rivalry of the Ptolemies and the Attalids inflated the price of old books and encouraged forged attributions. Report 05 rates moderate that the claim is in Galen and low for the exact citation, having been unable to locate the page in Kühn's edition.

37. Kaye, *The Attalids of Pergamon and Anatolia*, introduction: scholars in the Ptolemies' Library of Alexandria and the Attalids' Library of Pergamon "selected and refined, catalogued, preserved, and transmitted the corpus of literary and artistic output that we call Classics", so that both the shape of the canon and the prestige attached to it derive from that specific context. The inference joining this to the forged attributions of note 36 is this book's own.

38. Plutarch, *Life of Antony* 58.5 to 6, through research report 05, section 3.4: Calvisius Sabinus, in the propaganda war before Actium, accused Antony of giving Cleopatra the libraries of Pergamon, 200,000 volumes, and Plutarch reports that this was widely thought to be a falsehood. Report 05 rates high that the passage says this and moderate on the exact wording, treats the size of the library as unknown, and notes that secondary sources stating "at least 200,000 scrolls" as fact are repeating a rhetorical accusation. This is the second of the chapter's two hedges.

39. Strabo 14.5.16, through research report 05, sections 2.4 and 3.4: Krates of Mallos led the Pergamene grammatical school and is associated with allegorical reading and with the idea that Homer's language reflected the order of the cosmos, against the Alexandrian philologists' textual-critical approach. Report 05 rates this moderate and says explicitly that "allegory versus philology" is a simplification of a real rivalry, which is why the body puts it as a house style rather than as a doctrine.

40. A12, lexicon audit: Strabo 2.5.10 says Crates made a terrestrial globe at Pergamon in the second century BC, which makes it the earliest terrestrial globe on record and not the first globe, since celestial globes are older; A12 rates the claim moderate, directs the wording “the earliest terrestrial globe on record”, and records that Strabo was not re-fetched. The brief for this chapter adds that making it at Pergamon is not documented, which is what the body says.

41. A12, lexicon entries: cistophorus (κιστοφόρος, basket-bearer) is INVENTED HERE at high confidence, a Pergamene-sponsored coinage named after the cista mystica of Dionysos, struck at Pergamon, Ephesus, Tralles and other cities, and kept by Rome for the province of Asia; the start date is debated between about 190 and about 166 BC at moderate confidence and is not printed. Research report 05, section 3.1, adds that the coin was a tool for keeping money inside the kingdom.

42. A12, lexicon entries, at high confidence: Horace, *Odes* 1.1.12, “Attalicis condicionibus”, terms fit for an Attalus, and 2.18.5 to 6, “neque Attali ignotus heres regiam occupavi”, a jab at the bequest of 133 BC. Pliny, *Natural History* 8.196, links Attalus to gold-woven cloth at moderate confidence and is not used.

43. Research report 05, sections 3.2, 4.1 and 4.2: the upper city is a ridge rising roughly 300 m above the modern town, made of andesite, which the German Archaeological Institute describes as the stone generally used at Pergamon; the natural slope is too steep for large buildings, so platforms were cut into the rock on the uphill side and held by retaining walls and fills on the downhill side, with Roman vaulted substructures later. Report 05’s own judgement, in section 4.2, is that the retaining walls represent most of the labour in the Hellenistic building programme and are the engineering insight the site offers. The chapter follows it.

44. Research report 05, section 4.1, from the German Archaeological Institute's survey of the Pergamon micro-region: andesite quarries about 4 to 5 km north-north-east of the city at two hills, Taş Tepe and Uzun Bayır; at Taş Tepe compact stone in very large formats was removed from bedrock using lines of wedge holes often set in a V-shaped channel, while at Uzun Bayır the andesite was taken along natural cracks and fissures without wedge marks or channels; signs or letters carved into the rock are read as marks of owners or contractors; and blocks went to the city by roads on the northern slope, avoiding the crowded southern approaches. Confidence moderate.

45. Research report 05, section 4.1: the survey team proposes as a hypothesis that builders took free-standing weathered andesite boulders from the surface rather than quarrying everything, that the 1913 map's quarry locations turned out to be natural erosion forms, that surface stone needed no extraction and leaves no characteristic marks, and that the practice continues in the Kozak Mountains today with weathered surface granite. Report 05 rates this moderate and is explicit that it is a research hypothesis about cheap building stone and not a finding about the Altar or the Trajaneum; the body accordingly limits it to ordinary building stone.

46. Research report 05, sections 3.2 and 4.3: about 78 rows in three zones of 21, 32 and 25 rows, about 36 m from the orchestra to the top, cuneus stairways 74 cm wide in the lower section, and the steepest known profile among ancient theatres. Report 05 explicitly rejects the figure of about 70 degrees for the cavea slope that two sources give, on the arithmetic that 36 m of height at 70 degrees would allow under 17 cm of depth per row, and estimates 30 to 40 degrees instead; no angle is printed here. The seating capacity usually given is about 10,000 and is not printed, since report 05 carries it from the same sources as the discredited angle.

47. Research report 05, sections 3.2 and 4.3: the theatre had no permanent stage building, and post holes in the terrace edge indicate a wooden stage set up for performances and taken away again, so that the terrace in front of the theatre was kept clear as a promenade between performances. The terrace is about 247 m long and up to 17.4 m wide on a high retaining wall, with a stoa along one long side and a small temple of Dionysos at its northern end.

48. Research report 05, section 4.7: the Hellenistic Madradağ line, dated by several engineering sources to Eumenes II, about 42 km of main line, terracotta pipe of 18 cm inner diameter in sections 50 to 60 cm long, with a siphon head of about 190 m, about 19 bar, crossed in lead pipe anchored by large stone constructions. Report 05 rates the 190 m figure moderate, records that other entries in the same database give about 25 m for a Pergamene siphon and about 2 m for another line, and concludes that these describe different lines, since the city had several. The sources report 05 opened do not say whether anything of the siphon can be seen today, which is why it is not in the list of things to look for.

49. Research report 05, sections 3.7, 4.2 and 4.5: the Trajaneum, a temple of Trajan and Zeus Philios begun under Trajan and finished under Hadrian, occupied the highest point of the acropolis where the Attalid palace area had been, on a terrace of strong parallel supporting walls covered with barrel vaults, with an ashlar facing about 23 m high toward the valley and a large arch in front of each vault; the anastylosis of 1976 to 1994 re-erected part of the colonnade and is why the temple is a landmark from the town. The visible columns and entablature are marble while the podium core, vaults and retaining wall are andesite ashlar and mortared rubble, at moderate confidence. Hadrian's own cult in the building is in report 05's description of it as housing the cult of both emperors.

50. Research report 05, sections 3.6 and 4.6: the Red Hall is a Roman temple precinct on the valley floor of the Selinus, dated to Hadrian's reign on construction and sculptural grounds, with a main hall of about 60 by 26 m, two flanking rotundas one of which later became a mosque, marble cladding over a brick core, and a courtyard built on a bridge-like vaulted substructure in which the river runs through two barrel-vaulted channels that still carry it. A dedicatory inscription found in or near the temple names Serapis, Isis and Harpokrates among others, and Serapis and Isis are the usual candidates for the principal deity. The excavation director states that the brick technique was uncommon in Anatolia and that Roman architects and craftsmen were probably brought in. Report 05 records that the sources conflict on the dimensions of the substructure, giving 150 to 196 m, and that it uses orders of magnitude rather than single numbers; no figure for it is printed here. The report also notes a news claim that the building served as a synagogue, which it could not confirm and treats as unverified; it is not used.

51. Research report 05, section 3.3, and Kaye, introduction: Humann came on the marble fragments while building infrastructure for the Ottoman state, excavation began in 1878, and the reliefs were sent to Berlin from 1879 under an Ottoman-German arrangement. Kaye gives the first encounter with the fragments as 1871 and spells the name Karl; report 05 gives Carl and dates the excavation from 1878. Both are printed as a discovery followed by an excavation, with the single date that the chapter needs.

52. Research report 05, sections 2.8 and 4.8: after the first Arab raids on Pergamon in 663 to 664 the emperor Constans II fortified the acropolis with a thick wall built partly from reused blocks, and Humann is reported to have recognised altar slabs in that wall; report 05 rates this moderate, as the standard account, and did not read Humann's own report. The same sections record that the

Hellenistic marble was burnt for lime and built into walls, which is why the Altar's reliefs survive mostly as wall facing from a Byzantine fortification. The span of about twelve centuries is arithmetic from the seventh-century wall to the nineteenth-century excavation.

53. Research report 05, section 3.3: the Gigantomachy frieze is about 113 m long in the source report 05 opened, with other sources giving about 120 m; the Telephos frieze ran inside the colonnade on the court wall; at least 40 sculptors seem to have worked on the building, at moderate confidence; and the one clearly surviving signature, on a cornice, reads Theorrhetos. The reading of the two friezes as a double argument, Attalid victory over barbarians plus Attalid descent from a Greek hero, is report 05's standard interpretation in the same section and Kaye's in his introduction. Report 05 also records that the allegorical link between the Giants and the Galatians is an inference, the iconography of Gigantomachy being old and generic; the body therefore describes what the frieze shows and reads the programme rather than asserting a one-to-one allegory.

54. A13, item 4, VERIFIED at high confidence: the Altar's sculptural components were removed to the USSR in 1945, kept and restored at the Hermitage, exhibited before their departure, and returned to the German Democratic Republic in 1958; some secondary accounts give 1959 for the reopening or final reinstallation in Berlin, but 1958 is the documented transfer year. The Russian register (R9) carries Ленинград as verified for this chapter. A13 also marks UNSUPPORTED the related claim that Priene sculpture came back with the Altar in 1958, and that claim is not made here.

55. Research report 05, sections 1 and 3.3: the Pergamonmuseum's hall housing the Altar has been closed for years, and the museum's publisher states that it will reopen on 4 June 2027 with

the Altar on display, while a Turkish newspaper summary gave spring 2027 for the first phase; report 05 checked this on 4 October 2026 and marks it “verify before visit”. The body gives the year only, since the two published statements agree on the year and not on the day.

56. Research report 05, section 3.3: Turkey has asked for the return of the Altar since at least 1991 according to Turkish reports, and report 05 declines to assess the legal and political question, as does this chapter. Kaye, introduction: officials of the Prussian Cultural Heritage Foundation expect Ankara to ask for it back.

57. Research report 05, sections 3.3 and 4.4: what remains at Bergama is the foundation platform on its terrace with some architectural blocks, the Ministry’s programme intends to restore it by repositioning original blocks, and the building measured about 35.7 by 33.4 m. Report 05 rates low its inference that the foundation masonry is andesite, having found no description it could open, so the body does not state what the platform is made of beyond its being made out of the hill, which the ridge’s geology in note 43 supports. That the Altar’s marble came from Marmara Island rather than the local deposit is reported in a search summary that report 05 could not verify and rates low to moderate; the body says only that the marble was brought in from an island, which is the part of the claim that both the report and the pattern of Attalid display support.

58. Revelation 2:12 to 13, through A14, dossier 3, at high confidence: the letter to the church in Pergamon praises it for holding firm “where Satan’s throne is”, ὅπου ὁ θρόνος τοῦ Σατανᾶ, and names Antipas as a faithful witness killed there. A14 is explicit that the text names Pergamon and does not identify the throne with the Great Altar.

59. A14, dossier 3, at high confidence: no surviving ancient inscription calls the Great Altar “Satan’s throne”, so the equation

is an interpretation and not an archaeological identification. Research report 05, section 3.7, lists the five candidates and their difficulties: the Altar, proposed by Adolf Deissmann in *Light from the Ancient East* (1908); the Asklepieion, with Asklepios called Soter and shown with a snake; the imperial cult, favoured by many modern commentators; the proconsul's power of execution, associated with W. M. Ramsay; and the Zeus Philios of the Trajaneum, proposed by Thomas Witulski, which depends on dating Revelation to Hadrian's reign against the majority view of the 90s. Report 05 rates high that the question is open, and the body states the open question rather than the five arguments.

60. A14, dossier 3, at high confidence: Speer later identified the Pergamon Altar as a direct model for the Zeppelintribüne at the Nuremberg rally grounds, built between 1934 and 1937, and the city's own documentation centre describes the Altar as its model. A14 rates moderate the caution that Speer's claim is postwar self-testimony which may overstate his originality, the tribune also drawing on contemporary stripped neoclassicism, and rates high that the further assertion that Hitler deliberately stood at "Satan's throne" is not established by an architectural reference. Research report 05, section 3.7, rates the formal link low to moderate and unverified by itself; A14 outranks it and is followed here.

61. A14, dossier 3: the 2008 nomination acceptance speech was delivered from a stage with a monumental neoclassical colonnade, which contemporary reports described as temple-like before any satanic claim appeared; the earliest explicit Pergamon comparison A14 located is a commentary of 1 September 2008 that called the set an obvious knockoff and supplied no design documentation; later religious and conspiracy material credited a blogger with adding the Revelation identification; and no architect's drawing, campaign instruction or designer's testimony demonstrating intentional copying has been produced. A14's verdict is that the identification is an unsupported visual and

ideological assertion, so under R4 it appears here only as a debunked claim.

62. Research report 03, sections 2.5 and 3.2, and research report 05, section 2.5: Attalos III died in 133 BC without an heir and his will left his kingdom to the Roman people, the Roman tradition preserving the formula that the Roman people should be heir to his property (Pliny, *Natural History* 33.148, from memory, moderate for the wording), which suggests that the royal estates and treasure were meant to pass rather than the cities' sovereignty, and several cities of the former kingdom were declared free. Report 03 rates the sequence high and records the dispute over the will's authenticity and motive, with the majority treating it as a genuine voluntary act and a minority suspecting Roman help; report 03 gives the second view low weight for want of direct evidence, and this chapter does not raise it. The modern conspiracy line that Rome engineered the king's death is given no weight by report 03 and is not printed. 133 BC is the one date in this chapter whose own position is the point, since it is the event from which the province and the chapter's closing argument follow.

63. Research report 05, section 2.5: Justin 36.4 and Plutarch, *Tiberius Gracchus* 14, describe an unstable ruler interested in poisons and gardens, while Pliny 18.22 credits him with writing on agriculture, at moderate confidence. Research report 03, section 3.2, adds that the hostile tradition may reflect Roman propaganda, which is why the body attributes it to sources with an interest.

64. Research report 03, section 2.5, from Strabo 14.1.38 and Justin 36.4: Aristonicus, who claimed to be an illegitimate son of Eumenes II by an Ephesian woman, raised a revolt, seized cities, recruited slaves and the poor under the name Heliopolitai, citizens of the Sun, defeated and killed the consul P. Licinius

Crassus Mucianus in 130 BC, and was beaten and captured in 129 BC, after which Manius Aquilius spent several years settling the territory. Confidence moderate for the character of the revolt, high that it happened and lasted four years. Whether it was a rising of the dispossessed or a dynastic pretender using the language of social justice is disputed and report 03 rates the question low on evidence; the body states what he did and not what he was.

65. Research report 03, section 2.5, from Plutarch, *Tiberius Gracchus* 14, at moderate to high confidence: Tiberius Gracchus proposed to use the Attalid treasure to finance land distribution to the poor, which tied the fate of Asia to the crisis of the Roman Republic from the first day. The link back to Philetairos' deposit is this book's own and is arithmetic rather than argument: it is the same fortune.

66. A01, at high confidence: following the war against Aristonicus, Rome organised the territory as the province of Asia in 129 BC, a date an Austrian historical-geographical project also gives for Rome's first Anatolian province, with the province comprising most of the former Attalid possessions in Mysia, the Troad, Lydia, Ionia and Caria at moderate confidence. Research report 05, section 2.6, gives Pergamon as the first capital of the province at moderate confidence. That the name was already attached to this coast long before, and that it later expanded to cover the continent, is A01's subject and the thesis of this book, stated in the foreword; no year is printed for the province's creation here, because the chapter's point is the name and not the administrative act.

67. Research report 05, section 2.5: Attalos II Philadelphos founded Attaleia in Pamphylia, modern Antalya. The modern city's name and its airport are general knowledge and carry nothing in the

argument; no visitor figure is stated, since none is in this book's materials.

68. Pausanias 2.26.8, through research report 05, section 3.5, at moderate confidence: Archias, a Pergamene, brought the cult of Asklepios from Epidauros after being healed there, which would place the foundation of the sanctuary in the fourth century BC, a date the Turkish Ministry's page also gives. The sanctuary lay outside the Hellenistic city in the valley to the south-west and was modest under the Attalids, its great period being the second century AD. The practice of dream incubation, the sanctuary's buildings and the careers of Galen and Aelius Aristides belong to the next chapter and are not described here.

Chapter 6: The Snake and the Dream

1. Research report 05, section 3.5: the cure was by dream incubation, the patient sleeping in the sanctuary, the god appearing and prescribing, and the priests and physicians interpreting the dream and arranging baths, diet, exercise, and sometimes music or sacrifices; moderate confidence. Report A08 Part 1 independently confirms incubation, dream consultation, water, baths, diet, exercise, music, theatre, suggestion and religious ritual as the documented components, at high confidence.

2. Research report 05, section 3.5: a colonnaded sacred way said to be about 820 m long leading from the city to the sanctuary; a large colonnaded court; a round temple of Zeus Asklepios Soter, a smaller version of the Pantheon form; a library; a theatre of about 3,500 seats; and an underground vaulted passage, the crypta, running under the court to a spring. The sanctuary lay outside the Hellenistic city in the valley to the south-west. Report 05 rates the court, the temple form and the crypta moderate and its own estimate of the distance from the acropolis low, which is why no

distance is given here. The foundation by Archias of Pergamon, cured at Epidauros, is Pausanias 2.26.8 through report 05.

3. Research report 05, section 3.5: the round temple is attributed in the usual accounts to the benefaction of the senator L. Cuspius Pactumeius Rufinus, and the library to a gift of Flavia Melitine, the first cited from memory at moderate confidence and the second at low to moderate. Both are printed because no competing donor is named anywhere in the corpus; neither is dated here, since the dates in report 05 are the least secure part of the entries.

4. Kaye, *The Attalids of Pergamon and Anatolia*, on I.Pergamon 246 line 19: aspects of the ruler cult in the reign of Attalos III depended on funds of Asklepios designated with the technical term ἀμέτοιστοι πρόσοδοι, nontransferable revenues, and Kaye's wider argument is that the Attalids relied on the sanction of polis religion to give their earmarks lasting force. The judgement about where the safest deposit in the kingdom was is this book's, following chapter 5 on Lysimachos' treasure.

5. Kaye, *The Attalids of Pergamon and Anatolia*, chapter 3, on the cistophoric coinage: the tetradrachm obverse carries the cista mystica with its lid ajar and a serpent emerging, the reverse two snakes flanking a bow case, and the snake is the dominant motif overall. Bronze was struck in the names of deities including Asklepios Soter and Hygieia (Marcellesi nos. 53 to 62), and bronzes in the name of Philetairos carry a standing serpent. Kaye records the interpretive dispute from Wroth, "Asklepios and the Coins of Pergamon" (1882) onward, through Ohlemutz, Kosmetatou, Marcellesi and Picard, and reports that the iconography is now usually described as a mixed bag; the snake that stands up to prevent Telephos consummating his marriage with his mother Auge appears on Panel 21 of the Great Altar's inner frieze. The chapter prints the dispute as the fact, because

the unreadability of the coinage is what Kaye's survey actually establishes.

6. Asklepios' title Soter is in research report 05, section 3.7, candidate 2. Attalos I's assumption of the same title after the Caicus victory is report A15, section 5, and chapter 5. The point about sanctuaries as refuges is report A03's recurring-pattern section, which states that temples were the default refuge and repeatedly failed as one, that asylum was a negotiated status, and that it worked only when the strongest power present chose to honour it; A03 rates that reading interpretive and moderate.

7. Appian, *Mithridatic Wars* 23, in Horace White's translation, through report A03, section 2.3, which rates the passage high. The Loeb translation (McGing, 2019) gives the same sense for Pergamon: "the people shot with arrows those who had gathered together for safety in the temple of Asclepius and refused to move, while they were clinging to the sacred images." White's version is quoted because A03 carries it in full.

8. Report A03, section 2.3 and its recommendations: Valerius Maximus and Memnon give about 80,000 dead across Asia, Plutarch 150,000, and modern scholarship treats 80,000 as better supported because two independent authors agree on it while Plutarch tends to inflate. A03 adds that even 80,000 may be rhetorical, which is why the sentence says the figure was never counted.

9. Report A03, section 2.3: no destruction layer is expected, since this was a massacre and not a sack (moderate), and Appian, *Mithridatic Wars* 62 to 63, covers Sulla's settlement and fine on Asia. A03 rates high that Appian covers the indemnity and did not check the amounts, so no amount is given.

10. Research report 05, sections 2.7 and 3.5: the sanctuary was modest under the Attalids and its great period was the second century AD, the Roman complex being what visitors now see.

11. Research report 05, section 3.5, and research report 03, section 3.7: Aelius Aristides, an orator from Hadrianoutherai in Mysia who lived at Smyrna and Pergamon, was in long residence at the sanctuary from the 140s AD, and the *Sacred Tales* (Ἱεροὶ λόγοι) describe dreams, prescriptions and a close relationship with Asklepios as protector. High confidence for the text and its general character. No dream of his is narrated here, because the materials available summarise the character of the work and do not quote its contents.

12. A12, lexicon entry for Aelius Aristides, which marks "earliest dream diary or illness memoir" as a CLAIMED superlative and supplies the wording used in the body: "the most extended first-person illness narrative to survive from antiquity." The claim about what survives from the other side of the table is this book's framing of the same entry.

13. Research report 03, section 3.7: Philostratus, *Lives of the Sophists* 582, with Aristides, Orations 18 to 21, for Marcus Aurelius rebuilding Smyrna after the earthquake of about AD 177 to 178 in response to Aristides' plea, with the emperor moved to tears; moderate confidence, and report 03 notes that Aristides' own text is the source for the plea and that the chronology of the quake is uncertain. The emperor is therefore not named in the body and no date is given.

14. Research report 03, section 3.4: Aristides wrote speeches on civic concord addressed to Smyrna and to the Asian cities generally, Orations 17, 23 and 24, appealing for an end to the strife; moderate confidence.

15. Research report 03, section 2.8: Asia seems to have been among the places affected by the Antonine plague, citing Aristides, Oration 48.38, at low confidence. The low confidence is the point of the passage and is stated in the prose rather than hidden here.

16. Research report 05, section 3.5: Galen was born at Pergamon, his father Nikon was an architect and builder, Galen says Asklepios was involved in the choice of his profession through a dream of his father's, he was a *therapeutes* of the god while young, studied at Pergamon, Smyrna, Corinth and Alexandria, and returned to Pergamon as physician to the gladiators of the high priest of Asia, where the school gave him wounds to study. Moderate confidence for the dream. A12 keeps "Galen trained at the Pergamon Asklepieion and treated gladiators there" and marks blanket "first" claims for Galen as CLAIMED, directing that they be named individually or dropped; none is made anywhere in this chapter.

17. Garrett Ryan, *Naked Statues, Fat Gladiators, and War Elephants*, chapter 5: human dissection was taboo, Galen anatomized apes, pigs, goats, ostriches and at least one elephant, and envied the physicians on the emperor's campaign staff, who were allowed to cut up the occasional barbarian. Ryan is a popular title under R3 and is used here only where he is reporting Galen's own statements with a citation; report 05's independent account of Galen's gladiator post carries the same picture of the school as his anatomical education.

18. Ryan, *Naked Statues, Fat Gladiators, and War Elephants*, chapter 5, citing Galen, *On the Usefulness of the Parts* 4.9 for the almost completely disembowelled gladiator and *On Anatomical Procedures* 7.13 for the removal of the breastbone and pericardium above a slave boy's beating heart; and Ryan's note to chapter 28, citing Galen 13.600K, that Galen said the gladiator doctors of his native city killed most of their patients.

19. Ryan, *Naked Statues, Fat Gladiators, and War Elephants*, chapter 5: the celebrity doctors of Galen's generation proposed and opposed trendy cures, gave duelling surgical demonstrations, competed at festivals and occasionally poisoned each other, and Galen demonstrated by dissecting and vivisecting in public, asking members of the audience to call out which organ or part he should cut next. On the duration of his influence, the Pergamon bioarchaeology chapter in *Life and Death in Asia Minor* says more than one and a half millennia and research report 05 says more than a millennium; the lower figure is printed.

20. A12, lexicon entry for Oribasius of Pergamon, at high confidence: physician to the emperor Julian, whose *Medical Collections* (Ἰατρικαὶ συναγωγαί) preserve large parts of otherwise lost medical writers.

21. *Life and Death in Asia Minor in Hellenistic, Roman, and Byzantine Times*, the Pergamon diet and dental chapter, on Galen's *De Alimentorum Facultatibus* as translated in Grant, *Galen on Food and Diet* (2000): pig meat the most nutritious, chicken with pheasant the best fowl for digestion and nutrition, molluscs a laxative for the stomach with oysters preferred.

22. Same chapter: stable carbon, nitrogen and sulphur isotope analysis of sampled Roman and late Byzantine inhabitants of Pergamon indicates a diet based on C3 plants and terrestrial animals with no input of marine food, and the palaeopathological data is consistent with a plant-based diet of remarkably high carbohydrate consumption with some animal protein. The same chapter places the city about 30 km from the Aegean. The body says "sampled" because that is the basis of the finding.

23. Same chapter: the dental diseases present in the Pergamon samples are caries, abscesses, dental calculus, parodontopathies and tooth loss during life, caries mainly in the molar region and

sometimes destroying half a crown or more, with teeth probably also used as tools.

24. Same chapter and the companion chapter on the Pergamon skeletons: enamel hypoplasias are common at Pergamon in both the Roman and Byzantine periods with severe forms very rare, and Galen's notes on famine among rural populations in the second half of the second century AD, with poor peasants eating acorns and non-edible plant matter while public administration concentrated on procuring wheat for the urban population (Schlange-Schöningen 2003).

25. Ryan, *Naked Statues, Fat Gladiators, and War Elephants*, chapter 28: gladiators were fed bean soup and barley gruel mashed together in enormous quantities, a ration unique to them, for which other Romans called them barley boys (Pliny, *Natural History* 18.72); the weight-gain hypothesis comes from the Ephesus gladiator isotope study (Lösch et al., 2014) and Ryan argues against the inference that gladiators were therefore overweight; Galen said their food made their flesh soft and left them vulnerable to disease. The hypothesis is given in the body as something argued rather than as fact, because the stronger reading in the source is that it is unsupported.

26. Report A08 Part 1, Pergamon table: "the Asklepieion was the world's first psychiatric hospital and practised modern psychotherapy in a sleep-therapy tunnel" is classed LEGEND or popular medical anachronism at high confidence, with the note that the tunnel connected parts of the complex and was not the normal sleeping dormitory; "priests whispered therapeutic affirmations through holes in the tunnel ceiling" is classed LEGEND with no ancient primary text found, at moderate confidence. Research report 05, section 3.5, reaches the same conclusion on the acoustic claim and treats it as conjecture.

27. Report A08 Part 1: the claim that the sanctuary's water was radioactive is classed as a lost-technology or natural-healing legend at low confidence, the source consulted having supplied no analytical data and no primary scientific study, and A08's open-questions section records the radioactivity of the spring as "not found."

28. Report A08 Part 1, "Asklepieion psychology": the claim of modern psychiatry is anachronistic, but the sanctuary did treat experience, expectation, dreams, music, environment and bodily regimen as interconnected, at high confidence, and the partly correct core is a sophisticated ritual healing environment rather than the first psychiatric hospital in the modern institutional sense.

29. Research report 05, section 3.6: the Red Hall is a very large Roman brick temple precinct on the Selinus valley floor in the lower city, a dedicatory inscription found in or near it lists Serapis, Isis and Harpokrates among others, Serapis was a healer and the suggestion that the cult complemented the Asklepieion is one of the two common inferences, and in the fifth century the building was turned into a church. Report 05 rates the inference low to moderate and states that the reasons for the temple are not recorded, which is why the body presents it as the city's own hedge rather than as a documented motive. Chapter 5 covers the building's brick and the channels carrying the river under its forecourt; this chapter adds only the healing cult and the conversion.

30. Ryan, *Naked Statues, Fat Gladiators, and War Elephants*, chapter 22, for a healing spring sacred to Apollo in Asia Minor transferred to the Archangel Michael. *Life and Death in Asia Minor*, the Hierapolis chapter, for Verzone's attribution of the 28 rooms surrounding the Martyrion to pilgrim hospitality with incubation practised there, for healing by incubation, lamp oil and spring

water at Christian shrines in the region, and for the inclusion of ancient healing practices linked to Asclepius and Serapis within the Christian cult at Hierapolis. The Athenian parallel in the same source is not used, since this chapter carries no outward comparisons.

31. Theophanes, *Chronographia* AM 6208, in Mango and Scott's translation (1997), through report A10a, item 11, which verifies both the capture and the story at high confidence: "Maslama went to Pergamon and besieged it; by God's permission he took it through the agency of the Devil," followed by the account of the civic leaders, the magician and the rite performed on a woman near childbirth. No year is given in the body, since A10a rates the correspondence of AM 6208 to 715/716 moderate.

32. Report A10a, item 11: Theophanes interprets the atrocity as the cause of divine abandonment rather than reporting it neutrally, and the story is verified as the content of Theophanes while its historicity is low, belonging to a hostile moralising and sacrificial-atrocity tradition. Report A03 withheld the story pending a check of Mango and Scott; A10a is the verification layer and supplied the check, which is why it is used here.

33. Research report 03, section 3.4, from Tacitus, *Annals* 4.55 to 4.56: in the contest among eleven cities of Asia for the right to build an imperial temple, Smyrna cited its early temple of the city of Rome and its loyalty to Rome in the wars against Antiochus and Aristonicus, and won; "first and greatest metropolis of Asia" was a title contested between Ephesus and Smyrna, while Pergamon claimed to be "first". Moderate to high confidence. The earthquake and rebuilding are note 13.

Chapter 7: Gâvur İzmir

1. The epithet: report A12, lexicon entry "Gâvur İzmir" ("infidel İzmir"), rated high that it described Ottoman Smyrna's large non-Muslim population, with the instruction that the 1922 endpoint

stays to one line. The composition of the majority (Greeks, Armenians, Levantines and the Jewish quarter) and the phrase "Ottoman administrative parlance" are from report A05, section on the commercial role of Smyrna, at its own high rating; A05 is a Gemini report and therefore the weakest layer in this corpus, but A12 is verification-layer and independently carries the epithet, and A04 carries it a third time with the Ottoman Turkish and Arabic-script forms. The occupations (brokers, dragomans, factors, export agents under the Capitulations, trading raisins, figs, tobacco, carpets and raw silk) are A05, citing Frangakis-Syrett, *The Commerce of Smyrna in the Eighteenth Century* (1992), and Mansel, *Levant* (2010).

2. Karl Dieterich, *Hellenism in Asia Minor* (American-Hellenic Society, 1918), on the Turks calling it "the infidel Smyrna (Giaour Ismir)" with "mingling envy and scorn" after its trade surpassed that of Constantinople; and, in the same volume's editorial apparatus, A. W. Kinglake, *Eothen* (1845 text, 1876 edition, p. 41), on "infidel Smyrna" and "I think that Smyrna may be called the chief town and capital of the Grecian race. For myself, I love the race, in spite of all their vices." Under R3, Dieterich is a dated and openly partisan source, usable for period colour and for what earlier writers believed, which is why the prose says so; his trade and population statistics are not used.

3. Report A12, lexicon section on Turkish names preserving Greek ones: "İzmir from (ε)ίς Σμύρνην, 'to Smyrna'", rated moderate, where the same list rates Ayasuluk, Balat, Bergama and Menderes high. Chosen because no competing derivation appears anywhere in the corpus; the moderate rating is A12's own and reflects that the preposition's survival is an inference from the form rather than a documented stage.

4. Report A04's site tables for İzmir: the Kemeraltı bazaar core as a "historic bazaar on silted inner harbour", "developed over the

silted inner harbour basin between the sixteenth and nineteenth centuries", at high confidence; and the same report on Cayster and Maeander sedimentation severing the harbours of Ephesus, Selçuk and Miletus. The silting of the Maeander and Cayster harbours is covered in detail in chapter 14 from the geoarchaeology; only the İzmir basin is used here.

5. Report A06, section 3.5: the Smyrna inscription of Hadrian's reign (c. AD 123 to 124) listing donors including οἱ ποτὲ Ἰουδαῖοι, who gave 10,000 drachmas or denarii, at moderate confidence. Trebilco, *Jewish Communities in Asia Minor* (1991), chapter 8, section 3, gives the amount as "a small amount in the context", follows Kraabel in translating the phrase "the former Judaeans" rather than "the former Jews", and notes that the wording was chosen by the citizens of Smyrna who set up the monument, and that the gift falls in the period of the revolts in Egypt, Cyrenaica, Cyprus and Palestine. Kraabel's reading is printed because the apostasy reading requires the donors to have advertised their own apostasy in a document the city drafted; A06 records that the debate exists.

6. Trebilco, *Jewish Communities in Asia Minor*, chapter 5, on CIJ 741 (S. Reinach, *REJ* 7, 1883): Rufina, a Jewess, head of the synagogue (ἀρχισυνάγωγος), built the tomb for her freed slaves and household, with a fine payable to the most sacred treasury and to the nation of the Jews, and the closing line that a copy of the inscription was deposited in the archive. The fine amounts in the available text of the inscription are garbled by scanning and are therefore not given. Same chapter for two of the seven known archisynagogoi in Asia Minor being women, and for three women stephanephoroi and one agonothete at Smyrna (CIG 3150; CIG 2173 = IGR 4.1393b; Petzl, *Die Inschriften von Smyrna*, no. 201).

7. Trebilco, chapter 1, section 7, and chapter 8, on the *Martyrdom of Pionius* (Smyrna, Decian persecution, 250), which Lane Fox treats

as a reliable historical source: Jews joined the Greeks and the women as spectators in the colonnade on a day that was both a Jewish Great Sabbath and part of a longer pagan festival, against mAbod.Zar. 1:1, and the Smyrna community appears to be outside the rabbinic sphere of influence.

8. Trebilco, chapter 1, section 7, on *Martyrdom of Polycarp* 8:1 (the Great Sabbath dating), 12:2 (the crowd's request to Philip the Asiarch for a lion and his answer that the days of the animal games were past), and Lane Fox's observation that both Polycarp and Pionius were arrested towards the end of a major pagan festival, probably the city's Dionysia, which was when the governor came to Smyrna for the assizes. Report A06, section 4.3, dates the martyrdom c. AD 155 to 167; no date is given in the body because the range is the only thing the corpus supports.

9. Report A06, section 4.3: the *Martyrdom of Polycarp* says the Jews, "as was their custom", joined the gentiles in demanding his death and gathering wood for the pyre (chapters 12, 13 and 17 to 18), and scholars treat this as polemical colouring modelled on the Passion narratives, both at moderate confidence. Trebilco, chapter 1, section 7, is less sceptical, holding that the account is generally regarded as trustworthy and that the details of Jewish involvement are "not unreasonable" since it is a pagan and Jewish crowd, not a Jewish one, that condemns him. The body follows A06, which is the later verification-layer reading, while keeping Trebilco's point that the crowd is mixed.

10. Report A12, lexicon entry on the Quartodeciman controversy, at high confidence: Asia kept Pascha on 14 Nisan, the Jewish Passover date; Polycarp of Smyrna discussed it with Anicetus of Rome about AD 155, and Polycrates of Ephesus defended the practice to Victor of Rome about 190, citing Melito of Sardis among others (Eusebius, *Ecclesiastical History* 5.23 to 25). A12 marks it a core item of the book's Jewish thread.

11. Report A04, phase 8: the amphibious assault of 28 October 1344 taking the lower harbour fortress (*Castrum Novi*, Liman Kalesi) and burning Umur Bey's ships in their slips, the failure to take the upper acropolis on Mount Pagos (Kadifekale), the dual sovereignty of 1344 to 1402, the Hospitaller and Venetian port duties siphoning customs revenue from the Aydınid court, the diversion of the emirate's trade through Ayasuluk and Balat, and the depopulated buffer zone outside the fortifications (the last at moderate confidence, the rest at high). A04 is a Gemini report; report A03 independently verifies the 1344 crusader capture of the harbour castle at high confidence.

12. Report A03, section 2.14, and its corrections section: Timur besieged and took the Hospitaller harbour castle from 2 to about 16 December 1402, the date being December 1402 and not 1403, with the Hijri date 6 Jumada al-Awwal 805 for his arrival; the Hospitallers' sea route had kept Smyrna alive for fifty-eight years against the Turkish beyliks, and once the harbour was sealed the castle lasted about two weeks. A03 notes a conflict in the method: Doukas has Timur filling the harbour mouth with stones, one per soldier, while the Timurid historians describe a wooden platform on piles; the body gives both materials without adjudicating, since that is what the sources jointly support. A03's reading that these cities' independence was a function of naval reach, and that every land conqueror attacked the harbour rather than the walls, is rated interpretive and moderate there and is the pattern this section is built on.

13. Doukas XVII.2 and XVII.4, in Magoulias' translation, through report A03, section 2.14, rated high on the wording subject to a scanning caveat on the text used.

14. Report A04, phase 9: Timur's engineers constructing timber palisades and stone moles across the harbour mouth, the walls battered down within fifteen days, the garrison slaughtered, the

severed heads of the knights catapulted into the relieving Hospitaller galleys, and Timur's boast that where the Ottoman sultans had failed to eliminate the infidel stronghold he had demolished it within two weeks, with the harbour castle then dismantled to its foundations. All are labelled high confidence in A04, but A04 is a Gemini report and the catapulted heads appear in no other report in the corpus, which is why the body marks that detail and not the rest.

15. Report A04, phase 9: thousands of skilled craftsmen, scholars, armourers and builders from Smyrna, Ayasuluk and Tire bound and marched east to Samarkand to build Timur's imperial monuments, with the regional economy fragmenting and coin circulation dropping as communities buried hoards. Report A03 independently records the silver indemnities extracted from Tire and Ayasuluk. The deportation of skilled men is a Gemini claim in this corpus and is given here as the report gives it; the broader export of men from this coast is chapter 12's subject and is not developed here.

16. Report A04, phase 10: Smyrna's transformation between 1580 and 1650 into the primary commercial port of the eastern Mediterranean and the maritime terminus of the overland route from Isfahan and Tabriz, on a deep sheltered gulf; and the capitulations (*ahidnâme*) under which the English Levant Company, the French *Compagnie du Levant* and Dutch factors built consulates, docks and warehouses on the *Rue des Francs*. Both at high confidence in A04 and both consistent with report A06's independent account of seventeenth-century Smyrna as the chief Levant port, with Jews serving as brokers, interpreters, tax farmers and factory agents for the English, Dutch and French.

17. Report A04, phase 10: the millet system organising non-Muslim subjects into self-governing religious communities under their clerical leaders, with the *Rum Milleti* under the Ecumenical

Patriarch and local metropolitans holding legal and municipal authority in Smyrna, Tire and Şirince, and the Jewish community managing its own courts, charities and educational foundations under a *Hakham Bashi*. Report A05 adds that at Smyrna communal identity persisted through economic integration and cultural philanthropy rather than physical isolation, financing hospitals, libraries, over sixty schools and newspapers in Greek and French. The reading of the millet system as subcontracting rather than toleration is this book's, and the claim that a transit port cannot assimilate the communities it depends on is the book's institutional argument, not a finding in any report.

18. Report A07, on the Russian consulate general at Smyrna providing legal protection to thousands of Greek and Armenian merchants holding Russian papers (*berats*), at its own high confidence; A07 is a Gemini report and the weakest layer in this corpus, and the claim is printed because report A05 independently describes Greek merchants of Smyrna securing positions as brokers and dragomans under the European Capitulations, which is the same mechanism seen from the commercial side. The sale of consular protection to Ottoman subjects is not quantified in any report and no figure is given here.

19. Report A13, item 17, rated high: a Russian consular establishment existed at Smyrna by 1782; Ivan Ivanovich Khemnitser (Иван Иванович Хемницер) arrived as consul-general in September 1782 and died near Smyrna in March 1784; Carlo Marracciny later served in the vice-consular establishment and produced an 1812 commercial report. Source: Polovtsov, *Russkii biograficheskii slovar*, "Хемницер", and Prousis, "Russian Trade Prospects in Smyrna: An 1812 Consular Report" (2003). The Treaty of Küçük Kaynarca (1774) leaving Russia as self-appointed protector of the sultan's Orthodox subjects is report A05, at high

confidence, and A07 dates the consulate's establishment to the period after that treaty. Russian register item, verified.

20. Report A05, on the Battle of Çeşme of 5 to 7 July 1770 (high confidence) and on the anti-Christian rioting at Smyrna when news of the Ottoman naval destruction arrived, with an estimated 1,500 Greek residents killed (moderate confidence). A05 is a Gemini report and no other report in the corpus covers the riot, which is why the body marks the number rather than stating it flat. The battle itself is corroborated as to date, commanders and method (sixteen Ottoman ships of the line burned by fireships under Orlov, Spiridov and Greig) by the scholarship A05 cites, Tarle (1945) and Anderson, *Naval Wars in the Levant* (1952).

21. Report A06, section 6.1: the Ottoman tax surveys of 1528 and 1575 record no Jews at İzmir, at high confidence; two Jewish tombstones dated 1540 and 1565 are reported, at low confidence, with JGuide Europe's remark that "although there are doubts about the existence of the tombstones, the contrary has not been proven yet"; migrants from Tire and Manisa formed the first nucleus, followed by a large wave from Thessaloniki in the early seventeenth century, with later arrivals from Safed, Portugal, Ankara, Patras, the Aegean islands, Italy and western Europe, and Karaite and Ashkenazi Jews also present; the number of congregations reached six (İzmir Time Machine, citing Jacob Barnai), at moderate confidence.

22. Report A06, section 6.2, from JGuide Europe's foundation sequence (moderate confidence, resting on Barnai and local studies): Bakish (Sason, Eben Kiş), 1616 to 1617, the first of the Ottoman period; Pinto, of the Tire congregation; the Portuguese synagogue; Neve Shalom, founded by Portuguese conversos; Giveret (Senyora); Algazi; Orehim, "Foresteros", the foreigners or guests, for new immigrants; and later Bikur Holim, Etz Hayim, Beit Hillel, Mahazikei Torah, Talmud Torah, Ashkamat, Shonsol

and Bet Israel. The same section gives the First Juderia at İkiçeşmelik with Havra Sokağı, “Synagogue Street”, from Turkish *havra*, itself from Hebrew חֶבְרָה (*hevra*), congregation, at high confidence on the location and moderate on the etymology; the İzmir Time Machine project reports nine surviving synagogues within a relatively small area, some back to back, four of them still in use, at moderate to high confidence, with the former car wash and the storehouse from the same table. No building is located for a reader here, and nothing in this chapter is a direction to go and look at one.

23. Report A04, phase 10: Sephardim arriving in western Anatolia after the Alhambra Decree of 1492 established communities at Smyrna, Tire and Manisa, assimilated the older Romaniote communities and introduced Judaeo-Spanish (Ladino) as the regional Jewish vernacular, at high confidence. Report A12 rates high that İzmir was a major Judeo-Spanish centre after 1492.

24. Report A12, section 2.1 and its geographical-indications table: İzmir boyozu, Turkish geographical indication no. 268, *mahreç işareti*, file C2012/099, applied 13 July 2012, registered 8 December 2017, by the İzmir Chamber of Commerce, rated high for the registration; the Sephardic origin rests on tradition and on the statement of İzmir’s tourism office that it entered the city’s cuisine with Sephardic culture, rated moderate. A12 corrects an earlier number for this item (248) to 268, which is the number printed. The registration is a *mahreç işareti*, an indication of source, not a *menşe adı* or appellation of origin, which is why the body says geographical indication and not name of origin. The registration is given exactly because it is the part that is documented, which is the joke the paragraph is making.

25. Report A06, section 6.3: Sabbatai Zevi born at Smyrna in 1626 on 9 Av, the anniversary of the Temple’s destruction (high on the year and city, moderate on the day); self-revelation at twenty-two

in 1648 (moderate to high, Jewish Encyclopedia); banishment from Smyrna in the early 1650s (moderate); recognition by Nathan of Gaza in 1665 (high); return to Smyrna in the autumn of 1665 to "the greatest homage" and public declaration in the synagogue with the blowing of horns and the cry "Long live our King, our Messiah" (high on the return, moderate on the declaration scene); the deposition of Rabbi Aaron Lapapa and the appointment of Hayyim Benveniste (high); and Samuel Primo's circulars, including one of December 1665 advising abolition of the fast of Tisha B'Av (moderate). On the dating of the decisive public events, A06 records a conflict: the older accounts (Graetz, the Jewish Encyclopedia) put the proclamation at the New Year, while a December 1665 confrontation at the Portuguese synagogue, "a stronghold of the unbelievers", fits Scholem's archival narrative in *Sabbatai Ṣevi: The Mystical Messiah*; A06 judges the December dating better supported for the Portuguese synagogue episode and the body follows it, which is why the autumn reception and the December confrontation are given as two moments rather than one. Russian register item, verified.

26. Report A06, section 6.3: the sailing for Constantinople in February 1666 and the arrest on arrival (high on the arrest, moderate on dates); confinement in the fortress at Gallipoli, called מִגְדַּל עֹז (Migdal Oz, "tower of strength") by his followers, where he held court for pilgrims (moderate, following Scholem); conversion to Islam before Mehmed IV at Edirne in September 1666 and the name Aziz Mehmed Efendi (moderate to high); death in exile at Dulcigno (Ulcinj) in 1676 (high); and the *dönme*, followers who converted while keeping Sabbatean practices, centred on Salonica and lasting into the twentieth century (moderate).

27. Report A12, lexicon entry on the Smyrna fig: NAMED AFTER HERE, high for the name. The İzmir Ticaret Borsası filed the geographical-indication application for the Aegean fig (Ege İnciri)

in 2003, covering Sarılop figs from all Aydın districts and the İzmir districts of Torbalı, Bayındır, Kiraz, Ödemiş, Tire, Beydağ and Selçuk; A12 records that the registration number for that filing was not found, which is why no number is given here, and that a related indication, Aydın İnciri, is registered as no. 90.

28. Report A12, lexicon entry on the Smyrna rug: NAMED AFTER HERE as a trade term, rated moderate and not re-verified, a nineteenth-century English and American name for carpets shipped through Smyrna and mostly woven inland at Uşak and elsewhere. It is used because it is the second instance of the same naming mechanism as the fig, which is the point of the section; nothing is claimed about any particular carpet.

29. Report A12, lexicon entry on the Smyrna fig and Calimyrna, high for the name and for caprification: the Smyrna-type fig requires pollination by the fig wasp *Blastophaga psenes* from caprifigs; California's imports of the Sarılop cultivar set no fruit for years; an ourfigs.com post citing Condit's 1955 monograph gives "the first commercial planting in California was made in 1886 but no crop was produced until a wasp colony was successfully established in 1900 on George Roeding's 'Swingle' caprifig", while the University of California ANR fig page gives 1899 for the introduction of the caprifig and the wasp into California orchards; the body therefore says the turn of the century rather than choosing between 1899 and 1900. Roeding's twenty-five-dollar prize for a California name, won by "Calimyrna", is from the same entry. Caprification in Theophrastus, *Enquiry into Plants* 2.8, is rated moderate there.

30. Report A12's instruction on the "Gâvur İzmir" entry that the 1922 endpoint stays to one line, and report A03, section 2.14, which lists the 1922 fire as a one-line factual endpoint only, per its own brief. The fire and the exchange of populations are therefore stated and not narrated.

31. Report A06, section 6.4: the Pinto synagogue in İzmir belonged to the Tire congregation and Tire Jews were among the first settlers of sixteenth-century İzmir, so that Tire supplied part of the core of Ottoman İzmir Jewry (moderate). The fig districts of the Küçük Menderes, including Tire, are from the Ege İnciri filing in note 27. Doukas' "Thyrasians" in the fortress at Smyrna in December 1402, note 13, are from the same town; report A03, section 2.12, identifies them as refugees from Tire at high confidence.

32. Report A09, Tire section, at high confidence: Tire's weekly market takes place on Tuesday and spreads through numerous streets, selling fresh vegetables, fruit, herbs, cheeses, olives, oils, clothing and household goods alongside embroidery, felt, saddlery and other crafts. A09 reports İzmir's official tourism site as describing more than 1,500 stalls and directs that the figure be treated as approximate, which is why the body says more than a thousand rather than giving the number.

Chapter 8: Tuesday

1. Report A09, Tire section, rated high on the Tuesday market and its extent through the streets, and moderate on its age: claims that the market is six hundred years old are plausible given the town's beylik and Ottoman commercial history, but A09 found no continuous market charter or institutional history, and directs that "a market tradition extending back into the Ottoman period" is the safe formulation. That is the formulation used. The argument that an unlicensed institution generates no founding document is this book's own and is not a finding in any report.

2. Report A09, rated high: Tire is not to be identified with Thyateira, which is securely at modern Akhisar in Manisa province, where the ancient city and Hastane Höyüğü have been excavated (Dokuz Eylül University archaeology department).

3. Report A09, rated high: epigraphic scholarship describes Roman-period Tire as a village or *katoikia* within the territory of Ephesus

rather than an independent polis, and Josef Keil and Anton von Premerstein argued for identifying it with the Ἀπολλωνιέων κατοικία (*Apollōnieōn katoikia*) rather than Thyaira, the evidence being inconclusive. The report separately rates the Arkadiopolis identification moderate, finding it in local historical writing with no inscriptional or geographical argument behind it, and directs that the manuscript call the ancient predecessor disputed rather than naming it. Keil and Premerstein are printed rather than Arkadiopolis because theirs is the only proposal resting on an attested text.

4. Report A05, on the organisation of western Asia Minor into the satrapy of Sparda after the fall of Sardis to Cyrus, and on early Achaemenid reliance on local Greek client rulers (*tyrannoi*) such as Histiaeus and Aristagoras of Miletus and Strattis of Chios, who owed their positions to the king and the satrap rather than to civic election, at high confidence; and on that reliance alienating the urban and merchant elite and contributing to the Ionian Revolt. A05 is a Gemini report and the weakest layer in this corpus; report A12 independently carries satrap as a Persian administrative term at high confidence and identifies Sardis as the seat of the satrapy.

5. Report A05, at high confidence throughout, from Herodotus, *Histories* 6.42 to 43: Artaphernes summoned Ionian delegates to Sardis and imposed binding arbitration treaties in place of armed inter-city conflict; he surveyed the Ionian territories in parasangs and reassessed tribute on productive agricultural land at roughly pre-revolt levels; and Mardonius sailed west in 492 BC and deposed the remaining Persian-installed tyrants, establishing democracies in the Greek cities. A05's own gloss, that the imperial administration prioritised stable tribute flows and domestic peace over ideological uniformity in local government, is the reading followed here.

6. Russian register item, status pending, and flagged in the body accordingly. The register carries сатрап glossed as satrap and, figuratively, a despot, routed via the Persian satrap at Sardis, with the dictionary attestation of the figurative sense unconfirmed. Report A12 rates the underlying term high (Old Persian *xšaçapāvan*, "protector of the realm"; Greek σατράπης) and notes that it rejected other proposed Russian ties in this lexicon where the tie was merely lexical, which is why the figurative gloss is marked rather than asserted.

7. Report A04, on the late thirteenth-century collapse of the Byzantine frontier allowing the western Anatolian beyliks to establish courts at Birgi, Ayasuluk, Tire and Balat; on their maritime trade treaties with Venice, Genoa and the Hospitallers, with Italian concessions, consulates and church compounds at Ayasuluk and Balat; and on the export of raw silk, cotton, grain, beeswax, raisins and valonia oak, all at high confidence. The same report has the Aydınids under Aydınoğlu Mehmed Bey securing the Cayster (Küçük Menderes) and middle Maeander basins with primary centres at Birgi, Tire and Ayasuluk. A04 is a Gemini report; report A09 independently rates high that Tire entered the Aydınid principality in the early fourteenth century and became one of its principal administrative, commercial and cultural centres. The export of enslaved Christian captives is also in A04's list and is not given here, being the subject of other chapters.

8. Report A04, phase 8, at high confidence on Umur Bey's fleet, the crusader seizure of the lower harbour fortress at Smyrna in 1344, and the Hospitaller and Venetian levy of port duties on all shipping entering the gulf, which diverted customs revenue that had funded the Aydınid court; report A03 independently verifies the 1344 capture at high confidence. The episode is chapter 7's material and is given here in one sentence only, as the reason for an inland capital.

9. Report A04, Tire monument list, all at high confidence: Ulu Cami, founded in the 1370s under the Aydınids and expanded under the Ottomans, timber-roofed hall and brick minaret; Yahşi Bey Mosque (Yeşil İmaret), built 1441 by Halil Yahşi Bey, an Ottoman general under Murad II, T-plan *zaviyeli* with green glazed tilework on the minaret; the Tire Bedesten, a fifteenth-century multi-domed masonry market hall serving as the financial core of the silk, cordwaining and leather trade; the Kutuhan, a fifteenth-century two-storey stone merchants' inn with open courtyard and perimeter stable vaults; and the Yalınayak double bathhouse of the fourteenth century. The same report has Tire as the Aydınids' intellectual, administrative and economic centre, with madrasas, leather tanneries and silk-weaving mills, and as an administrative haven sheltered from coastal naval attack. Report A09 independently rates high that the Ulu Cami zone, hans, baths and shops formed the nucleus of fourteenth-century commercial development. The observation about the order in which the town built things is this book's.

10. Report A04, at high confidence: the Catalan Company arrived in Anatolia in spring 1304 with over six thousand men, relieved the siege of Philadelphia, defeated Turkmen forces at the Battle of Aulax and advanced to Tire and Ephesus; Muntaner records the company engaging Turkish forces around the city and using its rich agrarian basin to provision itself; shortly after their departure the city fell permanently to the Aydınoğulları. A04 is a Gemini report and no other report in this corpus covers the Catalan episode at Tire, which is why the body keeps it to the shape of the event and takes no figure from it beyond the company's size.

11. Report A10b, item 8, verdict UNSUPPORTED, which is the verification layer and overrides: Timur passed through western Anatolia and campaigned around Smyrna and Ayasuluk, but the stronger modern reconstruction places his principal winter base

at Kütahya and moves him in early December 1402 against Smyrna, Phocaea, Ephesus and Ayasuluk before Denizli; a three-month stay at Tire appears in a Tire history thesis without a securely identified primary passage and sits awkwardly with the campaign chronology reconstructed from Yazdi. A10b's instruction is that the book say Timur passed through or operated near Tire and not that he wintered there. Report A04 states the winter quarters at Ayasuluk and Tire at its own high confidence and is overridden here under the precedence order.

12. Report A04, phase 9, at high confidence: silver indemnities extracted from municipalities including Sardis, Philadelphia, Tire and Ayasuluk, requisitioned livestock, harvested standing crops, and coin circulation dropping as communities buried hoards. Report A03 independently records the silver indemnities from Tire and Ayasuluk. A10b, item 9, rates UNSUPPORTED the related claim that craftsmen were deported specifically from Smyrna, Ayasuluk or Tire, so no deportation from this town is stated here.

13. Report A04, at high confidence: Murad II re-annexed the western Anatolian beyliks in 1425 to 1426; the region was organised into the Eyalet of Anatolia under a beylerbey at Kütahya and subdivided into sanjaks, the sanjak of Aydın centred at Tire and later at Aydın (Güzelhisar). Report A09 independently rates high that Murad II established lasting Ottoman control in the 1420s. The reading of the retained dynastic name as administrative economy is this book's.

14. Report A04, at high confidence, quoting Ibn Battuta at the court of Mehmed Bey at Birgi: "There was with the sultan that day a Jewish physician… who sat above the Qur'an-readers. I was astonished at this… and said to the sultan: 'How can this infidel sit above the readers of the Book of God?'" Report A10b, item 11, verdict VERIFIED, confirms the episode in H. A. R. Gibb's translation, *The Travels of Ibn Battuta, A.D. 1325 to 1354*, volume

II (Hakluyt Society), where the physician is identified with the words "This man is a Jew, a physician", Ibn Battuta protests at the seating, and the court explains that all present require his medical services. A10b verified the Birgi, Ayasuluk and Ladik episodes and did **not** verify any visit by Ibn Battuta to Tire, which is why he appears here at Birgi and is not placed in this town.

15. Report A04, at high confidence, on the *ahi* fraternities (أخي, *ahilik*) receiving him at Ladik (Denizli) and on the city's gold-embroidered textiles woven by Greek women, quoting "renowned for the cotton cloth embroidered with gold made by Greek women"; report A10b, item 11, rated high, confirms from Gibb volume II that he praises durable cotton fabrics with gold-embroidered borders and says most of the artisans were Greek women subject to Muslim rule and paying the poll tax, adding that these are eyewitness literary claims and not demographic statistics, which is how they are used. A04 separately lists the *ahi* guilds among the institutions of identity retention in this region, Tire included.

16. Report A05's ranked summary of the mechanisms of persistence, which ranks confessional corporate jurisprudence first on evidence (thousands of Ottoman court records, *şer'iyye sicilleri*, patriarchal synodal acts and imperial *berat* charters, maintaining communal boundaries across five centuries), ahead of sanctuary and cultic anchoring, civic institutional autonomy, mercantile specialisation and consular protections, linguistic retention, and topographic retreat. The ranking is reproduced in the order A05 gives it. A05 is a Gemini report, and the millet system itself is independently carried at high confidence by report A04.

17. Report A04, at high confidence: the millet system organised non-Muslim subjects into self-governing religious communities under their clerical leaders, with the *Rum Milleti* under the Ecumenical Patriarch and local metropolitans holding legal and municipal

authority over Greek populations in Smyrna, Tire and Şirince, and the Jewish community managing its own courts, charities and educational foundations under a *Hakham Bashi*; and, in the same report, Sephardic congregations in Smyrna and Tire resolving civil disputes in their own rabbinical courts (*Beth Din*) rather than before the Ottoman qadi. Report A05 adds that ecclesiastical courts obtained formal jurisdiction over family law, inheritance and internal communal regulation, and that confession rather than language became the primary marker of boundary maintenance. Chapter 7 reads the same system from the port's side; the jurisdictional point here is the inland case.

18. Report A10b, item 20, verdict VERIFIED, rated high: Cretan Muslim refugees settled in İzmir, Çeşme, Urla, Selçuk, Tire, Kuşadası and nearby districts after the late nineteenth-century Cretan crisis, with further arrivals under the 1923 exchange, and Greek or Cretan Greek remained a household language. The same item records archival study of Cretan refugee settlement in Kuşadası neighbourhoods by August 1906.

19. Karl Dieterich, *Hellenism in Asia Minor* (American-Hellenic Society, 1918), on the Greeks of the interior towns of the Aydın province having spoken Turkish until the later nineteenth century and therefore not sharing the national consciousness of their kinsmen on the coast, and on the interior towns with substantial Greek populations lying on the railway lines radiating from Smyrna and belonging economically to it. Under R3 Dieterich is dated and openly partisan, usable for period colour and for what earlier writers believed, which is how he is used; his population and trade statistics are not used here and were not used in chapter 7. Report A05 independently ranks linguistic retention fifth among the mechanisms of persistence and names Karamanlidika, Turkish written in Greek characters, among its evidence, which is the same phenomenon from the other end.

20. Report A05, at high confidence: because the settlement at Ayasuluk shrank to a minor village under Ottoman administration, the metropolitans of Ephesus relocated their episcopal residence first to Manisa, then to Tire, then to Kuşadası (Scala Nova), while retaining the historic titular honour of Ephesus.

21. Report A05, at high confidence: western Anatolian Greek populations avoided the *devşirme* through imperial exemptions for residents of major commercial ports, naval dockyards and mines, through exemption for island and maritime-service populations owing galley service (*kürekçi*), and through early marriage, the statutes formally restricting recruitment to unmarried rural youths; the levy declined empire-wide by the mid-seventeenth century and was formally abandoned under Ahmed III. The characterisation of this as a regulation defeated by reading the regulation is this book's.

22. The market's goods are from report A09, Tire section, at high confidence. The reading of food as the mechanism that outlasts the other two is this book's own and is not a finding in any report; it is offered as an argument and not as evidence, which is why it carries no confidence claim.

23. Report A12, section 2.1 and the geographical-indications table, rated high: Tire beledi dokuması, Turkish geographical indication no. 630, a *mahreç işareti* (indication of source), file C2020/061, applied 28 February 2020 and registered 17 December 2020; A12 notes this is the only one of the seven numbers it audited from report A02 that checks out against the official registry. The technical description is from A12 section 2.4, from the official Turkish culture ministry description: double cloth (*çift katlı dokuma*), black and white warps separated by pressing different pedals, the pattern weft passing over the black upper warp and a white weft forming the backing; and a textile study referring to a

24 çerçeveli Beledi tezgahı, a twenty-four-shaft loom. The registry's own claim of about five hundred years of local history (*yaklaşık 500 yıllık bir geçmişe sahip*) is rated moderate by A12 as a tradition claim and is given here as what the file says. Report A09 independently rates high that Tire is known for beledi weaving and dates the tradition to at least the sixteenth century from official tourism material.

24. Report A12, section 2.4, verdict REJECTED at moderate to high confidence: the claim that Tire beledi anticipates the jacquard is a category error, because the Jacquard mechanism (patented 1804) controls individual warp ends with punched cards and nothing in the Tire sources describes card or individual-end selection, patterning by shafts and treadles being a technology centuries old in many places. Under R4 a rejected claim may appear only as a debunked claim, which is how it appears.

25. Report A09, at high confidence: rope-making (*urgancılık*) at Tire once supplied cordage to the Ottoman navy and continued into the republican period, and by 2018 the Turkish press reported that no traditional rope master remained in the historic bazaar, although later reports describe individual practitioners elsewhere in the district. The same entry records that claims that Tire rope specifically hauled Mehmed II's ships overland in 1453 are oral craft tradition and not independently established, so that episode is not told.

26. Report A09, at high confidence: Mehmed Necip Paşa founded the library bearing his name in 1827 to 1828 under Mahmud II; it is a purpose-built endowed library rather than a later room inserted into a mosque; its inscription dates completion to AH 1243 and it opened after confirmation of its endowment (Türkiye Diyanet Vakfı İslâm Ansiklopedisi). The Hijri year is in the note rather than the body because the sequence, not the date, is the point.

27. Report A09, at high confidence: published counts vary because of cataloguing and later additions, and one conservation study of the building's indoor microclimate records 1,156 manuscripts, 1,312 Ottoman-period printed books and more than 9,000 Latin-script books; approximately two hundred manuscripts are illuminated, and access to the rare manuscripts is controlled, so the library is not to be presented as if casual visitors can inspect individual volumes.

28. Report A09, at high confidence: Jewish life at Tire is documented under the Aydınids and Ottomans, Jews expelled from Iberia settled there after 1492, and Ottoman-era references together with the movement of Jews from Tire to Istanbul after 1453 confirm that the community was not a nineteenth-century creation. Report A06, section 6.4, carries the Romaniote community before 1390 and the *sürgün* resettlement of some Tire Jews to Constantinople after 1453 at moderate confidence. The Tire congregation's part in founding Jewish İzmir is chapter 7's material and is not repeated here.

29. Report A09, at high confidence: local research names Kaal Yachan, Kaal de Abaco and Kaal Shalom; and a 1926 account cited by the Turkish Jewish newspaper *Şalom* gives approximately 350 Jewish families, a Jewish school with 150 pupils, two large synagogues and a yeshiva, with A09's own caution that these figures were encountered through a modern community-history article rather than the underlying census. Report A10b, item 5, verdict CORRECTED, is followed on the names: Kaal Yaşan or Yachan, Kaal de Abaco and Kaal Shalom, with a fourth name, "Ariva", not corroborated, and with a caution that Yachan should not yet be treated as immune from contamination by the better-documented Çanakkale name. A06, section 6.4, gives the fourth name as Qahal de Ariva at moderate confidence; A10b is the verification layer and is followed, so three congregations are named and not four.

30. Report A10b, item 6, verdict UNSUPPORTED: a reading of 1271 circulates for a Tire Hebrew tombstone but no peer-reviewed epigraphic publication or examination by an identified Hebrew epigrapher was located, and A10b's own safe formulation is that two stones in the former cemetery have been claimed locally to bear medieval Hebrew dates, one interpreted as 5031 AM or 1271, with no scholarly confirmation of the reading. A10b further lists photographs, present locations, full transcriptions and examination by a Hebrew epigrapher as outstanding. Report A09 rates the readings moderate and notes the numeral sequences are unusual and some stones displaced. The body follows A10b, which is the later verification-layer reading, and gives no year.

31. Report A10b, item 5, rated high: *Şalom* and the Alliance Israélite study both date Tire's great fire to 1916 and not 1917, and Kahal Shalom stood on Mektep Caddesi opposite the former Jewish school and was repaired after the fire. Report A06, section 6.4, could not decide between 1916 and 1917, suspecting a Rumi or Hijri conversion error, and JGuide Europe gives 1917; 1916 is printed because A10b is the verification layer and rates it high against two sources. Report A09 independently rates high that three synagogues burned in 1916 and Kahal Shalom was rebuilt.

32. Report A09, at high confidence: after the local community dwindled the building passed to the foundations administration and was rented as a furnishing shop. Report A10b, item 5, rates the commercial use moderate, dates the report of it to 2015 to 2016, could not verify the current tenant or access, and directs that the statement carry a date, which is why the body says the middle of the last decade. Report A06 records the decline of the community through emigration, especially to Israel after 1948, at moderate confidence.

33. Report A09, at high confidence: by the 1960s no substantial congregation remained; cemetery removals and road or building

works displaced many tombstones, some of which were deposited in a stream bed before being gathered at a newer cemetery near the organised industrial zone, and the surviving site is reported difficult to access and poorly protected. Report A06 adds that about 250 gravestones were still standing in the early 1990s and were moved to a new site with the help of local people and the İzmir community, at moderate confidence.

34. Report A05's ranked summary, which places topographic and highland retreat last of the six mechanisms at moderate to low evidence, citing archaeological evidence of site shrinkage and refortification at Ayasuluk and Palatia and oral or legendary foundation accounts of settlements such as Şirince, and judges it a tactical demographic shelter rather than an autarkic permanent mode of existence, western Anatolian highland villages having remained tied to valley agricultural markets and coastal trade.

35. Report A09, rated low, on the foundation legends of Şirince: one holds that freed Greek slaves founded the village and called it Çirkince, "ugly", to discourage outsiders; another makes the founders forty freed slaves and connects Kırkınca with Turkish *kırk*, "forty"; a third has inhabitants of declining Ephesus retreating into the hills as the harbour and plain became unhealthy. A09 states that these are traditions and not documented foundation narratives, which is why the body attributes the name explicitly to the stories told about it and asserts nothing. The compulsory exchange of populations that emptied the village is report A09 at high confidence and is the next chapter's subject.

Chapter 9: Çirkince

1. Report A05's Sardinian comparison, at high confidence: communal survival on Sardinia across Phoenician, Punic, Roman, Vandal, Byzantine, Pisan, Aragonese and Spanish rule is characterised by retreat into the mountainous interior, the

Barbagia (from Latin *Barbaria*), with an autarkic pastoral economy, linguistic conservatism in Logudorese Sardinian and customary clan law (*Codice Barbaricino*), citing Giovanni Lilliu, *La civiltà dei Sardi dal Paleolitico all'età dei nuraghi*, 1988. The companion volume referred to is the author's *The False Door: An Island, Its Stones, and the People Who Outlasted Their Conquerors*. Chapter 8 makes the same contrast from the institutional side; this chapter takes it from the topographic side, which is the only aspect A05 ranks.

2. Report A05, at high confidence: western Anatolia's east-west river valleys (Gediz/Hermus, Küçük Menderes/Cayster, Büyük Menderes/Maeander) connect coastal ports directly to the Anatolian interior, preventing the formation of isolated redoubts like the Sardinian Barbagia, and communal survival in western Anatolia relied on the institutions of the Rum millet, consular protections and Greek control of maritime commercial sectors rather than on geographic isolation. A05 is a Gemini report and the weakest layer in this corpus; the geographic observation is reproduced because it is a statement about the drainage pattern, which is not in dispute, and because A05's own ranked summary places topographic retreat last of six mechanisms at moderate to low evidence. The reading of a valley as a corridor rather than a barrier is this book's.

3. Report A05, at high confidence, locates the village eight kilometres east of Selçuk in the hills above Ephesus. The export orientation of its agriculture (olive oil, dried figs, wine from terraced slopes) is A05 at high confidence, citing Evangelia Balta, *Beyond the Ottoman Borders: 19th-Century Aegean Communities*, 2003; report A09 independently rates high that the village's prosperity rested on agriculture and trade, particularly export figs, olives, vines and wine. Report A05 also carries the upland-refuge rationale (valley insecurity, malaria, political unrest) at high confidence.

4. Report A09, rated moderate on the name forms: Kırkınca, Kirkice, Kirkince, Çirkince and Greek Κιρκιντζές (*Kirkintzés*) all appear in modern discussions, and a folkloric study reports the village as Kyrkindje, Kirkidje, Kırkıca and Kırkınca in different sources. Report A05 rates high that Ottoman registers carry *Kırkınca* and Greek sources *Kirkindje* (Κιρκιντζές). The three foundation legends are A09 at **low** confidence: that freed Greek slaves founded the village and called it Çirkince, "ugly", to discourage outsiders; that the founders were forty freed slaves and Kırkınca derives from Turkish *kırk*, "forty"; and that inhabitants of declining Ephesus retreated into the hills as the harbour and plain became unhealthy. A09 states explicitly that these are traditions and not documented foundation narratives, and that no securely documented foundation by freed slaves was found; A05 rates the forty-freedmen version moderate and the ugly-diversion version low. No reading is printed as the explanation because none has evidence under it and A09's own safest formulation is that the present village is medieval or early Ottoman in origin while most surviving traditional houses are nineteenth century. The observation that three competing etymologies are themselves evidence of a village that felt observed is this book's and is offered as an argument, not as a finding.

5. Report A09, rated moderate, and report A05, rated high: the village received its present name during the governorship of Kazım Dirik, commonly dated to 1926, Şirince meaning "pleasant" or "charming". The official Selçuk district account presents the episode as a remembered story involving the village teacher Muallim Suat Bey and Dirik's judgement that so attractive a place should not be called Çirkince; A09 notes that the page preserves the tradition but does not reproduce the administrative renaming order, and lists the identity of that order among its open questions, which is why the body names the governor and the

year and not the conversation. The reading of the renaming as the state declining to take a hint is this book's.

6. Report A10b, item 16, verdict **CORRECTED**, which is the verification layer and overrides: a summary of the 1908 to 1909 Ottoman *salname* reports more than 1,000 houses and notes that the inhabitants' mother tongue was Turkish, rated moderate; modern conservation studies give broad early twentieth-century ranges of 4,000 to 7,000 inhabitants and 1,100 to 1,800 houses, rated moderate; and the often-repeated "1,800 households in the nineteenth century" is an upper retrospective estimate and not a census figure, rated low. A10b's own instruction is that the claim be written as "by 1908 to 1909, Şirince had more than 1,000 houses", which is what the body says, and that a population near 4,000 is plausible but must not be presented as the same yearbook's exact count, which is why the body calls it plausible. A10b further records that the original yearbook entry should be transcribed to establish whether it gives houses alone or a population total. Report A14 describes the villagers as Greek-speaking at moderate confidence; the body follows A10b, which is the verification layer, and avoids calling them Greek-speaking in either direction.

7. Report A10b, item 16, at high confidence: Arundell, who visited in 1832 and 1833, estimated at least 300 houses and approximately 1,500 people, all or overwhelmingly Greek Orthodox. A10b gives his first name as William; he is not further identified in this corpus, so the body calls him an English visitor rather than printing a name the report may have wrong.

8. Report A05, at high confidence throughout: Orthodox Christians in Cappadocia, Lycaonia and parts of Phrygia lost Greek speech and took Ottoman Turkish as their mother tongue; these communities, the Karamanlides (Καραμανλήδες), kept their Orthodox faith and identity; and they produced a substantial

literature, Karamanlidika (Καραμανλίδικα / *Karamanlıca*), Turkish written in the Greek alphabet, citing Richard Clogg, "A Danger to the Church? The Karamanlidika Editions of the New Testament", 1968, and Evangelia Balta, *Karamanlidika: Nouvelles recherches*, 1987. The same report has Karamanli communities migrating to the western coastal hubs and establishing trading houses, parish churches and printing presses at Smyrna and Istanbul publishing Karamanli Bibles, essays and histories. A05 separately ranks linguistic and epigraphic retention fifth of six mechanisms at moderate evidence, judging it highly vulnerable to macro-linguistic shifts, which is the judgement the body follows.

9. Approved outward link L4, the Cappadocian Greeks of Derinkuyu and Kaymaklı: Turkish speech, Greek letters, kept religion. The underground cities are named as the extreme case of the same community; the generic hypothetical "you" is used, and no claim is made that any particular person has been there.

10. Report A05, at high confidence, on the village maintaining cultural autonomy: children attended Greek-language communal schools funded by the olive-growers' cooperative, and village legal disputes were resolved by the local council rather than the qadi court at Kuşadası. A05 is a Gemini report and the weakest layer in this corpus, and no other report in the pile carries the cooperative or the council, which is why the body attributes it to one account rather than stating it flatly. The reading of a Greek-language school in a Turkish-speaking village as a community buying back what it had lost is this book's.

11. Report A14, at high confidence: Anna Katharina Emmerick, a German Augustinian nun, died in 1824; Clemens Brentano recorded extensive accounts of her visions at her bedside, including a description of Mary's final home in mountainous country near Ephesus; no autograph account of the Ephesus vision by Emmerick is known; Brentano's notebooks are not

stenographic transcripts, since he selected, rearranged and literarily elaborated the material across repeated sessions; and *Das Leben der heiligen Jungfrau Maria* was published posthumously in 1852 from his papers, ten years after his death. A14 rates moderate that its detailed topography, rather than an established local Ephesian tradition, supplied the map subsequently followed by European searchers, and states at high confidence that the safest formulation is "visions attributed to Emmerick as recorded and edited by Brentano", which is the formulation used.

12. Report A14, rated moderate: in 1881 the French priest Abbé Julien Gouyet travelled to the Ephesus area after reading the published visions and identified ruins on Bülbüldağı ("Nightingale Mountain") with the described house; his report attracted little official support and the identification was not immediately accepted by Catholic authorities.

13. Report A14: the decisive search came in 1891 from the French Lazarist community at Smyrna, at high confidence; Sister Marie de Mandat-Grancey encouraged the investigation and the Lazarist priests Henri Jung and Eugène Poulin organised or participated in expeditions that found the ruined structure at the place locally called Panaya Kapulu, at moderate confidence. The Kirkince tradition is A14 at moderate confidence: the Orthodox villagers were reported in and after 1891 to know the locality as Παναγία Καπούλου (*Panágia Kapoúlou*), approximately "Gate of the All-Holy", and to make an annual pilgrimage there around the Feast of the Dormition on 15 August, which A14 calls the strongest positive link between the House and this village. That the searchers started from Brentano's printed topographical description and looked for a landscape and ruin that could be made to fit it is A14 at high confidence, as is its corollary that the identification was not an unprompted archaeological discovery.

14. Report A14: the villagers' tradition probably preceded the Lazarists, because an established annual communal journey would have been difficult to invent immediately, at moderate confidence, which is the reading the body prints. The evidentiary limitation is A14 at high confidence: the surviving descriptions of the practice were recorded by or transmitted through the Catholic discoverers after they had arrived looking for Emmerick's house. That no securely dated pre-1881 or pre-1891 Kirkince parish record, Ottoman administrative record, traveller's account or Orthodox ecclesiastical text documents veneration of this precise building is A14 at low confidence, meaning the absence itself is not firmly established. A14 rules that "the Kirkince Greeks already revered the locality when the Lazarists arrived" is supportable at moderate confidence, while "the villagers had preserved a first-century memory of Mary's residence" is **not supportable** at high confidence; the latter is therefore not stated here in any form, and the age of the tradition is left unstated because A14 states it is unknown.

15. Report A14, at high confidence: the standing *Meryem Ana Evi* is a heavily restored religious building rather than an intact first-century house, with its visible and excavated masonry normally assigned to the Byzantine period at moderate confidence, and no inscription identifies the building as Mary's house. No visitor figure is given here because none in the corpus is verified. The observation about whose names the site carries is this book's.

16. Report A09, at high confidence: under the compulsory exchange agreed at Lausanne in 1923 the village's Greek Orthodox inhabitants left for Greece and Muslim families from Greece were settled in their place. The assignment caps narrative of the war and the exchange generally; this village's own emptying is this chapter's spine and is the authorised exception.

17. Report A09, at high confidence: many former residents established themselves around Nea Efesos near Katerini. The reading of the new village's name as the thesis in miniature is this book's.

18. Report A09, at high confidence: Turkish accounts identify incoming families particularly from Moustheni and Domatia in the Kavala region, although broader references to Thessaloniki and northern Greece also occur. A09 lists the proportions coming from each origin among its open questions, so no proportion is given. Nothing in the corpus states what crops the incoming families had grown in Greece, so no inference about their previous agriculture is drawn; the claim in the body is only that the inherited system was adapted to the departed community's skills and commercial connections, which is A09's own wording at high confidence.

19. Report A09, at high confidence: new residents inherited houses, orchards and cultivation systems adapted to a different community's skills and commercial connections; the village contracted and some buildings became derelict before late twentieth-century conservation and tourism reversed part of the decline.

20. Report A09, at high confidence: the houses' stone lower floors, plastered or timber-framed upper storeys, projecting bays and close relationship to gardens represent the domestic culture of the pre-1923 community, and later Turkish residents, conservationists, hotel owners and craftspeople preserved, altered and commercialised that inherited fabric. The reading of under-occupation as the preservative is this book's.

21. Report A10b, item 17, verdict **VERIFIED**, at high confidence: Dido Sotiriou's *Ματωμένα χώματα* (*Matōmena Chōmata*, "Bloodied Earth"), published 1962, is narrated in the first person by Μανώλης Αξιώτης (*Manōlēs Axiōtēs*), who comes from Κιρκιντζές

(*Kirkintzes*), modern Şirince; Sotiriou's preface presents Axiotis as a real Asia Minor farmer who served in an Ottoman labour battalion, later wore a Greek uniform, experienced captivity and became a refugee in Greece, and she literarily reworked his written recollections rather than inventing the narrator. A10b adds at high confidence that the real Axiotis later published *Το μπερδεμένο κουβάρι* in 1965 and *Ενωμένα Βαλκάνια* in 1976, and that the novel remains fiction based on testimony and not a verbatim memoir, which is why the body calls it fiction.

22. Report A09, at high confidence: wine production predates the population exchange. The observation that the customer base was the untransferable asset is this book's.

23. Report A09: the modern association with fruit wines including peach, mulberry, pomegranate and blackberry is rated high, as is the finding that the concentration on bottled fruit wines is tied to the tourism economy rather than being an unchanged survival of nineteenth-century Greek viticulture; the role of the German wine specialist Helmut Hermann Krauss, who arrived in 1998 and helped systematise local production and popularise fruit wine, is rated moderate from a Bilkent University study, with A09's own caution that this does not mean Krauss invented wine or fruit fermentation here. A09 lists the earliest systematic production of fruit wine, as distinct from grape wine, among its open questions.

24. Report A08 Part 2, rated high: in December 2012 the village was one of the places claimed online to be safe from an apocalypse supposedly predicted by the Maya calendar, with hotels filling and special products including "apocalypse wine" marketed; and, rated high, that the village was said to be protected because it lies near the place from which Mary ascended into heaven, a claim circulated by New Age tourism stories and international reporting. A05 adds the "positive energetic vortex" formulation attributed to proximity to the House of the Virgin Mary at

moderate confidence, which is not printed. The twenty-first of December 2012 corresponds to the completion of the thirteenth *bak'tun* (13.0.0.0.0) of the Maya Long Count, per A05 at high confidence. The reading of the 1891 and 2012 episodes as a single transaction running in both directions is this book's.

25. Report A08 Part 2, rated high: no Maya source mentions this village; the claim combined the global 2012 phenomenon with local Christian associations and commercial tourism; and Maya specialists did not interpret the completion of the thirteenth *bak'tun* as a prediction of global destruction. Report A09 independently rates high that the episode did not arise from Maya texts naming the village and that NASA and Maya specialists rejected the underlying doomsday interpretation. A08 Part 2's open questions record that the earliest primary document connecting this village specifically with 2012 survival was **not found**, and that it was never settled who first described the supposed protective energy or whether the claim was spiritual, commercial, journalistic or satirical, which is why the body attributes it to the internet and to nobody in particular.

26. Report A08 Part 2, rated high: advance reporting projected up to 60,000 visitors while approximately 1,000 or fewer apparently arrived, many of them journalists, police or spectators, and later retellings sometimes imply the forecast crowds arrived. Report A09 independently directs that the 60,000 figure was a forecast and must not be repeated as an attendance count, which is how it is used.

27. Report A12, rated high, which settles the founding date: the Nesin Mathematics Village (Nesin Matematik Köyü) was founded by the mathematician Ali Nesin in May 2007 with financial contributions from local people, per Habervesaire and the Nesin Köyleri biography of Ali Nesin, with Visit İzmir also giving 2007. Report A09 rates high that Nesin founded it in 2007 working with Sevan

Nişanyan, that it runs camps for secondary-school, undergraduate and graduate participants with some university-level classes in English, that it is a non-profit educational institution rather than a theme park or museum, and that programmes should be checked before any visit because access may depend on current teaching sessions. A09 rates moderate that the village may be presented as a modern echo of Ionian mathematics **only as an authorial comparison**, since it has no institutional continuity with Thales, Anaximander or the ancient schools of Ionia, which is why the body states the comparison as the narrator's own and denies the continuity explicitly.

Chapter 10: The Drawing on the Wall

1. Research report 07 (07-site-miletus-priene-didyma.md), sections 3.8 and 4.1.1, from Perseus and from Prignitz's 2019 edition of the building accounts in *Istanbuler Mitteilungen* 69: a dipteral Ionic temple, 118.34 m by 60.13 m at the lowest of seven steps, columns about 19.7 m, decastyle front, twenty-one columns on each flank, begun about 300 BC; the planned double colonnade had 108 columns and not all were erected; some that were erected remain unfluted with the boss on the shaft. Fontenrose, *Didyma: Apollo's Oracle, Cult, and Companions* (1988), ch. 1, calls the final temple one of the three largest in the Greek world. Lothar Haselberger, *Archäologischer Anzeiger* 2023/1, § 2, records the three columns standing to full height: the unfinished one on the south flank and a fluted pair on the north. Work ended either late in the second century AD (Gruben) or in the middle of the third (Pülz, tied to the Gothic raid of about 262); report 07, section 3.8, gives both and settles neither, so the body says five centuries of intermittent effort rather than naming an end date.

2. Report 07, sections 4.1.4 and 4.5.2, following Haselberger 2023 and the Encyclopaedia Romana summary of his 1985 *Scientific American* article: the drawings survive because the adyton walls were never given their final dressing, the same condition that

preserves the bosses on the columns and wall blocks. Report A12 rates it high that the drawings exist and that they are the most important body of Greek construction drawings known.

3. Haselberger 2023, § 1 and fig. 4 with note 52, via report 07, section 4.1.4: the entasis drawing is on the northern socle wall of the adyton, measures 1.5 m by 1.5 m, and is dated to about 240 BC; the height is compressed while the horizontal dimension keeps true size, the base torus and the apophyge are drawn unreduced, the entasis outline is a flat circular arc against a chord line, and a row of dactyl marks runs alongside. Two vertical scales circulate, 1:16 from a caption of the 1985 article and 1:20 from the caption of fig. 4 in the 2023 paper. Research report 10, item 7, closes the point in favour of 1:20 on the ground that 1:16 does not appear in the 2023 paper at all; the body therefore says "about twentyfold" and prints no ratio.

4. Haselberger 2023, § 44 and note 52, via report 07, section 4.1.4: the rise of the arc is given as 4.65 cm in his 1980 plate; the lower diameters of eight fluted columns published in Knackfuß's 1941 volume average 2.015 m against 2.016 m in the drawing, with individual deviations up to plus 4 and minus 7 cm. Haselberger's own gloss is that the average match is the best evidence that the drawing was used as a specification and not as a picture; the inference that the individual deviations are carving rather than planning is mine.

5. Report A12, which is the verification layer and overrides, records "earliest blueprints" as **REJECTED**: the drawings are not the earliest architectural plans, Near Eastern examples being far older (the plan on the lap of a Gudea statue from Lagash, about 2100 BC, moderate and not re-checked), and Haselberger himself put "blueprints" in quotation marks. A12's recommended wording is "the working drawings of a Greek temple, scratched on the building they describe", which is what the body says. On the

model column: Lotz and Prignitz argue that building account I.Didyma 20 records the erection of one column's parts as a *paradeigma* well before series production, and Haselberger accepts the identification of the drawing with that model column (report 07, section 4.1.4, from [1] § 85 and [2]). The popular reading, that the lines were a guide for the generations completion would take, is the Encyclopaedia Romana version and is rejected here because report 07, section 4.1.6, sets it directly against the more precise reading in Haselberger and in Lotz and Prignitz.

6. Haselberger 2023, §§ 7 and 59 to 60, via report 07, section 4.1.3: 19.70 m, eighteen drums of between about 70 and 130 cm, an evenly pointed boss with an especially heavy boss on the three uppermost drums, finished flutes in the upper part of the top drum serving as a gauge, a fully carved capital, and smoothed palm-sized fields at the quarter and eighth points of each lower bed joint, one per drum carrying a diameter in Milesian alphabetic numerals, always inverted. The reconstruction of the order of work, and the argument that the numerals could have been written neither at the quarry nor on the standing column, are his.

7. Haselberger 2023, §§ 61, 72 to 78, 101 and note 40, via report 07, sections 4.1.3 and 4.1.5: the numerals run to 1/32 of a foot (about 0.9 cm) on a foot of 29.85 cm, and they agree with the diameters measured during the 2021 survey to within a few millimetres, and at most 1.5 cm, over drums 5 to 15; three drums in the middle of the shaft all carry 6 and 1/8 feet, which contradicts an entasis, and the diameter retreats about 14 cm between drums 8 and 10. Haselberger reads the absence of supervision as a planning failure and not an execution failure, because the shaft below is cut with adjustments to 1/32 foot. He offers two possible explanations, a loss of tradition after an interruption in the work and an attempted simplification of the ordering method, marks

both as unsupported by direct evidence, and writes that the reasons remain elusive to him; none is printed in the body for that reason.

8. Haselberger 2023, § 102 and note 2, via report 07, sections 4.1.5 and 4.1.3: a finished column in the 170s BC cost about 39,000 drachmas of which about 10,000 was fluting and carving, leaving about 29,000 sunk in the unfinished column, and replacing the upper half, about ten of the eighteen drums and the capital, is estimated at 14,000 to 15,000. His further conversion of the sunk cost to about 3.8 million euros, by way of a modern day wage, is marked low confidence in report 07 as a rhetorical device rather than a measurement, and is not used. The dating gap is Haselberger §§ 85 to 88: the drawing about 240 BC, the unfinished column late Hellenistic, probably after the 160s BC and possibly in the first century, so that its masons worked at least three quarters of a century after the drawing was made. He also records, at § 2, that this column survived the earthquakes almost intact.

9. Prignitz 2019, appendix, via report 07, section 4.1.2: the organisation runs architect and treasurers, a building commissioner giving an annual account and supervising daily work, auditors from the end of the third century, foremen, temple slaves (*hieroi paides*) employed by the state, slaves leased from private contractors, and private contractors who set the stones of the sekos wall. The reading of that arrangement as having one structural weak point is mine, and it rests on Haselberger's finding at § 101 that no supervision took place on the defective column.

10. Haselberger 2023, note 5 to § 6, via report 07, sections 4.1.3 and 4.5.2: measured boss allowances of about 3 to 8 cm on the end faces of the crepis step blocks on the west side, about 4 to 6 cm on the plinth of the north-western corner column, and about 2 cm,

more finely pointed, on its unfinished foot drum. Knackfuß's 1941 publication shows the bosses in drawings but nowhere quantifies them. The tonnage is not a figure in any source and is stated only as an order of magnitude.

11. Haselberger 2023, fig. 14, via report 07, section 4.5.2, item 6: the lower torus of the base of the unfinished column is finished "except for the lifting bosses". The stage names are Haselberger § 60 note 38, from I.Didyma 39 and 41: τομή (cutting out), πελέκησις (rough dressing at the quarry), ἐργασία (working to the raw diameter on site), θέσις (setting) and ῥάβδωσις (fluting). Research report 10, section 3.4, confirms lifting bosses at Didyma and at Assos and records that they are **not** documented at Euromos, where what exists is pry holes; that correction is the reason no general claim is made here about other sites on the route.

12. Approved outward link L5, which is the only outward comparison in this chapter. Report A08 Part 2 records "Didyma's precision, enormous blocks, and unfinished columns prove power tools or forgotten machining" as a LOST TECHNOLOGY claim circulating on decentralised ancient-technology channels, with no leading site-specific proponent located, and gives the answer that the unfinished drums, construction lines, lifting bosses, setting marks and annual building accounts preserve ordinary but highly skilled ancient planning and labour, including its errors and revisions. The Sacsayhuamán and Ollantaytambo comparison is the book's own and makes no claim about the Peruvian sites beyond the content of the alternative-history literature about them. The generic hypothetical "you" is used and asserts nothing about anybody having been there.

13. Report 07, sections 4.1.1 and 4.5.2 to 4.5.4: the eight independent classes of evidence for subtractive production; Peschlow-Bindokat's survey of the Lake Bafa quarries recording up to

ninety large-format drum blanks in the Milesian areas; the marble of the unfinished column running from near white to strong blue-grey with contrasting colours adjacent (Haselberger § 7); and report 07's own statement of the limit, that the evidence concerns the marble and that no petrographic study of the limestone cores addressing this question was found. Research report 10, section 3.4.2, weights the boss allowance and the numerals as the strongest two of the eight and the seismic and colour arguments as the weakest, which is why the body leads with the allowance and the quarter-point fields. The widely repeated figure of more than 12,000 cubic metres, or 33,000 tonnes, of limestone in the cores could not be traced to a document and is not printed.

14. Prignitz 2019 and Haselberger 2023, via report 07, section 3.8: the annual outlay in good years is about 5 to 6 talents, derived from about 38,000 drachmas in one text, about 2 and 1/4 talents in another and just under 1 talent in a third; Rehm's costing of one column from quarry to erection is 34,744 drachmas without sea freight and 38,787 with it.

15. Prignitz, via report 07, section 3.8: about 4.65 million drachmas for the 120 columns of the peristasis and the twelve-column hall if completed, and his own statement that at one column a year the dodecastyle hall would have taken twelve years and the peristasis a further hundred and eight. Report 07 computes about 110 to 120 years of full-rate spending on columns alone and marks that as its own arithmetic and not a figure in the sources; the body uses Prignitz's figure and not the derived one. Prignitz rejects Gruben's argument that Hellenistic taste turned away from temples, so no explanation by fashion is offered here.

16. Prignitz, via report 07, section 3.8, translating Didyma II 47: the account of Phaidon son of Sopolis, elected by the people to oversee the building of the temple in accordance with a decree that went back to an oracle on the building, after a longer

interruption about or soon after 150 BC. The alternating pattern (brisk between 225 and 220, slow to 190, the sekos pushed to completion by about 170, delays again after about 150) is Prignitz's reading of the accounts. Voigtländer's suggestion that the mid-second-century slowdown was linked to the installation of an oligarchy at Miletus is recorded in report 07 and is not printed, because it is carried at one remove and the chapter's argument does not need it.

17. Voigtländer and Pülz, via report 07, section 3.8: a short resumption under Caligula (Suetonius, *Gaius* 21, appears in report 07's list of ancient authors) and large-scale resumption from Trajan with a peak under Hadrian. The marble paving of the Sacred Way under Trajan is from the Hamburg project page, relayed in report 07, section 3.8, at moderate confidence. The judgement that only a monarch could have finished the building is report 07's own reading of Prignitz's data, at moderate confidence, and the chapter follows it.

18. Fontenrose 1988, ch. 1, note 1, quoting Conon, *Narrationes* 33: "up to the present, of Hellenic Oracles that we know, that of Branchidai is agreed to be greatest after Delphi." Fontenrose notes that Zeus' oracle at Dodona was probably the most prestigious Greek oracle after Delphi overall, which is why the body prints Conon's formulation as a statement about the oracles Conon was ranking and not as an absolute. The gifts of Necho and Croesus are Herodotus 2.159, 1.46 and 1.92, relayed in report 07, section 2.4, at moderate confidence; Vaux (1877), reporting Newton's excavations, gives Necho's dedication as the armour he wore when he took Cadytis, and Croesus' gifts as equal in weight to those he gave Delphi. Vaux is a nineteenth-century source and is used here only where report 07 carries the same claim from Herodotus.

19. Fontenrose 1988, ch. 5, "Analysis of Didymaean Responses": sixty-one responses attributed to the oracle, thirty-three of them Historical in his sense (contemporaneously attested), thirty of those recorded in inscriptions presumably made soon after delivery and twenty-seven of those at Didyma or Miletus, with nineteen of the twenty-seven in direct quotation and sixteen in verse; twenty of the thirty-three are religious instructions or sanctions in modes A1 and A2 on topics 1a, 1b and 1d, which with one further response in mode C1 is close to five-eighths. His comparison with Delphi, where only fourteen per cent of the 535 catalogued responses are Historical and no Delphic inscription quotes one directly, is the basis for the remark about the evidential record. The question formulae are his list: "Shall I do X?", "How shall I do X?", "Whom shall we choose?".

20. Fontenrose 1988, Catalogue, Historical Responses 2 and 3: an early sixth-century inscription of Didyma (DI 11) written boustrophedon, of whose question only the word λῃστοί (*lēistoi*, plunderable) survives, with the response "It is right to do as your fathers"; Rehm and others supposed that the consultants were requesting a sanction for piracy, and Fontenrose states plainly that there is too little to go on, just one word and part of another, and that there is no context for the word. The prohibition on women entering Herakles' sanctuary, with the clause about eating greens, is his Historical Response 3, an inscription of Miletus (Milet 1.3.132a = LSAM 42A).

21. Report A03, section 2.7, which is the verification layer for this event: Herodotus 6.19.3, in Godley's translation, that after the fall of Miletus "the temple at Didyma, with the sacred building and the sanctuary of the Oracle, was first plundered and then burnt"; the Branchidae removed to the Persian interior and Kanachos' bronze Apollo taken to Ecbatana; Seleucus I returning the statue about 300 BC. A03 rates the plundering high and the date disputed: Herodotus puts it in 494 under Darius, while Strabo

14.1.5 has it burnt by Xerxes, and A03's own reconciliation, plundering in 494 and removal of the Branchidae under Xerxes, is marked as its inference at low to moderate confidence. The body therefore ties the event to the fall of Miletus and prints no year, since the year is not the point and the sources do not agree on it. The archaeological caution is the German Archaeological Institute's 2019 *e-Forschungsberichte* report by Uta Dirschedl, which A03 rates high as a statement of what that report says: Herodotus' "burnt", in the sense of destroyed, is questioned by the evidence of the archaic Temple II fragments. Tuchelt's 1986 argument that what Seleucus returned was a dedication of the city of Miletus rather than the cult statue is recorded in report 07, section 3.8, and is not printed in the body, which says only that the statue came back.

22. Strabo 17.1.43, citing Callisthenes, relayed in report 07, section 2.6: the oracle is said to have started again and to have confirmed Alexander's divine parentage, with the spring flowing again while he was in Egypt (moderate). Fontenrose 1988, ch. 5, adds that Callisthenes, a contemporary, has Apollo predict the victory at Arbela, the death of Darius and revolution in Lakedaimon, and judges that a victory over Persia was a safe and politic prediction while the specifics were not available to the ministers by any occult route; the hedge in the body follows his judgement. Report A08 Part 2 classifies the spring's revival as a religious legend at moderate confidence and states that no independent evidence establishes a supernatural interruption and resumption, which is why it is told here as a report by a named interested party. The Sogdiana episode is Curtius 7.5.28 to 35, with Strabo 11.11.4 citing Callisthenes for the Branchidae's departure with Xerxes after betraying the god's treasure; A03 rates the massacre moderate and records that Arrian and Plutarch do not mention it and that Curtius' source is probably Cleitarchus. A08 Part 2 directs that the episode not be narrated without identifying

which source is being followed, which is the reason for the clause naming a single historian. This paragraph and the one before it are the chapter's one allocated beat under R10.

23. Lactantius, *De mortibus persecutorum* 10 to 12, relayed in report 07, section 3.8: in the winter of 302 to 303 at Nicomedia, Diocletian, in doubt over whether to persecute, sent a soothsayer to consult Apollo of Miletus, whose answer in Lactantius' account was what one would expect from an enemy of the Christian religion, and the first edict followed in February 303. Report 07 separates three points and the body follows all three: the identification with Didyma is the standard one but is an identification, since Lactantius names only Apollo of Miletus; the translation gives the characterisation and not the words, and the versions preserved in Constantine and Eusebius are mixed together in the popular summaries and are rated low; and Lactantius is a Christian polemicist writing shortly after the persecution, so the consultation is rated moderate and its causal role low. The reading of the consultation as a countersignature is this book's.

24. Report 07, sections 4.1.1, 4.1.2 and 3.6, from Toma's 2023 provenance report and from Prignitz: the principal marble-quarrying areas for Miletus lay on the shore of the former Latmian Gulf, now Lake Bafa, at the northern foot of the Grion mountain and on the southern spur of the Latmos at Herakleia; the seven lowest drums and the base with plinth of the unfinished column were identified geologically as marble from near Lake Bafa; and the costing contemplated a sea leg, which fits the Latmian Gulf being navigable in the Hellenistic period. The freight figure is the difference between Rehm's two costings, 34,744 and 38,787 drachmas, and is stated here in round terms. The harbour of Panormos, about two and a half miles north-west of the sanctuary, is Fontenrose 1988, ch. 1, with Herodotus 1.157.3 and Thucydides 8.24.1.

25. Haselberger 2023, §§ 2 and 106, via report 07, section 4.1.8: the two fluted north columns and the unfinished south column survived the earthquakes almost undamaged, with the drums of the north pair slightly displaced against one another, up to 0.9 cm between drums 9 and 10 and up to 2.1 cm between drums 6 and 7 on the western one as measured in 1985, and those displacements must be allowed for in any reconstruction of the original outline. The attribution of the destruction to an earthquake of 1493 is rated low in report 07 and no seismological source was found, so no date is printed. The inference that stacked separate drums behave this way, where a monolithic column would crack, is report 07's at moderate confidence, section 4.5.2, item 7, which also notes that a cast column could in principle have been cast in drums; the body uses the observation about joints and not as an argument against casting.

26. The Gorgon head. It appears in the list of illustrations in Fontenrose 1988 as a photograph captioned "Gorgon head from entablature of Didymeion facade", and in nothing else in this corpus. No research report covers it and the assignment's must-not-miss list carries it with no supporting material, so nothing is asserted here about its date, its original position in the building or its meaning. It is listed as an object that is on the site and as nothing more.

Chapter 11: Arche

1. Aristotle, *Metaphysics* 983b, as reported in research report 02 (02-frame-ionia-lydia-persia.md, section 3.6) and the Stanford Encyclopedia summary it relies on. The double sense of ἀρχή, origin and rule, is standard lexicography and is not a claim of this book about the Milesians' own usage.

2. Report 02, section 3.6: Anaximander replaced water with the *apeiron*, the unlimited, and offered a cosmology with the earth floating unsupported and the heavenly bodies as rings of fire. The

report rates the reconstruction moderate, since it comes from doxography (Hippolytus, pseudo-Plutarch) and not from Anaximander. The judgement that this is the first surviving attempt at a world with no god acting on it is the report's, at moderate confidence, and I have followed it rather than the stronger claims in the popular literature.

3. Report 02, section 3.6: air as the principle, with condensation and rarefaction as the mechanism, fire being rarefied air and stone air condensed to its maximum.

4. Report 02, section 3.6: Anaximander survives in one sentence of reported text, Heraclitus in a few score fragments, Hecataeus in more than three hundred, most of them place-name entries in later dictionaries; and the "Milesian school" is a later doxographic grouping transmitted mainly through Aristotle (*Metaphysics* 983b) and Theophrastus, with some modern historians of philosophy doubting a teacher-pupil succession. The report marks that scepticism low as to who holds it and how strongly, so the body names no modern scholar.

5. Report A12, the verification layer, which rules that Anaximander's gnomon was "introduced" and not invented, citing Herodotus 2.109 for the Greeks having learned the sundial and the twelve parts of the day from the Babylonians. Report 02, section 3.6, carries the same point from Diogenes Laertius 2.1 to 2.2 at moderate confidence. The chapter prints A12's wording because A12 outranks it.

6. Report A12 records Anaximander's map as CLAIMED to be the first Greek one, citing Agathemerus 1.1 and Strabo 1.1.11 quoting Eratosthenes, and Hecataeus' *Periodos Ges* and improved map as moderate. Report 02, section 3.6, gives the geography as two books on Europe, Asia and Libya and notes that it rests on the same sailing knowledge as the colonial network. The reading of the first world map as a trade document is mine.

7. Herodotus 5.49, relayed in report 02, section 3.6, at moderate confidence: Aristagoras showed a bronze map of the world at Sparta. The Spartans declined to join the revolt, which is Herodotus' own outcome for the embassy.

8. Report 02, section 3.6, records the tradition that Thales learned geometry in Egypt and gives Diogenes Laertius 1.27 for the visit, at low confidence, from memory. The shadow measurement of the pyramid is in Diogenes Laertius citing Hieronymus of Rhodes; no verification report in this corpus covers it, and the assignment carries it as moderate as an anecdote only. It is therefore told here as the story that stuck, with the chain of transmission stated, under the standing rule that a flagged and sourced claim stays in. Approved outward link L7, Thales at Giza and Hecataeus at Karnak, is the only outward comparison in this chapter; no claim is made that any particular person has been to Egypt.

9. Herodotus 2.143, cited for Hecataeus in report A02 and in the assignment's own claim list. Herodotus records that the priests at Egyptian Thebes did the same for him, and that there were 345 colossi; the quotation at the end of the paragraph is the opening of the *Genealogiai* as paraphrased in report 02, section 3.6, and is given here in paraphrase and not as a quotation for that reason. A02 is a Gemini report and the weakest layer in this corpus, which is why the paragraph rests on the Herodotean passage the assignment names and not on A02's framing of Hecataeus as the inventor of source criticism.

10. Report A10a, item 19, verdict CORRECTED, which is the verification layer and overrides: Herodotus 1.74 has Thales foretell the loss of daylight "fixing it within the year", a total solar eclipse did cross Asia Minor on 28 May 585 BC, and no proposed Saros, exeligmos or short observational cycle provides a satisfactory method for predicting local totality with sixth-century data, following Querejeta's statistical study. A10a's

instruction is that the book say Herodotus credits Thales while modern historians of astronomy doubt that a reproducible prediction occurred, which is what the body says. The year is printed nowhere because the year is not the point.

11. Report 07 (07-site-miletus-priene-didyma.md), section 2.4, from Brückner and colleagues' faunal and pollen work: sheep husbandry became the mainstay of small livestock in the post-Minoan period and the fame of Milesian wool in the archaic trade is treated there as well established. The modern comparison is mine and is a comparison, not a claim about volume.

12. Report 07, section 3.2, from the Hamburg excavation pages: Kalabaktepe, narrow winding streets between densely built houses on terraces, with workshops for metalwork, bone carving and pottery from the seventh century BC, some neighbourhoods going back to the late Geometric period.

13. Report 07, section 3.4, following Brückner and colleagues: the tradition of four harbours, of which only the Lion Harbour and the Theatre Harbour have been definitely identified, with further candidate basins tested by coring and geophysics. Their own conclusion, which the body follows, is that the archaic and Classical city used a coast of several small harbours and did not depend on one great one.

14. Herodotus 6.8, cited through Greaves in report 07, section 2.4. Roebuck's population estimate of 64,000, built on the same figure, is rated low there and is not used.

15. Report 07, sections 3.2 and 4.2, from Brückner and colleagues citing Schröder and Bay: the archaic wall is gneiss, located 4 to 5 m below the present surface by geomagnetic survey and confirmed by coring and excavation, with the blocks shipped from a quarry north of Myous in the seventh century BC. Report 07's

own estimate of the distance, 15 to 20 km, is marked low confidence as its own reading off the map and is not printed.

16. Herodotus 1.146, cited in *Cityscapes and Monuments of Western Asia Minor* (Mortensen and Poulsen, eds.), in the notes to the Herakleia chapter, with Herodotus 1.171 on the Carians' own account of themselves. Nothing in this corpus verifies the episode as history, and it is presented here as the city's own foundation story rather than as an event, which is the only thing the passage can carry. The inference about the Ionian miracle's fifth condition is mine.

17. Herodotus 5.36, relayed in report 02, section 3.6: Hecataeus opposed the revolt and, overruled, advised using the treasures at Didyma to build a fleet. That the Persians subsequently took the treasure is Herodotus 6.19, note 20 below.

18. Report A03, section 2.5, which is the verification layer for this event, rated high: Herodotus 6.6 to 21, with the besieging described in 6.18 as undermining the walls and bringing up engines of every kind, and the fall six years after the revolt began. Lade is treated in A03's own cross-site finding that every harbour city on this route fell to a land power that first neutralised its sea access.

19. Report 07, sections 2.5 and 3.3, from the Hamburg pages: destruction at Kalabaktepe followed by hasty rebuilding on older walls with rubble-raised floors, a short-lived phase after which the hill lay outside the walls; the Delphinion destroyed and rebuilt about 479 to 478 BC; and the new temple of Athena, about 18 by 30 m on a gneiss foundation and begun about 500 BC, left incomplete.

20. Report A03, section 2.5, rated high, quoting Godley's Herodotus 6.19 for the killing of most of the men and the enslavement of the women and children, 6.20 for the resettlement at Ampe by the

Tigris with Darius doing them no further hurt, and 6.22 for Miletus being emptied of Milesians. A03 flags this as a documented mass deportation of Ionians into the Achaemenid interior.

21. Report A03, section 2.5, rated high, quoting Godley's Herodotus 6.21: the theatre broke into weeping, the Athenians fined Phrynichus a thousand drachmae for bringing to mind a calamity that touched them so nearly, and forbade the play for ever. The Greek title is Μιλήτου ἅλωσις. The Oxford performance database dates the play to "492 BC?" with a question mark, which is why no date is printed. That the fine is the best surviving measurement of the event's reception is my judgement and not a finding in the report.

22. Report A03, section 2.5 and its cross-site findings, rated high: Arrian, *Anabasis* 1.18 to 1.19, the siege and capture of 334 BC with the Persian garrison holding out, and Alexander occupying Lade first so that the Persian fleet, lying off Mycale, could not relieve the city. The garrison commander is named Hegesistratus there; the name is not printed because it carries nothing the sentence needs. This and the following paragraph, with the single clause on Gordium, are the chapter's two allocated beats under R10.

23. Arrian, *Anabasis* 1.18 to 1.20, as named in the assignment's claim list for this chapter: having taken Miletus, Alexander disbanded his fleet and set out to defeat the Persian navy by taking its harbours from the land. The reasoning about beaches, water and winter berths is the standard account of ancient naval logistics and is stated here as the explanation of the decision rather than as a quotation from Arrian. That it is the inverse of 494 is report A03's cross-site reading, which the chapter follows.

24. Report A12, the verification layer: the strong claim that Hippodamus invented the grid is REJECTED at high confidence,

since Aristotle, *Politics* 2.8 (1267b22), credits him with τὴν τῶν πόλεων διαίρεσιν, the division of cities, and older orthogonal layouts exist at archaic Old Smyrna and in Sicilian colonial foundations such as Megara Hyblaea. A12's prescribed wording is "the planner whose name became attached to the grid". Report 02, section 3.6, adds his dates of about 480 to 408 BC, which make him too young for the plan of the 470s, and rates the ascription of the Milesian plan to him personally low. The Levittown comparison is mine.

25. Report 07, section 4.2, from the Hamburg pages: the Delphinion rebuilt after the Persian destruction as a new building occupying a complete city block, extended eastward in the Hellenistic period to cover two, and in its final Roman configuration an elongated rectangle of column halls around a central square spanning two blocks. It was also the city's cult and archive centre, with more than 150 inscriptions recovered inside it, and the starting point of the procession to Didyma (report 07, section 2.4).

26. Report 07, sections 3.3 and 4.2: the Faustina Baths and the theatre depart from the regular street grid, either because they were built on older alignments or to fit the topography. Report 07 states plainly that it found no source for the block dimensions, the foot unit or how the grid was set out, so none is given here.

27. Report A12: Aspasia of Miletus is rated high on Plutarch, *Pericles* 24; the picture of her as Socrates' teacher of rhetoric is recorded as CLAIMED at low confidence, deriving from Plato's ironic *Menexenus*, and is therefore not printed. The body says only that her opinions were attributed to Pericles, which is what Plutarch supports.

28. Report A12, rated high: Procopius, *Buildings* 1.1.24, names Isidore of Miletus and Anthemius of Tralles as Justinian's architects for Hagia Sophia, built 532 to 537.

29. Report 07, section 3.4, from the Hamburg excavation pages: a fourth-century BC theatre of about 5,300 in two galleries; a rebuilding in the second half of the first century AD to three galleries and about 15,000, one of the largest in Asia Minor; two vaulted access passages east and west; accessible subterranean passages; and a rear facade with double-stepped arches. The Neronian stage facade and portico are in the same account and are not needed here.

30. Report A10b, item 26, verdict CORRECTED, which is the verification layer and overrides: the inscription is CIJ II 748, of the Roman imperial period and often assigned to the second or third century, on the fifth seating row on the theatre's eastern or south-eastern side, reading ΤΟΠΟΣ ΕΙΟΥΔΕΩΝ ΤΩΝ ΚΑΙ ΘΕΟΣΕΒΙΟΝ with non-standard spellings. Report A06, section 3.6.1, carries the same text and rates the date low. The body prints A10b's date range and does not name a section of the theatre, because A06 records three published accounts that agree on the fifth row and disagree on the section, the words used being "west", "right" and "south-east" depending on the writer's orientation.

31. Report A06, section 3.6.1: Deissmann, *Light from the Ancient East* (English edition 1910), translating "Place of the Jews, who are also called God-fearing", and recording in his own words that he had wondered why the inscription did not read "Place of the Jews and of those who are called God-fearing"; against which the suggestion that the cutter inverted καὶ τῶν, so that two groups are meant. A06 rates it high that both readings are argued and states that neither can be proven, and adds that the Aphrodisias donor pillar has made the two-group reading more plausible than it was in Deissmann's day. The Aphrodisias material belongs to another chapter and is not used here. A06 also records that the old view of Kraabel, that the God-fearers were largely a literary invention, was decisively weakened by the Aphrodisias

publication of 1987, which is the basis for the sentence about twentieth-century doubt.

32. Report A06, section 3.4, rated high on content: Josephus, *Jewish Antiquities* 14.244 to 246, the ruling of the proconsul Publius Servilius Galba to Miletus, reporting that Prytanis son of Hermas, a citizen of theirs, came to him while he was holding court at Tralles, and ruling that the Jews are not to be forbidden to follow their customs. The reading of "manage their produce" as a reference to tithes or first fruits is rated moderate there and is not pressed here. The proconsul is not named in the body because the name carries nothing. The wider pattern across Ephesus, Tralles, Miletus and Laodicea is A06's own reading at moderate confidence.

33. Report 07, section 3.4, from Brückner and colleagues: corings in the Lion Harbour show an average sedimentation rate between the first century BC and about AD 400 that is double the Classical and Hellenistic rate and twenty-one times the rate of the fourth to second millennia BC. The characterisation of the rate per year is my own arithmetic on their figures and is given in round terms only.

34. Report 07, section 3.4: features read by geophysics as harbour jetties turned out on coring to be brick and tile debris, probably deposited deliberately in order to relocate the marble lion statues once the basin had already become a swamp. Report 07 rates high that this is what the authors report and moderate that the reading is correct, and separately notes that a casual visitor will read the feature as engineering. The harbour lions' own date is rated low in the same section and no date is given here.

35. Report 07, sections 2.8 and 3.6, from Brückner and colleagues citing Aksu and colleagues: the island of Lade merged with the delta plain between about AD 600 and 700. The physical thesis of the book, the mechanism by which the Maeander did this, belongs

to its own chapter and is deliberately not explained here, per the assignment's instruction for this chapter.

36. Report 07, sections 2.8 and 3.4, from the Livius article and the Hamburg pages: Justinian's wall of 538 around what had become a small town; a Great Church, a bishop's palace and a synagogue in the centre; and the theatre converted to a fortress from the eleventh century, with a wall sealing the southern interior and the third gallery quarried for building material.

37. Report A12, rated high: Balat derives from Palatia, the name of Byzantine Miletus. Report A04 gives Palatia as the Italian traders' designation for the Menteşe port; A04 is a Gemini report and the weakest layer here, so the body attributes the usage to the charts and the ruins and makes no claim about which language it started in.

38. Report 07, section 3.6, from the Hamburg pages: the İlyas Bey complex, founded under İlyas Bey of the Menteşe principality, with a brick dome 14 m in diameter, a marble facade with columns and a central arch, ancient architectural blocks reused throughout the masonry, a mihrab by a stonemason named Nasreddin Altana, muqarnas vaulting, a forecourt, a domed founder's tomb, probable madrasa rooms, two baths, workshops and a furnace. The Hamburg team dates the foundation between 1402 and 1424; report A04 and a Wikipedia summary give 1404 and 1403 respectively. Report 07 judges the Hamburg range the more careful, and the body therefore says early in the fifteenth century and prints no single year.

39. Report 07, section 3.6: the larger bath of the complex carries decorative graffiti depicting ships. Report 07 names it the best site evidence that the place still looked to the sea, or remembered it, in the early fifteenth century, and the index to the research set lists the position and number of the ships among its open questions, which is why nothing is claimed here about how many

there are. Nothing in this corpus dates the graffiti independently of the building.

40. Report 07, section 3.6, from Brückner and colleagues: a Greek sailor in 1560 reported that the coast was about 8 km away. The date is printed because the measurement is the point of the sentence.

Chapter 12: Men as an Export

1. Research report 07 (07-site-miletus-priene-didyma.md), section 2.4 and open question 9, which reports Greaves, “Milesians in the Black Sea: Trade, Settlement and Religion” (Black Sea Studies 6, 2007) as the specialist treatment, citing Pliny the Elder, *Natural History* 5.112, for ninety colonies and giving no securely attributed modern count; report 02 (02-frame-ionia-lydia-persia.md), section 3.4, which gives the ancient totals as of the order of seventy-five to ninety, names Seneca, *Consolation to Helvia* 6.2, for the lower end, and records that modern scholarship regards the number of foundations with a good Milesian attribution as much smaller, in the range of a few dozen, many of the ancient “colonies” being small sites, trading posts or secondary foundations from Milesian colonies; report A07 cites Pliny 6.7 and Strabo 14.1.6 for a range of seventy-five to ninety. No single figure is printed because no source in this corpus supports one: report 02 rates any exact number low and the order of magnitude moderate, and report 07 could not resolve it. The ancient range and the modern attributable count are two different statements rather than two versions of one, which is why both are given.

2. Report 02, sections 2.2 and 3.4: farmland, fish, timber, metals and access to inland routes as the mixed motives for the Propontic and Pontic foundations, with Lydian power not an obstacle in that phase and in part a customer; report A07, synthesising Tsetskhladze (1998) and Boardman (1999), adds population

pressure in the narrow Maeander delta plain and internal factional strife (*stasis*). A07 is the weakest layer in this corpus and nothing in the verification reports covers these motives; the body follows report 02's framing and takes only the two additions from A07 that report 02's own list implies.

3. Report A07, from the same synthesis: grain, salt fish, timber, hides, wax and enslaved captives outward from the Pontic shore against Aegean olive oil, wine and finished luxury ceramics, with archaic East Greek ceramics (Milesian Wild Goat Style, bird bowls, rosette bowls, transport amphorae) as the archaeological evidence of Milesian primacy in the trade. Report 02, section 3.4, independently gives grain and fish as the Olbian trade with the Scythians. The judgement that this is a trade and not a civilising mission is mine.

4. Report 07, section 4.2 and the frame discussion at report 02, section 3.4: the Milesian colonies are linked by the cult of Apollo, and Didyma gave sanction to colonial foundations. Apollo Delphinios held the Delphinion at the head of the city's main avenue (report 07, section 2.4). The gloss "of the Dolphin" is standard lexicography and is not a claim of this book about Milesian usage.

5. Report A07, colonies table: the Milesian epigraphic calendar months Taureon, Anthesterion and Boedromion attested at Olbia Pontica, and civic institutions at Tyras (Bilhorod-Dnistrovskyi, on the Dniester) modelled directly on the Milesian *boule* and archons. A07 alone carries this and report A13 did not verify it; it is used because it is specific, checkable in principle, and consistent with report 02's account of the cult link, and the shared flag in the body covers the channel it arrives by.

6. Report 02, section 3.4, table: Panticapaeum, on the Kerch Strait, conventionally about 600 BC, later the capital of the Bosporan kingdom; the encyclopedia summary report 02 relied on names

Panticapaeum among the best known Milesian foundations. Report A07, colonies table, adds Strabo 7.4.4, Pliny 6.7 and pseudo-Scymnus, *Periegesis* 896 to 899 for the Milesian origin, and sixth-century Milesian pottery, mudbrick dwellings on Mount Mithridat and dedications to Apollo Delphinios and Apollo Ietros as the archaeological and epigraphic evidence. No date is printed: report 02 rates the conventional dates low to moderate and the archaeology runs later than the chronicle tradition in every case.

7. Report 02, section 3.4, table: Olbia and Berezan, conventionally about 647 BC from Eusebius with archaeology about 625 BC, grain and fish trade with the Scythians. Report A07 adds Herodotus 4.17 to 4.18 and Strabo 7.3.17, and the sixth-century pit dwellings (*zemlyanki*) and cast bronze coin types in the form of dolphins and arrowheads. The juxtaposition of the dolphin coinage with Apollo Delphinios is an observation of mine and is not asserted by any source as a connection.

8. Russian register items for this chapter, all three required: Пантикапей (Panticapaeum), Керчь (Kerch) and Ольвия (Olbia). All three are carried in working/russian_register.csv with status unverified-flag; their only source is report A07, the weakest tier in the precedence order, and report A13 did not verify the dictionary attestation of any of them. Under the rule permitting several pending items to share one flag, the single clause in the body covers all three, and the same clause is written to cover the A07-only substantive detail in this section.

9. Report A07: Tanais, at the mouth of the Don near Nedvigovka, founded in the early third century BC by settlers from Panticapaeum alongside indigenous Maeotian and Sarmatian communities (Strabo 11.2.3), making it a granddaughter rather than a daughter of Miletus; A07 notes that an ephemeral late sixth-century seasonal emporion at the Don mouth has been postulated by regional excavators but that the stratified remains

date the permanent foundation to the Bosporan Hellenistic state. Report 02, section 3.4, independently gives Trapezus from Sinope (Xenophon, *Anabasis* 4.8.22) as an example of the same mechanism and names secondary foundations as one reason the ancient totals run high.

10. Report 02, section 2.2: Strabo 17.1.18 for Milesians founding a fort and later Naucratis in the reign of Psammetichus I, rated moderate; Herodotus 2.152 to 2.154 for the Ionian and Carian soldiers in the Delta, rated moderate to high; and section 2.3 for Herodotus 2.178, under which Naucratis was the only place Greeks could trade in Amasis' reign, rated moderate. The phrase "camps of their own" follows Herodotus' account as report 02 relays it. No regnal dates are printed. The inference that somebody on this coast was recruiting is mine.

11. Report 02, section 3.3: the Carian contribution to the Ionian world was people, cult and a military and mercenary tradition. The specific loans into Greek equipment, the helmet crests, shield devices and shield handles of Herodotus 1.171 as confirmed in report A10a, are allocated to the Aphrodisias chapter and are deliberately not itemised here; the body states only that the debt exists.

12. Report 02, section 2.2 and section 7: the Abu Simbel graffito left by Greek and Carian soldiers under Psammetichus II, which report 02 rates high that it exists and moderate for its date, and which section 7 names as the Egyptian counterpart of the Black Sea colonies. This is approved outward link L8. No verification report in this corpus covers it, so the body states the fact and not the date; the assignment gives 591 BC and report 02 gives about 593 BC, and nothing is gained by printing either. That the statue was carved for an older king's purposes is the plain sense of Vaux's "Colossus of Psammetichus at Abu-Simbel, in Nubia" (note 14), which names the statue after the king whose army wrote on

it; the body makes no claim about which king built it. No claim is made that any particular person has been to Egypt.

13. *Cityscapes and Monuments of Western Asia Minor* (Mortensen and Poulsen, eds.), note 43 to the opening chapter, citing Osborne 2012, 24 and Crielaard 2008, 43: in the sixth-century BC inscriptions and graffiti of Abu Simbel and Naucratis, "Greeks" regularly identified themselves by their polis or by a toponym, but never by their tribal identity. The same note's wider argument, that Ionian ethnic identity cannot be traced to a homogeneous group arriving from the mainland, belongs to another chapter and is not used here. No individual name or city is quoted from the graffiti, because none is given in this corpus.

14. W. S. W. Vaux, *Greek Cities and Islands of Asia Minor* (Society for Promoting Christian Knowledge, 1877), on the Sigeum inscription: "For many years it was supposed to be the oldest of Greek inscriptions; but it is probably not so old as some of those from Branchidæ procured by Mr. Newton, or, as the Greek inscription on the Colossus of Psammetichus at Abu-Simbel, in Nubia." Vaux is a nineteenth-century source and is used here, as the assignment directs, for what earlier scholars believed rather than for the current state of the question; no claim is made about the actual relative dating of these texts.

15. Vaux, same volume, on Miletus: "the parent, according to Pliny, of more than 80 colonies", with "its most important colonies were Abydus, Lampsacus, and Parium on the Hellespont; Proconnesus and Cyzicus on the Propontis; Sinope and Amisus on the Euxine; with several more on the coast of Thrace and Tauris, and on the Borysthenes", and the index entry "the parent of more colonies than any other place in antiquity". Dated source, used for the shape of the nineteenth-century list. The four names no longer in use are Propontis, Euxine, Tauris and Borysthenes; the observation is mine.

16. Vaux, same volume: Cyzicus on the neck of a peninsula running into the Sea of Marmara, described by Hamilton as “a sandy isthmus”; “Cyzicus was classed by Anaximenes of Lampsacus among the colonies of Miletus”; its prosperity “due in great measure to its position, as a natural entrepôt, between the Black Sea and the Ægean”; and for the fourth century BC “the gold coins, called Cyzicene *staters*, are ample evidence”. Vaux’s further speculation that *zecchino* derives from Cyzicene is one he himself doubts and is not used. Report 02, section 3.4, independently lists Cyzicus among the main Milesian foundations on the Propontis.

17. The return cargo is at note 3; Panticapaeum’s later status as a capital is at note 6; that Kerch is the modern city on the site is report A07’s own identification. The reading of the colonial system as a ledger that cannot balance is the argument of this book and not a finding in any report.

18. Report 02, section 2.5: Harpagus reduced the Ionian cities with siege mounds, and the Phocaeans and the Teians chose to emigrate rather than submit (Herodotus 1.163 to 1.167 and 1.168), rated moderate to high; and Herodotus 1.170 for the proposal of mass emigration put to the Panionion, which report 02 rates moderate that the tradition existed and low for the proposals as events. The destinations, the proposer and the island are approved outward link L9 and are allocated to the following chapter, which is why the body names none of them.

Chapter 13: The Sardinia Proposal

1. Herodotus 1.170 for Bias of Priene’s proposal that the Ionians sail in one body to Sardinia and found one city for all Ionians, with Herodotus judging it the most advantageous of the proposals, and with Bias arguing that they would escape enslavement, possess the largest island and rule others. Verified at high confidence in report A10a, verification sweep item 25; A10a notes that the passage records proposed policy and not an attempted migration

(moderate), which is why the body treats it only as a motion. This is approved outward link L9. The companion volume on Sardinia referred to at the end of the opening section is the author's *The False Door*.

2. Herodotus 1.170 also for Thales' proposal of a single common council at Teos, as relayed in research report 02 (02-frame-ionia-lydia-persia.md), section 2.5, which rates the existence of the tradition moderate and the proposals as events low. The body gives the two motions as the tradition gives them and makes no claim that either session is documented beyond Herodotus.

3. Research report 02, section 3.2: the Panionion as a sacred place on Mount Mycale facing north, with Strabo 14.1.20 for the cult being presided over by a man from Priene as the city nearest the sanctuary (moderate; cited by report 02 from memory). Report A05 independently places the Panionion within the territory of Priene (high confidence, but A05 is a Gemini report and the lowest tier in this corpus, so it is used here only as corroboration of report 02). The location of the archaic sanctuary is disputed between the Güzelçamlı site and Çatallar Tepe; the dispute does not affect the statement that the sanctuary lay on Prienian ground on Mycale, which both candidate sites satisfy, so the body does not raise it.

4. *Cityscapes and Monuments of Western Asia Minor* (Mortensen and Poulsen, eds.), chapter on the synoecism of Teos and Lebedos: a fourth-century BC inscription found near the site of the Panionion sets out the regulations for the Panionia and requires each member city to contribute to the collective sacrifice, with failure to do so subject to penalty.

5. Report A12, lexicon entry for Bias of Priene (Βίας): high confidence that he was counted among the Seven Sages, with Diogenes Laertius 1.82 to 88 for his life and the maxim οἱ πλεῖστοι κακοί, "most men are bad", and Cicero, *Paradoxa*

Stoicorum 1.8, for the attribution of *omnia mea mecum porto*. A12 rates the Cicero line moderate, as an attribution rather than a quotation, which is why the body says the attributions stuck rather than that he said them.

6. Report A12, rejected-claims table, "Sardonic from Sardis": REJECTED at high confidence. The word derives from σαρδάνιος at *Odyssey* 20.302, later reinterpreted as σαρδόνιος and connected with a Sardinian plant producing a fatal grin (Pausanias 10.17.13). A12 flags the item specifically as a link to the companion volume. It appears here only as a debunked claim, which is what R4 permits.

7. Research report 02, section 2.5: Harpagus reduced the Ionian cities with siege mounds, and the Phocaeans and the Teians chose to emigrate rather than submit, the Phocaeans to Corsica and then to Elea in Italy (Herodotus 1.163 to 1.167) and the Teians to Abdera on the Thracian coast (Herodotus 1.168), rated moderate to high. The assignment names the Corsican settlement Alalia; report 02 gives only Corsica, so the body follows report 02 and the place name is not printed. No claim is made here about Massalia, which report 02 dates to about 600 BC and which therefore belongs to an earlier phase than this flight.

8. Herodotus 1.161, verified at high confidence in report A10a, item 10, which notes that the text says enslaved and not merely defeated or captured: "Mazares presently led his army against those who had helped to besiege Tabalus, and he enslaved the people of Priene, and overran the plain of the Maeander." Report A03, section 2.6, carries the same passage as unverified in its own sweep; A10a is the verification layer and governs.

9. Research report 02, section 2.5, for Mycale: after Salamis the Greek fleet crossed to Samos, found the Persian ships beached under Mycale, destroyed the Persian camp, and the Ionian contingents in the Persian army defected (Herodotus 9.96 to

9.106), rated moderate to high. The assignment cites Herodotus 9.90 to 101 for the same battle; the narrower span in report 02 is used because that report is the source actually consulted. The tradition that Mycale fell on the same day as Plataea appears in the assignment and in no report in this corpus, so it is not stated.

10. Research report 07 (07-site-miletus-priene-didyma.md), section 3.7: the Priene that Herodotus knew as a harbour city was on the shore of the Latmian Gulf and its exact location is not firmly identified; the new city was laid out about 350 BC on a steep southern slope of Mount Mycale below a rock acropolis. The report records that one summary makes the satrap Maussollos the planner of the new city and rates that low, and that the temple's design by Pytheos belongs to the Hekatomnid period on the publisher's summary of Koenigs; the body therefore gives the refoundation to the Prienians and the temple to Pytheos and attributes the project to no king.

11. Research report 07, section 3.7, reporting Brückner and colleagues: the eastern embayment at the foot of the promontory had become a freshwater lake by the mid-fourth century, while a western embayment with a lagoon still held water several metres deep, so a harbour site existed at the time of the foundation. The same section gives siltation of the old harbour as a reason for the move. The observation that the new site was already going the same way is report 07's own.

12. Research report 07, sections 3.7 and 4.3: six main east-to-west streets about 6 m wide, fifteen narrower cross streets about 3 m wide, about eighty blocks, the grid laid on terraces with the cross streets stepped. Report 07 flags the "Hippodamian" label as a modern formulation and gives the block dimensions only as a recollection it could not verify; no block measurement is printed here. Report 07 also rates as high the judgement that Priene is the

best preserved Greek gridded city, because the Roman period added little and the loss of the harbour ended growth.

13. Vitruvius 1.1.12 and 7, preface 12, for Pytheos as architect of the temple of Athena at Priene and author of a treatise on it; research report 07, section 4.3, which opened both passages, notes that the preface lists those who wrote on their own buildings and names Pytheos on the Ionic temple of Minerva at Priene alongside Chersiphron and Metagenes on the Ephesian Artemision and Paeonius and Daphnis at Didyma. Report A12 carries the same at high confidence. That the treatise is lost is rated high in report 07.

14. Research report 07, section 4.3: the claim that the architect should be accomplished in all the arts and sciences, with Vitruvius 1.1.12 as the place where Pytheos is the example, and the claim that the Doric order is unsuitable for temples because of the corner triglyph problem, which report 07 attributes to Pytheos, Arcesius and Hermogenes and places in Vitruvius Book 4 (4.3.1, from memory; moderate). Both opinions reach us only through Vitruvius, which the body states.

15. Russian register item for this chapter, status verified: ионический ордер, the Ionic order. Vitruvius 4.1 and Herodotus 1.142 for the order's name deriving from the Ionians (Ἴωνες, Ἰωνικός), per report A02's lexicon entry, which rates the naming high; report A12's audit retains the item. A02 is a Gemini report and the weakest tier in the corpus, and its Ionic entry assigns the order's development to Samos, the Ephesian Artemision and Miletus rather than to Priene, which the body does not contest: the body claims only that the order carries the name of the people of this coast.

16. Research report 07, section 4.3, reporting Carter's review of Koenigs' 2015 monograph: Pytheos' capital proportions of length to width to height of 1:2:3 became the Hellenistic standard. Report 07 notes that it could not verify the figure independently

and that it is a statement of the reviewer, which is why the ratio itself is not printed in the body and only the influence is stated.

17. Research report 07, sections 3.7 and 4.3, again from Carter's review: an incised drawing of the temple's gable at a scale of 1:48 on a block of the anta still in place, dating to the first building phase, described as the earliest known scale drawing of a building in the Greek world. Report 07 relies on Carter's description alone and rates it moderate. The parallel full-scale construction drawings on the adyton walls at Didyma belong to another chapter and are not used here.

18. Research report 07, section 3.7: the Greek text records that King Alexander dedicated the temple to Athena Polias, cut on a marble block 120 cm wide and 49.5 cm high. Report 07 reports Carter to the effect that the building was begun in the middle of the fourth century and that Alexander dedicated the incomplete structure in the 330s; one summary gives 334 BC after the Granicus and another gives 323 BC, and report 07 leaves the conflict open at moderate for 334 to 330 and low for 323. The assignment allocates the dedication to 334 BC as this chapter's single Alexander beat, and that is the figure printed; the competing dates are recorded here rather than in the body because, as report 07 itself says, the evidence points to the 330s and no source it read agrees to the year. The decree honouring a Megabyzus for the temple's completion, whose own date is disputed, is not used.

19. Research report 07, section 3.7: the block was found by Richard Popplewell Pullan in 1868 to 1869 during his excavation for the Society of Dilettanti and is in the British Museum, registration number 1870,0320.88, dated about 330 BC. Report 07 verified the registration number from a secondary page and a search listing because the museum site refused its request, and records

that it could not establish whether the piece is currently on display; the body therefore says only that it is in the museum.

20. E. L. Hicks (ed.), *The Collection of Ancient Greek Inscriptions in the British Museum, Part III: Priene, Iasos and Ephesos*, Oxford 1890, as cited in the bibliography of *Cityscapes and Monuments of Western Asia Minor*. The body's characterisation of the share of the volume is an inference from the title and the order of the three names, not a count of entries.

21. *Cityscapes and Monuments of Western Asia Minor*, chapter on remembrance in the gymnasium: the erection of the Lower Gymnasium at Priene began with an announcement of financial support by unidentified kings, who had promised funding in the late first half of the second century BC, after which the polis began construction with financial support from local benefactors; an over-life-sized marble statue of a male figure, found in the ephebeion and placed originally in a wide niche in its rear wall, is interpreted as a representation of one of those benefactors, and the chapter observes that royal statues would have stood there instead had the kings fulfilled their promise. The inscriptions are published as I.Priene2 64. The body follows that reading and does not assert as a fact that the kings defaulted, only that the citizens paid and the niche holds the citizen.

22. Polybius 33.6, verified at high confidence in report A10a, item 10: Orophernes entrusted four hundred talents to Priene; Ariarathes demanded the money and devastated Prienian territory when the city refused, with Attalus urging him on; the Prienians returned the deposit to Orophernes and suffered undeservedly. A10a notes that later reconstructions sometimes add a formal siege and that the Polybian account itself establishes only the deposit, the refusal, the ravaging and the repayment, so no siege is described here. Report A03 takes this as Priene's defining event; this

chapter uses it as evidence of what a small city's credit was worth and does not make it the spine.

23. Report A03, section 2.6, reporting the British Museum's entry for an Orophernes tetradrachm: in 1870 A. O. Clarke found a coin in the remains of the cult statue base of the Temple of Athena at Priene, then lifted the stones and found more coins and some jewellery (high that the museum says this). Whether the hoard is the same money as the Polybian deposit is not claimed by the museum or here.

24. Report A12, lexicon entry for Pytheos (Πυθεός), at high confidence: architect of the temple of Athena Polias at Priene and, with Satyros, of the Mausoleum at Halicarnassus, with treatises on both (Vitruvius 1.1.12 and 7, preface 12). W. S. W. Vaux, *Greek Cities and Islands of Asia Minor* (Society for Promoting Christian Knowledge, 1877), independently gives the architects as "Satyrus and Phiteus" and attributes the commission to Artemisia, widow and sister of Mausolus, after his death. Vaux is a nineteenth-century source and is used here for the Victorian excavation history and for the spelling, not for the dating.

25. Russian register item for this chapter, status verified: мавзолей, mausoleum, which in Russian is also the standard name of Lenin's tomb. Report A02's lexicon entry gives the chain Greek μαυσωλεῖον, Latin *mausoleum*, English mausoleum, Russian мавзолей, Turkish mozole; report A12's audit retains the item and notes that Pytheos built both the Athena temple and the Mausoleum, which is the link the body uses. A02 is the weakest tier in this corpus and the derivation from the dynast's name is not in dispute anywhere in it.

26. Vaux, *Greek Cities and Islands of Asia Minor*: later authors imply the Mausoleum was still visible into the eleventh century; Frontanus reports that a German knight, Henry von Schlegelholt, constructed the citadel at Budrum out of it; Cepio in 1472 still

saw remains among the ruins; and in the later repairs of the citadel the masonry of the substructure must have been wholly removed, with the result that visitors before Newton's excavations could not determine the site. Used as nineteenth-century scholarship, which is the register the source supports.

27. Vaux, same volume, on Newton's excavation: the discovery of a column had the value that "by its measurement and order, a judgment could be formed of the size of the building to which it had belonged: ultimately these measurements showed that the building itself must have had much resemblance in style to the temple at Priene." The same volume reports that the style of the Temple of Artemis at Ephesus was seen at once to be similar to that of the temple of Athena Polias at Priene and of Apollo at Didyma. The inference drawn in the body, that the Mausoleum was a scaled-up version of the Priene temple, is Vaux's resemblance claim and not a modern architectural finding; Priene's own priority in the pair is established separately by Pytheos' authorship of both (note 24).

28. *Cityscapes and Monuments of Western Asia Minor*, chapter 5 (in German): the Athena temple at Priene took the most distinguished position at the city's foundation in the fourth century BC, with the whole sanctuary raised onto its own plateau, continuing a tradition in which the best ground was reserved for the gods and the gods therefore determined both the city plan and the city's appearance; later the cityscape was shaped not by the temple but by the tomb of the deified ruler. The application of that general observation to Pytheos' two commissions is this book's.

29. Report A12, section 2.3, at high confidence for the inscription: the text records an edict of the proconsul Paullus Fabius Maximus and a decree of the provincial assembly of Asia, of 9 BC, making the year begin on Augustus' birthday, 23 September; the decree

was resolved at Smyrna, so it was not a Prienian invention, and copies stood in several cities (moderate; A12 did not re-check the find-spots). OGIS 458. Neither the year of the decree nor the day of the birthday is printed in the body, since neither changes what the wording does.

30. Report A12, section 2.3: the key phrase is ἦρξεν δὲ τῶι κόσμωι τῶν δι' αὐτὸν εὐανγελίων ἡ γενέθλιος τοῦ θεοῦ, the god's birthday "was the beginning of the good tidings for the world that came by reason of him", with Craig Evans noting that the word is probably plural here against Mark's singular. Russian register item for this chapter, status verified: Евангелие, Gospel, from *euangelion*; A12 rates the inscription high and the Markan link debated, which is the split the body observes.

31. Report A12, section 2.3, and report A10a, item 17, CORRECTED: the verbal parallel is real, and the reading of Mark 1:1 as a deliberate answer to imperial gospel language is respectable scholarship (C. A. Evans, "Mark's Incipit and the Priene Calendar Inscription: From Jewish Gospel to Greco-Roman Gospel", *Journal of Greco-Roman Christianity and Judaism* 1, 2000, 67 to 81) rather than settled consensus; A10a rates it high for the text and moderate for the interpretation, and A12's opening verdict states flatly that the counter-appropriation thesis is an interpretation and not a finding. A12 also notes the Jewish root: the Septuagint uses εὐαγγελίζομαι at Isaiah 40:9 and 52:7. The body states the inscription and leaves the thesis here, which is what the precedence order requires of an interpretation this well argued and this unsettled.

32. Report A06, section 3.6.5, from Nadin Burkhardt and Mark Wilson, "The Late Antique Synagogue in Priene: Its History, Architecture, and Context", *Gephyra* 10 (2013) 166 to 196: the building stands in the western residential quarter, built into the courtyard of Hellenistic prostas House no. 24, with a new main

entrance from West Gate Street marked by three high steps, and a rectangular Torah niche 1.30 by 1.40 m centred in the east wall (high confidence). The finds imply use from the late fourth to the sixth or early seventh century AD; A06 records a popular claim of the second century AD as contradicted by the excavation results. No date is printed in the body.

33. Report A06, section 3.6.5: the building was excavated at the end of the nineteenth century by Wiegand and Schrader, who took it for a house church; E. L. Sukenik was the first archaeologist to identify it as a synagogue; new excavations ran from 2009 to 2011; and Burkhardt and Wilson note that a recent Greek publication continues to call the building a church erroneously (high confidence).

34. Report A06, section 3.6.5: on the north side of the western pillar of the prostas, a menorah 65.50 cm tall and a citron (ethrog) chiselled at eye level; a second menorah about 7 cm high scratched on a bossed ashlar on West Gate Street near the entrance; and a third, 10 cm high, flanked by a small shofar or lulav, on the threshold of the neighbouring eastern house (all high confidence). Burkhardt and Wilson take the third as support for the view that the surrounding buildings belonged to members of the Jewish community, which A06 rates moderate as their inference and which the body does not assert.

35. Report A06, section 3.6.5: Burkhardt and Wilson correct Paul Trebilco's statement that the synagogue "was on a side street and was not easily identified as a synagogue", and the later idea that Priene's Jews were hiding their synagogue, arguing that the entrance was on the main street and marked by three high steps (high confidence that they argue this).

36. Report A06, section 3.6.5: in the second phase the hall was reduced to 120 square metres with a narthex of 13.20 square metres, and the new floor was paved with spolia including an

altar of Athena Polias cut in half and laid with its inscription face down (high confidence). The first-phase nave measured 14.40 by 13.00 m. No distance between the synagogue and the temple terrace is printed, because no source in this corpus gives one; the body says only that the synagogue lies down the hill from the sanctuary, which the city plan in report 07 supports.

37. *Cityscapes and Monuments of Western Asia Minor*, chapter on remembrance in the gymnasium: the Topos inscriptions, usually a name and a father's name in the genitive with the preposed phrase ὸ τόπος, most famously covering the walls of the ephebeion in the Lower Gymnasium of Priene and dating between the first century BC and the first century AD, with others in the Upper Gymnasium and at Miletus, Pergamon, Stratonikeia, Athens, Chalkis, Eretria and Thera; the letter forms and the use of nicknames show that the ephebes cut them themselves. The corpus is published as I.Priene2 354, with 762 inscriptions, which is the basis for "over seven hundred". The reading of them as claims on a stretch of wall follows the published interpretation that they immortalise membership of the gymnasium; the phrasing is this book's.

38. *Cityscapes and Monuments of Western Asia Minor*, same chapter and its note 39: the Upper Gymnasium at Priene was founded in the second half of the fourth century BC and abandoned after an earthquake in the last third of the second century BC, and was later converted into a small bath-gymnasium in Roman imperial times; the palaestra of the Lower Gymnasium was abandoned after a rockfall devastated part of the building at the end of the first or the beginning of the second century AD.

39. Report A05: the classical orthogonal city was largely deserted and functioned only as a small Byzantine defensive post on the rocky slopes of Mycale (high confidence in A05, which is a Gemini report and the lowest tier here). Report A06 independently

records Burkhardt and Wilson's suggestion that the abandonment of the lower city of Priene in the later seventh century ended the synagogue's use, with a secondary page agreeing that the site was apparently abandoned in the late seventh century (moderate).

40. Report A10a, item 2: the approximate straight-line distance from Priene to the nearest present marine shoreline is 14 to 16 km (moderate; A10a states that these are ranges and not survey measurements, because "the sea" can mean open coast, delta channel, lagoon or former gulf). Research report 07, section 3.7, adds from Brückner that Priene's western embayment survived into the Roman imperial period, so the loss was slower than the popular summaries suggest. The rate of advance of the Maeander delta, the river's name and the mechanism belong to the following chapter and are deliberately not given here.

Chapter 14: Meander

1. Report A12, lexicon completion and audit, item 1 of its twenty strongest: *meander* from Greek Μαίανδρος, the river, Turkish Menderes, with both the word and the decorative pattern named after a river on the route, dictionary etymology, high confidence. The Russian register item for this chapter is меандр, carried in working/russian_register.csv as verified, with A12 as its source; A12's own audit ruling is that notes of the form "this word also exists in Russian" are international vocabulary rather than a distinctive Russian connection, and the Cyrillic appears here because the register requires it in this chapter, not as a claim of a special channel. The description of the ornament as the squared continuous border follows the Gemini A02 entry (меандровый орнамент) that A12 audited and kept.

2. Report A01: Greek Μαίανδρος, Latin *Maeander*, Turkish Büyük Menderes, high confidence; and, separately at high confidence, that the Küçük Menderes is the ancient Cayster, Κάϋστρος, and

not the classical Maeander. The characterisation of the Turkish name as describing behaviour rather than parentage is my own reading of the pair of names and is not asserted by A01.

3. Research report 03, section 3.9, for the methodological point that "decline" covers several distinct things (the end of monumental building, the shrinking of the urban footprint, the loss of coastal commerce, the loss of civic finance and physical abandonment) which do not happen at the same time or for the same reasons, rated high. The statement that this process has no defining event, date, army or named agent in the sources is this book's own characterisation, and rests on the absence of any such source in research reports 03, 06 and 07, all three of which reconstruct the process from geoarchaeology.

4. Research report 06, section 3.4, from the 2016 EGU abstract of Stock and colleagues: the maximum marine transgression filled the Küçük Menderes graben up to 20 km inland about seven thousand years ago, and the embayment extended east as far as Belevi, "today some 18 km inland". Report 06 records that the sources give 14 km for Belevi's distance upstream of Ephesus and 18 km from the present coast, which are two different measurements; the 18 is used here because it is the one that answers the question this paragraph asks.

5. Research report 07, section 3.6, from Brückner, Müllenhoff, van der Borg and Vött, "Holocene coastal evolution of western Anatolia", CIESM Workshop Monographs 24 (2004): relative sea level peaked about six to five thousand years ago and was at a relative low about three thousand years ago, with the curve shifted downward by about 0.7 m per thousand years by continuing subsidence of the Menderes graben. The body states the subsidence as a correction the reconstruction has to apply, which is the function it performs in the paper.

6. Research report 07, section 3.6: about 200 percussion corings in the Büyük Menderes delta, average depths of 10 to 20 m, with radiocarbon dates on plant remains, shells and datable potsherds, supplemented by geophysics. The same section records the authors' statement that the literary evidence "does not allow an unambiguous scenario" and that the delta reconstructions of Eisma, Erinç, Aksu, Erol, Schröder and Bay and Tuttahs leave "quite some space for different interpretations", which the corings were designed to reduce. The characterisation of the earlier literature-based reconstructions as mutually incompatible is the plain sense of that statement.

7. Research report 06, section 3.4, citing Kraft, Brückner, Kayan and Engelmann (2007): Livy 37.14 to 37.15, on the harbour of Ephesus in 190 BC, the mouth "like a river: long and narrow and full of shoals", which report 06 identifies as the first firm textual evidence for the siltation problem. The Seleucid fleet bottled up in the harbour is given in the same section.

8. Strabo 14.1.24, as reported in research report 06, sections 2.2 and 3.4, and in research report 03, section 3.9: Attalos II Philadelphos built a mole across a wide entrance in the belief that it would deepen it, and the effect was the reverse, because the silt, shut in, shoaled the whole harbour as far as the mouth, whereas the tide had previously carried silt out to sea. Kraft and colleagues interpret this as the creation of a settling basin and report more than 20 m of black anoxic marine mud in the harbour cores; report 06 rates the Strabo text high and the settling-basin interpretation moderate. The anoxic reading of the mud as a basin that had stopped exchanging water is standard sedimentology and is not a claim of either report. No sediment-load figure is given for the Cayster anywhere in this corpus, so none is printed and the body makes no quantitative claim about the annual delivery. The statement that this is the only intervention in the process whose result is recorded is a claim

about the sources, not about the engineering: Hadrian's attempt (note 9) is named in an inscription whose outcome nothing records.

9. Research report 06, section 3.4: an inscription of AD 129 saying that Hadrian "diverted the Kayster" and had a 60-foot (about 18 m) dam built on the right bank of a river called the Manthites, the stone found when a lemon grove was laid out on the road to Zeytinköy. Kraft and colleagues record that the identity of the diverted river is disputed, that the dam may have been north of Ayasuluk and aimed at the Klaseas, and that Hadrian's engineers may have had larger ambitions since the exact site has not been found (moderate for the inscription; low for what the dam did). The date is not printed in the body under this book's rule on date clutter.

10. Research report 06, section 3.4: Tacitus, *Annals* 16.23, for Nero's proconsul Soranus attempting to clear the harbour; and the inscriptions listed by Kraft and colleagues, namely a prytanis giving gold for the further expansion of the harbour about AD 100 (I.Ephesos 3066), the archpriest T. Flavius Montanus paying 75,000 denarii for the enlargement early in the second century (I.Ephesos 2061), an archpriest giving 20,000 denarii to clean the harbour early in the third (I.Ephesos 3071), and Valerius Festus enlarging it in the middle of the third. Report 06 rates the list moderate, as the authors' summary of earlier work, and notes that it did not check the I.Ephesos editions. The individual sums are stated in chapter 16 and are deliberately not repeated here; what this chapter takes from the list is its span.

11. Research report 06, section 3.4: I.Ephesos 23, in which the proconsul L. Antonius Albus forbade the dumping of heavy loads from the bulkhead of the harbour canal and the sawing up of building material and discarding of emery and stone dust into the canal, in the middle of the second century; and the same section's

record that the citizens used the harbour as a dump, that the sewer system drained into it, and that the cores contain broken pottery that looks deliberately discarded. The inference that the offenders were the city's own stone trades is the plain sense of a ban on sawing building material and tipping emery dust, and is not separately asserted. "The greatest emporium in Asia" is Strabo 14.1.24, quoted in research report 06, section 2.2, and in research report 03, section 3.1, in the fuller form "the greatest emporium in Asia this side of the Taurus"; it is used in the body in place of a superlative of my own.

12. Research report 06, section 3.4: in the late second century the sophist and benefactor T. Flavius Damianus built artificial islands so that cargo ships could anchor at what the source calls island harbours and transfer their cargo. Report 06 rates this moderate and notes that the claim appears in the Kraft paper without further reference in the text it read. The reading of offshore transhipment as a concession rather than an improvement is mine.

13. Research report 06, section 3.4: a Coptic text quoted by Kraft and colleagues in which a bishop attending the council of AD 431 says he went into the city by small boat because his ship could not enter the harbour.

14. Research report 06, section 3.4, from the 2016 EGU abstract and Stock and colleagues (2013), and research report 07, sections 2.4 and 3.6, from Brückner and colleagues (2004). Report 06: sedimentation of up to about 1 mm a year until the first millennium BC and 4 to 30 mm a year afterwards, with rises at individual coring sites from 6 cm per century to 68 cm per century between the late fourth millennium BC and the Hellenistic to early Roman period, the authors attributing the speed mainly to sediment load, which depended heavily on human impact on the vegetation cover of the drainage basins,

together with sea-level and tectonic factors (high that the rates rose; moderate on the causal weight of human land use, which the authors state as the main governing factor and which the data are consistent with but cannot isolate). Report 07: the pollen record read as a decline of the original oak woodland and a rise of *Olea* and *Phillyrea* as olive and macchia indicators, the faunal evidence for goat-herding and sheep-herding, and the authors' view that the siltation of the harbours was as much human-caused as natural (moderate; stated by the authors as an interplay without percentages). The individual rate figures are given in chapter 16 and are reduced here to the order of magnitude, which is what the argument of this chapter needs. The body prints the limit the authors state, in their terms.

15. Research report 07, section 3.4: of the four harbours ancient and later tradition gives the Milesian peninsula, only the Lion Harbour and the Theatre Harbour have been definitely identified; a harbour near the Southern Market was suggested by geophysics and confirmed by coring as an excellent natural harbour setting whose use seems to have ended in the Roman imperial era; and the embayment at the foot of Kalabak Tepe, which geomagnetics had suggested as a harbour, was a marine embayment that was always shallow and had silted up in the early Roman period, mostly through colluvium from the adjacent slopes. The Lion Harbour's own coring results are given in chapter 11 and are not repeated here.

16. Report A10a, item 4 (CORRECTED) and section 4: the ancient Morsynus generally identified with the modern Dandalas Çayı, draining the Aphrodisias basin into the Büyük Menderes (moderate for the identification, high that the water reaches the Aegean); Hierapolis, Laodicea, Pamukkale and Denizli draining through the Çürüksu, the ancient Lycus, into the Büyük Menderes (high); and the correction that a strict universal claim fails because Troy's Karamenderes and Çanakkale's local streams

discharge into the Dardanelles, which is not normally classified as an Aegean river basin. The body follows A10a's correction rather than the universal claim. The inference that inland land use and coastal siltation share one drainage system is the argument of this chapter; A10a establishes the hydrology and not the consequence. Chapter 18 states the Aphrodisias end of this and hands it forward here.

17. Research report 07, section 4.3, from the Hamburg excavation material: the frigidarium basin of the Faustina Baths at Miletus received its water from a statue of a river god representing the Büyük Menderes, with a lion; a river god from the baths is in the Miletus Museum. The reading of the arrangement as a civic compliment to the agent of the city's own silting is mine and is not in the report.

18. Research report 07, section 3.6: in the published scenario the delta prograded westward from the Söke area, closing first Myous, then the harbours of Priene, and finally Miletus. The estimate of four or five generations per position in the queue is arithmetic on the report's own stage dates and is not stated by it.

19. Report A10a, item 3 (VERIFIED) and section 3, which is the verification layer for this: Strabo 14.1.10 says the Maeander's alluvium converted the waters around Myous into a lake and associates the resulting environment with troublesome insects, and puts Myous thirty stades inland (high); Pausanias 7.2.11 says the Myusians abandoned their city and moved to Miletus because an inlet became a lake (high); Herodotus 5.36 names Myous with Priene and Miletus as harbour cities, as cited in research report 07, section 3.6. A10a's own ruling is that "Myous was abandoned because its harbour silted up" is serviceable shorthand but that "silting enclosed the bay, produced a marshy lake and undermined habitability and access" is more accurate, which is why the body corrects the shorthand rather than repeating it. The

word mosquitoes follows the insects of Strabo and the marsh of A10a; neither text names the species.

20. Research report 07, sections 3.6 and 3.7, from Brückner and colleagues: the borings at Priene show that the eastern embayment had turned to a freshwater lake by the mid-fourth century BC, while a western embayment with a lagoon environment survived into the early Roman imperial era, with fully freshwater conditions not before the third century AD, so that a harbour site existed there at the time of the new foundation. Report 07 notes that this makes Priene's end slower and more varied than the popular summaries, which say simply that the area silted in and forced a relocation to Miletus. The move itself is chapter 13's subject and the mechanism is this chapter's, by the assignment's allocation.

21. Research report 07, sections 2.8 and 3.6: the coring work finds that the area of Miletus was cut off in Roman imperial times, creating a "Milesian lake" out of which Lake Bafa developed. Report A10a verifies at high confidence that Lake Bafa is the surviving enclosed eastern part of the ancient Latmian Gulf and that Maeander sediment built a delta barrier across the gulf in historical times. Philippson's assumption of a complete silting-up around Miletus in the sixth century AD is the date in the older geoarchaeological literature and is not printed, because report 07 records that its own corings show the siltation accelerating from the first century BC and treats the secondary dates as inherited.

22. Report A10a, section 2, at moderate confidence: approximate straight-line distances to the nearest present marine shoreline, given as Hisarlık 5 to 7 km, the Roman harbour basin at Ephesus 5 to 6 km, the Miletus theatre 8 to 10 km, Priene 14 to 16 km, Pergamon's acropolis 25 to 27 km, Didyma 3 to 4 km and Myus 12 to 14 km. A10a states explicitly that these are ranges and not survey measurements, because "the sea" can mean open coast,

tidal or delta channel, lagoon, or former gulf, and recommends that any exact modern figure be labelled as a map measurement with its coordinates and chosen shoreline. The body gives the ranges and the reason for them, and claims no measurement.

23. Research report 03, section 3.9, evidence-weighted assessment, in its own order: first the Persian invasion plus earthquakes plus Arab raids acting on an already thinner civic economy in the seventh century (moderate); second institutional and fiscal change from the third to sixth centuries (low to moderate); third seismicity, frequent and destructive but not decisive in itself and often over-attributed (moderate); fourth harbour silting, decisive for the particular fate of Ephesus, Miletus and Priene as ports and for the relocation of port facilities, but not for the survival of cities as such (moderate); fifth trade-route shifts (low to moderate); sixth plague (moderate, ranked lowest as a decisive cause); seventh climate (low, unresolved). The report states in terms that "the ranking is mine, based on the sources I read or cite, and not a statement of consensus", that the consensus is closer to a multi-factor model with disagreement about weights, and that the strongest argument against a single-cause story is the comparison of coastal cities affected by silting with inland ones that were not, both of which show the same eventual contraction. The body uses the ranking on that basis and marks it as one report's judgement, which is the treatment the ranking's own author asks for. The same section rates as over-simplified the popular accounts that attribute the end of Ephesus to a single factor, most often silting and sometimes malaria. The distinction between a loss that is fatal and a loss that is irreversible is this book's own and is not in the report.

24. Research report 06, section 3.4: the Kaystros was canalised and straightened in 1934 and now reaches the sea farther north, per Stock and colleagues (2013).

25. Homer, *Iliad* 2.461, per report A01 at high confidence for the text and for the identification of the landscape as the Cayster, modern Küçük Menderes, and therefore the plain of Ephesus and the Artemision. The line is quoted in full, and its force as the earliest description of this plain set out, in the Foreword; the body here refers to it and does not re-quote it. A01 records a competing reading in which Ἀσίῳ is the personal name Asios, giving "the meadow of Asios", and rates the geographical adjective the more natural function of the transmitted accentuation and syntax, which is the reading the Foreword adopts and this chapter follows.

26. Research report 06, section 3.4, from Kraft, Brückner, Kayan and Engelmann (2007): the earliest temples at the Artemision stood on or by a beach; the sea lay within about 100 m of the Artemision in the mid-Hellenistic period; the Selinus carried brackish water and marine fish, with a gilthead bream attested in the Selinus by the poet Archestratus in the second half of the fourth century BC; and the sacred harbour was gradually forced westward along the north flank of Panayırdağ as the delta bypassed the Artemision, by about 100 BC (moderate). The authors state that their picture of a sea wall and harbour at the temple is partly a reconstruction and call Falkener's version somewhat fanciful, which is why the body says the sea was close and the sanctuary had a harbour, and makes no claim about its works. Archestratus' poem is a gastronomic hexameter catalogue, which is the sense of "food poem".

27. The arson of the Artemision, report A12's fourth strongest item, rated high and verified in Russian dictionaries as the source of the idiom геростратова слава, with English "Herostratic fame" alongside it. The event itself, the arsonist's motive as the ancient sources give it, the Ephesian response and the name are allocated to chapter 15, which is why the body gives the fact of the arson, the motive and the existence of the idiom, and no name. The

chronological relation stated in the body is deliberate and is the arithmetic of the two sourced points: the arson is conventionally placed in the 350s BC and research report 06 (note 25) has the delta bypassing the Artemision by about 100 BC, so the river reached the sanctuary roughly two and a half centuries after the fire. No year is printed, per this book's rule on date clutter. The sequence of destructions and rebuildings on the site belongs to chapter 15.

Chapter 15: Herostratic

1. Research report 06 (06-site-ephesus.md), section 3.2: the site today is a low waterlogged area of foundation platform and scattered marble with a single column re-erected from drums of different origins, and a modern guide text mentions storks nesting on it. The depth of the ancient level below the modern plain is from the excavation record (note 39).

2. Vaux, *Ancient History from the Monuments: Greek Cities and Islands of Asia Minor* (1877), reporting Pliny: it would take a whole book to describe the temple's details, and it is admitted to have been the largest temple of antiquity. Vaux is a nineteenth-century source and is used here for what earlier scholars transmitted; the superlative is Pliny's claim and is not an excavated measurement. Report 06 records that the foundations as excavated do not match Pliny's description in all respects.

3. Research report 06, sections 2.1 and 3.1, and the Bronze Age frame report: Ayasuluk Hill as most probably Apasa, capital of Arzawa, with Mycenaean pottery on the hill; moderate, and the identification rests on the Hittite textual case rather than on an inscription from the site. The Cologne geoarchaeologists state from cores that in the Late Bronze Age the shoreline lay immediately below the earliest sacred site, so hill, sanctuary and sea were within a few hundred metres. Ayasuluk itself is chapter 17's subject and is not treated here.

4. Strabo 14.1.4 for Smyrna the Amazon and the name of the city, with 11.5.3 to 4 and 12.3.21, as given in Stubbersfield, *Ephesus* (2022), chapter 2; Pausanias 7.2.6 to 9 for the Amazon dedication of the image. Report A12's rejected-claims table: the derivation of *Amazon* from *a-mazos*, "breastless", is REJECTED at high confidence as an ancient folk etymology, with the observation that Amazons in Greek art have two breasts; Iranian origins have been proposed and none is established. The Amazon foundation legend itself remains valid as a legend, which is how it is used.

5. Strabo 14.1.22, as reported in research report 06, section 3.2: the temple "was set on fire by a certain Herostratus". The motive as the ancient sources give it, that the arsonist acted in order to be remembered, is the unanimous ancient tradition recorded in report 06, section 3.2.

6. Research report 06, section 3.2: the ancient sources agree that a man set fire to the building and that a law forbade mention of his name, a damnatio memoriae which many ancient writers ignored. Report 06's source for the ban is a reference summary rather than an ancient text it opened, and no ancient authority for the decree was verified in this corpus; the ban is therefore stated as the tradition's own report of itself. The reading of the ban as the transmission mechanism is mine, and the evidence for it is the survival of the name in Strabo.

7. Report A12, the fourth of its twenty strongest items, at high confidence: the arson of the Artemision as the source of the Russian idiom геростратова слава, with English "Herostratic fame" alongside it. Russian register items for this chapter, status verified: геростратова слава, with the variants слава Герострата and лавры Герострата, attested in Ushakov, *Толковый словарь* (1935 to 1940), s.v. слава: «Слава Герострата или геростратова слава: слава вандала, разрушителя…», and in the Словарь крылатых слов и

выражений, glossed as позорная слава, fame won through a crime. A12 records that the dictionary text was seen through aggregator pages reproducing Ushakov. The remark about English crossword usage is mine and is not in A12.

8. Plutarch, *Alexander* 3.5 to 3.7, for the coincidence of the fire with Alexander's birth. Research report 06, section 3.2, cites Plutarch from memory and rates the coincidence moderate; the conventional date of 356 BC comes with it, and is not printed in the body under this book's rule on dates. The judgement that the story serves the king rather than the arsonist is mine.

9. Strabo 14.1.22, as reported in research report 06, sections 3.2 and 4.5: the citizens built another and better temple, collecting the ornaments of the women and their own private possessions, and selling the pillars of the former temple, with decrees of the time attesting it. Report 06 draws the construction consequence that drums and capitals of the burnt building were on the market and may turn up reused, and records that it found no published case; no such case is claimed here.

10. Strabo 14.1.22, citing the Ephesian author Artemidorus, as reported in research report 06, section 3.2: Alexander offered to pay all past and future costs on condition that his name appear in the inscription, the Ephesians refused, and one of them remarked that it was not fitting for a god to dedicate offerings to gods. This is the chapter's allocated Alexander beat under R10. The pairing of the refusal with the arson as two bids for the same inscription is this book's reading.

11. Herodotus 1.26, in Godley's translation as quoted in report A03, section 2.4: Croesus came to the throne at thirty-five, the first Greeks he attacked were the Ephesians, and the besieged Ephesians dedicated their city to Artemis by attaching a rope to the city wall from the temple, which stood seven stades from the old city. Report A03 selects this as the defining event for ancient

Ephesus and rates it high that Herodotus reports it, while noting that the historicity is doubted: Leloux, “The Campaign of Croesus against Ephesus”, *Polemos* 21.2 (2018), argues that the rope is a fictional *aition* written by Herodotus and that Ephesus surrendered without a conflict, and also that the old settlement was not seven stades from the temple. That reading is recorded here rather than in the body because what the chapter uses is the legal logic of the gesture, which is Herodotus’ own and is not affected by whether the siege happened; the alternative would have been to recite two versions, which this book does not do.

12. Herodotus 1.92, per research report 06, section 3.2, and report A03, section 2.4: the golden oxen and the greater part of the pillars at Ephesus were Croesus’ offerings and survived to Herodotus’ lifetime. On the inscription, report 06 rates the existence of a dedication naming Croesus as king moderate and the details low, citing an older British Museum guide text to the effect that letters of the dedication were found on the bases of the Ionic columns; the publication of the text was not opened. Herodotus says “the greater part” and not all, so the building had other donors; Pliny’s claim that each column was the gift of a different king is a tradition and is not used.

13. Russian register item for this chapter, status verified: богат как Крез. Report A12, section 5: Mikhelson’s phraseological dictionary, s.v. крез, «Богат как Крез, а живет как пес», with крез also listed as a common noun meaning a very rich man in Ushakov and in the Малый академический словарь. High. A12 notes that Sardis is off-route and that the tie to this territory runs through the Ionian cities as Croesus’ tributaries, which is the tie this chapter uses.

14. Report A03, section 2.4, citing the Livius entry: the Ephesian tyrant Pindarus was Croesus’ own nephew, which A03 notes

makes a hostile siege odd. The observation is used here as A03 uses it, as a complication and not as a refutation.

15. Report A10a, verification sweep item 13, CORRECTED, at moderate confidence: the claim that Greek τύραννος is a Lydian loanword from Luwian *tarwanis* is overstated; an Anatolian connection is possible but disputed, Beekes' *Etymological Dictionary of Greek* (2010) classifies the word as Pre-Greek, and recent Anatolian scholarship emphasises phonological and semantic obstacles. A10a is the verification layer and governs the Gemini report A02, which asserts the Lydian derivation at high confidence. Report A12's audit keeps the entry as CLAIMED at moderate and notes that the earliest Greek use is Archilochus (fragment 19 West) about Gyges of Lydia, which it calls the real story. Russian register item for this chapter, status disputed: тиран. A12's audit deleted the Russian tie on the ground that an ordinary loanword is not a distinctive Russian connection; the Cyrillic appears here because the register requires it in this chapter, and the dispute over the word's origin is flagged in the body, which is what the register's status asks for.

16. Research report 02 (02-frame-ionia-lydia-persia.md), section 3.5, and research report 06, section 2.2: the Artemision foundation deposit held more than a thousand items including electrum coins and the earliest inscribed coins, those of "Phanes", and is the strongest archaeological anchor for the first coinage; the deposit's own date is disputed, with the summary report 02 read giving the first half of the seventh century for the earliest pieces and 625 to 600 BC for Phanes. No date is printed in the body. Report A12, item 3, rates at high confidence that modern numismatics accepts Herodotus' "first" (1.94) as the earliest known coinage, in electrum, from Lydia and Ionia, with Croesus' pure gold and silver issues following (Kroll, Sardis Expedition). Report 02 records that it could not obtain Kroll or the Konuk survey and that some scholars lower the start of coinage, and that

whether the earliest coins are Lydian or Ionian is live; the body says “among the earliest” for that reason.

17. Research report 02, section 3.5: the old view that the electrum was simply panned from the Pactolus has been rejected on metallurgical grounds, because the analyses show controlled alloys, which means they were made or adjusted deliberately. The inference that the coin’s value therefore rested on a guarantee rather than on its metal is mine.

18. Research report 02, sections 2.3 and 3.5: a stater of about 14 grams with fractions down to small pieces, cited from memory at moderate confidence; and the dispute over the function of early coinage, with payment of mercenaries and state obligations on one side and market use on the other, where report 02 rates the market case weaker. The characterisation of coinage as a payroll instrument is the stronger side of that dispute stated plainly.

19. Xenophon, *Anabasis* 5.3.4 to 5.3.9, as reported in research report 06, section 2.3: the share of the tithe belonging to Artemis of the Ephesians was entrusted to Megabyzus, the sacristan of the goddess, while Xenophon was away with Agesilaus; Megabyzus returned the deposit to him at Olympia; and Xenophon built a temple to Artemis at Scillus beside a river also called the Selinus. Report 06 calls this early evidence that the Artemision acted as a safe deposit for money and valuables. Strabo 14.1.23 for the priests as eunuchs called Megabyzi, in the same section. Report 06’s note that the Scillus river was also called the Selinus is given in the body as a coincidence of names and nothing is claimed about how it came about.

20. Vaux, *Greek Cities and Islands of Asia Minor* (1877): the great temples of the Hellenic world were used as banks of deposit holding bullion in trust as well as dedicated objects; “many inscriptions in Boeckh show clearly that the administrators of the temples employed these treasures as loans”; and “Artemis was, in

fact, a queen, whose dower was the wealth accumulated in her temple". Used as nineteenth-century scholarship and flagged as such in the body, which is the register this source supports. No modern study of the Artemision's lending was read for this chapter.

21. Diogenes Laertius 9.6 for the deposit of Heraclitus' book in the temple, cited from memory in research report 02, section 3.6, at low confidence and described there as a biographical legend, which is how the body treats it. Report A12 at high confidence: "panta rhei" (πάντα ῥεῖ) is a later summary, from Simplicius and from Plato, *Cratylus* 402a, and not a verbatim fragment; the genuine river fragments are DK 22 B12 and B91. A12's rejected-claims table carries "panta rhei as a verbatim Heraclitus quotation" as REJECTED at high confidence, so it appears here only as a debunked attribution.

22. Report A12, lexicon entry for Hipponax of Ephesus, at moderate confidence: ancient metrists credit him with the choliamb or scazon, the "limping iamb", and Athenaeus 15.698b, citing Polemon, calls him the inventor of parody, which A12 tags as CLAIMED. A12 records that neither item was re-fetched.

23. Appian, *Mithridatic Wars* 23, per report A03, section 2.4, at high confidence: the killing of the Italians in the Artemision in 88 BC, as part of the province-wide killings ordered by Mithridates; Stubbersfield, *Ephesus*, chapter 2, for Appian's secret orders to all the cities on an appointed day, with release from half their obligations offered to the cities, and for the butchery in the sanctuary of the Artemisium. The province-wide figure sometimes given for the Asian Vespers belongs to the provincial frame report and is not printed here. Report A03 notes that the Artemision killings are the better-documented alternative to the Croesus rope as this city's defining event and make the same point in reverse, which is why both are in this chapter.

24. Vaux, *Greek Cities and Islands of Asia Minor* (1877): an inscription then recently discovered, which Vaux believes was found by Wood and was at Oxford, in which the people of Ephesus assert that they had been compelled to act against their will and were none the less at heart the devoted friends of the Romans. Vaux is dated and secondary and his attribution of the find to Wood is given with his own hedge; the stone is used here for what it says and nothing is claimed about its publication or present location.

25. Vitruvius 10.2.11 to 10.2.12, as paraphrased from the Latin in research report 06, section 4.4: Chersiphron distrusted wheeled carts because of the weight of the loads and the softness of the plain, and Vitruvius says the method was possible only because the quarries were near and the way was a continuous plain.

26. Vitruvius 10.2.11 to 10.2.12, per research report 06, section 4.4, and report A12's entry for Chersiphron and Metagenes, at high confidence that Vitruvius describes the method: the frame of four timbers, two beams as long as the shaft joined by two cross-pieces, iron pivots (*cnodaces*) leaded into the ends of the shafts and wooden rings (*armillae*) on the frame to take them, with oxen yoked to the frame so that the shaft rolled on its own pivots; and Metagenes' adaptation for the architraves, with wheels about twelve feet across enclosing the ends of the block so that it travelled as its own axle. Vitruvius' comparison to the roller used on the walks of palaestrae is in the same passage.

27. Vitruvius 10.2.13 to 10.2.14, per research report 06, section 4.4: Paeonius, in Vitruvius' own time, contracted to bring a base for a colossal Apollo from the same quarries, made wheels about fifteen feet in diameter with spindle-like crossbars set a foot apart around the stone and a rope wound round the bars for the oxen, and the contraption drifted off the line, had constantly to be pulled back, and he ran out of money. Report 06's section 4.4 draws the engineering contrast between a rope-wound frame

with no steering and a pivot frame constrained to its own axis, and states that the point is that ancient builders recognised the difference; the body follows that reading.

28. Pliny, *Natural History* 36.21, per research report 06, section 4.4: the architraves were raised by means of sand-filled bags on an inclined plane, piled up until they reached beyond the capitals, the lower bags then gradually emptied so that the blocks settled into place; with the story of the lintel over the door that would not lie level, the architect's despair and the goddess' appearance in a dream. Report 06 judges the sandbag method physically coherent and notes that it leaves no permanent trace except in the bedding surfaces, and that ordinary blocks were raised with cranes. The reading of the dream as the place where a technical explanation is missing is mine.

29. Report A12, rejected-claims table, "Sardonic from Sardis": REJECTED at high confidence. The word derives from σαρδάνιος at *Odyssey* 20.302, later reinterpreted as σαρδόνιος and connected with a Sardinian plant producing a fatal grin (Pausanias 10.17.13). A12 flags the item as a link to the companion volume on Sardinia. Chapter 13 states the Sardinian end of this; the body keeps it to one sentence here because the correction belongs with Sardis and Croesus and because the material is already spent.

30. Report A10a and report A12, section 3.8: the magnet (Μαγνῆτις λίθος, "the Magnesian stone") is named after a Magnesia, but which one is a CONFLICT at moderate confidence, between Magnesia ad Sipylum, off-route near Manisa, and the Magnesia district of Thessaly; Lucretius 6.909 ties the name to the homeland of the Magnetes, and most dictionaries say only "Magnesia". A12's rejected-claims table carries "Magnet from Manisa specifically" as DOUBTFUL at moderate confidence and instructs that the word must not be assigned to the route without

a caveat. Magnesium and manganese descend from the same name at high confidence and are not used here.

31. Russian register item for this chapter, status rejected-joke: эфес, the hilt of a sword, from German *Gefäß*, a vessel or container, and not from Ephesus. The register (working/russian_register.csv) carries the item at moderate to high confidence with the instruction that it be told as a joke and flagged; the derivation is not in report A12's own false-etymology table, which is why the body states the German source and makes no claim about the date or the channel of the borrowing beyond the general route of Russian military vocabulary. It appears here only as a debunked claim, which is what R4 permits. A12's rejected-claims table contains the parallel cases (bergamot from Bergama, colossus from Colossae, labyrinth from labrys), none of which is used.

32. Russian register item for this chapter, status verified: танталовы муки, also муки Тантала. Report A12, section 5: attested in Ozhegov and Shvedova (1992), s.v. танталов, and in Ushakov, s.v. мука, «Муки Тантала или Танталовы (книжн.): нестерпимые муки, вызываемые созерцанием близости желанной цели и сознанием бессилия…», at high confidence, with the tie to Tantalus of Sipylus in off-route Lydia. A12's lexicon entry for *tantalize* rates high that the name is the source and moderate for the tradition locating Tantalus at Sipylus, which is in Pausanias; the punishment is in *Odyssey* 11.582 to 592. Vaux, *Greek Cities and Islands of Asia Minor*, independently records the legends of Tantalus and Niobe at the Lydian Magnesia under Mount Sipylus.

33. Report A06, section 2.2, at moderate confidence that Sepharad meant Sardis: a Lydian-Aramaic bilingual funerary inscription from Sardis gives the city's name in Aramaic as ספרד, the same consonants as the Sepharad of Obadiah 1:20, which is the name's only biblical occurrence; Vernet Pons concludes that "Sardis is at

least the hypothesis that best fits the biblical Sepharad", and A06 calls it the best-supported identification while recording that it remains a hypothesis and that the bridge to the later Hebrew name for Spain is unexplained. A06 rates as high that the Targum later read Sepharad as Spain and as unknown how the transfer happened, which is the gap the body states. Report A03, section 2.4, independently notes that many scholars identify Obadiah's Sepharad with Sardis. Jerome's Vulgate renders it "which is in the Bosporus" and the Jerusalem Bible note calls the place unknown; neither is used, because A06 rates the Sardis identification the best supported.

34. Report A03, section 2.4: the Gothic raid and burning of the Artemision, traditionally placed in AD 262 or 263 on Jordanes, *Getica* 20, rated moderate, with A03 recording that its own search failed to verify the passage. Stubbersfield, *Ephesus*, chapter 2, independently reports that the city, including the great temple of Artemis, was severely damaged by a number of seaborne attacks by the Goths; Vaux gives a sack in AD 262. No year is printed in the body and the body claims no more than damage to the city and the temple from seaborne raiders in that century.

35. Research report 06, section 3.2, citing Kraft and colleagues: the precinct was robbed for lime and for building, the marble was burnt in local lime kilns, and large quantities were reused in the Byzantine church of St John and in the İsa Bey Mosque. Those two buildings are chapter 17's subject and are named here only as the destination of the temple's stone.

36. Research report 06, section 3.2: John Turtle Wood located the temple on 31 December 1869, under about five metres of soil and sand, after six years of searching, and dug until 1874; David Hogarth worked there in 1904 to 1905. Vaux, *Greek Cities and Islands of Asia Minor*, for Wood as the constructing engineer of the Smyrna and Aidin railway, who had become well acquainted with

the neighbourhood and from 1863 made excavations at his own expense, clearing the Odeum and fixing the Magnesian and Coressian gates. Stubbersfield, *Ephesus*, chapter 2, gives the commission from the British Museum and six metres of topsoil. The exact dates are not printed in the body.

37. Vaux, *Greek Cities and Islands of Asia Minor*: Wood judged the accounts of the ancient authors too vague to dig against, made his first diggings tentative and aimed at finding inscriptions, worked the Great Theatre because he was more likely to find them there than anywhere, and recovered six large stones originally from the cella of the temple bearing decrees, including one containing information about the ritual of the temple worship with lists of the votive offerings to be carried in procession "through the Magnesian Gate to the Great Theatre, and thence back again through the Coressian Gate". Vaux is dated and secondary and is used here for the excavation history, which is the register the source supports.

38. Vaux, same volume: the inscription confirmed Wood's idea of feeling his way to the temple from one of the city gates, two roads were found, he determined to trace the one which showed the greater amount of wear or use on the assumption that it led to the temple, and the peribolos or courtyard wall of the temple was soon reached. Vaux adds that massive walls were reached in April 1869 and proved to be those of the courtyard by an inscription in Greek and Latin recording that Augustus had rebuilt them.

39. Vaux, same volume, quoting Wood: a marble pavement was reached in 1870 at nineteen feet below the alluvial soil of the present plain, together with drums of columns quite six feet high, one base still attached to its plinth; the best-preserved drum, somewhat more than six feet high and eighteen and a half feet in circumference, weighing eleven and a quarter tons, was found on 3 February 1871; Wood found abundant instances of the use of

colour, chiefly vermilion and blue, and one specimen of gold inserted as a fillet; and "between 5 and 6 feet below the pavement and under the foundations of the walls of the cella, I found the layer of charcoal, 4 inches thick, described by Pliny", laid between two layers of a composition about three inches thick, similar to and of the consistency of glazier's putty. Research report 02 records Pliny's statement (*Natural History* 36.95 to 36.97) that the marshy site was chosen as a protection against earthquakes and that the foundation was laid on layers of charcoal and fleeces, and states that it does not know whether excavation supports this, rating it low; Wood's report of the charcoal is given here as Wood's, through Vaux, and no claim is made about the fleeces. Report 06 gives the depth of the temple below the plain as about five metres and Stubbersfield as six, which is the range the body states.

40. Research report 06, section 3.2, from the Turkish Archaeological News summary of the British Museum's Ephesus material: a round-mouthed jug of about 650 to 625 BC holding the Artemision coin deposit, a Corinthian pyxis lid, two marble female heads, a marble lamp, ornaments dedicated to Artemis, figurines, and a sculpted column drum described as the most complete surviving remnant of the temple's sculptural decoration. Report 06 establishes that the drum (BM 1872,0803.9) is dated to the second half of the fourth century BC and therefore belongs to the rebuilt temple and not to Croesus' building, with the Cambridge cast catalogue agreeing, against older guide texts that assigned it to the sixth-century temple; report 06's own conclusion, at moderate confidence, is that sculpted lowest drums occurred in both temples, that the most complete surviving example is Hellenistic, and that Croesus' columns survive as fragments in London, Selçuk and Vienna. Report 06, section 3.10, for the division of the finds: the material dug between 1867 and 1905 went to the British Museum, that from 1905 to 1923 to the

Ephesos Museum in Vienna, and later finds to the museum at Selçuk. The “temple-keeper” title and the shout in the theatre are Acts 19.23 to 19.41, in research report 06, section 3.6, and belong to chapter 16; they are named here and not treated.

Chapter 16: Great Is Artemis

1. Acts 19.23 to 19.41, in the World English Bible wording reported in research report 06 (06-site-ephesus.md), section 3.6: Demetrius, a silversmith, made silver shrines of Artemis and brought no little business to the craftsmen; he gathered the workmen and said that by this business “we have our wealth”, that Paul had persuaded many in Ephesus and almost all Asia that gods made with hands are no gods, and that the temple of the great goddess would be counted as nothing. Acts is the only source for Demetrius and for the riot, and the speeches in it are literary compositions in the manner of Greek historiography, which is the mainstream view; the setting, however, is checkable against the epigraphy and the buildings, which is why the episode is used for its commercial logic and not for its wording. The reading of the order of Demetrius’ two arguments as the order of a trade dispute is mine.

2. Report 06, section 3.6: the crowd rushed into the theatre and the cry was “Great is Artemis of the Ephesians!” The two-hour duration belongs to the shouting down of the Jewish speaker at Acts 19.33 to 19.34 and is treated at note 37; it is attached here because the chant is the same chant.

3. Report 06, section 3.6: the town clerk (grammateus) quieted the crowd, saying that the city was “temple keeper” of the great goddess Artemis and of the image that fell from Zeus, that the accused were neither temple-robbers nor blasphemers, that the courts were open and there were proconsuls, that the matter could be settled in the regular assembly, and that the city was in danger of being charged over the riot. Report 06 rates the

grammateus as a senior civic official in Roman-era Greek cities at moderate confidence and the temple-keeper title at moderate; the title is independently attested on the city's coinage (note 19).

4. Report 06, sections 2.5 and 3.6, for the Artemision's economic centrality, its deposits, and the small votive objects, and for the Austrian institute's description of the city's religious economy; Stubbersfield, *Ephesus* (2022), chapter 2, for Artemis or her symbols on Ephesian coinage from the sixth century BC to the mid-third century AD, with the Artemision itself appearing regularly from the first century AD. The characterisation of the souvenir trade as a manufacturing sector with a supplier hierarchy follows Acts' own "craftsmen" and the trade's ability to call a meeting; no workshop has been excavated and none is claimed.

5. Garrett Ryan, *Greek Cities and Roman Governors: Placing Power in Imperial Asia Minor* (2022), chapter 4: proconsuls of Asia spent several months in Ephesus each year (citing Haensch 1997), tried the smallest or most sensitive cases in the proconsul's residence, which should probably be identified with an imposing house overlooking the theatre, and the large apsidal hall added to that structure in the mid-second century was well suited to judicial purposes (citing Baier 2013). Report 06, section 2.5, for Ephesus as the governor's residence, which it rates high as standard. Christoph Baier's chapter on that house in *Cityscapes and Monuments of Western Asia Minor* treats it as a monumental domus; the identification as the governor's residence is Ryan's "probably" and is given here with that weight.

6. Ryan, *Greek Cities and Roman Governors*, chapter 4: no assize city constructed a building exclusively for the assizes; legally the setting was irrelevant, since the magistrate's presence, tribunal and insignia defined the space as a court, and officials were

encouraged to try cases in the open where crowds could gather and judgements would be subject to public scrutiny.

7. Ryan, chapter 4, for the Triodos: the plaza at the intersection of three thoroughfares beside the Lower (Tetragonos) Agora, bounded on the west by the Library of Celsus, on the north by the monumental South Gate built by the freedmen Mazaeus and Mithridates and crowned with sculptures of the family of Augustus, and by the Altar Building; the Auditorium, the proconsul's most important court, adjoined it, its placement resting on an early-third-century inscription from the South Gate commemorating the pavement "in front of the Auditorium and the Library of Celsus". Ryan records that scholars differ on whether the Auditorium was the Altar Building or the Hall of Nero, and that in either case the Triodos served as gallery and waiting room; the chapter states the function and not the identification, because the identification is the part that is open. The slope of the plaza toward the library, and the comparison to a small theatre, are Ryan's.

8. Ryan, chapter 4: Tiberius Iulius Celsus Polemaeanus, a native of Sardis, whose career culminated in the proconsulship of Asia under Trajan, settled late in life at Ephesus, where the council authorised his son Tiberius Iulius Aquila Polemaeanus to build a library on the Triodos that would serve as his tomb. Report 06, section 3.6, from the Austrian Archaeological Institute: a public library designed in the Trajanic period, with the burial chamber at the back and the garland-decorated sarcophagus still in its original position; report 06 also records the conflict between estimates of about 10,000 and about 12,000 scrolls and rates both low, which is why no figure is printed. The building dates are not printed under this book's rule on dates.

9. Ryan, chapter 4, citing *FiE* V.1 and *IvE* 5108 to 5111: two equestrian portraits of Celsus flanking the aedicular façade; eight

statues in two registers, the upper four being three portraits of Celsus and a cuirassed statue of his son Aquila, the lower four personifications of Wisdom (*sophia*), Excellence (*arete*), Thoughtfulness (*ennoia*) and Knowledge (*episteme*); and the argument that these virtues had special application to popular perceptions of justice and that the library's placement meant every governor would try cases beside the moral model. Ryan notes that the base for *ennoia* was replaced in late antiquity, so Celsus may have been honoured there for a different virtue, and that the lower statues were replaced in late antiquity with the originals now in Vienna. The inference that Celsus had himself judged on that spot is Ryan's, stated conditionally on the Auditorium already functioning in the early second century.

10. Ryan, chapter 4, citing Scherrer 2008: Aquila died soon after his father, much of the library was built under the council's direction, and the funding was provided by the benefactor Tiberius Claudius Aristion; Ryan raises the possibility that the council took an active hand in the design for precisely the reason given here. Report 06, section 2.5, independently names Aristion's foundations, including the honour tomb by the Nymphaeum Traiani. The two readings of the monument, governor's and notable's, are Ryan's.

11. Report A10b, verification sweep item 25, CORRECTED: the Celsus Library stair carving is the documented menorah at Ephesus, high confidence, commonly identified as the second-highest step, brought to wider attention during the Austrian reconstruction and in print by 1980; its precise date is uncertain, with a late second or early third-century date proposed partly because the stair block was later covered by a fountain structure. A10b rates the other reported Ephesian menorahs (Marble Street, the Gate of Mazeus and Mithridates, the Arkadiane, the Agora) low to moderate and traces them chiefly to guide testimony and popular reporting, and records that the Austrian Institute's graffiti corpus

is still in preparation, so negative conclusions are provisional; none of those is used. Report A06 rates the Celsus menorah high for existence and low for date and original context, and specifically marks as overstated the popular claim that it evidences a second-century Jewish population.

12. Stubbersfield, *Ephesus*, chapter 5, citing Strabo, lists among the grave abuses of the sanctuary's asylum the killing of the Romans and Italians by the Ephesians in the Mithridatic wars and the killing of Cleopatra's siblings; the Mithridatic episode belongs to chapter 15 and is not treated here. Stubbersfield, chapter 2, for Antony and Cleopatra being received at Ephesus in the winter of 33 to 32 BC and for the city suffering afterwards for having supported the loser at Actium; Christoph Baier, in *Cityscapes and Monuments of Western Asia Minor*, opening on Plutarch, *Antony* 24, for Antony disembarking at Ephesus in 41 BC accompanied by a Dionysiac procession and praised as Dionysus. The sister is conventionally identified as Arsinoe IV and the octagonal tomb on Curetes Street is conventionally identified as hers; neither identification appears in any verification report or research report in this book's corpus, and the only reference to the building there is the title of a 2012 congress paper on it which was not read (research report 10). The body therefore names neither the woman nor the date and flags the connection, which is what the evidence supports.

13. Ryan, chapter 3, on the *adventus* at Ephesus: the colonnaded avenue later known as the Arcadiane ran from the harbour to the theatre, the lack of space on the quays compelled elements of the citizen body that would normally have assembled outside the gates to stand behind its colonnades, the frame was impressively regular with lines of columns and citizens running uninterrupted to the far gate, and the procession along it was intended to create a clear image of the city in the proconsul's mind, with his reception in the theatre as the next stage. Ryan's reconstruction is

a model of how the ceremony worked rather than a record of a particular arrival, and is used as such. Report 06, section 4.7, could not source the Arcadiane's construction and gives the name from Arcadius as a standard account at moderate confidence; no date is printed. Sea arrival for governors coming to Ephesus follows Ryan's treatment of the harbour reception.

14. Report 06, section 3.6, from the Austrian institute: the theatre was begun in the third century BC, fundamentally altered under the Empire, held 22,000 seats, and was used for drama, gladiatorial fights, animal hunts and popular assembly. Wikipedia's figure of 25,000 is the conflict report 06 records, rating both low because capacity estimates use different methods; the body therefore says "more than twenty thousand".

15. Ryan, chapter 5, citing Kolb 1999 and *IvE* 27.202 to 207, 439 to 441, 468 to 469: in the theatre of Ephesus the council customarily occupied a single wedge in the lowest tier, with sections reserved for the council, gerousia, ephebes and tribes, for priests and sacred victors, and for the *paides*. Ryan notes that the Salutaris arrangement probably held only for a few years, since the addition of a tribe named for Hadrian would have forced readjustment, and that the governor had a reserved seat toward the middle of the lowest row (attested by a late antique life of St John). The reading of the seating as a diagram of the social order is Ryan's; the connection to the riot crowd is mine.

16. Ryan, chapter 1, citing *IvE* 27 and Rogers 1991: C. Vibius Salutaris, an Ephesian, founded in the reign of Trajan the best-attested procession in the imperial Greek world, in which the ephebes carried 31 gold and silver statuettes representing the imperial family, figures from Ephesian myth and history, and personifications of the city government through the heart of Ephesus at each meeting of the civic assembly and at a number of festivals, averaging about once every two weeks; the route ran

down the Embolos, the city's primary thoroughfare, to the theatre, and the statues were set on permanent bases in the theatre during festivals to designate sections of seating. Elisabeth Rathmayr's chapter in *Cityscapes and Monuments of Western Asia Minor* adds that the foundation of AD 104 specified that silver and gold images of gods, rulers, heroes and personifications were stored in the Artemision, and places the bilingual text on the south parodos of the theatre, an entrance used by elites and magistrates; report 06, section 3.6, puts the inscription on the north parodos from memory and flags that the location should be checked. The body therefore says "a wall of one of the theatre's side entrances". That the images were carried out of the sanctuary follows report 06's description of a procession of statues from the Artemision to the theatre.

17. Stubbersfield, *Ephesus*, chapters 4 and 5: the Kouretes of the myth as young men who made a din with spears and shields to drive Hera off during Artemis' birth; at least forty-six inscriptions from the prytaneion, running from the reign of Tiberius to the end of the second century, recording who administered the mysteries and how they wished their contribution to be seen; and the Kouretes of the Roman period as no longer young men but drawn from well-to-do Roman citizen families, linking their reverence for Artemis to that of the emperor. Stubbersfield is a secondary popular title and the material here is used where it agrees with the stronger sources on the Romanisation of the civic priesthoods; the derivation of the street's modern name from the priesthood is the standard account and no inscription is cited for it.

18. Stubbersfield, *Ephesus*, chapter 5, citing Strabo: Augustus restored the boundaries of the asylum area to its original extent after the zone of refuge had grown to the point where it "proved harmful and put the city in the power of criminals", separated the legal connection between temple and city, and at least sanctioned

the removal of the Kouretes from the temple to the prytaneion. The asylum itself and its failure in the Mithridatic killings belong to chapter 15 and are not treated here.

19. Stubbersfield, *Ephesus*, chapter 5, citing Friesen: *neokoros* evolved from a temple official through its benefactor to a city, with Acts 19.35 using it of Ephesus; approval was given in 29 BC for a temple to Rome and Augustus at Pergamon for the use of Asians and foreigners; a coin of AD 65/66 refers to “Neokoros Ephesus”, probably as neokoros of Artemis and at that stage unofficially; later coins refer to the city as twice neokoros, of Artemis and of the Sebastoi, and then three times. Report A12, lexicon entry for *neokoros*, high confidence: Ephesus, Pergamon and Smyrna competed over the title. Ryan, chapter 5, for civic delegations quarrelling over precedence at the games staged by the provincial council, and for the governor’s presence suppressing such tensions. No dates are printed in the body.

20. Report A12, lexicon entry for Asiarch (Ἀσιάρχης), high confidence that the title is named from here, with Acts 19.31 mentioning asiarchs at Ephesus friendly to Paul, and moderate confidence on whether the title equalled the provincial high priesthood, which is debated. Russian register item for this chapter, status verified, gloss only: Асиарх (working/russian_register.csv, sourced to A12). The account of what asiarchs paid for and what it bought follows Ryan, chapter 1, on benefactors and agonothetes lavishing escalating sums to advertise and enhance local and regional standing.

21. Trebilco, *Jewish Communities in Asia Minor* (1991), chapter on the prominence of women in Asia Minor, quoting the inscription of Flavia Ammion, daughter of Moschos, chief-priestess of the Temple of Asia in Ephesus, prytanis, twice stephanephoros, priestess of the Massalia and agonothete, wife of Flavius Hermocrates, and noting that her husband is named without his

titles although he held the matching male offices, which Trebilco takes as telling against the view that her titles were honorary extensions of his. The same discussion records one woman holding the title of Asiarch, whose husband was also an Asiarch, with Trebilco's judgement that this does not necessarily mean she received it through him. Magie's older view that such titles were compliments is the reading rejected; Trebilco's case for active tenure is the one used.

22. *Life and Death in Asia Minor in Hellenistic, Roman, and Byzantine Times*, chapter 8, on occupational and status statements in funerary inscriptions: among the owners of tomb buildings the imperial freedmen are a leading group and all but one of them are from Ephesus, which the author calls valuable information for Ephesus but excludes from the supra-regional survey to avoid bias, noting that the dominance of such groups at particular sites may reflect excavation focus rather than demographic reality. The chapter's inference about what status was worth advertising in a provincial capital is mine and rests on that single dataset.

23. Report 06, section 3.5: Terrace House 2 is a block of seven housing units on three terraces on the slope of Bülbüldağ beside Curetes Street, about 4,000 square metres, built from the early first century AD and inhabited until the third; the Ministry page describes peristyle courts, coloured mosaics, marble-clad walls, mythological frescoes, fountains and underfloor heating, on ground used as a Hellenistic cemetery; the decision to leave the painting and mosaic decoration in place led to the protective roof of 1999 to 2000 under Friedrich Krinzinger, and the complex has been open since.

24. Report 06, section 3.5, from the Thür decoration project: a consistent hierarchy in which high-status rooms had three-zone marble revetment in expensive coloured stone and secondary rooms simpler local marble or white walls; and the attribution of

the paintings of all seven units to a single workshop working "from the high-quality paintings of the Theaterzimmer to the hasty scattered flowers" of lesser rooms. Report 06 draws the inference that a single workshop working at the full range of quality implies a local market in which one team could be hired at different price points, and that the houses were furnished within a short span; the development comparison is mine.

25. Elisabeth Rathmayr, in *Cityscapes and Monuments of Western Asia Minor*, chapter 12: in Dwelling Unit 7 of Terrace House 2 an altar and offering table in the peristyle courtyard are oriented toward a niche in the adjacent room 38 where the imperial busts of Tiberius and Livia were displayed, the altar and table found under the destruction debris of the later third century; and the larger-than-life bust of Marcus Aurelius in Dwelling Unit 6, which she connects (citing Rathmayr 2014b) to the investiture of a member of the resident family into the senatorial order. Her own framing of that connection is "probably", which is the weight the body gives it.

26. Rathmayr, chapter 12: the resident of Dwelling Unit 6, C. Fl. Furius Aptus of the Hadrianic to Antonine period, was priest of Dionysus, his priesthood confirmed by an inscribed portrait bust found in situ in the dwelling, and the priesthood appears to have mattered more to his domestic self-presentation than his other high offices.

27. Rathmayr, chapter 12: the room in Dwelling Unit 4 used exclusively for household cult, its southern wall carrying two *Totenmahlreliefs* one above the other with a painted bust, presumably of an ancestor, beneath them, now lost; a snake painted on the opposite wall with a graffito beside its tail probably reading *Theois katachtoniois*, "to the gods of the underworld"; and a thymiaterion found in the room indicating

actual cult use. The Abraxas gem from the debris of Dwelling Unit 3 is from the same chapter's figure list.

28. Rathmayr, chapter 12, citing Taeuber and Rathmayr: the town residence of Salutaris in Ephesus could have been Dwelling Unit 2 of Terrace House 2, where graffiti naming him were discovered in situ, and an ivory frieze showing Trajan, the emperor Salutaris particularly venerated, was found in the same house, in room SR 18, along with other sculptures including a portrait statuette of a young man; Rathmayr reads the room as a place for commemorating the family's history and identity, including its loyalty to particular emperors, and links the Trajan relief and a theatre scene to the Salutaris foundation. The identification of the house is hers at "could have been" and is given with that weight. The frieze itself is in the Ephesus Museum and belongs to chapter 15's object list; only its find-spot is used here.

29. Report 06, sections 2.5 and 4.10: the Austrian project's finding that the Terrace House 2 units were destroyed around AD 262, much earlier than previously believed, and that after that the terraces were not rebuilt as luxury housing; and the list, cited through a study of geological processes in Roman cities, of eleven major buildings at Ephesus that required rebuilding after the earthquake of that year, including the Terrace Houses, Harbour Baths, Scholastica Baths, Magnesian Gate, Tetragonos Agora, Library of Celsus, theatre and stadium. Report 06 rates the building list moderate and records that the underlying study was not opened. No year is printed in the body under this book's rule on dates.

30. Report A06, section 2, item 1: the Roman decrees on Jewish rights in Josephus, *Jewish Antiquities* 14.225 to 264 and 16.160 to 178, name Ephesus among other cities of this route and are the densest written evidence for organised Jewish communities in them, at high confidence that the texts exist in Josephus and name

these cities, and moderate on the authenticity of each individual document. Trebilco, *Jewish Communities in Asia Minor*, chapters 1 and 2, for the documents' content and for the pattern of local pressure and Roman decision.

31. Trebilco, chapter on facets of Jewish identity: in 49 BCE the consul L. Lentulus Crus, recruiting in Asia for the senatorial cause, issued an edict exempting Jews who were Roman citizens in Ephesus from military service; an exemption covering all Jews in Asia followed; and Dolabella's letter to Ephesus explains the reason, in the words of the envoy of Hyrcanus II, quoted in the block above. Report A06, section 3.6.6, gives the same Dolabella text (*Ant*. 14.225 to 227), adds that he allowed the community to come together for its own rites and instructed Ephesus to pass the ruling to the other cities, and records that Josephus calls Ephesus "the chief city of Asia".

32. Report A06, section 3.6.6: the decree of the Ephesians (*Ant*. 14.262 to 264) that no one should be hindered from keeping the Sabbath day nor fined for doing so, with the proconsul's name garbled in the text and usually taken to be Marcus Junius Brutus at moderate confidence; and Agrippa's letter to Ephesus on Temple money and Sabbath-day court summons (*Ant*. 16.167 to 168). Trebilco, same chapter, for the edict of Augustus that the Jews of Asia need not give bond to appear in court on the Sabbath or on the day of preparation for it after the ninth hour, and for his reading that this removed a forced choice between the Sabbath and obtaining justice, which the body follows.

33. Trebilco, chapter on facets of Jewish identity: in a decree to the Ephesians, Agrippa stated that anyone who stole the Jews' sacred money would be deemed to have despoiled a sanctuary and be unable to claim asylum, a right generally reserved for pagan temples; and a parallel decree of Augustus to the Jews of Asia declaring the sacred money inviolable and its theft sacrilege

subject to Roman criminal jurisdiction. Trebilco's own emphasis is on the willingness to grant Jewish holy funds the same safeguards as pagan temples; the observation that this happened in the city with the most famous asylum and the most famous temple treasury in Asia is mine, and the Artemision's deposit function belongs to chapter 15.

34. Trebilco, chapter on Jewish community and Greek city, on the dispute of 14 BCE heard by Marcus Agrippa: in *Ant*. 12.125 to 126 the Ionians petitioned that they alone should share in the citizenship and claimed that if the Jews were to be their kinsmen they should worship the Ionians' gods, the matter went to trial, the Jews' advocate was Nicolas of Damascus, and Agrippa gave his opinion that it was not lawful for him to make a new rule. Trebilco demonstrates that the fuller account at *Ant*. 16.27 to 61 makes the subject the confirmation of existing privileges and not citizenship, and concludes that the report at 12.125 that the Jews had been granted citizenship by Antiochus II cannot be accepted; the body therefore uses the membership argument and the ruling and makes no claim about citizenship.

35. Trebilco, chapter on Jewish community and Greek city: at Ephesus a Jew whose name was probably Ἰούλιος held the title ἀρχίατρος, which in an inscription of this date probably designates one of the publicly recognised and city-paid physicians, particularly given the series of Ephesian inscriptions in which the word has that meaning. Report A06, section 3.6.6, identifies the stone as *IJO* II 32 (= *IEph* 1677 = *CIJ* 745, second century AD), the epitaph of the chief physician Julius asking that "the Judeans in Ephesos" care for the tomb, at high confidence, and notes that it is the only Ephesian Jewish inscription whose *IJO* number A06 confirmed.

36. Report A06, section 3.6.6: no synagogue building has been found at Ephesus, high confidence; an inscription of the imperial period

mentioning ἀρχισυνάγωγοι and πρεσβύτεροι is cited as *IEph* 1251 by a popular site, with Trebilco's judgement that "it seems very likely this was from a synagogue" at moderate confidence and its *IJO* number unconfirmed, and a proposed synagogue north of the Theatre Gymnasium rests on a single lamp and is rated low. None of those is used, which is why the body says only that no building has been found.

37. Trebilco, chapter on evidence from the New Testament: representatives of the Jewish community were present in the theatre at Acts 19.33 to 19.34, and since they too were opposed to Paul's work they may have been willing to join the public protest; what concerned the crowd about their speaker was that as a Jew he was not a worshipper of Artemis, which led to the two hours of the cultic cry. Trebilco's two conclusions are that the community was asserting its distinct identity against the Christians in order to prevent hostility against itself, comparable to the purpose of the decrees in Josephus, and that the incident reveals a degree of anti-Jewish feeling in Ephesus. Report A06, section 4.1, gives the same episode at high confidence on the text. Acts gives the speaker a name; it is withheld in the body and in these notes because it is the name of a figure whose appearances are allocated elsewhere in this book, and the two men have nothing to do with each other.

38. Report A12, lexicon entries, all at high confidence that the writer is named from here: Soranus of Ephesus, born at Ephesus and working at Rome, whose *Gynaikeia* is the main surviving ancient treatise on obstetrics and gynaecology, with A12 marking "first" claims as claimed only; Rufus of Ephesus, author of *On the Names of the Parts of the Body* and *On the Interrogation of the Patient*, the latter often cited as an early treatise on history-taking, which A12 rates moderate as a "first"; Artemidorus, whose *Oneirocritica* is the only complete surviving ancient dream-interpretation manual and who calls himself Ephesian after his mother's city, at

moderate confidence for the latter; and Xenophon of Ephesus, whose *Ephesiaca* is one of five surviving Greek novels and opens at the festival of Artemis. No "first" is claimed in the body for any of them, which is what A12's grading requires.

39. Garrett Ryan, *Naked Statues, Fat Gladiators, and War Elephants* (2021), citing *IvE* 1162: one medical festival at Ephesus had contests for devising new or improved surgical instruments, for diagnosing case studies and, apparently, for performing surgery live. Ryan's own "apparently" is kept in the body as the single hedge on this item.

40. Trebilco, chapter on Jewish community and Greek city: publicly recognised physicians were paid by the city and their principal task was to attend citizens; they were granted immunity from civic office by Vespasian, and Antoninus Pius limited the number of doctors to whom a city might grant exemption to ten for a metropolis, seven for a *conventus* centre and five for ordinary towns, evidently because people had been evading office by taking up the medical profession. Ephesus was both a metropolis and a *conventus* centre (note 5), so the top allowance applies; the arithmetic about the eleventh man is mine.

41. Ryan, *Naked Statues, Fat Gladiators, and War Elephants*, chapter on gladiators, citing Lösch et al., "Stable Isotope and Trace Element Studies on Gladiators and Contemporary Romans from Ephesus", *PLOS ONE* 9 (2014): a gladiator's punctured skull found near Ephesus, read as a trident wound; the man died in his twenties; and the isotopic evidence for years of a diet of beans and barley gruel, a high-protein paste unique to gladiators, for which other Romans mocked them as "barley boys", while soldiers avoided it and boxers and wrestlers ate meat.

42. Ryan, same chapter: the scientists who analysed the Ephesian bones suggested the diet was intended to encourage weight gain as organ protection, the idea trickled into the mainstream media

as the overweight gladiator and is still routinely cited; Ryan's own assessment is that the diet could fatten a man but that there is no reason to think it did, that masters of schools training for speed and endurance would not have wanted heavy fighters, that beans and barley were in all probability simply nutritious and cheap, and that ancient authors and the mosaics describe muscular men. Ryan's correction is the position the body takes. The remark about the claim travelling further than the city's other exports is mine.

43. Report 06, section 4.7, citing Kraft and colleagues: the lower end of the harbour street sits over the filled harbour area, which is built on dumped construction debris and silt over prodelta sediments, with buildings extending up to 0.8 km seaward by the end of the first century BC, so that the foundations of lower-city buildings are on made ground and settlement and earthquake damage are concentrated there; report 06 marks the last step as its own inference at moderate confidence, which is the weight given here. The silting of the harbour and the mechanism behind it belong to chapter 14 and are not argued here. Report 06, section 3.6, for the fire of the third century destroying the library's interior and its scrolls, ascribed either to the earthquake or to the Goths, and for the façade falling in a later earthquake.

44. Stubbersfield, *Ephesus*, chapter 2, citing White: up to the end of the fourth century Ephesus still called itself "the first and greatest metropolis of Asia".

45. *Cityscapes and Monuments of Western Asia Minor*, chapter 1, citing *Die Inschriften von Ephesos* Ia, 45: an inscription found in the cathedral of St Mary at Ephesus reproduces the text of an imperial letter, perhaps of Justinian, referring to a controversy between Ephesus and Smyrna, whose bishop demanded to be made Metropolitan of Asia on the strength of the antiquity of his church and its foundation by the martyr Polycarp; the document

stresses the primacy of the metropolitan see of Ephesus on the authority of the Apostle John, while recognising Smyrna's autocephaly in view of the prestige of its martyr. The attribution to Justinian is the source's "perhaps" and no emperor is named in the body. The tomb on Ayasuluk, the councils held in this city and the title they argued about are chapter 17's subject and are named here only as the subject that follows.

Chapter 17: Theotokos

1. Report A12, lexicon entry, and report A02's entry "Theotokos Dogma Formally Confirmed", at high confidence: Greek Θεοτόκος, Latin *Deipara*, Russian Богородица, Turkish Meryem Ana, with the Council of Ephesus decreeing that Mary is truly God-bearer. Russian register item for this chapter, status verified: Богородица. Report A07 gives the Church Slavonic form and its position as the doctrinal basis of Russian Marian devotion at high confidence. No figure is given here for the number of people who use the title, because no verified figure exists in this corpus; an earlier draft carried one and it was unsourced.

2. Research report 03 (03-frame-hellenistic-roman-asia.md), sections 3.8 and on the religious role, at high confidence on the council's decisions: Cyril of Alexandria led the council, which condemned Nestorius' refusal of the title Theotokos for Mary and condemned the view that the divine and human in Christ were separate persons. Stubbersfield, *Ephesus* (2022), chapter 6, for the Christotokos formulation Nestorius was willing to accept. The gloss on what each noun commits the speaker to is this book's, and is the standard reading of the dispute rather than a finding of any report.

3. The connection between the older Ephesian cult of a female divinity and the council's decision is traditional and is rated low as a causal claim by research reports 03 and 06 and by the UNESCO nomination text, which asserts it. It is therefore stated

here only as a coincidence the tradition enjoys and not as a mechanism, which is what the evidence supports.

4. Research report 06 (06-site-ephesus.md), section 3.7: Cyril presiding, Nestorius as the accused, Memnon the bishop of Ephesus supporting Cyril with about 52 bishops, Count Candidian as imperial representative, John of Antioch arriving late and holding a rival session that condemned Cyril, and Theodosius II eventually ratifying Cyril's council. Report 06 rates the attendance estimate of 200 to 250 bishops moderate, which is why no total is printed. Report 06 also rates moderate, from the conciliar acts it did not read, that the city's population took part in the dispute; that claim is not used. The reading of the procedure as a race for the venue is this book's, and rests on the sequence the report gives.

5. Research report 06, section 3.7, on the Austrian excavations under Stefan Karwiese and on Karydis in *Anatolian Studies* (2019): the long building preceding the church was the south portico of the Olympieion, the temple precinct of Hadrian Olympios; a modest sacred building existed at the time of the council; the monumental basilica with double columns and marble lining postdates it; and after an earthquake a vaulted brick structure replaced that. Report 06 rates high the point that the standing remains postdate the council and moderate the interval, since it read only a project abstract; no interval is printed. Karydis agrees that which building phase corresponds to the council remains controversial.

6. Research report 06, section 3.7, and research report 03, section 3.8, both at high confidence: the second council met under Dioscorus of Alexandria, convened by Theodosius II, reversed the condemnation of Eutyches, refused to let Pope Leo's Tome be read, and handled Flavian of Constantinople so that he was beaten, exiled and dead within days; Chalcedon repudiated it; the

Western church called it the *Latrocinium*, and Oriental Orthodox churches regard it as valid. Report A12 at high confidence for Leo's phrase *non iudicium sed latrocinium*, with the letter number rated moderate and therefore not cited. Report 06 could not establish which building hosted the second council, so none is named here.

7. Report A12, lexicon entry on the Quartodeciman controversy, at high confidence: Asia kept Pascha on 14 Nisan, the Jewish Passover date; Polycarp of Smyrna discussed it with Anicetus of Rome about AD 155, and Polycrates of Ephesus defended the practice to Victor of Rome about 190, citing Melito of Sardis among others (Eusebius, *Ecclesiastical History* 5.23 to 25). A12 marks it a core item of the book's Jewish thread. The Smyrna end of the controversy is chapter 7's and is referred to here rather than retold.

8. Brandt and Hagelberg and others, *Life and Death in Asia Minor in Hellenistic, Roman, and Byzantine Times*, chapter 1, quoting Polycrates' letter to Victor through Eusebius, *Historia Ecclesiastica* 3.31.2 to 4 and 5.24: "even in Asia great stars rest", with Philip, one of the twelve apostles, resting at Hierapolis; the volume's own reading is that these testimonies assert the nobility of the church of Asia against Rome, which holds the *tropaia* of Peter and Paul, and that they attest the tombs of John at Ephesus and Philip at Hierapolis. The same volume records the martyred bishop Sagaris of Laodicea named in the same letter at *Historia Ecclesiastica* 5.24.5. Research report 08 independently reports Eusebius' quotation of Polycrates and notes that the sources already disagreed in antiquity over which Philip is buried at Hierapolis; that dispute belongs to the Hierapolis chapter and is not pursued here. The characterisation of the argument as a property survey is this book's.

9. Report A12, at high confidence that the tradition is early: Irenaeus, *Against Heresies* 3.1.1, says John published the Gospel "while living at Ephesus in Asia", and Ayasuluk and the Basilica of St John follow from it; A12 rates as moderate that the authorship and the place are debated in current scholarship. Research report 06, section 3.9, names Irenaeus and Polycrates as the usual second-century authorities and rates the tradition moderate, citing from memory.

10. Research report 06, section 3.9: a mausoleum replaced by a fifth-century basilica, damaged by earthquake, rebuilt by Justinian as a domed cruciform basilica. Report 06 records a conflict between five domes and six in its sources and rates the dome count low, and rates the exact start date low and the sixth-century Justinianic rebuild moderate; no count and no date are printed here. On materials, report 06 reconciles its sources: marble columns brought from Constantinople and Proconnesus with local craftsmen working the capitals, and, per Kraft and colleagues, much of the marble of the destroyed Artemision reused in the church. The Artemision's own destruction and quarrying are chapter 15's and are named here only as the source of the stone.

11. Report A10b, verification sweep item 12, verdict **VERIFIED** at high confidence: Ramon Muntaner describes the tomb of St John during the Catalan Company's Anatolian campaign and says that at the saint's feast a sand-like substance rose through nine holes in the marble tomb slab "as a jet of water rises up", attributing to it remedies for fever, difficult childbirth and gallstones and the power to calm a storm if thrown into the sea with Christian invocations. A10b rates as moderate that the account is evidence for medieval pilgrimage belief and ritual commerce and not evidence that a miraculous substance appeared, which is the distinction the body draws. Report A04 independently quotes the passage in Lady Goodenough's translation ("what seems to be

clear fine sand, which they call manna"). A10b records that the full passage should be transcribed from the scan rather than copied from devotional sites, so no extended quotation is printed.

12. Report A08 Part 2, rated high: pilgrims collected and distributed dust from John's Ephesian shrine, the cult distributed ampoules around the Mediterranean and Black Sea regions, and the archaeological and literary evidence supports a substantial pilgrimage industry; the same report states at high confidence that the physical existence of dust, ampoules and pilgrimage does not verify the cures. Research report 06, section 2.6, from the Austrian institute: pilgrimage to St John's church, the Cemetery of the Seven Sleepers, St Luke's tomb and St Mary's church created a new and very lucrative economic sector in late antiquity.

13. Russian register item for this chapter, status **unverified-flag**: игумен Даниил. Report A07 gives Daniel's chapter "О Ефесе граде" from Prokhorov's edition in *Памятники литературы Древней Руси: XII век* (1980), with the tomb of John the Theologian, the holy dust (персть) rising yearly on his commemoration, people taking it for the healing of all ailments, and John's vestments lying there. Report A13 rules at high confidence that the Old Russian wording must be transcribed directly from a named critical edition and that reconstructing the phrases would repeat A07's likely error, and lists the exact Prokhorov or Venevitinov text of the Ephesus passage as unresolved. A07 is a Gemini report and the weakest layer in this corpus. The body therefore reports the content of the passage and flags explicitly that the wording is unchecked, and quotes nothing. Muntaner, at note 11, is the verified witness and carries the weight.

14. Report A07, at its own high confidence: the Russian church commemorates John on 26 September and on 8 May, the second feast being the Commemoration of the Holy Manna

(Воспоминание восхождения святого праха), deriving from the miracle at his tomb at Ephesus, with the *Chet'i-Minei* of Dimitry of Rostov cited for the annual emission of dust from beneath the altar slabs. A07 is a Gemini report; the feast is printed because report A08 Part 2 independently rates high that the dust cult and its distribution were real, and because the claim made in the body is about a liturgical calendar and not about the substance.

15. Report A08 Part 2, claims table, rated high: "Saint John never died but sleeps beneath his tomb, producing holy dust when he breathes" circulated in Byzantine hagiography, Orthodox tradition, medieval pilgrim accounts and devotional publications in several languages, and the report's own assessment is that the breathing body and the self-generating dust belong to the shrine's miracle tradition. It is given here as the tradition's own explanation and as nothing else.

16. Research report 06, section 3.9, at moderate confidence: G. A. Sotiriou excavated St John's burial place during the Greco-Turkish war of 1920 to 1922 and found it empty, the relics having been moved to Constantinople centuries before. The juxtaposition with the ampoule trade is this book's.

17. Report A07 and report A02, both at high confidence for the hagiographical narrative: seven youths of Ephesus refused to sacrifice during the Decian persecution, hid in a cave on Mount Pion (Panayır Dağı), were sealed in, and woke under Theodosius II in order to refute contemporary denials of the bodily resurrection. Research report 06, section 2.6, independently places the Cemetery of the Seven Sleepers on the late antique pilgrim circuit. No regnal dates are printed, in line with this book's rule on dates. The grotto is outside the places this chapter's object list may name and is therefore discussed and not listed.

18. Report A08 Part 2, rated high: excavation at the Ephesian cave established a late antique Christian necropolis, a church, numerous graves and large quantities of lamps associated with pilgrimage, which confirms an early cult site and not centuries of miraculous sleep. The report's open questions record that which cave inscriptions explicitly name the Seven Sleepers, and how securely they are dated, awaits the excavation publication; no inscription is claimed here.

19. Report A08 Part 2, rated high: Qur'an 18, *Sūrat al-Kahf*, narrates the Companions of the Cave (أصحاب الكهف, *Aṣḥāb al-Kahf*) but does not name Ephesus, and numerous places in Turkey, Jordan, Syria, North Africa and elsewhere claim the cave; the claim that the Qur'an identifies the Ephesian cave specifically is rejected at high confidence and appears here only in that form. Report A04 independently records the mirroring of the Ephesian story in the sura at high confidence.

20. Russian register item for this chapter, status verified: Семь отроков Эфесских. Report A07, at high confidence: the seven are commemorated on 4 August and 22 October, with the seven names given in the Russian Menaion. Report A02 gives the Russian form Семь спящих отроков эфесских and the Turkish Yedi Uyurlar; the register's form is the one printed.

21. Report A07, at its own high confidence: in Russian folk piety the Seven Sleepers are invoked against chronic insomnia and for restless infants, and both Old Believer and synodal prayer books carry a petition entitled "Молитва ко святым семи отрокам, иже во Ефесе, о младенце, не могущем уснути". Report A02 independently records the seven as patrons against insomnia at high confidence. Report A13 lists as unresolved the authenticated text of that prayer and its manuscript or printed provenance, which is why the body states the devotional use and prints no title or text.

22. Report A01, at moderate confidence on the sequence and high on the derivation: Hittite *Apaša*, Greek Ἔφεσος, Latin *Ephesus*, medieval Ἅγιος Θεολόγος (*Hágios Theológos*, "the Holy Theologian"), Italian *Altologo* or *Altoluogo*, Turkish Ayasuluk or Ayasluğ, modern Selçuk, citing the Turkish Historical Society's *Belleten* study of fourteenth to sixteenth-century Ayasuluğ and the Turkish religious-affairs encyclopedia's Ayasuluk entry. Report A12 carries Ayasuluk from Hagios Theologos at high confidence in its list of Turkish names that keep Greek ones. Report A04 gives the Italian commercial designation *Altoluoco* for the town at high confidence.

23. Report A01, at high confidence: Ayasuluk and the Italian forms derive from the title of St John and **not** from Italian *alto luogo*, "high place". The false derivation therefore appears here only as a debunked claim, which is what this book's rules permit.

24. Report A10b, verification sweep item 11, verdict **VERIFIED** at high confidence: in Gibb's volume II of *The Travels of Ibn Battuta*, at Ayasuluk (آیا سلوق, *Āyā Sulūq*) he calls the town large, ancient and venerated by the Greeks, reports a great stone-built church, and says the congregational mosque had formerly been a highly venerated Greek church. A10b notes that these are eyewitness literary claims and not demographic statistics. The Birgi episode from the same verification item belongs to chapter 8 and is not used here.

25. Report A04, at high confidence: the İsa Bey Mosque was built on the lower slopes of Ayasuluk Hill for the Aydınid emir İsa Bey by the Damascene architect Ali ibn Dimishqi, blending the Umayyad hypostyle courtyard plan with antique spolia taken from Ephesus and the Artemision. Research report 06, section 3.9, from Wikipedia, gives the architect's name more fully as Ali ibn Mushaymish al-Dimashqi, the Great Mosque of Damascus as the plan's reported inspiration, the two domes with tile-decorated

rims, the fountain courtyard, the adjoining octagonal Seljuk türbe, and the building's ruinous state by 1829, the fall of its minaret by 1842 and its later use as a caravanserai; report 06 rates all of this moderate and records that the architect's name and the Damascus link are a standard attribution it did not check against a specialist source. Report 06 adds that ancient columns and capitals in the mosque are described in guide sources and that the mosque gives a controlled comparison between ancient carved shafts and medieval stonework in one building, which is what the object list asks for. The building's dates are not printed in the body, in line with this book's rule on dates.

26. Report A10b, verification sweep item 14, verdict **VERIFIED** at high confidence: Selçuk Municipality calls the surviving structure the Bizans Su Kemerleri, "Byzantine Aqueducts"; it carried water from springs east of the Pranga locality between Belevi and Selçuk to the Byzantine settlement and pilgrimage complex on Ayasuluk Hill; the surviving piers incorporate reused marble from Ephesus and the Artemision with brick in the upper arches; a large reservoir or cistern has been excavated where the conduit approached the hill; and the İzmir Ministry page independently identifies it as Byzantine. A10b rules that later Aydınid and Ottoman maintenance is possible but does not make the visible system an Aydınid or Ottoman foundation, and that the book should call it "the Byzantine aqueduct of Ayasuluk, maintained and reused under later regimes"; report A04's description of it as Byzantine and Ottoman is overridden accordingly. The storks on the piers are in no report in this corpus, which is what the body says; research report 06 records a modern guide text's mention of storks nesting on the re-erected Artemision column, which belongs to chapter 15.

27. Report A10b, verification sweep item 13, verdict **UNSUPPORTED**: no primary text explicitly stating that Timur's army destroyed the basilica was found, the modern tourism pages

that make the claim do not identify a contemporary source mentioning the building, burning during the subsequent fighting involving the restored Aydınid princes and Cüneyd is another possibility with some reconstructions placing a major burning in 1404, and the building had already undergone conversion, reuse, deterioration and stone removal before its final ruination. A10b's prescribed formulation is that the basilica became ruinous amid fourteenth and early fifteenth-century warfare and that its specific destruction by Timur is later tradition rather than an established contemporary report, which is what the body states. A10b item 8 further corrects the related claim about Timur's movements, placing his principal winter base at Kütahya; the campaign through this region is retained and nothing is claimed about his stops. Research report 06, section 3.9, records the Wikipedia timeline's flat assertion that the basilica was destroyed after Timur's invasion, which is the claim the verification layer overrides.

28. Report A01 gives the modern name as Selçuk at the end of its sequence for this place (note 22). No source in this corpus records when or why the name was changed, and nothing is claimed about either here.

29. Report A14, Dossier 2, at high confidence: the standing *Meryem Ana Evi* is a heavily restored religious building rather than an intact first-century house, with its visible and excavated masonry normally assigned to the Byzantine period at moderate confidence; no inscription identifies the building as Mary's house; no first-century assemblage has established that Mary, John or another named Christian occupied it; and claims that the foundations are first-century are substantially weaker than the dating of the surviving structure and should not be presented as an archaeological consensus. Research report 06, section 3.8, independently treats the English Wikipedia assertion that the stones date to the Apostolic Age as unsupported and notes that

the Turkish article describes a small Byzantine church. The chain of discovery, from the visions attributed to Emmerick through Brentano's edited books to Gouyet and the Lazarists, is chapter 9's material and is referred to here in a clause rather than retold.

30. Report A14, at high confidence: Paul VI visited the shrine in 1967, John Paul II celebrated there in 1979 and Benedict XVI visited and celebrated Mass at Ephesus in 2006; these visits recognise the site as a legitimate Marian place of prayer and pilgrimage, but none constitutes a formal historical declaration that Mary lived or died in the building; the Holy See has made no dogmatic or archaeological authentication of the house; and "papal recognition" should be limited to recognition of the shrine and its devotional use. A14 adds at high confidence that the older Jerusalem tradition concerning Mary's Dormition remains important and that Catholic doctrine does not require a decision between Jerusalem and Ephesus. The dates of the three visits are given in the note and not in the body, under this book's rule on dates.

31. Research report 06, section 3.8, at high confidence for this description of the site's role: its historical value is as a place of local Christian veneration and then as a modern, ecumenical and interfaith pilgrimage place where Muslim visitors also come, which is also the framing UNESCO chose in describing the site in terms of pilgrimage rather than historicity. The same section rates low that the structure is a first-century dwelling. Meryem Ana is not among the places this chapter's object list may name and therefore appears as a subject only. No visitor figure is given because none in this corpus is verified.

Chapter 18: The Receipts

1. Research report 09 (09-site-caria-aphrodisias-labraunda-euromos.md), section 3.2, at high confidence: the archive wall is a section of the north parodos wall of the theatre, of white marble

blocks carrying documents from the end of the Republic to the mid-third century AD; the senatus consultum survives over five courses, extended by loose blocks to about 3.40 m in eight courses, with paragraph spacing, variable line lengths and wider spacing for the triumvirs' names. The documents are published in Joyce Reynolds, *Aphrodisias and Rome* (Journal of Roman Studies monograph 1, 1982), and the texts are online in *Inscriptions of Aphrodisias*. Report A03, section 2.8, independently identifies the wall as the primary record for the city's defining event and rates it high.

2. Report A03, section 2.8, citing Angelos Chaniotis, "Memory, Commemoration and Identity in an Ancient City: The Case of Aphrodisias", *Daedalus* 145.2 (2016), at high confidence: the dossier was inscribed more than two hundred and fifty years after one of its letters was composed, which turns administrative documents into historical commemoration. Research report 09, section 2.3, gives the re-confirmation mechanism: the privileges turned the city into a protected community with a line to the emperors, and each new emperor was asked to confirm them, which is what the re-inscription is for. Report 09, section 3.2, records that it could find no source explaining why the display was made at the moment it was made; that question is left alone here rather than answered.

3. Report A03, section 2.8, at high confidence for the sequence and high for the privileges: the city resisted Quintus Labienus and his Parthian forces in 41/40 BC, and the senate rewarded it in 39 BC with freedom, tax exemption and asylum. Report A03 rates moderate, via Cassius Dio 48.26, that Labienus sacked nearby Alabanda, and states at high confidence that no narrative historian describes the attack on Aphrodisias itself. The contents of the decree are from research report 09, section 2.3, following *Inscriptions of Aphrodisias*: the combined community of Plarasa and Aphrodisias enrolled among Rome's allies, freed from levies

and from billeting and requisition, allowed its own laws, granted an asylum for Aphrodite's sanctuary with rights equal to the Artemis temple at Ephesus, and given ambassadorial access to the senate with a reply within ten days. The privilege date was given as 37 BC in one source and is settled at 39 BC for the decree and 39/38 BC for Octavian's letter; the earlier figure is not used.

4. Research report 09, section 2.3, following the Oxford excavation project and the UNESCO nomination dossier: Gaius Julius Zoilos, freedman of Octavian, came about 39 BC to administer the city and led the first marble projects, namely the theatre's marble stage building, the north stoa of the agora and the first marble temple of Aphrodite. *Cityscapes and Monuments of Western Asia Minor* (Mortensen and Poulsen, eds.), Mortensen's chapter on heroes in the Aphrodisian cityscape, citing Smith, *The Monument of C. Julius Zoilos* (1993) and Reynolds 1982, for the honorary titles *soter* and *euergetes*, the honorific statue bases set up by council and people, and the relief slabs from his monumental tomb found near the north-eastern city gate. Research report 09, section 4.4, for the stage building as the earliest known three-storey aedicular façade. Report A03 rates the wording of Octavian's line about Zoilos moderate, notes that it is quoted from a popular web source and that the Greek original should be checked in Reynolds 1982; the body therefore flags the translation rather than dropping a good line.

5. Research report 09, section 3.2: Aphrodisias defended its asylum before the senate in AD 22, and Tacitus, *Annals* 3.62 to 3.63, records the claims of Aphrodisias and of neighbouring Stratonicea, the latter asserting shrines of Zeus and Hecate. Report 09 cites Tacitus from memory and rates the section numbers moderate, which is why no passage is quoted here. The reading of the wall as a position in a quarrel between Carian cities is report 09's.

6. Garrett Ryan, *Greek Cities and Roman Governors: Placing Power in Imperial Asia Minor* (2022), chapter 5, quoting the proconsul's reply to the Aphrodisian festival invitation (Reynolds, *Aphrodisias and Rome* 48) in full, and noting that the reservations reflect the proconsul's awareness of a custom constraining Roman officials from entering the free city. The emperor's name in the original is Alexander Severus and is omitted here under this book's rule against date and regnal clutter. The suggestion that the city may have been soliciting a letter of refusal that would confirm its autonomy is Ryan's, offered alongside two other possibilities; it is used because it is the only one of the three that accounts for a city "always jealous of its privileges" inviting the governor at all.

7. Ryan, *Greek Cities and Roman Governors*, figure 5.3 and chapter 5 notes: the seat of honour in the theatre of Aphrodisias was probably built for the governor of the newly created province of Caria in the mid-third century, and parallel evidence places such seats toward the middle of the lowest row. Research report 09, sections 2.5 and 2.8, for the city as capital of the new province of Caria. The irony is this book's observation and not a finding in either source.

8. Research report 09, section 3.7, following the UNESCO dossier: the stadium is first-century, about 270 m long, with thirty tiers of marble seats for about 30,000 people, one of the few amphitheatral stadia with two curved ends and bowed sides, carrying awning cuttings, masons' marks and reserved-seat inscriptions including women's names; the late antique wall enveloped three sides and the east end was converted into a small oval amphitheatre. Report 09 records a conflicting row count of twenty-two from an image-collection record and rates the row figure low; thirty is printed because it is the dossier's, and the capacity is given as an order of magnitude for the same reason. Ryan, chapter 5, citing Welch, "The Stadium at Aphrodisias", *AJA* 102 (1998), for the wedges, rows and sections

marked for delegations from neighbouring cities, arranged by geographical proximity and historical friendship, and for the six statues of neighbouring cities set up nearby.

9. Research report 02 (02-frame-ionia-lydia-persia.md), section 3.3: Herodotus 1.171 has the Carians as islanders under Minos who moved to the mainland, while the Carians themselves claimed to be autochthonous and related to the Mysians and Lydians; the Carian language is attested in inscriptions of the seventh to third centuries BC in Carian script and its Anatolian affiliation is secure at high confidence; Herodotus 1.142 classes Miletus, Myus and Priene as Carian ground. The conclusion that the linguistic evidence favours the Carians' own account over Herodotus' preferred story is this book's, and rests on the Anatolian affiliation being the securest item in the set.

10. Report A10a, verification sweep item 20, verdict **VERIFIED** at high confidence: Herodotus 1.171 says the Carians "were the first to fasten crests on helmets and to put devices on shields, and they also invented handles for shields", and adds that earlier shields were managed by a leather strap slung around the neck and left shoulder. A10a rules that the correct formulation is that Herodotus credited the Carians with these three things rather than that the Carians unquestionably invented them, which is the formulation used here, and rates moderate the possibility that "crest" means a crest-holder or fastening method rather than the first plume. A10a also states at high confidence that archaeology cannot presently demonstrate exclusive Carian origin for all three. The argument about what a grip does to a shield in a battle line is this book's and is not in any source.

11. Research report 02, section 2.2: Greek and Carian soldiers under Psammetichus II left the Abu Simbel graffito, rated high that it exists and moderate for its date, and Herodotus 2.152 to 2.154 has Ionian and Carian soldiers in the Delta at moderate to high.

This is approved outward link L8. No date is printed because the assignment and report 02 give different ones and nothing is gained by either. The Greek side of the Abu Simbel material, and the finding that the men identified themselves by city rather than nation, belong to chapter 12 and are deliberately not retold.

12. Research report 02, section 3.6, citing Herodotus 1.146: the Ionian settlers brought no women and took Carian wives after killing their menfolk, whence a custom among Milesian women of not eating with their husbands. Report 02 rates this high as a thing Herodotus says and low as a record of an event, which is the way it is used here. The observation that it is not a story Greeks would have invented to flatter themselves is this book's.

13. Research report 09, section 3.3, following the UNESCO dossier and the Warsaw survey team: the City Quarries lie on ridges north-east of the plain at just over 600 m to no more than 800 m, mostly 650 to 750 m, half an hour's walk from the theatre, with the city at about 520 m; seventy-eight quarries had been identified and mapped by 1996. The same section records the dossier's statement that no roughed-out items were left lying about in the City Quarries because faulty or unneeded blocks could be recut into wall blocks and carried to the city.

14. Research report 09, sections 2.4 and 3.4. The dossier records the older export story and then undercuts it: no significant export of raw stone, and little of the stone taken from the City Quarries travelled more than 2 km. The Warsaw team (Wielgosz-Rondolino and colleagues) calculate under 230,000 m3 in all, too little even for the roughly 125,000 m3 the city's walls and main buildings required, and in 2024 reported that no method, alone or combined, reliably separates Aphrodisian marble from Parian Lakkoi or Proconnesian, or the individual Aphrodisian quarries from each other. Report 09 reconciles this with the opposing isotopic case of Attanasio, Bruno, Prochaska and Yavuz by noting

that the two concern different quarries: the Göktepe quarries, about 40 km south-west and outside the inscribed property, do yield an identifiable marble that reached Rome. Göktepe is left out of the body because the chapter's claim is about the quarries above the city, and the export of Göktepe stone does not bear on it. Report 09's formulation that signatures prove sculptors travelled but not that marble did is adopted verbatim in substance.

15. Research report 09, section 3.4: the Warsaw paper counts nearly forty signatures of Aphrodisian sculptors in Italy, Greece, Crete and Asia Minor, citing Erim and Roueché (1982) and Pensabene (2002); the Ministry leaflet gives more than thirty sculptors using the title *Aphrodisieus* and records carvers on the Severan forum at Leptis Magna; the centaurs of Aristeas and Papias of Aphrodisias were found at Hadrian's Villa in 1746 and are in the Capitoline Museums. The marble of the centaurs is disputed, the Capitoline calling it *bigio morato* from Cape Tainaron in Laconia and a search summary proposing Göktepe, with no isotopic study to settle it; no provenance is stated here for that reason.

16. Research report 09, section 4.3, following the UNESCO dossier, van Voorhis and the Art of Making project: the Sculptor's Workshop, excavated 1967 to 1969 behind the Bouleuterion, occupied two rooms of a modified stoa with a yard, and produced a set of stone-carving tools, about twenty-five well-preserved statues, 325 fragments and several apprentice practice pieces; it was active from about AD 200 to about 400 or the early fifth century.

17. Research report 09, section 4.3, following the Art of Making project's tool-mark essays: the point chisel removes about 85 per cent of the stone in a carving; on the unfinished togate male the back of the head is roughed out and rough stone was left down the neck, probably as a deliberate buttress while the head was

finished; the Poseidon or Perseus has a base worked with point, flat and tooth chisels at angles that "do not seem to make much sense", read as a test piece that sat in the workshop for some time; and the project suggests the togate male's commission may have been abandoned through the commissioner's indecision or non-payment. Van Voorhis's countervailing point, that the bulk of the workshop's output was completed and set up and that the unfinished pieces served training or refurbishment rather than failure, is why the body attributes only this one piece to a client and does not generalise.

18. Report A12, lexicon entry, rated moderate: Chariton of Aphrodisias (Χαρίτων), whose *Callirhoe* (Καλλιρόη) opens with the author naming himself and his city, with papyri placing the work no later than the mid-second century AD and many scholars putting it in the first; A12 prescribes the wording "probably the oldest complete novel to survive", which is the wording used. A12 lists the current consensus range for Chariton's date as an open question, so no date is printed. That he describes himself as clerk to a lawyer is part of the work's opening self-identification as A12 reports it.

19. Report A12, lexicon entry, rated high: Alexander of Aphrodisias (Ἀλέξανδρος ὁ Ἀφροδισιεύς) taught at Athens around AD 200, was the most authoritative ancient commentator on Aristotle and was called "the Commentator" before Averroes took the title. Research report 09, section 2.4, independently places him at Aphrodisias around AD 200 via the UNESCO text. The Andalusian is Averroes and is not named, this book's outward comparisons being limited to its approved links.

20. Research report 09, section 3.5, following the Oxford project and Smith: the Sebasteion was a cult complex dedicated to Aphrodite, the Divine Augusti and the People, built over about forty years from Tiberius to Nero, consisting of a propylon at the west, a

processional way between two parallel three-storey porticoes and a temple at the east end; two local families paid, Attalos and Diogenes with Attalis Apphion for the south building and temple, Eusebes, Menandros and Apphias for the north building and propylon. Report 09 records that the dimensions differ across sources (porticoes 80 m by 14 m in the dossier, a corridor of 90 by 14 m on the Oxford page) because they measure different things, and rates the figures moderate; the corridor figure is used because the body is describing the avenue a person walks down. *Cityscapes and Monuments*, Töpfer's chapter, independently records the two building phases, the earthquake between them and the dedication to Aphrodite Prometor, the Roman emperors and the Demos.

21. Research report 09, section 3.5: the upper two storeys of both porticoes carried relief panels along their full length, about two hundred in all, of which more than eighty were recovered; they show emperors in scenes of power and divinity, mythological scenes, and personified peoples conquered or incorporated by Rome. R. R. R. Smith published the imperial reliefs in 1987 and the full corpus as *Aphrodisias* VI in 2013. The phrase about saturation bombing is quoted in *Cityscapes and Monuments* as an existing scholarly description of the Sebasteion's iconographic density, and is used here as such.

22. *Cityscapes and Monuments*, Töpfer's chapter, figure 8.2: Sebasteion relief C10, Claudius defeats Britannia, with the third-storey programme juxtaposing Julio-Claudian emperors with Olympian gods and personifications and taking military victory as its main theme. The same chapter argues that the reliefs express a specifically provincial and Asian point of view. The reading of the panel's geography, and the point that the city had just bought exemption from the only conquest that applied to it, are this book's.

23. *Cityscapes and Monuments*, Mortensen's chapter: Aineas was the figure connecting Aphrodite to the emperors, as son of the goddess who gave the city its name, ancestor of Rome's founder and claimed ancestor of the Julio-Claudians; three groups of three reliefs near the temple narrate his story, from Aphrodite and Anchises through the flight with Anchises and Julus to the sacrifices; a statue of him stood in the propylon among members of the imperial family, known from its inscribed base, and only his base and Aphrodite's had mouldings on all four sides. The same chapter records that one patron, Attalis Apphion, was high priestess of the imperial cult and jointly with her husband Attalos priestess of Aphrodite, and that the Pan-Hellenic myths rooted the city in a Hellenic past "that the city had little claim to", not having been founded by colonising Greeks or a Hellenistic king.

24. *Cityscapes and Monuments*, Mortensen's and Schörner's chapters: Ninos, legendary founder of the Assyrian empire and husband of Semiramis, appears with her on relief panels of the Civil Basilica pouring libations at an altar with an eagle and a bare three-branched tree, and the altar-and-tree ensemble also appears on the city's coins, which is read as proof that a real cult monument in the city is depicted; Stephanos of Byzantium records that Aphrodisias once bore the name Ninoe after him; and a statue base of the Flavian period titles Bellerophon ΚΤΙΣΤΗΝ, founder, with Bellerophon and Pegasos also appearing in the Sebasteion and, beside Apollo at Delphi, in the Civil Basilica. Mortensen's reading is that Bellerophon was not yet regarded as founder when the Sebasteion was built and acquired the status later, and that the city therefore had two founding narratives by the late first century AD; the body treats the retention of all three as a single habit, which is this book's compression of her argument.

25. Research report 09, section 3.1, following the Oxford project, the UNESCO text and the Ministry leaflet: the best preserved copy of the cult statue, found in the Bouleuterion, stands rigidly and

frontally with a tall headdress and veil, a thin dress under a thick hard outer garment the project calls cladding, divided into zones showing the Three Graces, the Moon and the Sun, Aphrodite on a sea goat with Tritons, and three winged Erotes at a sacrifice; the project reads the design as the moment an earlier local goddess was identified with the Greek Aphrodite, and its wording points to a deliberate archaising design rather than a survival. The same section records marble figurines of local stone in the Chalcolithic and Early Bronze Age levels of the Pekmez and Theatre-hill mounds, that no source claims cult continuity from those levels, and that the gap is some two thousand years with only a village in between. The standing alternative is the Neolithic Mother Goddess thesis associated with Marija Gimbutas, which would run a line from the figurines to the cult image; it is not adopted because report 09 found no author making the argument for this site, because the gap is undisputed, and because Lynn Meskell's 1995 critique in *Antiquity* is the standard objection to reading figurines without context.

26. Research report 09, section 2.4, following the UNESCO dossier: the cult statue type was exported across the Mediterranean, from Rome to the Levant. The comparison with other sanctuary economies on this coast is this book's; the Ephesian case is chapter 16's and is not re-argued here.

27. Report A06, section 3.6.2, at high confidence on content and location, following Aitor Blanco Pérez, "The Jews, Proselytes and God-fearers of Aphrodisias", *Judaism and Rome* (2018), read in full, with SEG 36.970, IJO II 14 and I.Aphr.2007 11.55: a marble pillar block 2.80 m high and 42 to 45 cm wide, inscribed on two faces by two different hands, found during preparations for the construction of the site museum in Kenan Erim's excavations of 1976 and now standing at the museum entrance. The text opens with an invocation of God as helper (βοηθός), mentions a πάτελλα, probably a charitable food distribution analogous to the

rabbinic תַּמְחוּי, and a δεκανία of "lovers of learning" (φιλομαθεῖς); the head (προστάτης) is Jael and his son Joshua is archon; three proselytes are named, Samuel, Ioses and Joseph; after a gap the text continues καὶ ὅσοι θεοσεβεῖς, "and as many as are God-fearers"; and the first nine God-fearers are βουλευταί, members of the city council. Tannenbaum's count is fifty-four God-fearers and *Studia Theologica* gives "more than fifty"; the vaguer figure is printed because the two sources disagree. That it is the longest Jewish inscription known from the ancient world is Tannenbaum's claim of 1986 and is rated moderate by A06; it is stated because nothing in the corpus contradicts it. A06 also records at high confidence that the stone never uses Ἰουδαῖος and carries no menorah, so that its Jewishness rests on names and terms.

28. Paul R. Trebilco, *Jewish Communities in Asia Minor* (1991), chapters on the God-worshippers and on the Jews and the cities: the trade designations of five θεοσεβεῖς include an εἰκονο- compound, a sculptor or painter of pictures with images, a stonecutter, an athlete, a boxer and a seller and producer of mincemeat, and Trebilco's reading is that none of the Jews on the stone followed occupations that would raise the problem of ever-present pagan cult, which suggests the Jews of Aphrodisias were discriminating in their trades and did not require the same of the God-worshippers. Report A06, section 3.6.2, independently gives confectioners (παστιλλάριος) and bronze-smiths among the Jewish occupations. Trebilco also argues that the θεοσεβεῖς were ranked below the Jews on the stone, which is why the body speaks of a running order. Trebilco dates the inscription to the early third century, following the first editors; that dating is superseded, see note 29, but his occupational analysis does not depend on it.

29. Report A06, section 3.6.2, assessment: Joyce Reynolds and Robert Tannenbaum, *Jews and God-Fearers at Aphrodisias* (1987), argued

for the early third century, partly because no name on the stone shows "Aurelius"; Helga Botermann (*ZPE* 98, 1993) first questioned that, Marianne Palmer Bonz (*HSCP* 96, 1994) re-examined it, and Angelos Chaniotis (*Scripta Classica Israelica* 21, 2002) treats the two faces as independent inscriptions of the fourth to fifth centuries on the evidence of indeclinable biblical names, professional titles and the bouleutai; Blanco Pérez shows the "no Aurelius" argument fails because no Roman praenomina appear at all, and the *Judaism and Rome* entry dates the stone AD 300 to 500. A06 assesses the late antique date as better supported and notes that popular pages still say third century. The late date is used here; it is also the reading that makes the fact interesting, and the body says so rather than weighing the two. A06, section 4.6, for the point that the old view of A. T. Kraabel, that God-fearers were largely a literary invention of Luke, was decisively weakened by the 1987 publication, and that a late antique date shows the category clearly for late antiquity rather than for Paul's time, which is the claim the body makes. The conversion of the temple is at note 30.

30. Research report 09, sections 2.5 and 3.8: the Temple of Aphrodite became a church around AD 500 or in the middle to later fifth century, a conversion the UNESCO dossier calls unique in scale and engineering, in which the cella walls came down and the short-side columns were moved to the long sides to make a three-aisled basilica with narthex and apse, of which fourteen columns and the apse remain. The dossier names it the church of St Michael. The two datings differ and neither is printed.

31. Research report 09, sections 2.5 and 3.2, following the UNESCO dossier: the name of Aphrodite was cut out of the archive wall in the Christian period, and report 09 lists the erasure among the things a visitor walks past. The characterisation of the act as redaction is this book's.

32. Report A10a, item 5, verdict **CORRECTED**: Pliny, *Natural History* 5.109, is rated high for saying the city was successively called Lelegonpolis, Megalopolis and Ninoe before Aphrodisias, and Stephanus of Byzantium is rated moderate for preserving Νινόη as a Carian city identified with Aphrodisias, with A10a noting that these are literary notices written long after the phases they describe. A10a rates low the proposal that an indigenous Nineuda or Nineudon underlies Ninoe, since no securely published inscription containing that form was located, and that form is therefore not used. Report A01 gives the full sequence through Σταυρούπολις, “City of the Cross”, and medieval Geyre at moderate confidence; research report 09, section 3.8, records the two spellings Stauropolis and Stavropolis, dates the renaming before 640 in one source and after the early seventh-century earthquake in another, and found no source discussing the variant Tauropolis. No date is printed for the renaming. Report 09, section 2.5, for the village of Geyre founded over the ancient city and moved to its present site after the landslides and earthquake of 1957.

33. Research report 09, section 4.5: the UNESCO dossier records major earthquakes between AD 350 and 360 and an early seventh-century earthquake whose damage could only be partly restored; Andrew Wilson’s “Earthquakes at Aphrodisias” (2019) criticises earlier attributions of major destruction to earthquakes, accepts quakes in the mid-fourth century and the early seventh, finds significant damage about AD 500 followed by extensive rebuilding, and concludes that fire and violence probably caused the early seventh-century destruction levels; the 2024 chapter by Wilson, Kidd, Russell, Tek and Köker, “A violent end: earthquake, fire, and sword”, treats the end of one excavated complex as seismic activity, fire and armed conflict together. Report 09 read only summaries of both and rates the sequence moderate. Section 4.4, following the dossier, for the city wall of about AD 350, dated

by its gate inscriptions, with nine gates and twenty-two towers, surviving to nearly 10 m in places, faced with large ashlar blocks taken from earlier monuments and many from tomb buildings, laid in a deliberately old-looking pseudo-isodomic style.

34. Research report 09, sections 3.6 and 4.4: the Tetrapylon is the monumental gateway at the entrance to the sanctuary of Aphrodite, with sixteen Corinthian columns, four to a façade, with plain, fluted and spirally fluted shafts in local white and blue-toned marble, Antonine in date, carrying Erotes in acanthus scrolls and hunting scenes on the west pediment, and set off the axis of the temple entrance because the two belong to different phases. The dossier records that about AD 400 it was taken down, restored and put back up, calling this a major feat of engineering, and that because more than 85 per cent of the original blocks survived a full modern anastylosis was possible; the Oxford project dates the modern work 1983 to 1990 and aphrodisias.org says it was completed in 1991. Report 09 rates the late antique re-erection moderate and its cause low, the dossier not stating a cause, so no cause is given here.

Chapter 19: Lukewarm

1. Research report 08 (08-site-hierapolis-laodicea.md), section 2.2: Antiochus II refounded an older settlement as Laodicea after his wife Laodice, and Pliny, *Natural History* 5.105, gives the earlier names Diospolis and Rhoas. Report 08 rates the foundation high and the exact years moderate; no years are printed here. Rhoas is left unglossed because none of the sources consulted offers a derivation.

2. Strabo 12.8.16, as reported in research report 08, sections 2.4 and 3.9, at high confidence: the city was small and grew large, it was made great by the fertility of its land and by rich citizens, Hieron left the people more than two thousand talents, Zeno the rhetorician and his son Polemon followed, and Polemon was

judged worthy of a kingdom by Antony and then by Augustus; the local sheep gave wool softer than Milesian and raven-black and the city drew splendid revenue from it, as the Colossians did from the colour called *colossinus*. Report 08 rates the fact of Polemon's kingship high and the biography moderate, so only the judgement of worth and the grant are stated.

3. Research report 08, section 3.9, following the Turkish ministry's site description: a hippodamian grid over roughly five kilometres, two theatres, four baths, five agoras, five nymphaea, two main gates, a bouleuterion, temples, a gymnasium, churches, a monumental street, necropoleis on all four sides, and the largest stadium in Anatolia. Report 08 rates the ministry text moderate as an official summary. The superlative is used once and attributed to the body that publishes it, because no comparative survey of Anatolian stadia was found in the corpus to support it as a flat statement.

4. Tacitus, *Annals* 14.27, in the Church and Brodribb translation as quoted in report A03, section 2.9, at high confidence; the Latin, which A03 checked against the Oxford text on Perseus, is *Eodem anno ex inlustribus Asiae urbibus Laodicea tremore terrae prolapsa nullo a nobis remedio propriis opibus revaluit*. The year is Tacitus's and is not printed, many secondary sites giving it a year later. Research report 08, section 3.11, rates at high confidence that the popular formulation "declined imperial assistance" goes beyond the text, which is why the body says only that nothing was sent. Report 08 also notes Strabo 12.8.18, at moderate confidence, that the emperor's father had restored the Laodiceans after an earlier earthquake, so this episode is either a change of practice or a change in Tacitus's wording of an old one; neither reading is needed for the point made here.

5. Tacitus, *Annals* 2.47, via research report 08, section 3.11, and report A03: twelve named cities, Sardis given ten million

sesterces and five years' remission of tribute. A03 notes that neither Laodicea nor Hierapolis appears in the list for that earlier earthquake, so claims that it destroyed either city are unsupported and are not made.

6. Research report 08, sections 3.11 and 3.12, following Guizzi and the excavators: the epigram of the freedman Hedychrous, who says he built and named a monument for his masters; an inscription recording a reservoir made from the dedicator's own resources; and the Ephesus Gate, the best preserved of four gates of the Domitianic period at Laodicea. Report 08 states that it knows of no inscription dating a specific rebuilding to the years immediately after the earthquake, and rates the Flavian rebuilding programme a moderate inference; the body therefore claims a habit of private funding and not a documented reconstruction.

7. Appian, *Mithridatic Wars* 20, in the White translation as quoted in report A03, section 2.9, at high confidence: Mithridates promised the Laodiceans no injury if they delivered Oppius, and they led him out "with his lictors marching in front of him by way of ridicule". Strabo 12.8.16 is the source for the siege itself.

8. Revelation 1:4, named as this chapter's concept in the assignment. Report A12 lists the letters to the seven churches at high confidence and notes that the province is what the text means by Asia. The observation about the word's later career is this book's.

9. Revelation 3:14 to 18, summarised from research report 08, section 3.10: the faithful and true witness; the church says it is rich and has need of nothing; it is counselled to buy gold refined by fire, white garments and eye salve.

10. Research report 08, sections 3.9 and 3.10, citing Strabo 12.8.20 for the city's physicians in the Herophilean line. Report 08 rates

the commentators' mapping of the three purchases onto banking, black wool and medicine as interpretive, at low to moderate; the body states the correspondence and not a conclusion about the author's intention.

11. Revelation 3:15 to 16, King James version; the Greek *chliaros* is given in report A12's entry on the seven letters, which rates the idiom high.

12. Research report 08, section 3.10: the water reading was proposed by Rudwick and Green in the *Expository Times* for 1957 to 1958, made standard by Hemer's commentary of 1986, and is repeated in many commentaries and sermons; Ramsay had noticed the aqueduct earlier without connecting it to the verse. Report A12 lists the reading as doubtful at moderate to low confidence.

13. Research report 08, section 3.10, following Mark Wilson's 2023 survey of the excavation data as published by Şimşek and Büyükkolancı: the Başpınar springs under Babadağ collected in a reservoir, 7.82 km to the south distribution terminal, a second source added in the Roman period, two thick terracotta pipes on each line joining three kilometres south of the city, an open channel across a ravine into a depressurisation and resting pool, a double line of bored travertine blocks of 0.75 to 0.90 m each descending and rising as an inverted siphon about 800 m long, and Terminal 1 about 7 m tall supplying the stadium baths and nymphaeum, with Terminal 2 further north. Rated high as excavators' data.

14. Research report 08, sections 3.10 and 4.7: calcareous deposit inside the siphon pipes and the terminal pipes, with calcified pipes replaced or bypassed, rated high; and Bellew, a nineteenth-century traveller, describing the stone pipes as "choked with incrustations of calcareous matter" and the water as strongly impregnated with lime. Bellew is used here as a period observation of a condition the excavation has since confirmed,

which is the only use this book makes of nineteenth-century travellers.

15. Research report 08, sections 3.10 and 4.7: Wilson's conclusions, that the city had its own cold springs, did not depend on Hierapolis water, and that any long aqueduct route moves water toward ambient temperature, with the calcite showing only hardness, as at Ephesus, Perge and Hierapolis; and Passchier and Sürmelihindi, that carbonate-rich sources may have been preferred because minor deposition heals cracks and protects the lining. Report 08 rates the archaeological case against the water reading moderate to high and that is the reading printed. Wilson's 2025 alternative, that the metaphor refers to the warm room of a bath, is rated low to moderate as an interpretive hypothesis and is not printed, since replacing one unprovable reading with another gains nothing; Koester had earlier called the water reading untenable on other grounds.

16. Research report 08, sections 2.2 and 3.10: the proconsular edict on the aqueduct, found in 2015 and built into the restored South Nymphaeum on Stadium Street, protecting the line from illegal tapping and fixing penalties, with a popular summary giving fines of 5,000 to 12,500 denarii; Wilson, citing Guizzi, notes the provision about heating the pipes against freezing, and the text describes the springs as held by royal grant and from the most high antiquity. The proconsul is not named here because report 08 records a discrepancy between the 2019 and 2022 publications over his identity.

17. Cicero, *Pro Flacco* 67 to 69, via report A06, sections 2 and 3.3, at high confidence, and Trebilco, *Jewish Communities in Asia Minor*, chapter 1: Flaccus issued an edict forbidding the export of gold from his province and confiscated the gold collected by the Jews of Asia for the Jerusalem Temple, with a little less than a hundred pounds from Apamea, a little more than twenty pounds from

Laodicea, an unknown amount from Adramyttium and a small amount from Pergamon. A06 notes at high confidence that the hundred-pound figure widely quoted for Adramyttium is an editor's supplement, not a manuscript reading, so no figure is given for it. Report A03 corrects to high confidence the frequently printed "twenty talents" for Laodicea: Cicero's text says pounds. This is approved outward link L11.

18. Report A06, section 3.3: the conversion of the seized gold into half-shekel payments gives nearly 45,000 at Apamea and over 9,000 at Laodicea, and Bruce, reporting the calculation, warns that this does not mean that 45,000 and 9,000 male Jews were resident in those cities, because they were collecting centres for their districts. A06 rates Bruce's warning high and any resulting population figure low to moderate. Twenty Roman pounds at about 327 g is roughly 6.5 kg; A06 notes that a web source's "9 kg of gold" for Laodicea is therefore somewhat high.

19. Trebilco, chapter 1, reporting Cicero and A. J. Marshall, "Flaccus and the Jews of Asia (Cicero *Pro Flacco* 28.67 to 69)", *Phoenix* 29 (1975): the central features Cicero says were agreed by the prosecution, that Flaccus banned the export of gold and then confiscated the collected gold, that it was entered in his accounts and deposited with the *aerarium*, and that Cicero claims these facts reflect credit on his client; Marshall's finding that the motive was enforcement of a repeatedly re-enacted senatorial ban in a province that could not afford the drain, and not anti-Jewish sentiment. Marshall's reading is used because it is the only one in the corpus that accounts for both the edict and the deposit. Report A06, section 3.3, records that the Laodicean figure was given to the court by Lucius Peducaeus, one of the jurors at the trial.

20. Josephus, *Jewish Antiquities* 14.241 to 243, via report A06, section 3.4, at high confidence on content: the magistrates of Laodicea

write to the proconsul acknowledging his letter that the Jews may observe their Sabbaths and perform their other rites in accordance with their native laws, record that the people of Tralles objected in his presence and that he ordered the decrees carried out, and state that they deposited the letter among their public archives. A06 notes that the proconsul's name is uncertain in the manuscripts, which is why it is not printed.

21. Report A10b, verification sweep item 27, verdict **VERIFIED** at high confidence: Celal Şimşek published the object as "A Menorah with a Cross Carved on a Column of Nymphaeum A at Laodicea ad Lycum", *Journal of Roman Archaeology* 19 (2006); the fragment was found out of original context as fill in Nymphaeum A, and the reconstructed column has been re-erected in the North Agora rather than moved to a museum. Report A06, section 3.6.4, describes the carving: a seven-branched menorah with flames, a lulav to the left, a shofar to the right, and a cross above. A10b names the street beside the fountain as Syrian Street; that is the excavation's modern designation and no ancient attestation of the name was found anywhere in this corpus, so the body calls it only the long colonnaded street.

22. Report A06, section 4.5: a regional council met at Laodicea and issued canons against Christian judaising, including the canon forbidding Christians to rest on the Sabbath and others forbidding them to receive festal gifts from Jews or to share in Jewish festivals (moderate; A06 did not re-read the canons). Trebilco, chapter 4, section 6, independently reports the canons, including the direction that the Gospels be read on the Sabbath, and gives the council's own description of itself as gathered from various provinces of Asia at Laodicea, so its evidence reflects Phrygia rather than the whole church. The inference that the canons prove close contact as well as hostility is standard and is rated moderate by both.

23. Report A06, sections 2 and 3.6.4: Steven Fine, “The Menorah and the Cross”, reads the overcutting as appropriation and Christianisation rather than coexistence, and links it to the social distancing expressed by the Council of Laodicea; Mark Fairchild reads the cross extending from the menorah as suggesting that the Laodicean church grew out of the synagogue. A06’s assessment is that Fine’s reading is the more cautious and the better match to the canons, and that is the reading the body prints. Both agree the cross was added later. Fine also calls the column the only archaeological evidence for the city’s Jewish community. The Antiochus III settlement of Jewish families from Babylonia into Lydia and Phrygia is Josephus, *Antiquities* 12.147 to 153, via research report 08, section 2.2, at moderate confidence; no source places those families specifically at Laodicea, and the body does not.

24. The English adjective and Thomas Hardy’s novel *A Laodicean* are named in the assignment’s load-bearing list for this chapter. No verification report in the corpus takes up either, and research is closed, so they are stated as the common dictionary sense and a title and nothing is built on them.

25. Report A12, section 5, lists ни холоден, ни горяч and the Church Slavonic теплохладный among candidates not verified in that session, with the instruction not to print them until checked. They are printed here under the standing rule that an unverified but sourced item stays in if the text marks it, and the body marks the dictionary attestation as unconfirmed. Both derive from Revelation 3:15 to 16.

26. Research report 08, sections 2.7 and 3.7, following the Laodikeia excavators’ own work programme at moderate to high confidence: an earthquake brought down the west theatre’s stage building, which was rebuilt with imperial help under Valens, and a decision to wall the city cut the stage building from 21 m to 11

m and made it part of the fortification. Section 3.7 and section 4.8 record five major repairs and changes of use of that stage building, with a podium of reused blocks in lime-mortar rubble packed with discarded sculpture. Years are omitted throughout under this book's rule against date clutter.

27. Research report 08, sections 2.7 and 3.7: the ministry puts the destruction of Laodikeia in the reign of Phocas and the abandonment of the site for Denizli and Hisarköy, at moderate confidence, and a uranium-thorium study of the Pamukkale channels refers to a seventh-century "Laodikeia earthquake". Report A03, section 4, ranks earthquake and contraction above trade among the causes of abandonment on this route, at moderate confidence. Research report 08, section 5, item 27, for the early church at the site under its protective roof, attributed by the ministry and the excavators to the Constantinian period.

Chapter 20: The Gate of Hell

1. Strabo 13.4.14, as reported in research report 08 (08-site-hierapolis-laodicea.md), section 3.3, at high confidence: an opening large enough for a man to enter, enclosed by a quadrilateral railing, filled with a dense misty vapour so thick that the ground can barely be seen; bulls led in that fall and are dragged out dead; the sparrows Strabo threw in, which died at once; and the Galli, the eunuch priests of Cybele, who could approach and descend while holding their breath. Pliny, *Natural History* 2.208, says that no one can enter safely except the priest of the Great Mother, and Cassius Dio, who visited, says he tested it with birds and leaned over it himself (report 08, section 3.3, moderate, the Dio quotation reaching the report through a preprint). Strabo is used as the spine because it is the only first-hand account at high confidence in the corpus.

2. Research report 08, sections 3.1 and 2.3: the city stands on a calcareous platform about 350 m above sea level around a pre-

existing cult place with a gas-emitting cave, and was consolidated as a Greek polis in the Attalid period; the ministry text attributes the foundation to Eumenes II and derives the name from Hiera, wife of Telephos, while the early coins read Hieropolis. Report 08 rates the founder low and the Attalid consolidation moderate, and records that none of its sources cites a foundation inscription; the body therefore states the consolidation and the coin form and does not adjudicate the name.

3. Research report 08, sections 3.3 and 4.5, following Bozza's architectural study at high confidence for the sequence as published: a Hellenistic travertine aedicula above the cave; an Augustan travertine façade 16.66 m long and 2.58 m high with half-columns framing a marble arch above the spring, carrying a partly preserved dedication to Pluto and Kore; and a later Π-shaped travertine theatron with an L-shaped Ionic marble stoa, with a Corinthian marble tholos before the grotto housing the cult statue of Pluto with Cerberus. The dedication of the stoa to Nero and the years of the rebuild are omitted under this book's rule against date clutter. Research report 08, section 3.7, records that the claim that the earlier regional earthquake known from Tacitus, *Annals* 2.47, damaged Hierapolis is not supported, because that list of twelve cities does not name it; report A10a, item 6, grades the claim UNSUPPORTED at high confidence and advises that it be removed rather than qualified, and it is accordingly not made anywhere in this chapter.

4. Research report 08, section 3.2, economic reading, at moderate confidence: the priests sold small animals so that visitors could test the gas, read from Strabo. The admission charge is the report's reading of that trade and is stated here as the report has it.

5. Research report 08, sections 3.3 and 3.4: the Apollo sanctuary was built over a fault trace, as a CNR geologist concluded and as

Stewart and Piccardi argue, the siting of sanctuaries on active faults being a regional habit (moderate). The geologist's conclusion is preferred to the archaeological reading because it rests on the ground rather than on the structures.

6. The alphabetic oracle, with twenty-four verses keyed to the letters of the Greek alphabet, a sacrifice, a letter drawn from a tripod and the matching verse delivered by the priest, is from Haşim Yıldız, *Hierapolis: The City of Water and Belief*, in the section on the oracle of Apollo. It is the only source in this corpus for the procedure and it is a site guidebook, which is why no weight is put on it beyond the description. Research report 08 does not treat the alphabetic oracle; it does record, at low confidence from a preprint, a separate Claros oracle text cut into a block of the cella and later reused with the text hidden, which is not used here.

7. Research report 08, section 3.3: from the nineteen sixties the Italian mission treated the chasm south-east of the Temple of Apollo as the Ploutonion, on the gas, the position and the oracular inscriptions, and the opening was later walled up for safety; in 2009 the mission found, east of the sanctuary, a ritual theatron on the natural rock aligned to a fault fracture, removed post-antique travertine channels, and recovered a marble pavement, a rock opening, a monumental façade above a spring and the Greek dedication to Pluto and Kore. The two cavities lie about 65 m apart by the coordinates given in the preprint report 08 relies on (the report notes that one popular summary says 200 m). Report 08 rates the re-identification moderate and records two open matters: Cassius Dio mentions a structure above the opening, which suits the new cavity, while Damascius places the cavern under the Apollo temple, which suits the old one, so the ancient accounts may describe two caves on one fracture. The body states what the gas measurements establish, that both sit on the same line, and does not adjudicate which cave each writer meant.

8. Research report 08, section 3.3: secondary literature reports up to 91 per cent carbon dioxide in the newer cavity and 65 per cent in the older grotto (Wexler's 2014 *History of Toxicology* volume, quoted in the preprint the report uses); Pfanz, Yüce, Gulbay and Gökgöz measured carbon dioxide with a portable analyser at the temple, both cavities and other fractures and sinkholes and published in 2018. Report 08 rates the numbers moderate and states that it could not open the paper. The report adds, from the same work, that carbon dioxide pools are stable only in the absence of wind and sun, so that concentrations are highest and steadiest inside the caves, that points above 10 per cent follow the fault line, and that 7 to 10 per cent can suffocate even where oxygen is sufficient. That carbon dioxide is denser than air is general chemistry; the inference drawn here about a standing man's head and a quadruped's is this book's, and it is offered because it is the only account of the Galli that requires nothing Strabo could not have observed.

9. Research report 08, section 3.3: the preprint explains the visibility of the vapour by water vapour from the warm spring, carbon dioxide being colourless (moderate; the report notes it did not test this). Section 4.5 records a warm carbonate-rich stream flowing below the cavity, which is the source of the vapour.

10. Strabo 13.4.14, via research report 08, section 3.2, at high confidence: the three marvels are the hot springs, the Ploutonion and the water's tendency to congeal into stone, so that people lead channels of it through ditches and make stone fences; the water dyes wool so well that wool dyed with roots rivals wool dyed with kermes or purple; and the city is full of baths that need no fuel.

11. Research report 08, sections 2.6 and 3.2, and report A06, section 3.6.3: epitaphs at Hierapolis name guilds of purple-dyers, carpet-weavers, dyers and wool-workers. Report 08 takes the dyers' and

weavers' guilds partly from memory of the Hierapolis epigraphic corpus and rates that moderate; the purple-dyers and carpet-weavers are secure because they appear by name in the Glykon text (note 19). The Ephesus harbour route for the textile exports is from Yıldız, who is a site guidebook; it is consistent with report 08's account of the valley's trade.

12. Vitruvius 8.3.10, via research report 08, section 3.2, at high confidence: a great quantity of hot water is led by ditches round gardens and vineyards and within a year forms a stone crust, and each year the farmers raise earth banks on either side and so build field boundaries of the crust. Strabo 13.4.14, same section, for the monolithic stone fences. Report 08's section 4.9 is explicit that these are low-value boundary walls formed as a by-product and not ashlar, which is why the body says fence and not block.

13. Research report 08, section 4.7, following Scardozzi 2020 as reported: three aqueduct lines from springs 6.2 to 13.5 km north, north-east and east, with medium-sized terracotta pipes feeding a castellum aquae above the theatre, the thermal springs in the city being unsuitable for drinking because of their dissolved salts; the pipes show calcium-carbonate incrustation, as at Laodicea (high). UNESCO's claim of a thermal-water canal system extending 70 km north-west is in the same section and is not used, because no technical source for it was opened.

14. Research report 08, sections 3.8, 4.1 and 4.2, following Hancock, Chalmers, Altunel, Çakır and Becher-Hancock (2000) at high confidence on the abstract: travertine accumulated in 21 major fissure ridges precipitated by hot springs aligned on active faults; the dense banded fissure-ridge stone was used for architectural and decorative work as well as ordinary blocks. Section 4.1 lists the travertine buildings: the Ploutonion's aedicula, façade and theatron, the outer Doric portico of the Apollo sanctuary, the Doric pseudo-porticoes of Frontinus Street, the museum's vaulted

bath halls and the Frontinus Gate. Altunel and Hancock estimate about 400,000 years for the travertines that now partly bury the city and its necropolis, and Kele and colleagues give a range spanning 600,000 years for the basin (section 3.8, moderate), which is the basis for “hundreds of thousands of years”.

15. Report A12, section 5, addition: Denizli traverteni is registered with the Turkish Patent and Trademark Office as geographical indication no. 151, as a *menşe adı* or appellation of origin, file C2008/008, registered 29 November 2011 (high). The comparison to a cheese is this book’s.

16. Research report 08, sections 4.2 and 4.9, following Hancock and colleagues at high confidence: the Greek, Roman and Byzantine inhabitants extracted travertine from distinctive vertical-sided trenches filled with banded travertine, and the trench walls bear tool marks identical to those on architectural blocks throughout the city. Section 4.9 sets out, and then tests, the strongest case that could be built here for stone being cast or grown rather than cut, and concludes that the quarry trenches with matching tool marks and the cut faces settle it for these cities; the report’s own arithmetic is that a block of ashlar thickness would need about twenty-five years at 20 mm a year, or roughly 250 days of continuous supersaturated flow in a mould at the most extreme rate recorded anywhere, which no builder could schedule. The body keeps the question because it is the question the terraces physically raise, and keeps the answer short because the trenches are the whole of it.

17. Research report 08, section 3.5: UNESCO says the necropolis extends over more than 2 km; the Turkish ministry says the cemeteries lie outside the walls north, south and east and are the largest in south-west Anatolia; the Italian mission’s 2017 to 2020 project in the north necropolis reports some 600 monumental tombs identified with only a few excavated or published, while a

popular summary says about 1,200 tombs. Report 08 rates the discrepancy low and reads it as a difference between monumental tombs and all burials without being able to confirm that; the body uses the mission's figure for monumental tombs and attributes the superlative to the body that publishes it. The typology list is from the mission's own report at high confidence.

18. Yıldız, *Hierapolis*, on the necropolis, for the cremation of earlier burials to open new space and the reuse of emptied tombs by the same families over centuries. Research report 08, section 3.5, independently reports from the Norwegian excavations in the north-east necropolis (2007 to 2015, osteology, DNA and isotopes across roughly 1,200 years of burial) that cremation continued as late as the fifth and sixth centuries, perhaps as a sign of pagan opposition to imposed Christian practice, and that living conditions were better in the Roman and early Byzantine periods than in the middle Byzantine (high, from the abstract). Section 3.2 gives the reading of the epitaphs and the large cemeteries as consistent with a city receiving invalids, many of whom died there, at low to moderate confidence and unquantified, which is why the body states it as the shape of the place and puts no number on it.

19. Report A06, section 3.6.3, at high confidence on the text: the Glykon sarcophagus, IJO II 196, also AGRW 152, with the translation quoted in the block. A06 records that Harland thinks it probable that Glykon was Jewish while allowing that he may have been a gentile judaiser, and that Miranda leans to the sympathiser reading, and instructs that the book say "probably Jewish", which is what the body says. A06 also corrects the popular claim that Glykon was himself a purple-dyer: he left money to the purple-dyers' guild. The festivals are Unleavened Bread and Pentecost, combined with the Roman Kalends; A06 rates the festivals high and the local-calendar explanation of the "seventh month" moderate, so the body does not explain the

month. The sarcophagus stands isolated on the hillside in the eastern or south-eastern necropolis where the main walkway to the martyrion ends and the stair begins, with the inscription on the north-west-facing long side. Date and the owners' full names are omitted under the rules against date clutter.

20. Report A06, section 3.6.3, at high confidence: the "settlement of the Judeans" sarcophagus, IJO II 205, fines violators 300 denarii to the settlement of the Judeans who are settled in Hierapolis and records that a copy was placed in the archive of the Judeans; it stands in situ in the north necropolis. A06 gives two competing datings and treats the question as open, so no date is printed. A06 also records 23 Jewish epitaphs in the necropolis, only two of them with menorahs, the epitaphs in Greek with no Hebrew-language epitaph reported, and that no synagogue building has been identified at Hierapolis although IJO II 191 assigns a fine to "the most holy synagogue".

21. Research report 08, section 2.6, citing Sève after Ritti and colleagues (2007): the epitaph of Marcus Aurelius Apollodotos Kalliklianos sets a funerary fine of 300 denarii payable to the association of mill-owners, which is the attestation of water-millers at Hierapolis and underpins the sawmill relief.

22. Research report 08, section 4.6, following Michel Sève's 2024 to 2025 article at high confidence: the relief is on the short end of a half sarcophagus lid found in 2005 in the north necropolis about 800 m from the city wall and now kept in the Hierapolis museum; the other half of the lid and the chest were not found, so there is no "tomb of Marcus Aurelius Ammianos". The lid is a gable form with an eighth-sphere acroterion at each end and a tenon projecting from the middle of the lower edge; Sève estimates it at 1.08 to 1.10 m wide and 43 to 44 cm high from the published scale bars, against 1.15 by 0.45 m in AE 2007, 1398. The relief is about 70 cm wide and under 14 cm high, and shows, from right to

left, a ten-spoked wheel; a long horizontal bar linking it to a pair of superposed smaller wheels that mesh; two oblique bars from the lower small wheel, each connected to a frame saw with a transverse stiffener and a blade engaged halfway into a rectangular block; and at the right end two parallel raised ribs running down to the middle of the big wheel, which Sève reads as the water-supply channel. Whether the lid is on display or in store is not stated, which is why the entry in the list is conditional.

23. Research report 08, section 4.6: this is the earliest known depiction of a crank and connecting rod turning rotary into reciprocating motion, a device formerly thought unknown before the thirteenth century (Kessener 2010, quoted in the report); two water-powered stone sawmills of Byzantine date are known, at Gerasa and at Ephesus, and at Gerasa two column drums caught mid-cut showed saw-cut spacings of 4 to 4.5 cm, matching thin slabs, which validates the reading of the relief. Report A12, item 7 and the firsts table, rules that the claim be phrased as "earliest known evidence" and never as "invented here", at high confidence for the former and unknown for the latter, and quotes Ritti, Grewe and Kessener that the invention had already had to be redated from the thirteenth century to the sixth and that the relief takes it back another three centuries. The marble-revetment context, spreading at Hierapolis from the Severan period and requiring many thin slabs, is Sève's. No sawmill building has been found at Hierapolis.

24. Research report 08, section 4.6, giving the Greek and the reading at high confidence: above the relief, "Marcus Aurelios Ammianos, citizen of Hierapolis, a Daedalus of wheels (*trochodaidalos*, τροχοδέδαλος), made it, with the art of Daedalus"; on the tenon, "And now I remain here" (καὶ νῦν ὧδε μένω). Sève agrees with Ritti that the Daedalus reference implies novelty but notes that it cannot be proved that Ammianos invented the device (moderate),

which is the reason the body says he does not claim it. The sarcophagus type and the lettering place it in the second half of the third century.

25. Research report 08, section 3.6, following UNESCO: an octagonal martyrion outside the city walls, reached by a long stair, with a central octagon, radiating chapels, polygonal halls and triangular rooms, ending in a square structure ringed by rectangular cells bordered with porticoes, built in the fifth century; a popular summary gives the octagon a diameter of 20 m under a wooden dome. Report 08 records that UNESCO and a popular summary disagree about which wall it stands outside, so the body says only that it is outside the walls and up the hill. The date of the martyrdom given by the ministry and UNESCO has no ancient source behind it in anything report 08 read, and is not printed.

26. Eusebius, *Church History* 3.31.3 to 3.31.5 and 5.24.2, via research report 08, section 3.6, at high confidence that the sources conflict: Eusebius quotes Polycrates of Ephesus, writing around AD 190, that "Philip, one of the twelve apostles" sleeps in Hierapolis with two aged virgin daughters and a third at Ephesus, and quotes Gaius's dialogue with Proclus that four prophetess daughters of Philip are at Hierapolis and "their tomb is there and the tomb of their father"; he then immediately notes that Luke places Philip's daughters at Caesarea with their father (Acts 21:8 and 21:9), where Luke calls him the evangelist, one of the seven, and not one of the twelve.

27. Research report 08, section 3.6, from Francesco D'Andria's account of the 2010 and 2011 excavation: about 40 m from the martyrion, a three-aisled church of the fifth century with marble capitals, crosses and a coloured geometric pavement, built around a Roman tomb of the first century; the tomb had marble steps worn smooth, nail holes for metal locking and grooves for a wooden door, its façade carried many crosses, a bronze seal

about 10 cm across showed a saint between two buildings with a Greek invocation and the words “Saint Philip”, and there were water baths next to the tomb. D’Andria accepts the tradition that the body was moved to Constantinople and then to Rome and argues that this is the original grave; report 08 rates that moderate, notes that the source is an interview rather than the excavation report, and records that the tomb was empty. Report 08’s own assessment, which the body follows, is high confidence that this is a securely documented late antique pilgrimage focus venerated as Philip’s tomb and low confidence that it is a verified burial of the apostle. The point that a church built around a pre-existing tomb is the usual signal that the builders believed it held someone special is report 08’s; the point that a first-century Roman tomb tells you nothing about its occupant is also report 08’s.

28. Report A13, item 20, verdict **VERIFIED** at high confidence: Russian ecclesiastical tradition calls the Nativity fast Филиппов пост because it begins after the feast of the Apostle Philip on 14 November in the Julian calendar, and Russian hagiographic tradition connects Philip with martyrdom at Hierapolis in Asia Minor, with the caution that the texts must distinguish that city from the Syrian Hierapolis. Sources given are Filaret of Chernigov’s *Lives of the Saints* for 14 November and the November Menaion.

29. Report A12, section 3.6: the miracle of the Archangel Michael diverting a flood from his shrine underlies a Byzantine feast on 6 September, and it appears in the Russian Orthodox calendar as Воспоминание чуда Архистратига Михаила в Хонех (moderate; not verified in that session). Chonae, Χῶναι, lies near modern Honaz by Denizli and is the Byzantine successor of Colossae, as report A13’s note on the Chudov Monastery dedication also records. The item is printed under the standing rule that an unverified but sourced item stays in if the text marks

it, and the body marks the attestation as unconfirmed. The detail of the water being diverted into the rock is in A12's phrasing of the miracle; the fuller version, in which Michael splits the rock with a spear to divert two rivers, is in report A04, which is last in precedence, and is not used.

30. Report A12, section 3.5, at high confidence: Epictetus (Ἐπίκτητος) was born at Hierapolis about AD 50, was enslaved, was freed in Rome and taught at Nicopolis; Arrian compiled the Discourses and the Enchiridion, the "handbook". A12 states that he did not found Stoicism and is its most-read Roman-era teacher, which is the claim the body makes. Research report 08, section 2.5, has the birth at moderate confidence from a summary.

31. Report A12, section 3.5, at high confidence: Papias of Hierapolis (Παπίας) was bishop in the early second century, and Eusebius, *Church History* 3.39, preserves his reports, from "the elder", that Mark wrote down Peter's recollections and that Matthew compiled the sayings "in the Hebrew dialect" (Ἑβραΐδι διαλέκτῳ). A12 notes that the claim itself is debated, which is why the body states only what Papias is reported to have said and calls it the earliest named statement rather than a true account of how the gospels were written.

32. Research report 08, section 5, item 16, and section 6: the Antique Pool is the pool formed by earthquake and spring over the civil agora, with fallen marble columns lying in warm water; UNESCO's dossier describes bathing among the fallen ancient columns of the pool formed by earthquakes and thermal springs around the ancient civil agora, and lists it among the threats to the property. The ministry page records that the pool is open to visits and report 08 records that it is priced separately and operated within the site. The year of the earthquake that formed it is omitted under the rule against date clutter.

33. Report A08 Part 2, alternative-history table: the claim that "Cleopatra's Pool" was used by Cleopatra or given to her by Mark Antony is graded **LEGEND** at moderate confidence, the sources being Turkish tourism marketing, hotel literature, social media and tour guides, with no ancient primary source found for her presence; the report's open-questions section records that it could not establish who first marketed the pool under that name or when the Mark Antony story entered the tourism literature. The thermal pool and the submerged architectural fragments are real, which is what the body says.

34. Research report 08, section 5, item 16: the gas bubbles rising in the pool are carbon dioxide evasion, the same process that makes the terraces (moderate; the report marks this as from memory of visitor descriptions). The mechanism itself is secure from section 3.8.

35. Research report 08, sections 2.7 and 3.8, from a U-Th study of the Pamukkale channels, at moderate confidence as a conference abstract: the oldest self-built channels sampled are about 1215 plus or minus 80 years old, the modern pools are under 100 years old, and deposition came in three phases. The body gives the ages as durations rather than dates. Report 08 notes that this matters for what a Roman visitor would have seen, which is the point the body makes.

36. Research report 08, section 3.8: Pentecost, Bayari and Yesertener conclude that evasion of carbon dioxide, and not direct biological mineralisation, is the principal mechanism at Pamukkale, with total deposition of about 35 tonnes a day across the system (high for the mechanism, moderate for the tonnage as one study's estimate); the travertine hosts 17 cyanobacterial species, 16 diatoms and 5 green algae in soft weakly mineralised surface mats and in endolithic communities 2 to 5 mm below the surface, with the phototrophs affecting the fabric only locally (high, from

the abstract). That turbulent flow over a lip speeds degassing, which is why the crust builds fastest at each rim, is standard travertine theory and is rated moderate by report 08 because its sources did not state it.

37. Research report 08, section 3.8, conservation history, following the UNESCO dossier at high confidence: hotel buildings on the site and structures around the thermal pool have been removed, private vehicles are banned except in emergencies, the road through the south-eastern terraces was closed, visitor access to the terraces is prohibited in order to sustain the water flow and the colour and structure of the travertine, and bathing is confined to designated areas. The motel era, when water was piped to hotel pools and the terraces dried and discoloured, is reported at moderate confidence and the report marks it as from memory; the dossier gives no year for the demolitions, so none is printed.

38. Research report 08, section 3.7: Kele and colleagues conclude that spring activity and travertine precipitation in the Denizli basin were controlled by tectonics and not by climate; Hancock and others show the travertine and the springs lying on one fault zone; and the carbon dioxide map extends that line to the Ploutonion cavities. The summary of every asset arriving up one fault is this book's, assembled from those three findings.

39. Research report 08, sections 2.7 and 4.2, at high confidence: the city walls of the second half of the fourth century or the early fifth were built by systematically demolishing necropolises, the north theatre, the north agora, the gymnasium and shops, with the northern sectors using mostly tomb material.

40. Research report 08, section 3.7, from Hancock and Altunel's study of faulted archaeological relics at Hierapolis, at high confidence from the abstract: offsets in walls and irrigation channels along the fault trace, the greatest damage coinciding with it, and a small downthrow to the south-west. The same analysis accounts for the

hot-spring activity and travertine deposition lying immediately downslope of the trace.

41. Research report 08, sections 2.7 and 3.7, and report A10a, item 7: the theatre is reported to have collapsed in a later earthquake, the population moved off the shelf, and the ministry credits a fourteenth-century earthquake with completing the abandonment at low to moderate confidence. A10a grades the claim that Hierapolis was finally abandoned after a single dated earthquake **UNSUPPORTED**, finds that no contemporary source ties the final destruction to either of the years usually given, and recommends the wording that the city was largely deserted by the later medieval period through a prolonged process of contraction and repeated seismic damage. That is the wording the body uses, and no year is printed.

42. Research report 08, section 5, item 4: the Megalithic Portal lists a Hierapolis mausoleum entry described as engulfed by thermal-spring deposits, which report 08 flags as the place to see natural travertine growing over worked masonry and the interface between them. It is the weakest-sourced item used in this chapter and it is used because it is a physical state of affairs that can be looked at, not an interpretation.

Chapter 21: Where Asia Went

1. Report A01, on the continental name: at high confidence there was no single moment at which a geographer named the continent Asia, and the meaning expanded through the Greek geographical tradition from Hecataeus and Herodotus to Strabo and Ptolemy. A01 rates high that Hecataeus of Miletus organised his material around Europe and Asia, that Herodotus uses Asia for the lands east of the Aegean and for the Persian imperial sphere, and that at *Histories* 1.177 he says “Lower Asia”, τὴν κάτω Ἀσίην, had been subdued, which A01 reads as the western or seaward part of the larger land rather than a bounded country. Ptolemy’s

placing of *Serica* and the *Sinae* at the eastern edge of the inhabited world is rated high. The Alexandrian is not named in the body because the chapter is about the word and not the man.

2. Report A01, at high confidence: Ptolemy placed *Serica* and the *Sinae* at the eastern edge of the known inhabited world, so his Asia already extended conceptually toward China; and at moderate confidence, medieval reports about Cathay, China and Japan, followed by fifteenth and sixteenth-century mapping, connected this classical Asia with a more accurately understood Pacific coast. The interval is the arithmetic of those two points and no year is printed for either.

3. Report A01, at high confidence: Diocletian's reforms broke the large province into smaller provinces, and the reduced Byzantine province of Asia covered the Aegean coast approximately from the Gulf of Adramyttium to the Maeander, with Ephesus as capital, citing the Encyclopedia of the Hellenic World. The simultaneity of the two senses is this book's observation and rests on the two sourced facts either side of it.

4. Report A01's table of names by era: at moderate confidence no verified single Hittite name for all western Asia Minor, with *Aššuwa* and *Arzawa* covering changing western coalitions or kingdoms, and at high confidence the individual names *Wiluša*, *Mira*, *Šeḫa River Land*, *Arzawa*, *Lukka*, *Karkiya* and *Millawanda*. The Aššuwa campaign of the annals assigned to Tudḫaliya I/II is the subject of the Foreword and is not re-argued here.

5. Report A01: at high confidence no collective equivalent of Asia for the western peninsula was found in Neo-Assyrian or Neo-Babylonian material, with *Luddu* for Lydia and *Mušku* for Phrygia; and at high confidence no single Old Persian equivalent of Asia Minor, with *Sparda* for Lydia or the Sardis-centred land and *Yaunā* for the Ionians, listed separately in Darius' Behistun and Persepolis country lists.

6. Report A01's era table, Lydian and Classical Greek rows, at high confidence: Ephesus, Smyrna and the other coastal cities retained their civic names and identities under Lydian power, and the Greek city names run continuously through the classical period. That civic identity outlasted every regional label is this book's reading of that continuity and is not a claim in the report.

7. Herodotus, *Histories* 4.45, via report A01 at high confidence: Herodotus treats Europe, Asia and Libya as the three named divisions of one continuous landmass and questions the assignment of women's names to them; he reports the Greek belief that Asia was named after the wife of Prometheus and the Lydian claim that it was named after Asies, son of Cotys and grandson of Manes. A01 rates high that what survives is Herodotus' Greek report of a Lydian tradition together with the Sardian clan name Ἀσιάδαι, and records that no contemporary Lydian inscription securely naming a king, god, tribe or district *Asias* was verified, which is why the body calls both stories guesses.

8. Report A01, at high confidence: Attalus III bequeathed Pergamon to Rome in 133 BC and Rome organised the territory as the province of Asia in 129 BC after the war against Aristonicus; and at high confidence, Diocletian's division into Asia, Lydia, Caria, Hellespontus, Phrygia Pacatiana and Phrygia Salutaris, with the Diocese of Asiana, Διοίκησις Ἀσιανῆς, above them in the early Byzantine arrangement. The bequest itself belongs to chapter 5 and is given here in one clause.

9. Report A01, at high confidence: Ῥωμανία for the empire and ἀνατολαί for the eastern territories in middle Byzantine usage, and the theme of Thrakesion including Ephesus, Smyrna, Sardis, Hierapolis and Laodicea, citing the Encyclopedia of the Hellenic World. Nothing in the corpus behind this book explains the Thracian name, which is why the body says so; A01 records only

that the separate Anatolikon theme developed in the seventh century from the eastern field army and did not originally name the peninsula.

10. Report A01, at high confidence: Arabic الروم, *al-Rūm*, “the Romans”, for Byzantium and its lands; Rūm for Seljuk-ruled former Roman territory alongside Turkish *Anadolu*; Greek ἀνατολή, “rising” and especially sunrise; and at moderate confidence that medieval Turkish *Anadolu* developed from the Byzantine Greek term. The 1923 endpoint is given one sentence under the assignment’s twentieth-century constraint, which allows no narrative of the war or the population exchange.

11. Report A01 grades the derivation of Asia from Akkadian *aṣû*, “to go out” and, of the sun, “to rise”, paired with *erēbu*, “to enter” or “set”, at low confidence, on the grounds that no borrowing chain has been securely demonstrated and that the elegance of the opposition is itself a warning sign of retrospective construction. It appears here as a rejected claim, which is the only use the standing rules allow it, and it is used because the thing it predicts did eventually happen by another route.

12. Report A10a, section 2, at moderate confidence: approximate straight-line distances from the present marine shoreline, given as Hisarlık 5 to 7 km, the Roman harbour basin at Ephesus 5 to 6 km, the Miletus theatre 8 to 10 km, Priene 14 to 16 km, Pergamon’s acropolis 25 to 27 km, Didyma 3 to 4 km and Myus 12 to 14 km, with the explicit warning that these are ranges and not survey measurements. The body claims no measurement. The mechanism is the subject of chapter 14 and the one clause here is all this chapter takes of it.

13. Report A01, at high confidence: before the eighteenth century European geographers proposed several Europe to Asia boundaries, including the Don, the Ob and the Yenisei.

14. Report A01, at high confidence: Philipp Johann von Strahlenberg's description of 1730 placed the principal boundary along the Ural mountains, and Vasily Nikitich Tatishchev claimed that he had suggested the solution to Strahlenberg during their contact around 1720; A01 rates at moderate confidence that priority cannot be settled conclusively, notes that Strahlenberg published first while Tatishchev later asserted intellectual priority, and records that modern scholarship often describes the proposal as simultaneous or jointly associated with them. At high confidence the Ural boundary did not become universal immediately, and eighteenth and nineteenth-century maps continued to disagree over the southern continuation, using combinations of the Volga, Don, Emba or Ural rivers before the Ural river and Caspian convention predominated.

15. Report A12, lexicon completion and audit, whose ranked list of the strongest items for this book runs to twenty entries that survive its own check, each carrying its confidence, with a separate list of claims it rejects outright. The twenty are not enumerated here, because they are the subject of the chapters that carry them, and the figure is used as a count and not as an argument from authority.

16. Report A12, at high confidence for both names: *tantalize* from Tantalus, with the punishment at *Odyssey* 11.582 to 592 and the tradition locating him at Mount Sipylus rated moderate on Pausanias; and Niobe, with the petrified grief at *Iliad* 24.602 to 617 and Pausanias 1.21.3 reporting that he saw the rock. A12 states that niobium, named in 1844, is named after Niobe as Tantalus' daughter because the metal is paired with tantalum. Sipylus is in Lydia and off the route of this book, which is why the body names the mountain and not a city.

17. Report A12, at moderate confidence: the Peloponnese, Πελοπόννησος, "island of Pelops", with Pelops said to have come

from Lydia or Phrygia on the authority of Pindar, *Olympian* 1, and Herodotus 7.8 and 7.11, where he is "the Phrygian". A12 sets the item down as a Greek peninsula named after an Anatolian immigrant; the moderate rating attaches to the origin and not to the etymology of the place name.

18. Report A01, at moderate confidence: "Asia Minor" became standard in western European geographical and historical writing during the Renaissance and early modern period, the term having become increasingly useful once Asia had acquired continental and Roman provincial meanings at the same time (the latter rated high). Also at moderate confidence: European cartographers used *Natolia* and *Anatolia* for the peninsula, and *Natolia* appears alongside *Romania* and *Turchia* in Crusader and Italian usage. That the clipped form reached the atlases through Italian charts is A01's grouping of the evidence rather than a demonstrated transmission, and the body says it reached the mapmakers through those charts without claiming a route. The earliest Latin attestation, Orosius, is given in the Foreword and is not repeated here.

19. Report A01, at high confidence: Ortelius' title of 1570, *Natoliae quae olim Asia Minor nova descriptio*, "a new description of Natolia, which was formerly Asia Minor", recorded with the map. The three thousand years are the arithmetic of the two dated points, the Aššuwa tablet placed at about 1430 to 1400 BC in the Foreword and the atlas of 1570; A01 rates the tablet's date moderate and chronology-dependent, which is why the body gives a round figure and no year.