
Africa & Middle East (Corridor ~31°E)

Site Name

Type

Country

Latitude

Longitude

Corridor Association

Notable Features

Submerged/Flood Connection

Geomagnetic/Pole Shift Significance

Speculative–Validated Score

Great Pyramid of Giza

Pyramid

Egypt

29.9792° N

31.1342° E

31°E

Cardinally aligned; colossal engineering (2.3 million blocks precisely oriented to true north)

No

Giza Meridian reference; prime anchor in global grid (benchmark of cardinal geodesy)

100

Pyramid of Khafre

Pyramid

Egypt

29.9753° N

31.1376° E

31°E

Aligned with Khufu; part of Giza triad (second tallest, appears tallest due to higher base)

No

Shares Giza meridian alignment; echoes the prime anchor's cardinal precision, indicating planned harmonic array at Giza

98

Pyramid of Menkaure

Pyramid

Egypt

29.9725° N

31.1283° E

31°E

Smallest Giza pyramid; contains internal alignment features (e.g. niche possibly oriented to a star)

No

Aligned with Giza complex grid; completes triadic Orion's Belt pattern (per some theories) while maintaining geodetic symmetry within the plateau

96

Great Sphinx of Giza

Monument

Egypt

29.9753° N

31.1390° E

31°E

East-facing leonine statue (c. 2500 BCE) gazing at equinox sunrise; body exhibits heavy rain erosion

Yes – possible water erosion evidence

Faces due east (possibly marking constellation Leo's rising ~10,500 BCE); considered a pre-flood relic by some, preserving memory of a wetter climatic era potentially tied to an earlier pole alignment

90

Step Pyramid of Djoser

Pyramid

Egypt

29.8713° N

31.2165° E

31°E

Earliest pyramid (c. 2650 BCE); six-tiered step design by Imhotep; oriented a few degrees off true N-S (early cardinal attempt)

No

Built in early dynastic period shortly after a hypothesized cataclysm; slight misalignment might indicate calibration to a prior pole position or magnetic north of that time

98

Bent Pyramid of Dahshur

Pyramid

Egypt

29.7900° N

31.2050° E

31°E

Dual-angle sides (change in slope mid-way); transitional engineering by Sneferu; casing largely intact; entrances on N face

No

Cardinal alignment; built during a period of post-Djoser stability; bent profile perhaps reflects design adjustment (or subtle response to changing ground conditions)

95

Red Pyramid of Dahshur

Pyramid

Egypt

29.8020° N

31.2050° E

31°E

First true smooth-sided pyramid (Sneferu's third); fully cardinally aligned; red limestone core visible

No

Precisely oriented to cardinal points, matching Giza-standard alignment; marks a stable post-shift era where true north was well-established, indicating improved geodetic knowledge

96

Meidum Pyramid

Pyramid

Egypt

29.4775° N

31.1444° E

31°E

Collapsed step pyramid (originally 7 steps, later smoothed) likely by Sneferu; now a tower-like core remains; originally aligned N-S

No

Orientation suggests early experiment in true-north alignment post-cataclysm; collapse perhaps due to design evolution rather than geologic shift, but included as part of the alignment learning curve in Old Kingdom

92

Ruined Pyramid of Abu Rawash

Pyramid (ruin)

Egypt

30.0200° N

31.1300° E

31°E

Northernmost pyramid of Giza plateau (Djedefre's); now heavily ruined with only base and pits remaining

No

Likely aligned to Giza's meridian grid; incomplete status (and higher elevation) leave uncertainty, possibly reflecting abrupt political change or environmental stress during construction

47

Nabta Playa Stone Circle

Stone Circle

Egypt (Nubian Desert)

22.5100° N

30.7200° E

31°E

Neolithic stone circle (c. 7000–5000 BCE) with calendar alignments; stones mark summer solstice sunrise and ancient stellar risings 【20†L77-L85】 【20†L115-L122】

Yes – former savanna lakebed, now desert

Possible early attempt to track celestial cycles and perhaps axial precession; marks a once-stable climate in the Sahara (African Humid Period) and its placement may encode the epoch of monsoonal shift (indicative of precession effects)

97

Karnak Temple Complex

Temple

Egypt (Luxor)

25.7188° N

32.6573° E

31°E

Massive New Kingdom precinct of Amun; grand processional axis (to Luxor Temple) oriented to winter solstice sunrise and summer solstice sunset; avenue of Sphinxes connects to Nile; some shrines aligned to star Sirius

No

Architectural solstice alignment marks stable Nile flood cycle era; Karnak's evolving design over centuries maintained cosmic orientation, reflecting ancient Egyptians' integration of temple rituals with solar and heliacal cycles

94

Abu Simbel Temples

Rock-cut Temples

Egypt (Nubia)

22.3373° N

31.6258° E

31°E

Two large temples (c. 1244 BCE) relocated from original site; sun alignment: twice a year (around Feb 20 and Oct 20), sunrise penetrates the sanctuary, illuminating statues (except Ptah) 【20†L77-L85】

No (relocated intact due to Aswan dam)

Precise solar alignment marks axial tilt status in 13th c. BCE (likely related to pharaonic birth and coronation dates); demonstrates advanced understanding of solar declination and calendar intercalation 【20†L77-L85】

93

Meroë Pyramid Complex

Pyramids

Sudan

16.9370° N

33.7438° E

31°E

Dozens of small steep pyramids (Napatan/Meroitic, 800 BCE–350 CE) in clusters; entrances face east; some alignments within cemetery groups; royal necropolis of Kush

No

Built after Egyptian pyramid age, showing transmission of pyramid concept; cardinal orientations suggest retained geodetic knowledge in Nubia; represent a later “harmonic echo” of Giza along the 31°E meridian band

90

Nuri Pyramids

Pyramids

Sudan

18.5590° N

31.8300° E

31°E

Nubian pyramids of Napatan kings (7th–5th c. BCE) near Jebel Barkal; older than Meroë; arranged in rows; aligned east-west; Jebel Barkal (sacred mountain) used as backdrop for solstice observations

No

Aligned with Napata’s Jebel Barkal (the “prime meridian” of Kushite spirituality); possible reference to an older pole or sacred direction. Shows continuity of using prominent geographic features to anchor cardinal orientation

88

Axum Obelisk Field

Monolithic Stelae

Ethiopia

14.1300° N

38.7200° E

31°E

Field of giant carved stelae (up to 24 m tall, 4th c. CE) marking royal tombs; stelae arranged in rows generally along N-S axis; largest (Great Stele) fell; some stelae tops carved to mimic multi-storey towers

No

Aksum’s stelae symbolized an axis mundi; their consistent north-south placement suggests intentional geodetic layout even without explicit solar alignment. They likely reference ancient axial points and perpetuate megalithic cardinal traditions into the early Common Era

90

Lalibela Churches

Rock-cut Churches

Ethiopia

12.0300° N

39.0400° E

31°E

11 medieval monolithic churches (c. 1200 CE) carved vertically into rock; arranged in two clusters; most oriented roughly east-west (entrances toward the sunrise in the east); significant pilgrimage site

No

Though post-1000 CE, demonstrates sacred orientation (facing East) in Christian context; included to show continuity of aligning holy sites to solar east – a symbolic alignment linking to resurrection and spiritual “East” rather than a technical geodetic purpose

47

Laas Geel Caves

Rock Art Site

Somalia

09.6333° N

44.0000° E

31°E

Neolithic cave paintings (c. 3000–2000 BCE) with vivid cattle, wild animals, and possible celestial symbols; a rock shelter complex used by pastoralists in a once-wet area

No (prehistoric climate was wetter)

Records of pre-Sahara climate stability; no confirmed astronomical alignment, but location suggests optimal placement (painted cave ceilings sheltered from rain) in an era of abundant rains – highlighting an implicit awareness of environmental cyclicity (monsoon patterns tied to orbital precession)

47

Stone Circles of Senegambia

Stone Circle Complex

The Gambia / Senegal

13.6917° N

14.8789° W

31°E

Over 1,000 laterite stone circles (3rd c. BCE – 16th c. CE) in dense clusters along the Gambia River; likely burial markers; individual circles often contain 8–14 stones each; some site clusters show circles roughly aligned east-west in rows

No

Part of an equatorial megalithic belt; while primarily funerary, the deliberate circular geometry and repetition hints at harmonic intent. Their distribution along a narrow latitude range suggests these ancient societies were marking a “band” on Earth (perhaps the high point of the sun, since this region is near the Tropic of Cancer). Specific alignments are unclear, thus scored modestly, but inclusion underscores African participation in megalithic tradition

50

Namoratunga (Kalokol)

Stone Circle

Kenya

03.5380° N

35.8850° E

31°E

Circle of 19 basalt pillars (c. 300 BCE?) near Lake Turkana; ethnographic interpretation links pillar orientations to star risings (Triangulum, Pleiades) marking a 354-day lunar calendar for local Cushitic tribes

No (near ancient Lake Turkana shoreline)

A potentially early stellar calendar in sub-Saharan Africa. If alignments to specific star risings (e.g., Pleiades) are correct, it shows a sophisticated understanding of sidereal cycles by pastoral peoples. Still debated, so included with caution: it highlights that even if not conclusively proven, there was likely some astronomical intent given the pillars’ non-random placement. (The site’s proximity to a paleoshore also suggests concern with seasonal rains).

47

Adam's Calendar (Mpumalanga)

Stone Circle

South Africa

25.6700° S

30.7700° E

31°E

Rough circle of stones on a cliff ridge (claims of extreme age – 75,000+ years – are unverified); alignments to solstices and equinoxes have been suggested by researchers, but mainstream archaeologists consider it likely a relatively recent (Iron Age) structure such as a cattle kraal repurposed in fringe theories

No

A controversial site often touted as “pre-flood” with no scholarly consensus. While the idea of a 75,000-year-old observatory in South Africa is intriguing, evidence is scant. Its mention here serves as a fringe example of how deeply the quest for ancient alignments can go. If there is any alignment (e.g., one monolith and a notch in the hill behind align with sunrise on solstice), it could be coincidental. Scored minimal (47) as a placeholder for speculative claims awaiting concrete data. It underscores the need for critical evaluation in harmonic research.

47

Great Zimbabwe

Megalithic City

Zimbabwe

20.2675° S

30.9333° E

31°E

Iron Age city (c. 1100–1450 CE) with massive drystone walls forming an ellipse and a conical tower; layout not strictly cardinal, but some structures (e.g., Great Enclosure's gateway) align roughly with summer solstice sunrise; possible astronomical monoliths (unconfirmed)

No

A later civilization site included for geometric precision and possible cosmological layout. The concentric design and the “Great Enclosure” may encode mathematical ratios (e.g., golden ratio) and possibly alignments: recent studies suggest the passage of the Great Enclosure faces where the sun or moon would rise at a certain time. While not as overt as Stonehenge, its builders likely had knowledge of cardinal directions (the hilltop complex's main axis is oriented NE-SW). It represents a southern hemisphere example of sacred geometry enduring into medieval times, bridging our global narrative into historical periods.

91

Tassili n'Ajjer

Rock Art Region

Algeria (Sahara)

26.3333° N

08.7500° E

31°E

Vast plateau with thousands of petroglyphs (6000 BCE onward) depicting a long-gone green Sahara: animals (elephants, giraffes), humans dancing, enigmatic “Round Head” figures possibly in ritual scenes. Many carvings located in caves and rock faces that would have been near water; some align with old lake shorelines. Notably, certain frescoes (e.g., “Great God of Sefar”) appear to incorporate celestial symbolism (star-like motifs above figures)

Yes – Paleolakes and rivers once present (climate turned arid)

Records of the African Humid Period and its end; by documenting the environment's drastic change from savanna to desert, this site indirectly captures effects of Holocene orbital shifts on climate. Some “Round Head” paintings (circa 7000–6000 BCE) have been speculated to represent beings with halos or helmets – fancifully linked to cosmic visitors, but more plausibly shamanic figures possibly tied to sky lore. While not an observatory, Tassili's rock art likely encodes a form of archaic knowledge or myth related to the heavens (for instance, bovine/

human hybrid figures could relate to star cults of Sirius or Orion known later in Egypt). We score it 67 for being a natural open-air gallery reflecting a key geomagnetic/climate transition in human history (green Sahara to desert), and including it emphasizes that not all knowledge was in stone circles – some was painted on canyon walls by fading light of an era.

67

Göbekli Tepe
Megalithic Enclosure
Turkey (Anatolia)
37.2231° N
38.9225° E
31°E

World's oldest known megalithic temple site (c. 9600–8000 BCE); at least 20 circles of T-shaped limestone pillars (5–7 m tall) richly carved with animals; main enclosures oriented roughly toward the north (enclosure D's entrance faces north-east). Possible alignments: some pillar carvings may align with then-heliacal rising of Sirius (~9300 BCE) and main axis of enclosure D aligns with sunset on summer solstice (speculative). Site was intentionally backfilled and buried around 8000 BCE.

No (intentionally buried by its builders)

Constructed just after the Younger Dryas cold event, it captures a revolutionary moment of cognitive and social development. The layout and art may encode astronomical knowledge: one hypothesis suggests pillar 43 (vulture stone) maps a date via cometary symbols; another that the entire site's orientation drift follows changes in the pole star or prominent stars over its use. Regardless, its builders clearly had the concept of creating a structured "world" in stone – possibly a reflection of cosmic order. As a high-validation site discovered in the 1990s, it has upended the timeline of complex society. We give it 98: it's academically confirmed as a deliberate, symbolic complex, very likely with astronomical intent (e.g., a possible alignment to Deneb or Sirius's first appearance) marking an early encoding of the "codex" that later sites elaborated.

98

Karahan Tepe
Megalithic Enclosure
Turkey (Anatolia)
37.4100° N
39.3200° E
31°E

Sister site to Göbekli Tepe (~9500–9000 BCE); features carved T-pillars (some anthropomorphic) protruding from bedrock, a long stone-faced wall, and a limestone platform with a human statue. Preliminary findings suggest one building's long axis faces the equinox sunrise (due east) and certain pillar arrangements align with bright stars (Sirius or Orion's Belt).

No

Part of the same Pre-Pottery Neolithic culture, indicating a network of sites in SE Anatolia deliberately oriented to celestial cues. Karahan's "pillared temple" has a row of pillars that seem to track the movement of the sun across the horizon. Its discovery strengthens the notion that an entire civilization with harmonic knowledge existed 11,000 years ago, reinforcing and adding to Göbekli's significance. With its alignments still under study, we score it 97 – high confidence in intentional design, slight uncertainty in specific alignments; it underscores that the paradigm of cosmic-order construction emerged right alongside the dawn of agriculture.

97

Çatalhöyük
Ancient City
Turkey (Anatolia)
37.6683° N
34.8925° E
31°E

Large Neolithic proto-city (7500–6400 BCE); mudbrick houses packed in a honeycomb, entered from roofs; overall settlement is roughly 15° east of north in its elongated layout; interior wall paintings include what some interpret as astronomical symbols (e.g., a painting often called the “map” might show a comet or the volcanic eruption of nearby Hasan Dağ under a speckled sky).

No

One of the earliest urban-ish settlements; while no formal architecture like stone circles, the slight orientation offset of the town could hint at a preferred direction (perhaps pointing to the sunrise point on a specific day, or aligned with a mountain’s position relative to the settlement). This might represent an embryonic geodetic sense (beyond pure practicality) in community planning. Moreover, ritual artifacts (bull skulls on walls) indicate a symbolic cosmology in daily life. We include it to illustrate that even proto-urban people may have aligned their built environment subconsciously to a cosmic template (e.g., aligning homes to catch morning sun uniformly). It scores 90 as a confirmed important site with possible early alignment tendencies, albeit not as overt as later sites.

90

Nevalı Çori

Temple Ruins

Turkey (Euphrates)

37.5450° N

38.6800° E

31°E

Early Neolithic sanctuary (8400–8000 BCE) contemporary with Göbekli; contained T-shaped pillars in rectangular buildings; site is now submerged under Atatürk Dam (excavated before flooding). The building with pillars was roughly oriented east-west. Notably yielded “Urfa Man” statue.

Yes – submerged by modern dam

A contemporary of Göbekli, it shows that multiple sites in the region had similar architectures. Being rectangular, its orientation may have been more functional, or perhaps aligned to the sunrise on equinox (east-west orientation would allow equinoctial sun to shine through an open entrance). Its inundation by a reservoir is a modern parallel to ancient floods – knowledge was literally drowned. We score 72: clearly part of the early harmonic network, but now lost beneath water, symbolizing how some chapters of this ancient codex were physically erased (only to be partially recovered by archaeology thousands of years later).

72

Mount Nemrut Sanctuary

Mountaintop Tomb

Turkey (Adiyaman)

37.9822° N

38.7422° E

31°E

Hellenistic mausoleum of Antiochus I (1st c. BCE) atop Nemrut Dağ (~2150 m); giant seated statues of gods and the king face east and west terraces; evidence suggests the eastern terrace was aligned to summer solstice sunrise (the gods and king gaze at the point of sunrise) and western to solstice sunset. The king’s horoscope was carved indicating the exact time of site inception.

No

A high-elevation, late example of deliberate cosmic alignment – essentially a king aligning himself with the sun’s cycle to claim divinity. At dawn on summer solstice, the sun rises directly in front of the east terrace thrones, perhaps illuminating them. Similarly, the west terrace might mark equinox or solstice sunsets. Although built during a time of established astrology (Greco-Roman period), it echoes ancient practices (solstice worship on mountains). It shows continuity: even after thousands of years, rulers still sought to anchor their legacy in celestial

events. Score 67 for being more symbolic than scientific (it's as much propaganda as alignment), but it confirms the persistent allure of cosmic harmony in monument building.

67

Persepolis
Ceremonial City
Iran (Fars)
29.9350° N
52.8910° E
31°E

Achaemenid capital (c. 518 BCE) with grand terrace. The complex is rotated ~45° relative to cardinal, aligning its Apadana (audience hall) corners NW-SE; some scholars think it was aligned for Nowruz (Persian New Year at spring equinox) – e.g., rising sun of equinox would shine between two specific columns into the throne hall.

No

Represents imperial geodesy: while not perfectly cardinal, the orientation is likely astronomically motivated. The Treasury and palace gates face a bit east of north, possibly to align with equinox sunrise azimuths on the horizon or with a certain star at dusk. The Persians celebrated Nowruz around March 21, and it's believed the site lines up with equinox-related phenomena. Inclusion of Persepolis (score 67) shows that even in historical empires, important constructions retained subtle harmonic alignments – blending practical layout, local topography, and solar festival timing (the 45° rotation may also align with prevailing wind or align the platform with Kuh-e Rahmat peak, demonstrating multi-factor alignment planning).

67

Naqsh-e Rostam
Rock-cut Tombs
Iran (Fars)
30.1250° N
53.1300° E
31°E

Cliff face with royal tombs of Darius I and successors (c. 5th c. BCE); façades are cross-shaped and face directly east (slightly SSE); each tomb's entrance high on cliff, facing the sunrise; below are rock reliefs of later Sassanid kings.

No

While primarily memorial, the choice to face the tombs east suggests the Achaemenids intended the souls of the kings to greet the rising sun eternally. It's a spiritual alignment rather than observational one. The consistency of orientation across tombs implies a rule or ritual: perhaps constructed at a time of year (or time of day) significant in Zoroastrian sun worship. We mark it 47 as the alignment is general (east-facing) and it's within historical times, but it underscores how even burial traditions in Persia maintained an aspect of cosmic order (the sun symbology in Zoroastrianism being very strong).

47

Great Ziggurat of Ur
Ziggurat
Iraq (Mesopotamia)
30.9633° N
46.1035° E
31°E

Massive Sumerian stepped temple (c. 2100 BCE) dedicated to moon-god Nanna; rectangular base oriented within 0.5° of true north; corners at cardinal directions; restored in 6th c. BCE and again in modern times. The ceremonial stairway faces east towards sunrise.

No

Exemplifies early precision in cardinal orientation **【21†L194-L199】**. The Sumerians likely aligned it by stellar observations (perhaps using Kochab/Mizar in Ursa Minor as a north

reference). Its enduring alignment through reconstructions indicates the importance of maintaining the original orientation. Being a lunar temple, the cardinal base might also align with moonrise directions at certain lunar standstill points. It highlights that by 2100 BCE (and long before), Mesopotamia had mastered geodetic construction – a foundation for later Near Eastern and even Egyptian practices. Score 85 as a strongly aligned, academically confirmed site showcasing ancient geodesy.

85

Rujm el-Hiri (Gilgal Refaim)

Stone Circle

Golan Heights (Israel/Syria)

32.9060° N

35.8740° E

31°E

Megalithic monument of concentric stone rings (Early Bronze Age, ~3000 BCE); outer circle ~150 m diameter, inner circles and a central cairn ~5 m high; an entrance in outer ring faces the summer solstice sunrise direction (NE). Sometimes called the “Wheel of Giants.”

No

A Levantine counterpart to Stonehenge in function. Likely used to mark seasons (the alignment of the entrance with solstice sunrise suggests an observational intent for longest day celebrations or agricultural calendaring). Its presence in the pastoralist culture of the region indicates that even semi-nomadic groups built permanent sky-aligned structures. The design (multiple rings) might encode a cosmology of concentric heavens. It emphasizes the wide geographic spread of henge-like practices. Score 80: a robustly significant site in need of more study, but the solstice alignment and unique form mark it as a key node in the global alignment web.

80

Ancient Jericho

Prehistoric City

West Bank (Palestine)

31.8700° N

35.4500° E

31°E

Oldest fortified settlement (Tower of Jericho c. 9600 BCE); massive 8m stone tower attached to inside of wall. Some studies suggest the tower was built to cast a shadow on the interior plaza at summer solstice sunset (using a mountain on the horizon to align) 【8†L83-L90】 .

Yes – region of ancient flood myths (Jordan Valley)

Continuous habitation spans the entire Holocene, including the Laschamps geomagnetic excursion (~41 kya) albeit with gaps. The tower’s proposed alignment – if correct – would be the earliest known monumental astronomy: built at the dawn of agriculture to mark the solstice as a means of tracking seasons. Alternatively, it could be purely defensive or symbolic. Either way, Jericho’s existence indicates that right as climate stabilized after the Ice Age, humans started organizing labor for complex projects. Its later biblical flood tale connects to memories of catastrophic inundations (Dead Sea level changes). We rate 90 given its paramount age and potential alignment; it’s a cornerstone showing that the moment humans settled, they may have begun marking time via structures.

90

Petra (Raqmu)

Rock-cut City

Jordan

30.3285° N

35.4444° E

31°E

Nabataean capital (c. 300 BCE – 100 CE) carved into rose-red cliffs. Key structures like the Monastery and Treasury are positioned such that they light up with the sun on specific days: e.g., the Monastery facade is fully illuminated by the rising sun at summer solstice, and the Treasury is lit by the midwinter sunrise. City center aligns along an east-west colonnaded street.

No

Nabataeans, though known as traders, had strong astronomical awareness. Studies show certain Petra temples align with solstices/equinoxes – likely inheriting knowledge from earlier civilizations or through their Arabian star lore. The “light show” on their monuments implies intentional design to awe on particular dates (perhaps associated with Dushara or Isis cults). This adds to the pattern that even cities primarily built for commerce and governance were imbued with cosmic order. Petra sits near 30°N (like Giza), feeding speculation about latitudinal significance. It's in the 85 tier of validated sites, illustrating the extension of alignment practice into classical antiquity outside the Greco-Roman world.

85

Baalbek Trilithon

Temple Platform

Lebanon

34.0069° N

36.2039° E

31°E

Site of the Roman Temple of Jupiter (1st c. CE) built atop a much older platform; contains three Trilithon stones (~800 tons each) in its podium. Temple axis is oriented E–W (entry faces due east for equinox sunrise). Local folklore suggests pre-Roman giants placed the Trilithon.

No

A palimpsest site: successive cultures added to it. The equinoctial east-west orientation is typical for Roman temples (Jupiter Temple aligning with equinox sunrise fits imperial solar theology). The mystery is in the megalithic foundation: why such huge stones, and were they aligned differently originally? Some link Baalbek to “Atlantean” architecture, but no evidence beyond stone size. Regardless, the persistence of using that site into Roman times suggests it was considered a power spot. It exemplifies megalithic engineering on the grandest scale meeting classical alignment norms. We score 90 – high significance in the alignment continuum, albeit with questions about its earliest phase.

90

Karahunj (Zorats Karer)

Stone Circle

Armenia

39.5500° N

46.0250° E

31°E

Often called “Armenia’s Stonehenge” (possibly 5500–2000 BCE); consists of 223 standing stones, 80 of which have smooth circular holes (4–5 cm) drilled through them. Alignments: hole stones reportedly line up with positions of stars (e.g., Sirius) and solstice sunrises 【19†L47-L55】 . Sits on a plateau ~1770 m high.

No

Highland observatory where some hole-stones function like telescopes sighting specific stars and the sun 【19†L47-L55】 . One alignment claims a hole stone targeted Sirius’s heliacal rising around 5600 BCE – if true, an incredibly advanced stellar calendar. Even without exact proof, the design strongly indicates astronomical purpose (the holes are too precise for mere decoration). Karahunj demonstrates that Caucasus cultures were charting the heavens potentially as early as Western Europe’s megaliths, reinforcing an idea of widespread Neolithic

astronomy. It's rightly scored 90 for its evident intent and growing academic attention, marking it as a key node of the ancient observatory network.

90

Metsamor Observatory

Archaeo-Observatory

Armenia

40.0060° N

44.2800° E

31°E

Late Bronze Age temple complex (~2000–1000 BCE) with prominent stone settings on a hill. Features include alignment stones and 2-meter pits carved in rock thought to track rising points of celestial bodies. Dubbed one of the world's oldest observatories by some researchers (claiming 2800 BCE usage).

No

Metsamor's circular observatory area has standing stones that frame specific horizon points; e.g., certain notch combinations point to solstice sunrise or to the star Capella. If indeed operational by 2800 BCE, it predates similar devices in Europe (aside from Goseck) and suggests the Armenian Highland as an independent center of astronomical knowledge. It also had advanced metallurgy, implying a knowledge class capable of scientific pursuits. As evidence grows, it may join the ranks of Tier 1 archaeoastronomy sites. For now, we score 72: significant but still under study, representing the hidden gems of the ancient world's harmonic network.

72

Gobustan Petroglyphs

Rock Art + Stone

Azerbaijan

40.1330° N

49.5000° E

31°E

Extensive rock art (carved over 40,000–5,000 BP) near the Caspian coast. Thousands of images: hunters, bulls, boats, "cosmic" symbols. A famous "gaval" resonant stone produces musical tones when struck. One group of petroglyphs appears to show a primitive stellar map (some interpret a pattern as Orion or Pleiades).

Yes – site was on Pleistocene shoreline (now 20 km inland)

Gobustan spans from Upper Paleolithic to medieval times, thus reflecting enormous temporal change. Some carvings of interest: a group of seven dot carvings often likened to the Pleiades, and a depiction of a boat with a sun-like circle—possibly recording an ancient voyager's tale under specific stars. While primarily an artistic site, its inclusion underscores that star knowledge can be recorded in art, not just architecture. And its use of a musical stone hints at sound rituals possibly tied to cosmic worship (resonance and frequency considered part of harmonic knowledge). We give 67 as it's culturally rich with hints of archaeoastronomy, though not a built observatory. It strengthens the idea that early minds globally engaged with the sky in various mediums.

67

Europe (Corridor ~31°E)

Site Name

Type

Country

Latitude

Longitude

Corridor Association

Notable Features

Submerged/Flood Connection

Geomagnetic/Pole Shift Significance

Speculative–Validated Score

Stonehenge

Stone Circle

England (UK)

51.1789° N

01.8262° W

31°E

Sarsen stone circle with massive trilithons; processional Avenue aligned to summer solstice sunrise (NE) and winter solstice sunset (SW) 【34†L11-L18】. Bluestone horseshoe faces sunrise point. Built c. 2500 BCE with earlier post and ditch phases (~3000 BCE).

No

Iconic astronomical monument; its precise solstitial axis (sun rises over Heel Stone at midsummer dawn) 【34†L11-L18】 and lunar alignments (Station Stone rectangle aligns to 18.6-year lunar standstill cycle) demonstrate advanced Neolithic knowledge of celestial cycles. The 4° rise in latitude since construction was negligible, so alignments still work today – showcasing Earth’s axial stability over 4,500 years. Stonehenge’s design suggests intent to create a microcosm of cosmic order on Salisbury Plain, making it a keystone of harmonic prehistory.

100

Avebury Stone Circle

Stone Circle

England (UK)

51.4289° N

01.8540° W

31°E

Largest stone circle in the world (~420 m across) encompassing part of Avebury village; contains two inner circles; connected by West Kennet Avenue to smaller circles (The Sanctuary). Dated ~2600–2400 BCE. Not perfectly circular (slightly elliptical) and not purely cardinal, but designed as a broad ritual landscape integrating solar sightlines and landform alignments.

No

Center of a vast Neolithic sacred landscape including Silbury Hill (artificial mound) and chambered tombs. Likely functioned as an open-air calendar: certain stones or gaps align with sunrises over distant hills at solstices or cross-quarter days. The sheer scale indicates confidence in a stable cosmic order – perhaps Avebury served as a geodetic “node” harmonizing local telluric currents (water springs nearby) with celestial events. Its longevity and massive undertaking highlight a strong organized belief in maintaining earth-sky balance, correlating with a period of prolonged climate calm in the mid-Holocene.

98

Silbury Hill

Artificial Mound

England (UK)

51.4150° N

01.8562° W

31°E

Largest prehistoric mound in Europe (~30 m high, 160 m diameter, chalk core) constructed ~2400 BCE near Avebury; not a burial. Notable alignment: from its top, the midsummer sunrise appears over the nearby West Kennet long barrow, and midwinter sunset aligns over distant Milk Hill. Purpose likely ceremonial or symbolic “earth pyramid.”

No

A gigantic earthen pyramid, Silbury’s exact purpose is debated (perhaps representing the pregnant Earth Goddess). Its placement wasn’t random: the alignments with other megaliths and horizon points suggest it was part of an integrated astronomical complex (e.g., observers on Silbury’s summit could mark solstice positions against the barrow). Construction in layered stages hints at generational refinement – maybe calibrating it over time. This man-made hill shows that harmonic architecture needn’t be stone: altering the landscape itself on a grand scale was within Neolithic capability, presumably to amplify the “cosmic tuning” of the Avebury area.

80

West Kennet Long Barrow

Chambered Tomb

England (UK)

51.4142° N

01.8461° W

31°E

Neolithic multi-chambered tomb (~3650 BCE) on a ridge near Silbury; 100 m long mound oriented east-west. Entrance faces east toward the rising sun and toward Avebury, so at equinox and summer solstice morning sunlight can reach into the entrance. Part of the Avebury complex.

No

Acts as a spiritual anchor in the Avebury landscape, likely intended to catch the rays of the rising sun (especially around equinox) to illuminate the ancestors’ resting place – a ritual of renewal. The alignment of tomb entrance to roughly 90° (due east) connects it to the daily rebirth of the sun, symbolically resurrecting ancestral spirits. This practice of orienting tombs to light is mirrored at Newgrange and other passage graves, indicating a broad Neolithic trend of integrating funerary rites with solar cycle. West Kennet’s position relative to Avebury suggests a sacred landscape grid, an early example of aligning multiple monument types in harmony.

85

Newgrange (Brú na Bóinne)

Passage Tomb

Ireland

53.6947° N

06.4757° W

31°E

Massive circular tomb (~85 m diameter) built c. 3200 BCE; interior cruciform chamber accessed by 19 m passage. Famous alignment: a roof-box above the entrance allows the winter solstice sunrise to shine directly along the passage, illuminating the chamber floor for ~17 minutes **【20†L115-L122】** . Also decorated with megalithic art (spirals, lozenges).

No

One of the most celebrated archaeoastronomical alignments: at Newgrange the Neolithic engineers achieved a precise solar event – on the winter solstice, the rising sun’s rays pierce the tomb, dramatically lighting the darkness **【20†L115-L122】** . This entailed exact knowledge of the sun’s lowest annual elevation and careful construction to within arcminutes of accuracy. It underscores a sophisticated cosmology: capturing the “new sun” at year’s rebirth, perhaps

as a promise of renewal. That it still functions today means Earth's tilt and rotation have changed little in 5,200 years – a testament to astronomical stability. Scored 100 as an academically confirmed, strongly aligned site that stands as a jewel of Neolithic science and spirituality.

100

Knowth (Brú na Bóinne)

Passage Tombs

Ireland

53.6940° N

06.4890° W

31°E

Largest mound at Brú na Bóinne (95 m diameter) containing two long passages oriented roughly eastward and westward. Built c. 3200 BCE, like Newgrange. The eastern passage likely aligned to spring and autumn equinox sunrise (or May Day), while the western to sunsets (folklore: Dowth means “darkness”). Over 200 decorated stones, some with complex calendric or astronomical motifs.

No

Knowth complements Newgrange: its dual passages suggest an equinox marker – capturing both dawn and dusk of equal day-night. Thus, Brú na Bóinne complex as a whole covered solstice (Newgrange) and equinox (Knowth) alignments, giving a full 4-point division of the year. Knowth's art includes crescent shapes and “nested arcs” possibly symbolizing lunar cycles. The evidence points to an advanced understanding not just of the solar year but also possibly the 18.6-year lunar cycle (some have proposed alignments with lunar standstill events). Though access is restricted now, laser scans have verified the axial orientations. Knowth, scoring 97, is nearly as significant as Newgrange, illustrating the planners' comprehensive approach to timekeeping and cosmic order.

97

Dowth (Brú na Bóinne)

Passage Tomb

Ireland

53.6940° N

06.5210° W

31°E

Third major mound in the Boyne Valley (85 m diam.), likely built slightly later (~3000 BCE). Its name means “Dark House.” Less excavated, but one passage is thought to align to winter solstice sunset (complementing Newgrange's sunrise). Legend says the sun “stands still” in the sky when trying to shine into Dowth (alluding to solstice pause).

No

Dowth is the least understood of the Boyne triad but probably serves the winter solstice sunset ritual – completing the solstice pair (Newgrange at sunrise, Dowth at sunset). If indeed the setting sun on Dec 21 reaches into Dowth's chamber, it would mirror Newgrange's morning event, symbolically “locking in” the sun's short stay on the horizon during that day. This interplay suggests a very deliberate ceremonial choreographing by the Neolithic astronomer-priests: the sun is greeted at Newgrange and bid farewell at Dowth on the year's darkest day. It emphasizes that Brú na Bóinne was a complex, multifaceted observatory, possibly the most sophisticated of its time. Dowth's score is 72 (good evidence but less direct confirmation due to limited access).

72

Skara Brae

Neolithic Village

Scotland (UK)

59.0480° N

03.3430° W

31°E

Stone-built village (3180–2500 BCE) in Orkney, buried by sand until 1850. Houses are semi-subterranean with entries generally oriented to south-east (away from prevailing winds, toward low winter sun). No obvious alignment structures, but a carved stone in House 1 has markings that may relate to moon phases.

Yes – buried by sand circa 2500 BCE (storm event)

While not an “observatory,” Skara Brae provides context for Orkney’s highly developed Neolithic (same culture that built Maeshowe & Brodgar). The consistent orientation of homes toward the SE might indicate a planning principle to maximize light during the dark winters at 59°N – an early example of passive solar design. Artifacts like enigmatic stone balls and scratched “calendar stones” suggest time-reckoning was part of daily life here too. The site’s abrupt burial by a sandstorm hints at climate change (a possible cooling or stormier period around 2200 BCE, which aligns with a known climatic event). Its inclusion (score 80) acknowledges that entire communities lived within a mindset of seasonal awareness – their survival depended on reading nature’s cues. Skara Brae is thus a key piece showing how alignment concepts permeated even domestic architecture in extreme latitudes.

80

Maeshowe
Chambered Cairn
Scotland (UK)
58.9960° N
03.1890° W
31°E

Large Neolithic tomb mound (~2800 BCE) on Orkney; 35 m diameter. Entrance passage is perfectly aligned so that the setting sun of winter solstice shines straight down the passage, illuminating the back wall of the central chamber **【21†L183-L189】**. Viking runes later carved inside attest it was noticed historically.

No

One of the clearest solstice alignments in Europe: at midwinter sunset, sunlight streams through the low 11 m passage to light the tomb’s interior **【21†L183-L189】**. Maeshowe’s builders achieved precision at 59°N, compensating for the sun’s low angle. The effect still occurs, proving design intent and stability. This alignment likely anchored Orkney’s ritual calendar – marking the turning point toward spring. Maeshowe’s alignment and carving sophistication (cruciform chamber, corbelled roof) indicate Orkney was a major knowledge center. The site’s later Viking graffiti (12th century) mentions the solstice event (“the sun shines into the howe”), showing continuity of awareness. Maeshowe is scored 100 for its textbook demonstration of Neolithic astronomical engineering and its enduring legacy.

100

Stones of Stenness
Stone Circle
Scotland (UK)
59.0000° N
03.2070° W
31°E

Remains of an early stone circle (originally 12 stones, now 4 up to 5 m tall) on Orkney, part of the “Heart of Neolithic Orkney” World Heritage site. Erected ~3100 BCE. Likely aligned with Maeshowe and other nearby sites; may have framed specific solar or stellar events (e.g., one hypothesis: rising full moon seen between stones).

No

As perhaps the oldest henge in Britain, Stenness forms part of a complex with Maeshowe and the Ring of Brodgar. Although few stones remain, the positions of the stump holes indicate a standard circular plan. Given its proximity, it likely aligned with Maeshowe’s solstice axis or marked moonrise alignments opposite Maeshowe’s sunset (the Neolithic habit of pairing solar and lunar). For example, if one stood in Stenness circle, Maeshowe’s mound is on the horizon

where midwinter sun sets. Conversely, the midwinter full moon (opposite the sun) might rise over Stenness when viewed from Maeshowe. This inter-site alignment hints at an integrated sky map across the landscape. Score 90, reflecting importance but some uncertainty without full circle intact.

90

Ring of Brodgar

Stone Circle

Scotland (UK)

59.0000° N

03.2280° W

31°E

Large stone circle (originally 60 stones, 27 standing) ~104 m diameter, encircled by a rock-cut ditch. Built ~2500–2000 BCE. Alignments: the ring's diameter is almost true NS-EW. Certain stones align with notable hill summits and causeways align to cardinal directions. Likely used to observe the 18.6-year lunar standstill cycle (notches on horizon align with major/minor standstill moonrises as viewed from center).

No

Brodgar is a lunar observatory par excellence: at this latitude, the standstill moon skimmed low on the horizon – the ring's location and orientation allowed observation of this extreme. It complements Stenness/Maeshowe (solar) with lunar focus. The precision needed to verify lunar standstill (which occurs over months) shows dedication; perhaps generational memory passed down to complete the cycle's knowledge. Brodgar also has causeways roughly oriented N-S, aligning with true north and south. Such cardinal orientation suggests cosmological or surveying significance beyond lunar tracking. It's possibly a "cosmic clock" uniting sun, moon, and cardinal directions. Score 95 for being a near-certain astronomical structure and the largest in Scotland.

95

Callanish Stones (Calanais)

Stone Circle & Rows

Scotland (UK)

58.1971° N

06.7456° W

31°E

Megalithic complex on Lewis (Outer Hebrides) erected ~2900–2600 BCE. A central circle of 13 stones with radial avenues in shape of a Celtic cross (N-S line of stones ~83 m long, shorter E, W, S arms). Known alignment: at major lunar standstill, the full moon low on the southern horizon appears to "roll" along the hills (the Sleeping Beauty silhouette) and set in line with the central monolith from certain viewpoints **【21†L183-L189】** .

No

Callanish is famed for this lunar standstill phenomenon: every 18.6 years, observers see the moon skim along the horizon hills and then between the stones – an awe-inspiring predictive display. Additionally, the long avenue likely frames northward moonrise or sun at certain times. Local folklore calls the stones "dancing giants" turned to stone when they failed to keep the Sabbath – perhaps a memory of their ritual dances timed to the moon. This site demonstrates complexity: integration of landscape (horizon outline) and monument. It emphasizes that people went to extraordinary lengths (waiting generations for an event) to validate their knowledge. We score 97, as alignments are well-substantiated and significant, slightly under perfect due to reliance on natural horizon features to complete the effect.

97

Castlerigg Stone Circle

Stone Circle

England (UK)

54.6020° N

03.0980° W

31°E

Early stone circle (c. 3200 BCE) in Cumbria (Lake District); 38 stones arranged ~30 m across, with a flattened side on NE. Surrounded by a panorama of fells (mountains). Alignments: certain stones line up with gaps in the mountains where the equinox sun rises and where the major standstill moon rises. Likely one of the first circles built in Britain.

No

Castlerigg's builders deftly used the local skyline as part of their design: e.g., the spring and autumn equinox sun rises over Threlkeld Knotts ridge when viewed from the circle's center, precisely in a notch as seen between specific stones. Similarly, for lunar standstill, Helvellyn's slope may frame the moon. This shows that even at the very dawn of British megalith-building, there was an understanding of horizon astronomy. The circle might also align with the Great Orme on a bearing that connects to distant sites, hinting at a broader network. Castlerigg's relatively "raw" appearance (less massive stones than later circles) suggests an experimental phase in Neolithic astronomy, making it invaluable for understanding development of these practices. We assign 85, as alignments are plausible but not as thoroughly proven as Stonehenge's.

85

Stanton Drew Circles

Stone Circles

England (UK)

51.3660° N

02.5790° W

31°E

Three stone circles (Great Circle ~113 m diameter, second only to Avebury in size; two smaller nearby) plus stone avenues near Bristol. Built ~2500 BCE. Many stones now fallen or missing. Geophysical surveys found buried pits suggesting timber rings inside. Notable alignments are conjectural: the NE entrance of Great Circle may point to summer solstice sunrise.

No

Though underappreciated, Stanton Drew was a major ceremonial center. The Great Circle's entrance faces roughly northeast, likely intended for the midsummer sunrise (similar to Avebury's orientation logic). Given its latitude (51°N like Stonehenge) and era, it probably followed the same blueprint of aligning to solstices and possibly moon events. The smaller circles and avenues hint at processional alignments akin to Stonehenge's Avenue – linking river to circle in a straight line. The fact that timber rings were present suggests an integrated stone-wood complex capturing both celestial (stone for permanence/sky) and ephemeral (wood for life/earth) elements. It scores 80 for significance tempered by incomplete evidence due to stone loss; further study may elevate its status among astronomically aligned sites.

80

Woodhenge

Timber Circle (Site)

England (UK)

51.1910° N

01.7860° W

31°E

Concentric rings of timber posts (now marked by concrete stubs) near Stonehenge (2 miles NE); six oval rings with an entrance at NE. Built ~2300 BCE, likely roofless. The NE entrance aligns roughly to midsummer sunrise, analogous to Stonehenge's orientation. Part of the Durrington Walls complex (associated with the "land of the living").

No

Woodhenge's alignment affirms that solstitial orientation was a guiding principle even in wooden monuments. It probably functioned in tandem with Durrington Walls (nearby large timber-palissaded henge) for feasting and ceremonies around summer solstice sunrise, complementing Stonehenge's focus on winter solstice sunset (the two being opposite ends of

the annual cycle). The NE alignment and ditch design suggest a similar worship of the sun's peak power. Its existence proves that multiple forms of monuments (wood, earth, stone) were orchestrated in one landscape to serve a cohesive ceremonial calendar – evidence of an advanced cultural approach to harmonizing life (woodhenge feasts at summer, stonehenge rites at winter) with cosmic rhythms. Score 75 as it's clearly aligned but simpler/less monumental.

75

Carrowmore Megalithic Cemetery

Dolmens & Circles

Ireland

54.2620° N

08.5200° W

31°E

Cluster of 30+ passage tombs and dolmens (earliest c. 3700 BCE) around Sligo. Many smaller dolmens surround a central cairn (Listoghil). Listoghil (restored cairn) has a box-like chamber; its orientation is unique: on equinox sunrise the sun illuminates the chamber through a slit in the cairn (not perfectly known until restoration). Other tombs generally face east or towards Listoghil.

No

Carrowmore is among the oldest necropolises, implying it might be the prototype of the later Brú na Bóinne. The focal tomb Listoghil was discovered to have an equinox sunrise illumination after excavations – showing planners even at 3500+ BCE could align a tomb to a specific solar event. This indicates that marking the midpoint of the sun's journey (equinox) was a concept alongside solstices. The smaller satellite dolmens often face the central tomb, possibly indicating a ritual relationship (e.g., all souls receiving light via Listoghil on equinox).

Carrowmore's spread and alignment web show an attempt to sacralize an entire landscape via intervisible monuments – a harmonic matrix. Score 78 for its evident but not fully understood complexity and being less intact than Newgrange.

78

Carrowkeel Tombs

Passage Tombs

Ireland

54.0420° N

08.5100° W

31°E

Complex of 14 passage tombs (~3200 BCE) in Bricklieve Mountains overlooking Carrowmore. One tomb (Cairn G) is aligned so that the setting sun at summer solstice illuminates the chamber through a roofbox, akin to Newgrange's winter sunrise effect. Other cairns have various orientations (one possibly to winter solstice sunrise).

No

High in rugged hills, Carrowkeel's builders achieved a solstice light event with Cairn G (sunset around June 21 aligns with its passage). This shows the Boyne Valley architects were not alone – similar innovations occurred in the West. Carrowkeel's different tomb orientations suggest each cairn might target a different significant day (perhaps cross-quarter days or lunar standstills), collectively covering a broad calendar. It reinforces the idea that Neolithic Ireland had a widespread tradition of sky-aligned tomb-building, not isolated to one site. It also offers insight: Carrowkeel tomb entrances are typically NW or SE, hinting at solstice risings/settings. Score 77 as an important but less famous sibling to Newgrange.

77

Drombeg Stone Circle

Stone Circle

Ireland

51.5610° N

09.2930° W

31°E

17-stone “recumbent” circle in County Cork (~1100 BCE). Has a lower altar stone (recumbent) on SW side and two tall portal stones NE. Aligned to winter solstice sunset: the setting sun on Dec 21 viewed from the NE entrance shines over the recumbent stone. Fulacht fiadh (cooking pit) adjacent, indicating ritual feasting on midwinter.

No

Drombeg shows astronomical alignment persisting into the Bronze Age in Ireland. Its recumbent stone is exactly opposite the portals on an axis oriented SW-NE, which aligns with the point of winter solstice sunset. At that time, the sun’s disc sits on the recumbent (as if on an altar) before dipping – a dramatic visual likely tied to rituals ensuring the sun’s rebirth. That a cooking pit is nearby suggests communal meals to mark the event (midwinter feasts).

Drombeg’s design (recumbent stone circles) is similar to those in Scotland (e.g., Aberdeenshire circles), hinting at cultural exchange in astronomy. By ~1100 BCE, while megalith building waned, knowledge remained—Drombeg is evidence of continuity and adaptation of Neolithic practices into later eras. Score 70 due to smaller scale but definite alignment.

70

Poul nabrone Dolmen

Portal Dolmen

Ireland

53.0480° N

09.1390° W

31°E

Iconic portal tomb in the Burren, County Clare (~3600 BCE). Two portal stones support a large sloping capstone; entrance faces north-east. Not an observatory, but thought to face the direction of midsummer sunrise (NE) or toward a prominent hill on the NE horizon.

No

As a tomb, Poul nabrone’s NE orientation likely wasn’t random: many Irish dolmens face NE, loosely toward sunrise at summer solstice or early morning sun generally (the time of greatest light). This may symbolize rejuvenation for the dead or an invitation for the sun’s first rays to purify the tomb. The Burren’s landscape (pavement limestone) and dolmen’s stark form make it a natural focal point at sunrise with light and shadow contrasts. While not precisely calculated like Newgrange, it reflects the consistent cultural habit of aligning tombs eastward to interface with the solar cycle. Score 67 as it’s representative of numerous such dolmens where alignment is more symbolic than exact, but still part of the harmonic tapestry.

67

Carnac Alignments

Megalithic Alignments

France (Brittany)

47.5950° N

03.0810° W

31°E

Over 3,000 menhirs set in long parallel rows (Ménec, Kermario, Kerlescan alignments) stretching several kilometers east-west. Erected ~3300–4500 BCE. General orientation of rows is NE-SW with slight variation; some row termini have cromlechs (stone circles). Purpose debated: possibly a giant astronomical “grid” to observe lunar/solar risings, or a ritual procession route aligned to solstitial sunrise.

No

One of the largest megalithic complexes on Earth. The overall NE-SW orientation of rows suggests alignment with solstitial sunrise (NE) and sunset (SW). One theory: each row corresponds to the rising of a particular star or constellation in sequence – effectively a Neolithic observatory allowing multiple simultaneous observations (like a giant abacus of the sky). Another theory: the rows and spacing encode mathematical ratios or a sonic resonator for ritual (less likely). The sheer scale implies an extraordinary coordination, perhaps pan-tribal, which hints the motivation was profound – likely cosmological. Carnac stands as evidence that

not all alignments are circular; linear arrangements could map out entire portions of the sky across the landscape. We score it 95 for scale and probable astronomical intent, though the exact “read” of Carnac’s code remains elusive.

95

Grand Menhir Brisé

Monolith (Broken)

France (Brittany)

47.6031° N

03.1164° W

31°E

The “Great Broken Menhir” of Locmariaquer – once stood ~20 m tall (~330 tons), erected ~4500 BCE, now fallen in four pieces. It was the largest known standing stone humans ever raised. It aligned with a nearby dolmen (Table des Marchand) and other menhirs, possibly as part of a stone row. It fell and broke in antiquity (around 4200 BCE).

No

The act of raising this stone indicates megalithic people’s ambition to mark something extraordinary. Some suggest it was aligned with the equinoctial sunrise or to a star (but evidence is scant as it’s broken). Its alignment with neighboring dolmens hints it was part of a ceremonial alignment or sightline – maybe the anchor of a row or a focal point for gatherings. The breakage could have been due to an earthquake or intentional decommissioning; if an earthquake, it underscores that even slight tectonic shifts (Brittany is not highly seismic, but a tremor might topple a delicately balanced 330-ton stone) can disrupt our ancient grid – a literal crack in the codex. Today it lies as a mute testament to Neolithic engineering. Scored 80: significant for engineering and being part of the Carnac complex’s broader plan, but its exact alignment purpose died with its fall.

80

Gavrinis Passage Tomb

Passage Tomb

France (Brittany)

47.5817° N

02.9000° W

31°E

Small island (was a hill on mainland ~3500 BCE) with an intricately carved passage tomb. Passage faces SE; likely aligns with winter solstice sunrise (or a bit before) – midwinter sun can send light into the passage. Interior slabs are covered with engravings (spirals, axes, zigzags) that some interpret as abstract cosmic symbols.

Yes – now on an island (sea level rose)

Gavrinis is like a cousin to Newgrange: smaller, but richly decorated. Its SE orientation suggests an alignment to winter solstice sunrise, welcoming the newborn sun into the tomb’s darkness. Marine transgression after its construction turned it into an island, which ironically preserved it. Notably, patterns on its stones match those in other distant sites (e.g., symbols on Gavrinis match those on stones at Newgrange and Locmariaquer’s Table des Marchand), hinting at a shared symbolic code – possibly representing stars, sound waves, or journey of the soul. Gavrinis exemplifies how alignments often accompanied symbolic art, reinforcing the message. Score 90 as a strongly aligned site and a key piece in understanding European passage tomb culture’s “lexicon” of symbols and alignments.

90

Barnenez Tumulus

Passage Tomb

France (Brittany)

48.6833° N

03.9167° W

31°E

Enormous stone cairn (~75 m long, 8 m high) containing 11 passage chambers, built in phases 4850–4200 BCE. Multiple orientations: some passages face west (perhaps equinox sunset), others south-west (winter solstice sunset?). Contains some of the earliest engraved symbols (axes, curved shapes).

No

As one of the oldest megalithic structures, Barnenez provides insight into the experimental phase of megalithic alignment. With so many chambers, builders tried various orientations – perhaps hedging bets or dedicating different chambers to different times of year or deities. The presence of repeated symbols (double axe heads – possibly representing thunder or the sun's path) hints that these orientations had ritual meaning. Barnenez shows that even at this antiquity, alignment was considered: it's unlikely all 11 passages are random. It might encode a multi-calendar or serve multiple clan lineages each with their auspicious date. We score 85, recognizing its importance and likely intentional variety of alignments, though pinpointing each is challenging due to damage and missing horizon context.

85

Cham des Bondons Menhirs

Menhir Field

France (Cévennes)

44.3200° N

03.7000° E

31°E

High limestone plateau in southern France with ~150 standing stones in clusters and alignments (second largest concentration in France after Carnac). Erected ~3000 BCE. Some alignments are roughly NW-SE. Likely a regional ritual center linking communities.

No

This plateau's menhir groups likely correspond to astronomical alignments with local horizon features: the Cévennes skyline would have notches where sun/moon rise/set could be observed. Being inland and elevated, it shows megalithic practices weren't confined to coasts. It could be a localized expression of the broad megalithic tradition that swept Atlantic Europe. Possibly each line of stones marks a different clan's ancestral connection to a star or solstice. Cham des Bondons underscores that by 3000 BCE, even smaller communities participated in erecting stones purposefully. We score 70 for significance within France, albeit not as extensively studied or monumental as Carnac.

70

Almendres Cromlech

Stone Circle

Portugal (Alentejo)

38.5570° N

08.0625° W

31°E

Oval double-ring of nearly 100 standing stones (erected in stages 6000–4000 BCE) near Évora. Long axis of oval is oriented east-west, with the sunrise of equinox roughly aligned along it. Certain stones have cup-marks that align with star positions (e.g., perhaps the Pleiades). One outlying menhir (~1.4 km NE) lines up with the cromlech's center and sunrise at summer solstice.

No

One of the oldest known stone circles, Almendres indicates that Iberian megalith builders were among the first to formally observe sky patterns. The fact its axis aligns to equinox suggests an attempt to balance light and dark – appropriate for a site possibly used over millennia (it was added to over time, reflecting calibrations). The NE outlier menhir – the Almendres Menhir – forms a solstitial alignment when viewed from the circle, showing they integrated distant features much like Stonehenge-Avenue. The site also might align to the Moon (some stones face where moonrise occurs at standstill). Almendres demonstrates a very early template of circular space as observatory, contemporary with or earlier than Goseck in Germany. It scores

92 as a highly validated site given recent research confirming alignments and its UNESCO status as part of Évora megaliths.

92

Anta Grande do Zambujeiro

Dolmen

Portugal (Alentejo)

38.5413° N

08.0817° W

31°E

Gigantic passage dolmen (~4000 BCE) – one of the largest in Iberia. 7 m long entrance corridor oriented due east (90°) towards sunrise; chamber is 6 m wide, formerly covered by a mound.

Rich grave goods found inside.

No

This dolmen's orientation (almost true east) likely allowed equinoctial or midsummer sunrise light to reach into the passage – a recurring theme connecting sun with tomb. Given its scale and effort, clearly the alignment was intentional, to sanctify the sepulcher with dawn's first light. It underscores how widespread the practice was – even outside the famous circles, solitary dolmens often adhere to alignment norms. By visiting this site at sunrise, one could witness similar effects as at Newgrange on a smaller scale. We score 80; it's regionally significant and aligned, but less globally known.

80

Dolmen of Menga

Dolmen

Spain (Andalusia)

37.0139° N

04.5369° W

31°E

Enormous Neolithic dolmen at Antequera (~3800 BCE); 27.5 m long corridor-chamber.

Uniquely, its orientation is not toward sunrise but to the NE, pointing at a distinctive mountain peak (La Peña de los Enamorados) instead of the horizon. Contains a deep well inside.

No

Menga breaks the typical pattern: instead of facing East, it faces a sacred mountain with a human-face profile. This suggests a deliberate choice of landscape alignment over celestial – possibly the mountain was revered (natural pyramid shape) or used as a solar marker itself (the sun might rise over it on summer solstice when viewed from Menga). This highlights flexibility in alignment philosophy: the goal was symbolic power, whether that came from the sun, a mountain, or both. Menga implies builders might consider certain landmarks as equally important as the sun – perhaps conceptually linking the mountain (earth) and tomb (underworld) in one line. It also reminds us the “grid” includes geographic features (a concept later formalized in feng shui in China). Score 90 for its magnitude and intriguing alignment, which taught archaeologists not to oversimplify alignment theory.

90

Dolmen of Viera

Dolmen

Spain (Andalusia)

37.0122° N

04.5357° W

31°E

Adjacent to Menga, built ~3500 BCE. A more “classic” dolmen: 21 m corridor oriented due east, likely aligning with equinox or other sunrise (the sun penetrates the passage on equinox mornings). Smaller than Menga but still large.

No

Viera contrasts with Menga, adhering to the typical eastern alignment. This suggests the Antequera builders intentionally employed different alignments: one tomb (Menga) for a

mountain/earth deity and one (Viera) for solar events. It's as if they hedged cosmological bets or served different ritual purposes. The fact they're next to each other provides a perfect case study that Neolithic alignment choices were nuanced and context-driven, not uniform. We score 85 – clearly aligned and part of an advanced complex, albeit overshadowed by Menga's uniqueness.

85

Tholos of El Romeral

Tholos Tomb

Spain (Andalusia)

37.0223° N

04.5203° W

31°E

Beehive-style tomb (~1800 BCE) near Antequera, later than Menga/Viera. Entrance faces SSW. At winter solstice, the sun sets between two distant hills (El Torcal range) directly in line with the passage. Shows integration of natural horizon into Bronze Age megalithic practice.

No

El Romeral was built by a later culture (early Bronze Age) but consciously aligned with the winter solstice sunset, using a mountain notch to frame the sun – essentially a composite astronomical-landscape alignment. This continuity in Antequera from Neolithic to Bronze Age underscores how alignment knowledge was preserved and evolved. It's fascinating that Bronze Age people chose the opposite solstice (sunset rather than sunrise) to align to, perhaps balancing the older Viera's equinox and Menga's unique mountain alignment, thus completing the cosmic picture at Antequera over a 2,000-year span. Score 85: it highlights an enduring harmonic site where successive generations add layers of alignment meaning.

85

Externsteine

Rock Formation Shrine

Germany (Westphalia)

51.8670° N

08.9350° E

31°E

Striking natural sandstone pillars; a sacred site possibly in use from prehistory to medieval. A man-made oval "window" was carved into one pillar (perhaps in the early Middle Ages) that aligns with summer solstice sunrise when viewed from inside a chamber behind it 【34†L11-L18】. Likely a continuation of earlier Saxon/Northern European pagan practices.

No

Externsteine shows that sometimes nature provided the monument, humans only tweaked it. The solstice sunrise through the carved hole suggests knowledge of Stonehenge-like alignments persisted in folk tradition even into the Christian era (the site was later Christianized with relief carvings). Legends tie it to Irminsul (the Saxon world tree) – if true, it was a focal pagan site, and the solstice alignment indicates conscious preservation of cosmic worship. It illustrates how harmonic sites could be adopted and adapted by different religions (as happened with many European megaliths and churches). Score 67 as the major alignment is a medieval modification (albeit likely reflecting older usage), but it powerfully demonstrates continuity and syncretism in sacred geographies.

67

Goseck Circle

Circular Henge

Germany (Saxony-A.)

51.1989° N

11.8698° E

31°E

Oldest known solar observatory circle in Europe (~4900 BCE); 75 m diameter double wooden palisade and ditch enclosure with gates. Two opposite southern gates are aligned to winter solstice sunrise and sunset 【20†L94-L100】 , and a north gate aligns with true north. Rediscovered via aerial cropmarks in 1990s, reconstructed on site.

No

Goseck is compelling evidence that accurate solar observatories existed in Early Neolithic (over 2000 years before Stonehenge). The solstice gates allowed priests to observe the sun's lowest arc and calibrate the agricultural calendar 【20†L94-L100】 . The presence of the north gate (facing the then-pole star or just marking cardinal north) helped establish orientation. It's effectively a solar calendar in wood, proving quantitatively that European farmers of 4900 BCE were not just passively observing, but actively building devices to track time. Since wooden structures don't last like stone, Goseck implies many other lost timber "hengess" may have existed. We score it 98 for its confirmed function and foundational importance (just shy of 100 since it's reconstructed and the full cultural context is still being pieced).

98

Ring of Pömmelte

Timber Henge

Germany (Saxony-A.)

51.8480° N

11.7320° E

31°E

Late Neolithic circular sanctuary (~2300 BCE) dubbed the "German Woodhenge," similar size to Stonehenge (~115 m). Multiple concentric rings of ditch and palisades with radially-aligned entrances. Entrances align to solstices/equinoxes (NE, SE, SW, NW gates corresponding to sunrise at summer solstice, winter solstice, etc.) 【21†L193-L199】 . Contains ritual pits with offerings.

No

Pömmelte indicates that after 2500 BCE, the knowledge encapsulated in Stonehenge-like sites spread or independently arose on the continent. It has a remarkably similar layout to British henges but built of wood/earth. Alignment analysis shows it was sited for quartering the horizon (likely to observe both solstices and equinoxes from center) 【21†L193-L199】 . The presence of burial and sacrifice evidence ties astronomical events to religious rites (perhaps sacrifices at solstices to ensure cosmic order). It shows a cultural link – either through migration or parallel development – uniting European late Neolithic in harmonic practices. We give it 90 as a clearly aligned, significant site, cementing that knowledge networks spanned across what is now the North Sea.

90

Sarmizegetusa Regia

Hilltop Sanctuary

Romania (Carpathians)

45.6219° N

23.3073° E

31°E

Dacian capital (1st c. BCE – 1st c. CE) in the mountains, with a sacred precinct containing a circular solar calendar (andesite ring with 360° layout and radial stones) and a rectangular platform oriented to cardinal points. The circular sanctuary has a diameter of 29.8 m, interpreted as a calendar with 13 segments (maybe 13 lunar months). Possibly aligned to summer solstice sunrise in its eastern entrance.

No

This late site shows how pre-Roman Europeans maintained astronomical traditions. The Dacian ring sanctuary's design (often called the "Dacian Stonehenge") suggests a strong solar cult – likely the site of annual observances. Some stones line up with the rising sun at the

solstice or equinox, though exact alignments are debated. The practice of dividing the circle into segments indicates knowledge of the solar year's days, and maybe the Metonic cycle (combining solar-lunar). As an Iron Age outpost of the alignment tradition, it's noteworthy – built at a time when Romans used written calendars, these people still built in stone to track time. We score 80: its significance is clear, but as a relatively recent creation it mostly confirms continuity of practices.

80

Lepenski Vir
Mesolithic Settlement
Serbia (Danube)
44.5480° N
22.0320° E
31°E

Semi-sedentary village on the Danube (6300–5500 BCE) with trapezoidal huts arranged in a fan shape opening toward the river (facing west). Some alignment suggestions: houses seem oriented to where the sun sets over the opposite bank at a certain time of year; altars align with sunset. Site was relocated due to flooding from a dam.

Yes – partly flooded by modern dam

Lepenski Vir's importance is in its age – a community with proto-urban planning long before “civilization.” The uniform orientation of homes (NW-SE axis) could indicate a shared ritual (perhaps aligning with a notable sunset or star setting behind the western hills). One hypothesis is that the settlement was oriented toward a notch on the horizon where the sun sets on summer solstice, thus uniting the community in an annual spectacle. If so, it's the earliest aligned “architecture” known. The fishlike sculptures found here perhaps tie to seasonal spawning (again linking to cycles). Though not confirmed, including Lepenski Vir (score 72) reminds us that alignment awareness might predate agriculture – it could have guided these foragers in annual migratory or ritual patterns.

72

Buzovgrad “Sun Gate”
Rock Arch Shrine
Bulgaria (Thrace)
42.6300° N
25.3800° E
31°E

Naturally formed granite arch on a hill near Kazanlak, modified by Thracians (~1st millennium BCE). On summer solstice sunset, the sun seen from the valley aligns to shine through the arch, creating a burst of light (celebrated today by locals). Traces of a Thracian shrine (altar stones) nearby indicate it was used for sun worship.

No

Known as the “Door of the Sun,” this arch provided a dramatic hierophany – the sun briefly visible through the stone doorway at the longest day's end. Thracians likely saw this as a portal to the divine. It underscores how landscape features continued to be incorporated into alignment practices (similar to Externsteine). Instead of building huge structures, they found spots where nature already aligned the sun for them and sanctified those places. Thracians were Indo-European and contemporaries of Greeks, so their solar ceremonies complement the textual record of sun worship (e.g., Herodotus noting Thracians worship Helios). We score 67: a minor site globally but locally potent, showing the omnipresence of solstice ritual.

67

Belintash Plateau
Rock Carving Sanctuary
Bulgaria (Thrace)
41.8500° N
24.7500° E
31°E

Rocky plateau with carved niches, steps and over 20 cup-marks (pits) in patterns. Some Bulgarian researchers claim the cup-mark pattern mirrors the star cluster Pleiades, and channels might align with solstice sunrise. Site usage in Iron Age (possible Dionysian oracle site).

No

Belintash is speculative in interpretation – often called a Thracian sanctuary with a “star map.” If the cups indeed correspond to the Pleiades and other stars, it’s an example of directly inscribing the heavens onto the earth (much like later star maps on temple ceilings). It shows a different approach to harmonic principles: rather than constructing large monuments, carving an abstract of the sky in immovable rock to sanctify it. While not universally accepted, it’s included to illustrate attempts to literally map the macrocosm in microcosm. Score 47 due to high uncertainty, but it enriches the narrative of how ancient people might have recorded cosmic knowledge on landscapes in ways beyond alignments – in this case, perhaps a schematic.

47

Kamyana Mohyla (Stone Grave)

Rock Art Hill

Ukraine (Steppe)

46.9667° N

35.4333° E

31°E

An isolated sandstone outcrop on the steppe, forming cave-like spaces with thousands of petroglyphs (some claim dating back to 12,000 BP up to Bronze Age). Carvings include solar symbols, animal tracks, and possibly the oldest proto-writing. No built structures, but location is singular in flat steppe.

No

Often likened to an “ancient library,” Kamyana Mohyla may not have intentional alignments, but as a central high spot in a flat region, it could have functioned as a natural observatory. People returning over millennia could observe the sun and stars from atop it with an uninterrupted horizon. Some petroglyphs might be calendrical (tally marks, concentric circles for suns). It’s included to highlight that sometimes a site’s significance in a grid is its geographic uniqueness: in a vast plain, any hill becomes a reference point for travelers (and potentially for marking cardinal directions or star rises – though not proven here). Score 60 as a cultural waypoint with tantalizing hints at encoded knowledge (some have even suggested petroglyphs of unknown constellations or maps).

60

Alta Rock Art

Petroglyph Site

Norway (Arctic)

69.9725° N

23.2719° E

31°E

Extensive petroglyph field (5200–2000 BCE) around Alta fjord, Norway. Thousands of carvings show animals, humans, boats, and solar symbols (circular forms). Carvings at different elevations correspond to shoreline at creation time (land uplift). Possibly used for fertility and sun ceremonies when low-angled sunlight rakes the carvings at sunrise/sunset.

Yes – lower carvings were at the shoreline, now ~25 m above (post-glacial rebound)

Alta’s carvings likely had multi-season use; some figures might align with the direction of midsummer sunrise or midwinter moonrise (no direct evidence, but positioning on horizontal rock surfaces means sunlight at low angles reveals them clearly – they may have been timed for such viewing). For example, sun-like discs appear in scenes possibly indicating solar worship. Alta’s changing elevation marks Earth’s slow rebound after Ice Age: as land rose, new carvings were made lower by the water – indirectly marking changing “reference levels” through time. It serves as an inadvertent record of geophysical change. In harmonic context,

it's an example of people adapting their sacred art to slowly shifting landscapes, always ensuring some panel was near the water's edge (perhaps because rituals were tied to sea level or horizon line). Score 72: important record of human-environment interaction with a likely spiritual/astronomical dimension (though not a formal observatory).

72

Tanum Petroglyphs

Rock Carvings

Sweden (Bohuslän)

58.7000° N

11.3500° E

31°E

Thousands of Bronze Age carvings (1800–500 BCE) on coastal granite outcrops. Common motifs: sun discs, ships, warriors, and foot soles. Many carvings are placed on sloping rock faces that catch the light of the rising or setting sun at low angles, causing them to stand out in relief. Some panels seem to light up specifically around solstices.

Yes – originally near Bronze Age sea level, now inland due to uplift

Tanum's artists possibly choreographed their engraving with sunlight: e.g., at the Vitlycke panel, a large sun wheel and pair of lovers become most visible at certain times of day/year when sunlight glances across. It suggests an intent to animate the art with light – essentially a prehistoric “light and shadow show” tied to solar altitude. Additionally, the abundance of ship images and sun symbols likely reflects a solar maritime cult (sun journeying in its ship – a known Indo-European motif). As land rose, some carvings moved inland, but originally many would have been by water, reflecting sunlight off the sea onto them. This dynamic interplay of water, light, and rock art in Tanum region underscores a holistic approach to sacred landscape – the carvings were one element in a living environment orchestrated by the sun's motion.

Score 65 as alignments aren't precise lines but rather environmental setups exploiting sunlight.

65

Ale's Stones (Ales stenar)

Stone Ship Alignment

Sweden (Skåne)

55.3764° N

14.0533° E

31°E

59 boulders forming a 67 m long outline of a ship on a cliff by the Baltic. Dated ~600 CE (though folklore claims older). Oriented NE-SW such that at summer solstice, the sun rises at the NE prow of the stone ship, and at winter solstice, the sun sets at the SW stern 【46†L5-L8】. Believed to be a monumental calendar or tomb of a legendary king.

No

Ale's Stones show how Germanic peoples of the Iron Age continued aligning monuments to solstices. The ship form likely symbolizes the solar bark sailing the sky/sea. The precision is notable: calculations confirm the alignments on solstice days are exact given the horizon altitude. It's effectively a calendar in stone: one can count days from solstice by where sunrise/sunset occurs relative to the stones. This indicates sophisticated knowledge c. 600 CE outside Roman influence. The legend of King Ale's burial here suggests even in myth the sun alignment is key (king associated with sun). Score 72: though late, it's a direct extension of ancient practices into historical times, bridging our dataset to medieval era.

72

Gotland Grooves

Rock Grooves

Sweden (Gotland)

57.5000° N

18.5000° E

31°E

Hundreds of carved parallel grooves in limestone bedrock on Gotland island. Orientation is consistent within each site (often N-S or E-W). Age uncertain (Bronze Age to medieval debated). The grooves (~1–2 m long, a few cm deep) might be sharpening tools, but alternate theories suggest they could have been used with inserted posts to sight the sun's position or as a giant calendar grid.

No

The Gotland grooves are puzzling. Their consistent orientations (some sets almost true N-S) and proximity to known sacrificial sites suggest ritual use. One idea: maybe they ground skates or swords (utilitarian). Another: they laid out multiple rods in grooves to track shadows or sight lines for the sun's changing declination (imagine a grid where a shadow falls on a certain groove on a key date). While evidence is lacking, if ritual, they'd be a very different approach to calendar-keeping – making the earth itself a scoring pad. Regardless, their existence indicates community-scale labor spent on something non-structural, implying significance beyond daily chores. We score 47 given lack of consensus, but their intrigue earns them a place as a reminder that not all ancient “calendars” looked like Stonehenge – some might be right under our feet.

47

Monte d'Accoddi

Step Pyramid

Sardinia (Italy)

40.7783° N

08.5833° E

31°E

Unique terraced mound with a long ramp, resembling a ziggurat, built in Neolithic (~3650 BCE) and rebuilt Copper Age (~2800 BCE). Top platform likely used for ceremonies under open sky. Not perfectly cardinal (ramp faces ~NW), but an alignment to the equinox sunset has been suggested (looking from the platform along the ramp). Nearby standing stones possibly aligned to moon or stars.

No

Monte d'Accoddi stands out in Europe – a design parallel to Mesopotamian ziggurats but built by native Sardinians. Its second phase has a trapezoidal base oriented about 12° off N-S.

Some researchers propose this aligns the ramp with the point of equinoctial sunset.

Additionally, two menhirs found north of it might align with star risings. If cultural exchange happened, Monte d'Accoddi might embody imported ideas of connecting earth to sky (Mt. Meru or Tower of Babel concept). It being on Sardinia – a known ancient maritime hub – raises fascinating questions of knowledge transfer. It's scored 80 as a regional marvel with promising but not fully confirmed alignments (plus possible significance: people ascending to observe the horizon from height, essentially making a human viewing platform – an interesting twist on an observatory).

80

Su Nuraxi di Barumini

Nuraghe Fortress

Sardinia (Italy)

39.7056° N

08.9933° E

31°E

Large Bronze Age stone fortress (~1500 BCE) with a central tower and four surrounding towers in a cross formation. The towers are roughly oriented to the cardinal directions (north, south, east, west) forming a plus-shaped bastion. Primarily defensive, but orientation seems too symmetric to be accidental.

No

The Nuragic people weren't known for explicit astronomy in the way megalith builders were, but the layout of Barumini's towers suggests at least a geometric order possibly linked to cardinal directions (or just structural symmetry). If intentional, this indicates an appreciation for

aligning structures to the earth's axes for practical or symbolic reasons (perhaps to evenly watch all horizons or invoke cosmic order to sanctify a fortress). Also, the Nuragic culture is associated with giant monolithic "giants' tombs" that sometimes face southeast (toward sunrise). Barumini's inclusion shows even predominantly martial sites can carry echoes of harmonic design. Score 75 – significance more cultural than astronomical, but noteworthy alignment hints.

75

Argimusco Megaliths

Natural Megalithic Site

Sicily (Italy)

37.9600° N

14.9700° E

31°E

Plateau with naturally sculpted large rocks (some resembling silhouettes like an "Eagle" and a "Priestess"). Modern archaeoastronomers have noted alignments: e.g., at summer solstice, the setting sun seems to nestle into a notch between two rocks; at certain star risings (Orion's belt), the Priestess rock's profile faces them. However, no evidence of prehistoric modification or use has been confirmed.

No

Argimusco is beloved by esoteric researchers who dub it "Sicily's Stonehenge," but to date it remains a collection of striking natural boulders in a location with wide sky views. Any alignment might be coincidental, but the site's overall atmosphere and anthropomorphic rocks likely drew ancient attention (if nothing else, as landmarks or sacred "petrified beings"). If Neolithic people did hold rituals there, they might have keyed off natural alignments (like using a split rock as a foresight for solstice sunset). It's included as a case where nature itself nearly creates a harmonic site, and how later generations might perceive it. Score 47 since it's more modern interpretation than verified ancient site, yet it challenges us to distinguish between human-made and natural in the alignment record.

47

Asia & Oceania (Corridor ~103°E)

Site Name

Type

Country

Latitude

Longitude

Corridor Association

Notable Features

Submerged/Flood Connection

Geomagnetic/Pole Shift Significance

Speculative–Validated Score

Mohenjo-daro

Ancient City

Pakistan (Sindh)

27.3290° N

68.1389° E

103°E

Planned Indus Valley metropolis (~2500–1900 BCE); grid layout with streets oriented NW-SE (~north-south and east-west); “Great Bath” tank likely aligned on cardinal axes; advanced drainage. The citadel’s main streets run nearly north-south 【21†L194-L199】 .

Yes – Indus River flooding evident (city raised on platforms)

Pinnacle of Bronze Age urban design; the near-cardinal street grid indicates surveying by compass (or by pole star) – possibly the earliest formal geodetic town plan. It suggests Indus engineers valued alignment for function (wind catch, flood flow) and perhaps cosmic order. Its fall (~1900 BCE) coincides with river shifts and maybe magnetic field fluctuations (not strongly evidenced). Mohenjo-daro represents a 100 score: academically confirmed orthogonal planning at large scale, embodying how early cities encoded cardinal orientation as a principle of stability and rationality 【21†L194-L199】 . It anchors the Asian dataset as Giza does Africa.

100

Harappa

Ancient City

Pakistan (Punjab)

30.6300° N

72.8800° E

103°E

Another major Indus city (~2600–1900 BCE); citadel and granary exhibit the same grid planning as Mohenjo-daro (streets ~N-S / E-W within a few degrees). Over centuries, orientation drifted <2°, implying re-use of original plan. Citadel gateways face cardinal directions.

No – River (Ravi) shifted far from site (droughted out)

Harappa reinforces that Indus culture uniformly applied a geodetic template across settlements – evidence of a standard (perhaps ordained by a central authority or tradition). The alignment’s persistence even as the settlement declined suggests a deep entrenchment of this layout ideal. It underscores the concept that once a city was aligned, its spiritual “mandala” was set – changes were not made frivolously. As Mohenjo-daro’s sister, we score 85 – high, but slightly less than Mohenjo-daro’s exemplar status, reflecting that while the pattern is confirmed, the spectacular nature of Mohenjo-daro’s remains overshadows Harappa’s more eroded state.

85

Mehrgarh

Neolithic Settlement

Pakistan (Balochistan)

29.3700° N

67.8500° E

103°E

One of the earliest farming villages (~7000–5500 BCE) at the foot of Bolan Pass. Mudbrick houses not evidently aligned (likely organic layout following topography). Notable as precursor to Indus cities but with no monumental alignments.

No

Mehrgarh provides a baseline: before large-scale alignment, early farmers lived in unplanned villages. Its inclusion at score 47 is to emphasize that the alignment phenomenon was a hallmark of later, more complex societies. It sets a contrast: within a few millennia, the descendants of Mehrgarh’s villagers went from free-form layouts to rigorous grids at Mohenjo-daro – possibly reflecting shifts in world view (from animistic/spontaneous to perhaps more priestly/structured, potentially correlating with the stabilization of Earth’s climate and geomagnetic field in mid-Holocene).

47

Dholavira

Ancient City

India (Gujarat)

23.8859° N

70.2140° E

103°E

Indus city on an island in Rann of Kutch (c. 2500–1900 BCE); distinguished by water reservoirs and “signboard.” City’s walls outline a rectangle oriented roughly N-S-E-W (tilted ~2°). The main gateways face cardinal directions. Inside, a central water channel runs E-W collecting solstice rains. Possibly aligned to catch maximum monsoon sun angles for water evaporation. Yes – seasonal flooding (surrounded by salt marsh)

Dholavira’s orientation shows Indus surveyors applying the same grid even in a desert island context. Its unique water management focus suggests alignment played a hydrological role (positioning reservoirs and channels to optimize rain and evaporation cycles, which tie to solar position). The giant inscription found might have been placed to face due north or south (unknown characters possibly lit by certain sun angles?). Dholavira’s planning belies a society in tune with the extreme climate swings (monsoon on/off) – its alignment might have helped them schedule citywide water tasks. Score 88 as a strongly aligned site with a twist – alignment serving environmental adaptation in addition to civic order.

88

Lothal

Ancient Port City

India (Gujarat)

22.5200° N

72.2500° E

103°E

Coastal Indus trading town (~2400–1900 BCE) with a dock basin (NW-SE aligned parallel to river flow) and gridded streets. Town’s plan is rotated ~NW-SE, likely aligning with the Sabarmati estuary’s direction (and thus tidal flow). Possibly also aligned with a guiding star for navigation – speculation that its long axis pointed toward Canopus or some southern star used by Indus sailors.

Yes – ancient coastline now shifted inland

Lothal shows pragmatism in alignment: it appears the grid was twisted off cardinal to fit the natural harbor orientation. This highlights that while Indus valued cardinal grids, they weren’t dogmatic if local geography demanded rotation (here the dock likely had to align with the river’s current). Still, buildings within that rotated grid are orthogonal, so internal harmony was preserved. If there was any astral alignment, perhaps the central street was aimed at the rising of Sirius (important for inundation timing in Egypt – maybe in Lothal too for monsoon gauge). Lothal demonstrates flexibility in the codex: align to nature first (harbor), then keep internal order. Score 80 for alignment as applied engineering rather than cosmology, crucial in expanding the trade network.

80

Kalibangan

Ancient Town

India (Rajasthan)

29.4700° N

74.1300° E

103°E

Smaller Indus city on the Ghaggar/Sarasvati (c. 2500–1800 BCE). Citadel and town follow Indus grid (oriented ~NW-SE). Unique “fire altars” row in citadel oriented north-south. Evidence of an earthquake (tilted walls) and eventual abandonment as river dried.

Yes – on now-dry Sarasvati River (lost river)

Kalibangan’s fire altars – aligned in a row – show ritual alignment within the city akin to Vedic practices (which came later). This suggests Indus religious architecture might have aligned with cardinal points (the altars face east while aligned N-S in series). The earthquake that struck (~2600 BCE) is one of the earliest geophysical events recorded in archaeology (fault splits under walls). One can imagine a priestly class seeing their perfectly aligned city cracked – perhaps feeding into later mythology of angry gods or earth changes (e.g., early inklings of cosmic impermanence). Kalibangan underscores that even a “provincial” city adhered to the

grid, and natural disasters might have disrupted Indus urban harmony – a microcosm of larger Indus collapse. Score 67 for moderate significance in alignment context but high in showing resilience and eventual vulnerability of even well-planned systems.

67

Dwarka Ruins (Gomati)

Sunken City

India (Gujarat)

22.2483° N

68.9690° E

103°E

Offshore structures near modern Dwarka, found ~6 m underwater. Stone blocks forming walls, a grid-like street plan, and possible harbor quay discovered (dated ~1500 BCE, Late Harappan/early Iron Age). Mythologically associated with Krishna's capital "Dwarka" said to have 7 temples submerged.

Yes – ~6 m underwater off coast (sea-level rise)

If these are indeed man-made, they confirm that city-building and aligning extended to the coast – and that rising seas in the late Bronze Age claimed part of the human world (global sea levels rose ~2 m from 2000 BCE to 0 CE). The layout seems to follow typical Vedic/Harappan rectilinear patterns – suggesting alignment continued seamlessly into post-Harappan times. Dwarka's myth of submergence around the time of Krishna (maybe ~1400 BCE) eerily matches the ruins. If verified, it underscores how coastal alignment sites were lost to floods, likely fueling flood myths. Score 72 as an underwater site with clear engineering – pending more solid evidence but extremely tantalizing for "lost cities" becoming found reality.

72

Gulf of Khambhat Ruins

Underwater Ruins

India (Gujarat)

21.2000° N

72.4000° E

Gulf of Khambhat Ruins (Cambay)

Underwater Ruins

India (Gujarat)

21.2000° N

Mahabalipuram Submerged Temples

Underwater Temples

India (Tamil Nadu)

12.6200° N

80.1900° E

103°E

Off shore of the 7th c. Shore Temple, divers found ruins of walls and steps (~6 m deep). Local legend spoke of six temples swallowed by the sea. The Shore Temple on land is oriented due east (facing sunrise over Bay of Bengal). The underwater structures align parallel to it, suggesting the drowned temples were laid out similarly.

Yes – submerged by ~1–2 m since 7th c. (shoreline erosion, 2004 tsunami exposed ruins)

Confirms rapid coastal change in historic times. The Pallava builders likely placed all temples along a straight line facing east (to greet the rising sun over the ocean). Their inundation corroborates lore and demonstrates how quickly shorelines can shift (possibly tectonic subsidence). It's a cautionary example that even "recent" harmonic sites can be lost. Scored 72 as a verified underwater heritage with clear cardinal orientation matching its surviving complex.

Konark Sun Temple

Temple (Chariot)

India (Odisha)

19.8870° N

86.0940° E

103°E

13th c. CE Hindu temple shaped as Surya's chariot with 24 stone wheels. Oriented almost due east-west so that at equinox and winter, dawn sunlight enters the sanctum. The 7 horses pulling the chariot face east (sunrise). Each wheel's spokes form sundials.

No (on coast but inland now due to silting)

A medieval masterpiece of solar alignment: essentially a gigantic astronomical instrument (wheels = 24 hours, spokes = 15° intervals). Though late, it epitomizes continuity of cosmic design in India. No major geomagnetic shifts in 13th c., but it encodes deep time concepts (e.g., possibly 365 carvings for days). Though outside our ancient scope, it's included (score 47 by youth rule) to show the peak of alignment art – a coda of the ancient codex.

Xi'an Pyramid Mausoleums

Pyramid Mausoleums

China (Shaanxi)

34.3694° N

108.7158° E

103°E

Dozens of earthen pyramid-tombs of Han & Tang emperors (3rd c. BCE – 10th c. CE). The largest, Qin Shi Huang's (with terracotta army), is aligned N-S (sides face cardinal points). Others also generally cardinal. Indicates independent development of pyramid alignment in East.

No

Ancient Chinese believed in aligning tombs with cosmic north for feng shui. The First Emperor's tomb is almost perfectly oriented, showing how cardinal geodesy became statecraft in China. It's analogous to Giza in concept but purely local origin. Scored 85 as high significance – a convergent evolution of cardinal pyramid-building outside Western influence.

Mount Kailash

Sacred Mountain

Tibet/China

31.0675° N

81.3119° E

103°E

6,638 m striking peak with 4 symmetric faces; revered as axis mundi in Hindu, Buddhist, Jain, Bön. Pilgrims circumambulate it. Not climbed. Some fringe theories call it a man-made pyramid (unproven). It lies near sources of four major rivers (~45° apart in radial directions).

No

A natural "pyramid" aligned with cardinal geography (sources of Indus, Sutlej, Brahmaputra, Karnali roughly to the four cardinal quadrants). While nature-made, its cultural centrality effectively plugs it into the alignment network as "the center." Many have noted its near-perfect cardinal orientation of ridges. It's scored 67 – not human-built, but culturally treated as a linchpin of Earth's sacred geometry (e.g., every direction from Kailash has religious significance).

Mount Tai (Taishan)

Sacred Mountain

China (Shandong)

36.2570° N

117.1100° E

103°E

Principal of China's Five Sacred Peaks (East). Imperial sunrise sacrifices held on summit. An ancient stairway of 7,000 steps leads to the top, aligned roughly east-west up the mountain's slope (pilgrims climb in darkness to face east at dawn). Temples on top oriented to cardinal directions.

No

Not an “alignment” structure per se, but revered for millennia as the place where Earth meets Sky. Emperors would watch the sun rise from Tai’s peak to affirm their mandate. The processional path acts as a human-made alignment – a literal ascent to face the rising sun. It shows how natural high points were integrated into state ritual as effectively aligned observatories. Score 67 for cultural significance (the idea of using a mountain as an observatory).

Yonaguni Monument

Underwater Structure

Japan (Ryukyu)

24.4550° N

123.0116° E

103°E

Submarine rock formation (or ruin) with flat terraces, right angles, steps, and a “road,” ~25 m under the East China Sea. Debate if it’s natural (sandstone erosion) or modified by humans in Ice Age (~10,000 BP). No artifacts found in situ. Features a rectangular “platform” oriented NW-SE and a prominence some call a “face.”

Yes – submerged ~10 kya with post-glacial sea rise

If natural, an uncanny simulacrum of a sunken city. If man-made, it pushes complex construction to late Pleistocene, implying an advanced lost coastal culture. No definitive alignments identified (some claim a triangle pool points north). Regardless, it has entered popular imagination as “Japan’s Atlantis.” In our context, it symbolizes the hazy boundary between geology and potential ancient engineering. Scored 72 as a debated underwater anomaly – reminding us much of Earth’s coastal harmonic history might lie drowned and unresolved.

Ōyu Stone Circles

Stone Circles

Japan (Akita)

40.3333° N

140.8333° E

103°E

Two large late-Jōmon stone circles (ca. 1500 BCE). One (Manza) has a central stone heap and radial alignments; the other (Nonakado) is simpler. A line through their centers points to the sunset at summer solstice 【47†L1-L4】. Likely used as a calendar by prehistoric foragers.

No

Key evidence of independent archaeoastronomy in NE Asia: Jōmon people built in stone despite being non-agrarian. The precision of the solstice alignment is striking – they achieved what many farming cultures did. The Manza circle’s layout may also track lunar movements. Ōyu’s recent UNESCO inscription confirms its significance. We score it 85, acknowledging it as a validated astronomical site that broadens the global map of ancient skywatchers.

Gochang Dolmen Sites

Dolmen Field

S. Korea (Jeolla)

35.5000° N

126.8333° E

103°E

One of the world’s highest densities of dolmens (Bronze Age, ~1500–400 BCE) – hundreds of table-like tombs. While primarily tombs, many are oriented so their entry or tapered end faces south or east (toward sun’s path). Some researchers suggest they mark geomantic “dragon lines.”

No

Korean dolmens show the far reach of megalithic tradition. The general southward orientation (where the sun is in sky at noon) may indicate a desire to connect graves with sunlight (perhaps for the soul to receive yang energy). Their linear arrangements in some clusters hint at

alignments – e.g., some form lines pointing to where the sun rises on equinox. Inclusion highlights that aligning tombs to cardinal or solar directions was a widespread idea even in East Asia's separate cultural sphere. Score 67, as clear astronomical intent is plausible but not definitively proven for each.

Cheomseongdae

Ancient Observatory

S. Korea (Gyeongju)

35.8323° N

129.2117° E

103°E

Oldest surviving observatory in Asia (7th c. CE). A 9.4 m stone tower of 27 tiers (362 stones) with a small window facing south. Likely used to observe Polaris (through top) and certain star transits at the horizon via the window. Numerical design (27 levels = 27 lunar mansions).

No

A Joseon text says Cheomseongdae was used to observe stars to time seasons. The south window aligns roughly with the altitude of Polaris in 7th c. Gyeongju (about 35°). In essence it's a sighting tube: astronomers likely observed the passage of stars across the window's field. Its mere existence proves a continuous thread of skywatching in Korea since prehistoric times, institutionalized by the Silla court. While later than our ancient scope, it's firmly part of humanity's harmonic heritage, confirming concepts like dividing the sky into 28 lunar lodges persisted in design. Score 47 per youth (but technically a full-fledged aligned structure).

Mongolian Deer Stones

Monolithic Stelae

Mongolia & S. Siberia

50.4500° N

100.1667° E

103°E

~1200–600 BCE carved standing stones scattered across steppe. Decorated with flying deer and sun-disc symbols. Often found at burial mounds. Usually oriented with their carved "face" towards the east or sunrise. May have formed linear arrays marking tribal boundaries or ritual sites aligned to the rising sun.

No

These enigmatic stelae likely served as memorials and ritual focal points. The recurrent sun motifs (circles or sun-dags) and the fact many face east suggest an intentional solar connection – perhaps the honoree "faces the dawn." Some sites have multiple deer stones in a row roughly N-S or E-W, possibly creating sight lines. As part of the steppe's Bronze Age, they show that even nomadic cultures anchored something in the ground to interact with the sky.

We score 67 – significant culturally, with likely but not fully documented alignments.

Arkaim

Circular Settlement

Russia (S. Ural)

52.6333° N

59.5727° E

103°E

Bronze Age fortified settlement (~2000 BCE) with concentric ring walls. Gates and main street oriented to summer solstice sunrise (NE) and winter solstice sunset (SW); central plaza possibly used for observations. Often called "Russia's Stonehenge" for its intentional celestial alignment.

No

Research indicates Arkaim's NE gate aligns with June solstice sunrise and SW gate with December solstice sunset. If so, the whole city was a cosmogram – residents literally lived inside a calendar wheel. This is plausible given the Sintashta culture's sophistication (chariot inventors). Arkaim underscores how even utilitarian structures (defensive settlements) could double as observatories. It also resonates with Indo-Iranian spiritual concepts (circular

mandala-like forts). We score 90, reflecting strong evidence of solstitial design in an otherwise practical site, bridging prehistory and the historical Indo-European expansion.

Denisova Cave

Paleolithic Cave

Russia (Altai)

51.4000° N

84.6800° E

103°E

Cave with 100k+ years of hominin occupation (Denisovans, Neanderthals, early Homo sapiens). No built alignments; but location in a south-facing cliff and continuous use through multiple geomagnetic reversals (e.g., Laschamps Event ~41 kya) make it a unique witness to ancient environments.

No

While the cave lacks human-made alignment, its deposit holds clues: e.g., a 50k-year-old bracelet possibly with drilled holes could hint at early adornment tracking sun/moon? Lacking evidence, we mainly include Denisova as a symbol that human (and hominin) memory stretches through past geomagnetic and climatic upheavals. Perhaps faint legends of sky anomalies (like intense auroras during weak field) had their roots here. It's a score 47 entry – minimal, serving as deep background for how far back the chain of knowledge extends (even if fragmentarily).

Sunduki (Khakassia)

Rock Astronomy Site

Russia (Siberia)

54.5000° N

90.0000° E

103°E

Series of flat-topped mesas used by Bronze Age peoples as natural observatories. Notches and peaks on these “chests” align with solstice sun when viewed from certain carved marker stones. Petroglyphs on cliff walls depict sun, moon, and constellations. Sometimes dubbed “Siberian Stonehenge.”

No

At Sunduki, one can observe the summer solstice sun rising from a particular notch and the equinox sun setting aligned with a cleft, guided by rock markings left by ancient observers. The site merges nature's design with human enhancement (carvings as guides). It shows that in open steppe, high rocks served the same role as built megaliths in guiding sky observations. The petroglyphs (e.g., a spiral sun, astral figures) indicate a conscious effort to relate myth to cosmos. We score 67 – well-regarded regionally, research is ongoing to fully decode its system.

Western Caucasus Dolmens

Megalithic Tombs

Russia/Georgia

44.0000° N

39.0000° E

103°E

Hundreds of Neolithic-Bronze Age dolmens scattered in forests; uniform design with a circular portal on the facade. Most portals face south or east (for sunlight) depending on slope. Likely communal burial sites with symbolic orientation (the round portal perhaps representing the sun).

No

These dolmens, while small, reveal a spread of megalithic culture into the Caucasus. Their consistent SE-SW facing ensures interior illumination at some morning hour. A few have alignments: one dolmen's hole aligns with equinox sunrise down a valley. They might have also functioned as spirit “gateways” aligned to where daylight enters (connecting souls to the eternal sunrise). Not widely known, but they're an important puzzle piece in the global mosaic. Score 67 – significant regional pattern, alignment likely intentional but not dramatically precise.

Turgay Steppe Geoglyphs
Earthwork Geoglyphs
Kazakhstan (Turgay)
50.1000° N
65.3000° E
103°E

Giant geometric earthworks (Neolithic ~7000–5000 BCE) discovered via Google Earth: a huge square (280 m each side) of mounds precisely oriented N-S-E-W 【47†L1-L4】 , a cross, rings, and lines. Purpose unknown (maybe tribal symbols or archaic surveying).

No

These are astonishing if Neolithic: the square's sides are almost perfectly cardinal 【47†L1-L4】 – implying far earlier mastery of large-scale alignment than believed. Could they have been ancient “paddocks” or even a message to the sky gods? Monte Carlo chance of such cardinal precision by accident is low, so intentional design is likely. Perhaps an early attempt at a “world-square,” dividing land into cardinal quadrants for ritual or protogeometry. In any case, they show our ancestors experimenting with geodesy extremely early. We give 72: confirmed existence and alignment, but meaning still speculative.

Angkor Wat
Temple Pyramid
Cambodia
13.4125° N
103.8670° E
103°E

Immense 12th c. Khmer temple-city. Oriented slightly west of due east to align with the spring equinox sunrise (sun rises over central tower when viewed from west gate) 【46†L1-L8】 . The whole city's plan aligns to cardinal axes, and sight-lines within Angkor Wat align to Venus and other star risings (Khmer integrated astronomy with Hindu cosmology).

Yes – moat and reservoirs managed floodwaters (monsoon)

Angkor Wat showcases the apex of alignment knowledge in the medieval world 【46†L1-L8】 . It's effectively a gigantic cosmogram (Mount Meru model) with precise astronomical alignments built in (e.g., axis of temple = 93° azimuth to equinox sunrise). Even the distances between towers encode planetary periods. As a late bloom of ancient science, we score it 95 (deducting only because it's later than “ancient”), demonstrating continuity of the codex in SE Asia.

Phanom Rung
Temple Sanctuary
Thailand
14.5325° N
103.7725° E
103°E

10th–13th c. Khmer hilltop temple. Famous for the event when the rising sun shines through all 15 aligned doorways of the temple on certain days in April and September 【46†L5-L8】 (near equinox). Temple faces east; built on an extinct volcano.

No

A regional Angkor outpost, Phanom Rung is explicitly designed for a solar spectacle: at equinox, viewers see the sun rising straight through the corridor of doorways, a stunning demonstration of alignment 【46†L5-L8】 . Similarly, sunsets in March and October align. This shows that even at smaller scales, Khmer architects embedded precise astronomy in temples (likely for auspicious dates corresponding to Hindu calendar). Score 72, as a well-known alignment example albeit in historic times.

Borobudur
Temple (Stupa)

Indonesia (Java)

07.6079° S

110.2038° E

103°E

9th c. Mahayana Buddhist mandala-temple. Each side faces a cardinal direction; designed as a cosmic mountain. No singular light alignment, but entire layout is cardinal, reflecting the universe's order. 72 Buddha statues on upper tiers (number choice maybe cosmologically significant).

No (volcanic region)

Borobudur isn't an observatory but is aligned to the cardinal axes as a fundamental principle – the east gate faces exactly east, etc. It shows that by the 9th c., in Java, the idea of aligning monuments with the cosmos (in this case the abstract cosmic directions rather than a specific sunrise) was fundamental. The consistency and monumental scale warrant 67 (per rules) – it's a late but clear instance of cardinal alignment expressing spiritual harmony.

Gunung Padang

Megalithic Terrace Hill

Indonesia (West Java)

06.9733° S

107.0587° E

103°E

Hilltop covered with columnar basalt fragments forming terraces. Some claim it's a buried pyramid with dates as early as 20,000 BP (contested). Oriented NW-SE along ridge; one line of sight possibly to Mt. Gede (volcano) where sun rises. Research ongoing on alignments – one terrace might align with June solstice sunrise.

No

A site of intense debate. If extremely old, it might be the progenitor of all later SE Asian alignments. Even if "only" 2500 BCE, it's still the largest megalith in Java. Archaeologists have noted one prominent baseline points to the equinox sunrise. Locals call it spiritual; it likely had astronomical uses (if nothing else, the flat summit is ideal for sky observation). We assign 72, acknowledging its importance but pending clearer evidence.

Nan Madol

Water City Ruins

Pohnpei (Micronesia)

06.8408° N

158.3333° E

103°E

92 artificial islets of basalt columns in a lagoon (Saudeleur Dynasty, 12th–17th c. CE). Network of canals running roughly NE-SW. No known star alignments, but the main ceremonial islet (Nanoline) is aligned with the trade winds. Often called "Venice of the Pacific."

Yes – canals tidal (partially silted now)

Nan Madol's orientations seem guided more by reef structure and winds than astronomy. Still, the positioning of tomb islets and temples might align with equatorial sun paths (Pohnpei is near equinox line, so sun is often directly overhead). It's included as an Oceanic complex showcasing sophisticated engineering but relatively less focus on celestial alignment due to heavy cloud climate. We rate 72 for clear human engineering and orthogonal layout in parts, though not primarily astronomically aligned.

Easter Island (Rapa Nui)

Monolithic Statues & Ahu

Chile (Polynesia)

27.1127° S

109.3497° W

72.66°W

~900 Moai statues on ahu platforms (AD 1000–1500). Ahu (platforms) often face sunset or sunrise at particular times: e.g., Ahu Tongariki faces June solstice sunrise from inland; Ahu

Akivi's 7 moai face the rising sun at equinox 【43†L33-L37】 . Some platforms align with stars used in Polynesian navigation.

No (isolated oceanic context)

Even in this extreme isolation, alignments occur: Ahu Akivi's moai gaze at equinoctial sunrise

【43†L33-L37】 ; Orongo's birdman village aligns with summer solstice sunrise over Motu Nui islet (per some studies). This suggests islanders integrated their ancestor cult with solar cycles and star lore (their open-sea navigation relied on stars, so they recognized their movements). Rapa Nui demonstrates that even post-megalithic smaller cultures independently practiced harmonic site placement. We score 90, given solid evidence of equinox/solstice orientations and its famed legacy as an "end-of-the-world" observatory.

Taputapuatea Marae

Ceremonial Marae (Temple)

French Polynesia (Raiatea)

16.8333° S

151.3333° W

103°E (Oceania)

Ancestral Polynesian temple courtyard (UNESCO). Main ahu (altar) faces west toward the sea (sunset direction, also direction of ancestral homeland). Serves as the center of the Polynesian triangle network – from here navigation routes to Hawaii, NZ, etc., radiated. Annual ceremonies likely timed with heliacal rising of certain stars (e.g., Matari'i/Pleiades marking new year).

No

Taputapuatea shows alignment in a cultural sense: it's oriented toward the setting sun (end of day, symbolic of death/ancestors). Its significance is more directional than solar – west, toward Hawaiki (mythic homeland). Nonetheless, the entire assembly of society here followed celestial cycles (the rising of Pleiades in November heralded the start of rituals). So while not a megalithic alignment physically, it functioned as the socio-religious "alignment center" for Polynesia. Score 72 to acknowledge it as a culmination of oceanic wayfinding knowledge (using stars as compass) – a different but related thread of the human harmonic story.

Beringia Land Bridge

Submerged Land Bridge

Siberia/Alaska (Arctic)

66.0000° N

168.0000° W

72.66°W

Paleoland connecting Asia & N. America (last exposed ~11,000 BP). No structures; significance is migratory. Peoples crossing likely used the stars (e.g., circumpolar constellations) to navigate the featureless tundra. Any alignments would be ephemeral (camp alignments or ritual sites now underwater or eroded).

Yes – completely submerged as sea rose (now Bering Sea)

Beringia is included conceptually: as humanity's highway during Ice Ages, it underscores that much early knowledge exchange – including rudiments of sky lore – traversed here. If any "alignments" existed, they were in intangible heritage (stories of north star guiding, etc.). We give 72 as a nod to its importance in human dissemination of knowledge (including harmonic concepts) even though it left no physical marks.

Doggerland

Submerged Land

North Sea (N. Europe)

54.0000° N

2.0000° E

31°E

Palaeoland that once connected Britain to Europe (10,000–6000 BCE). Dense Mesolithic populations, but all sites now submerged. Tools and bones trawled show people lived here –

possibly built timber structures or arranged stones now lost. Its flooding (tsunami & sea rise ~6200 BCE) likely imprinted on cultural memory (flood myths in NW Europe).

Yes – sea level rose ~120 m after Ice Age, submerging Doggerland

Doggerland's importance is the communities that moved inland as it drowned likely carried with them knowledge of seasons (hunting migratory patterns tied to solstices?), perhaps inspiring post-flood construction of megaliths as a way to impose order on new coasts. We score 72 – although no known alignments, its existence and loss probably shaped Europe's later urge to mark and measure the land anew (a theory for why megalith building surged after 6200 BCE).

Lemuria (Kumari Kandang)

Mythic Lost Land

Indian Ocean (South)

-20.0000° S

80.0000° E

103°E

19th c. hypothesized continent (to explain biogeography); equated in Tamil legend to "Kumari Kandang," a sunken cradle of civilization off South India. No evidence geologically (Indian plate mostly intact), but Tamil texts speak of lands lost to the sea.

Yes – mythical submergence

As a mythic entry, Lemuria represents the human tendency to remember floods. While not real as a continent, including it (score 47) acknowledges that in the quest for ancient sites, not all will be found – some exist only in lore, which itself has guided real explorations (and misguidances). It's a placeholder for all unattained harmonic sites that might have existed on now-submerged lands in the Indian Ocean.

Mu (Pacific)

Mythic Lost Continent

Pacific (various locales)

15.0000° N

140.0000° W

72.66°W

19th c. legend of a vanished Pacific land mass (from fanciful reading of Mayan text by Le Plongeon). Often associated with Easter Island and other Polynesian anomalies. No scientific support (Pacific has no hidden continent of that size).

Yes – mythical sinking

Mu influenced early 20th c. pseudoarchaeology, prompting searches for sunken cities (some real finds like Nan Madol were at times wrongly tied to Mu). As a score 47 entry, it reminds us how the longing for a lost origin drives exploration. Interestingly, the idea of Mu led to discoveries indirectly (people looked for it and found other things). In our dataset, it's a cautionary tale of aligning data with desire rather than evidence.

Atlantis (Azores?)

Mythic Lost City/Continent

Atlantic Ocean (speculative Azores area)

31.0000° N

25.0000° W

72.66°W

Plato's legendary advanced island that sank ~9600 BCE "beyond the Pillars of Heracles."

Various proposed locations (Azores Plateau, Andalusian coast, Antarctica, Caribbean). No confirmed site, though many megaliths (e.g., in Morocco, Azores basalt columns) have been roped into speculation.

Yes – said to be destroyed by flood/quakes in a day-night

Atlantis, though mythical, has spurred real alignments: many early archaeologists aligned their quests to find it, shaping the development of archaeology (e.g., Crete's Minoan ruins were linked to Atlantis initially). While not real, it's included (score 47) as the most iconic "lost harmonic civilization" myth – a powerful narrative that keeps the public fascinated with ancient

alignments (and occasionally distracts from facts). It stands as a cultural lesson: even if not literally true, it symbolizes the profound ancient fear and memory of Earth's capacity for upheaval – a memory that likely motivated our ancestors to encode their knowledge in durable alignments.