

Archéoastronomie 3

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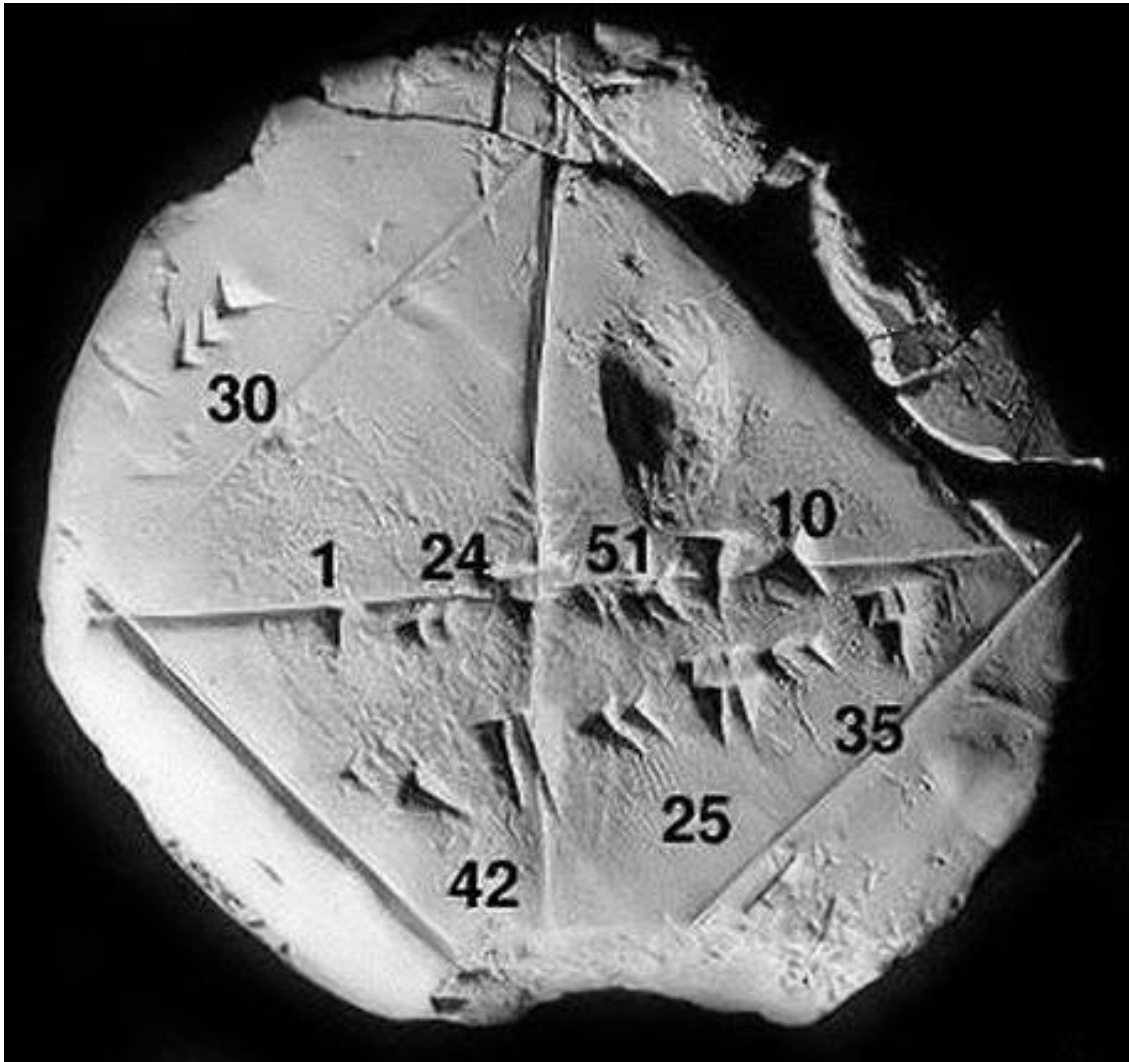
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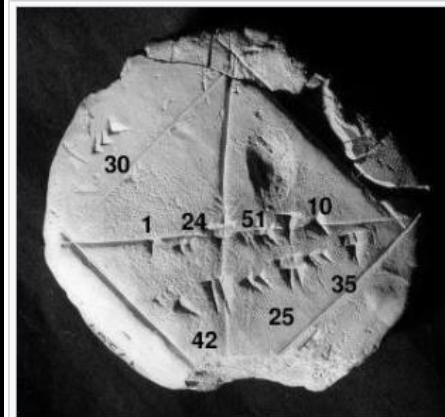
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Tablette YBC 7289 : les signes du fond des âges

<https://www.futura-sciences.com/sciences/dossiers/mathematiques-racine-carree-fabuleux-destin-2-680/page/5/>



Tablette YBC 7289 : les signes du fond des âges



Tablette paléo-babylonienne
YBC 7289

(xvii^e siècle av. J.-C.) avec
l'écriture en numération
sexagésimale de $\frac{1}{2}$ et des
valeurs approchées de $\sqrt{2}$ et
 $\sqrt{2}/2$, précises jusqu'à la 6^e
décimale :

• $\sqrt{2} \approx 1,414\ 213\ 56\dots$

•

$1 + 24/60 + 51/60^2 + 10/60^3 = 1,414\ 21296$

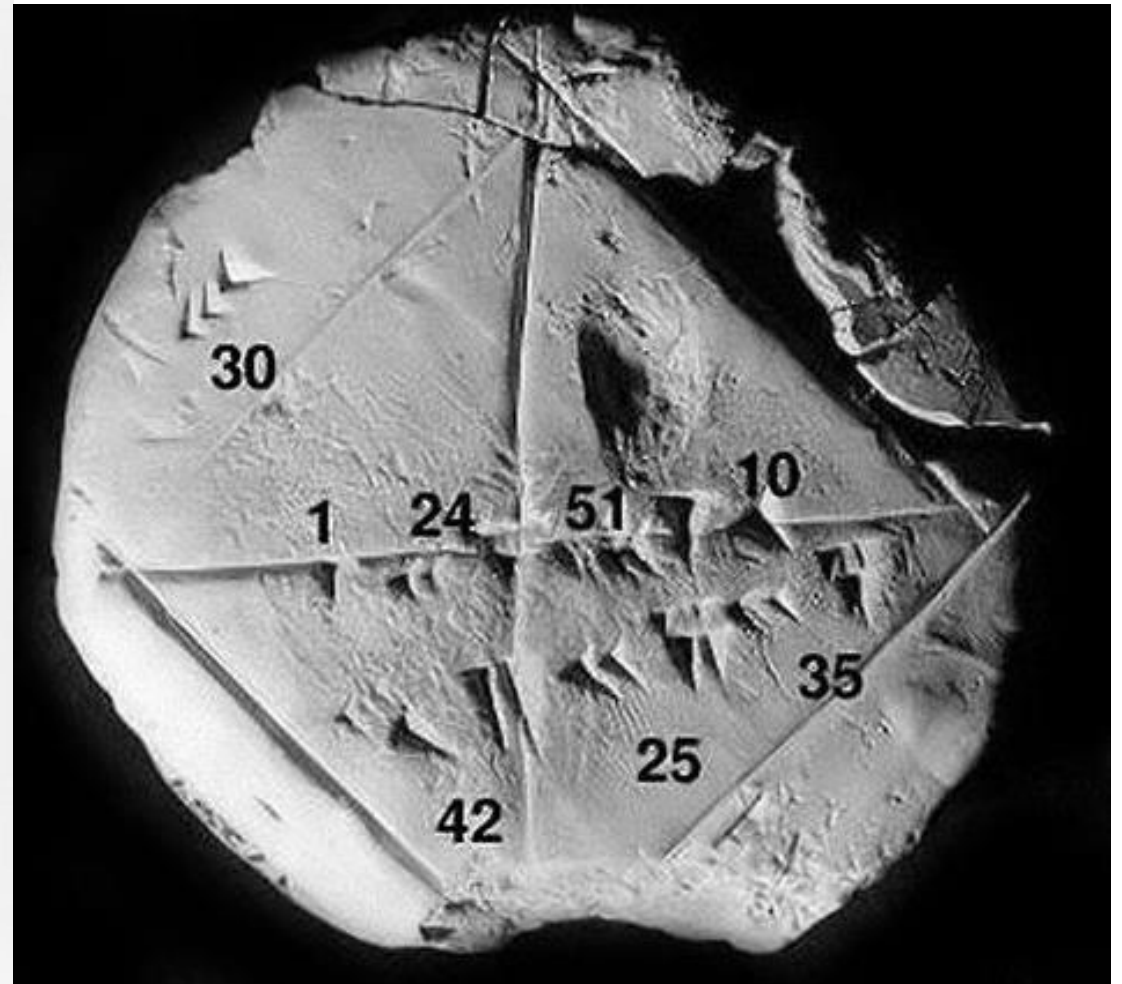
• $\sqrt{2}/2 \approx 42/60 + 25/60^2 + 35/60^3$

$\sqrt{2}/2 = \sqrt{(1/2)} = 0,707\ 106\ 78\dots$

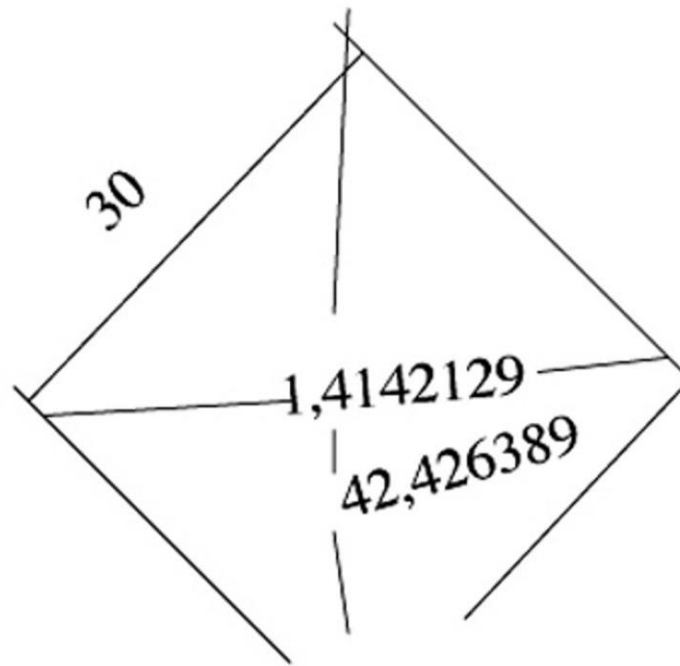
C'est une petite tablette d'argile de quelques centimètres de côté. Un objet tout simple qui tient dans le creux de la main et sur lequel ont été tracées quelques lignes et gravées quelques marques. Cette tablette se trouve à l'université de Yale, aux États-Unis, répertoriée sous le nom de **YBC 7289** (*Yale Babylonian Collection*).

Tablette YBC 7289, la plus ancienne représentation de la racine carrée de 2

Probablement l'œuvre d'un scribe babylonien de la première dynastie, soit entre 1900 et 1600 avant notre ère, elle n'est rien de moins que l'acte de naissance de la racine carrée de 2 en tant qu'objet mathématique, ainsi que l'une des plus anciennes incursions de l'humanité dans le monde de la pensée scientifique.



Il n'est pas très difficile de traduire cette [tablette](#), écrite dans la langue la plus universelle qui soit : les mathématiques. En voici une translittération dans notre système moderne de numération (avec d'inévitables arrondis dus au fait que les Babyloniens utilisaient un système de représentation des nombres à base 60 et non à base 10 comme nous le faisons aujourd'hui).



Le sens de la tablette YBC 7289 tel que nous pouvons le reconstituer est le suivant : un carré de côté 30 étant donné, la longueur de sa [diagonale](#) s'obtient en multipliant 30 par la valeur 1,41421296, ce qui donne $30 \times 1,41421296 = 42,4263889$.

Une valeur à portée universelle

Contrairement à la longueur du côté, sans doute choisie égale à 30 dans le simple but de donner un exemple concret, la valeur 1,41421296 que les Babyloniens ont mise en évidence a une portée [universelle](#) : c'est cette valeur qu'il faut utiliser pour trouver la diagonale de n'importe quel carré, quelle que soit la longueur de son côté. Bien loin d'une simple grandeur géométrique juste présente à l'occasion d'un exercice, la valeur 1,41421296, qui est pour nous la racine carrée de 2, figure dans YBC 7289 en tant que constante fondamentale de la géométrie. Ce statut est toujours le sien aujourd'hui.

Liste des chiffres cunéiformes babyloniens de 0 à 59.

unités

...0	...1	...2	...3	...4	...5	...6	...7	...8	...9
	┆	┆┆	┆┆┆	┆┆┆┆	┆┆┆┆┆	┆┆┆┆┆┆	┆┆┆┆┆┆┆	┆┆┆┆┆┆┆┆	┆┆┆┆┆┆┆┆┆

0... ┆ ┆┆ ┆┆┆ ┆┆┆┆ ┆┆┆┆┆ ┆┆┆┆┆┆ ┆┆┆┆┆┆┆ ┆┆┆┆┆┆┆┆

1... < < <┆ <┆┆ <┆┆┆ <┆┆┆┆ <┆┆┆┆┆ <┆┆┆┆┆┆ <┆┆┆┆┆┆┆ <┆┆┆┆┆┆┆┆ <┆┆┆┆┆┆┆┆┆

2... << << <<┆ <<┆┆ <<┆┆┆ <<┆┆┆┆ <<┆┆┆┆┆ <<┆┆┆┆┆┆ <<┆┆┆┆┆┆┆ <<┆┆┆┆┆┆┆┆ <<┆┆┆┆┆┆┆┆┆

dizaines

3... <<< <<< <<<┆ <<<┆┆ <<<┆┆┆ <<<┆┆┆┆ <<<┆┆┆┆┆ <<<┆┆┆┆┆┆ <<<┆┆┆┆┆┆┆ <<<┆┆┆┆┆┆┆┆ <<<┆┆┆┆┆┆┆┆┆

4... <<<< <<<< <<<<┆ <<<<┆┆ <<<<┆┆┆ <<<<┆┆┆┆ <<<<┆┆┆┆┆ <<<<┆┆┆┆┆┆ <<<<┆┆┆┆┆┆┆ <<<<┆┆┆┆┆┆┆┆ <<<<┆┆┆┆┆┆┆┆┆

5... <<<<< <<<<< <<<<<┆ <<<<<┆┆ <<<<<┆┆┆ <<<<<┆┆┆┆ <<<<<┆┆┆┆┆ <<<<<┆┆┆┆┆┆ <<<<<┆┆┆┆┆┆┆ <<<<<┆┆┆┆┆┆┆┆ <<<<<┆┆┆┆┆┆┆┆┆

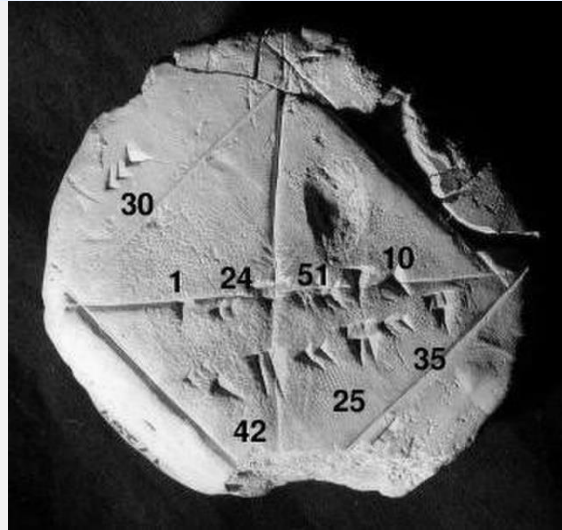
Écriture des nombres

Pour écrire des nombres supérieurs à 59, il suffit de juxtaposer de gauche à droite plusieurs de ces « chiffres ». Ainsi l'écriture de $4655 = 1 \times 60^2 + 17 \times 60 + 35$ consiste à aligner les symboles représentant 1, 17, 35 : $\text{┆} < \text{┆┆┆} \ll \text{┆┆}$.

Tablette d'argile YBC 7289

<https://www.techno-science.net/glossaire-definition/YBC-7289.html>

Introduction



Photographie de la tablette YBC 7289 avec des annotations traduisant les nombres écrits dans le système babylonien.

La **tablette d'argile YBC 7289** (abréviation de *Yale Babylonian Collection*, n° 7289) est une pièce archéologique babylonienne écrite en cunéiforme et traitant de mathématiques. Son intérêt réside dans le fait qu'elle est la plus ancienne représentation connue d'une valeur approchée de la racine carrée de deux, notée aujourd'hui $\sqrt{2}$. Depuis 1912, elle est en possession de l'Université Yale.

Description

Cette tablette a la forme d'un disque d'environ 8 cm de diamètre et 8 mm d'épaisseur.

Une face représente un carré et ses diagonales. Sur un côté de ce carré, on peut lire le chiffre suivant, dans le système sexagésimal babylonien :

◀◀ signifiant : (30)

À l'intérieur, le long d'une diagonale, se trouvent les deux séries de chiffres :

$\text{I} \llcorner \text{II} \llcorner \text{III} \llcorner \text{IV} \llcorner$ signifiant : (1, 24, 51, 10)
 $\llcorner \text{II} \llcorner \text{III} \llcorner \text{IV} \llcorner$ signifiant : (42, 25, 35)

Analyse

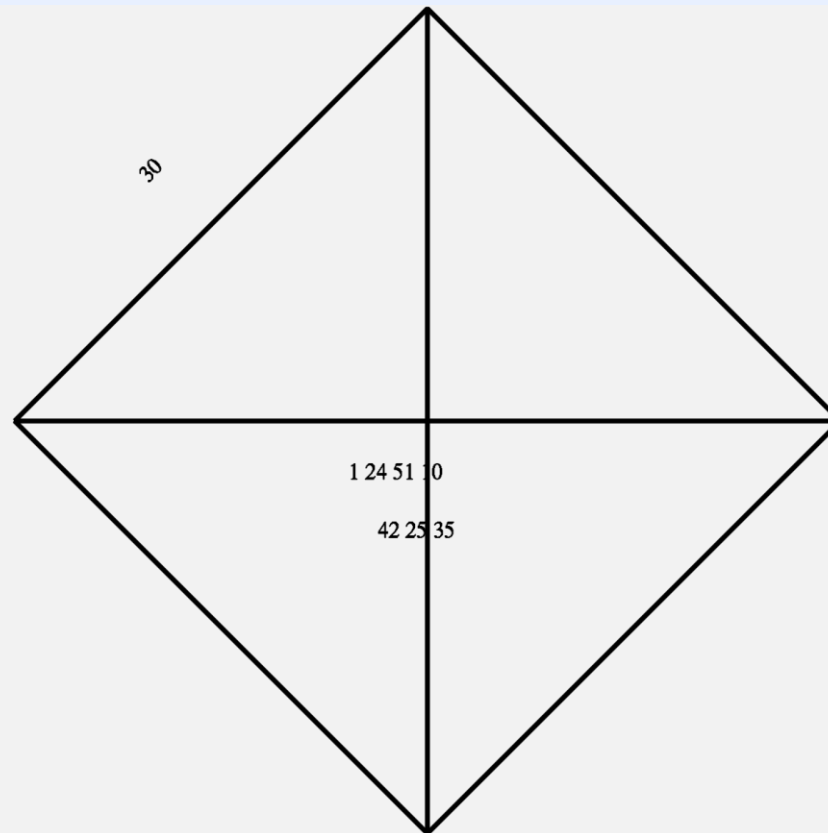


Schéma de la tablette YBC 7289.

La forme et les dimensions de la tablette laissent supposer qu'elle a été écrite, dans le sud de l'Irak actuel, par un apprenti scribe utilisant des valeurs connues issues d'une liste. De telles tablettes, rondes et petites (entre 8 et 12 cm en général) tenaient aisément dans la main.

Le système babylonien de numération étant sexagésimal, la suite 1 ; 24 ; 51 ; 10 peut être interprétée comme $1 + 24/60 + 51/60^2 + 10/60^3$ (soit $30547/21600$, notons le a) et 42 ; 25 ; 35 comme $42 + 25/60 + 35/60^2$ (soit $30547/720$, notons le b). Les trois nombres qui apparaissent sur la tablette (le troisième étant $c=30$ soit aussi $1/2$) sont liés par la relation $b=a \times c$ ou encore $a = b / 2$.

Le nombre c est noté près d'un côté du carré, les deux autres étant situés le long d'une diagonale. D'autre part, le théorème « de Pythagore » a pour conséquence que le rapport entre la diagonale *b* et le côté *c* d'un carré est égal à la racine carrée de deux. La suite 1 ; 24 ; 51 ; 10 peut donc être interprétée comme une valeur approchée de ce nombre. Un calcul de valeurs approchées décimales donne :

$$30547/21600 \approx 1,41421296$$

$$\sqrt{2} \approx 1,41421356$$

La précision du calcul de la racine carrée de deux par les Babyloniens est donc (si on le transpose dans le système décimal) de l'ordre du millionième près, soit six décimales.

La tablette YBC 7243, qui donne des listes de nombres, contient, dans sa dixième ligne :

« 1 24 51 10, la diagonale du carré »

sous-entendu : il faut multiplier le côté du carré par 1 24 51 10 pour obtenir sa diagonale. La tablette YBC 7289 consistait peut-être à calculer la diagonale d'un carré de côté 30 (ou 1/2 comme expliqué ci-dessus) à partir d'une liste semblable à celle de YBC 7283, éventuellement apprise par cœur.

Pourquoi 30 ?

Le système de numération babylonien ne permet pas de noter la valeur exacte d'un nombre, mais seulement celle-ci à un exposant 60 près. Ainsi  peut-il signifier 30 comme 30×60, 30×60² ou 30/60, etc. Une hypothèse est que le  qui apparaît sur le côté du carré de YBC 7289 signifie 30/60, c'est-à-dire 1/2. Si c'était le cas, alors la série



serait égale à 42/60 + 25/60² + 35/60³, soit 30547/43200, et serait donc une valeur approchée de la moitié de la racine carrée de deux (notée de nos jours $\sqrt{2}/2$). Comme ils effectuaient des divisions par multiplication par l'inverse, les mathématiciens babyloniens s'intéressaient beaucoup aux inverses des nombres. Cette hypothèse peut laisser supposer qu'ils connaissaient la relation

$$1/\sqrt{2} = \sqrt{2}/2 = \sqrt{(1/2)}$$

Le « 30 » représente donc sans doute le nombre 1/2. Ainsi, la tablette donne (en valeur approchée) le couple de nombres inverses l'un de l'autre : $\sqrt{2}$ et $1/\sqrt{2}$. Cette hypothèse est confortée par le fait que de tels couples de nombres apparaissant souvent dans les tablettes mathématiques babyloniennes : *les scribes, plutôt que de diviser, multipliaient par l'inverse et de nombreuses tablettes contenant des listes de nombres et leurs inverses ont été retrouvées.*

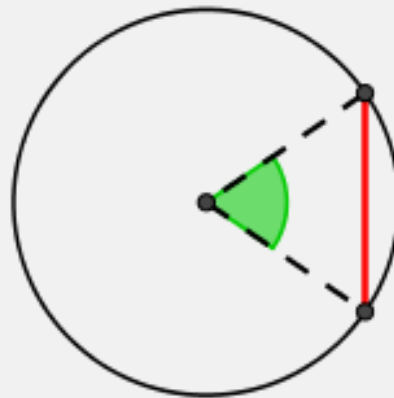
Plimpton 322 et la trigonométrie

<https://automathssite.wordpress.com/2017/08/27/plimpton-322-et-la-trigonometrie/>



Cet article demande quelques connaissances mathématiques et un peu d'abstraction pour être entièrement compris

La **trigonométrie** est l'étude des mesures des longueurs des côtés et des angles dans un triangle. Son « invention » est souvent attribuée à **Hipparque** qui, grâce à ses tables de cordes, a établi un lien entre l'angle ayant pour sommet le centre d'un cercle et la longueur de la corde que cet angle produit. Ses mesures ont notamment servi à calculer des distances astronomiques, comme celle entre la Terre et la Lune, et ont été réutilisées par Ptolémée dans son [*Almageste*](#).



Hipparque établit un lien entre la mesure de l'angle vert et la longueur de la corde rouge.

Seulement, [un article publié ce 24 août](#) et traitant de la fameuse tablette **Plimpton 322**, datée entre **-1900 et -1600**, semble confirmer des origines bien plus anciennes à la trigonométrie : celle-ci serait, dans un certain sens, déjà connu des Babyloniens, près de 1500 ans avant les Grecs.

Système sexagésimal

Avant de s'intéresser à la tablette, revenons sur l'écriture des nombres babyloniens. Là où nous comptons par 10, ce que l'on nomme système décimal, les babyloniens comptaient eux par 60, ce que l'on appelle une **base sexagésimale**. Cette base, nous l'utilisons encore de nos jours pour les unités de temps (1 minute = 60 seconde, 1 heure = 60 minutes), mais aussi pour les mesures des angles en degré.

En effet, l'angle au sommet d'un triangle équilatéral (aux trois côtés de longueurs égales) vaut 60° et un tour complet du cercle fait un angle de $6 \times 60 = 360^\circ$.

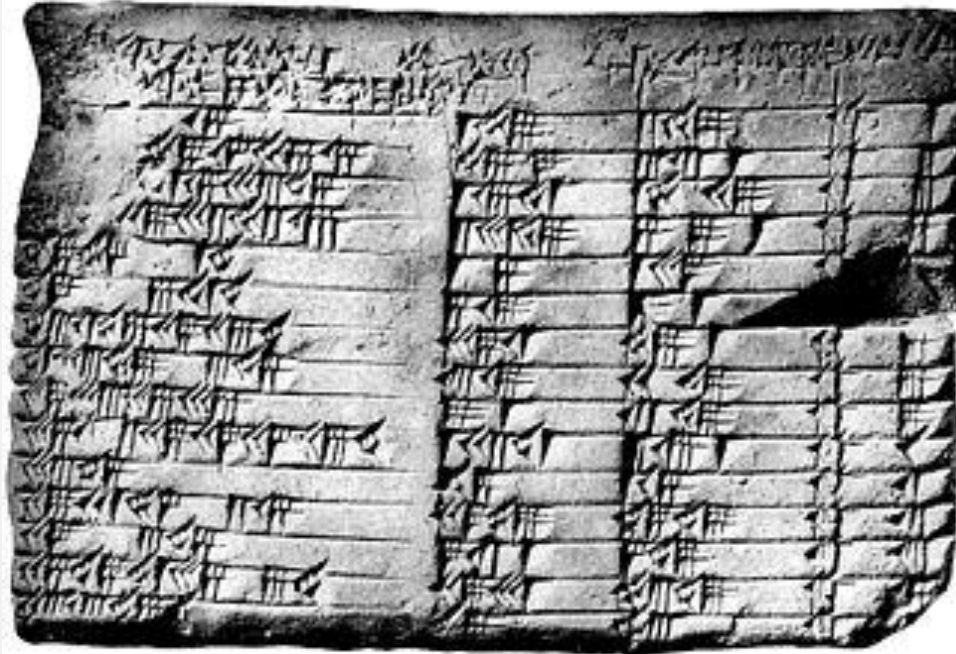
*L'avantage du nombre 60 comparé à notre nombre 10, c'est son **nombre de diviseurs**. 60 est en effet divisible par 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30 et 60, soit 12 diviseurs. Tout nombre inférieur à 60 aura forcément moins de diviseurs : 60 est un nombre que l'on qualifie de « **fortement composé** ».* Ainsi, il est possible d'exprimer davantage de fraction en « soixantièmes » qu'en « dixièmes ». Par exemple, la fraction $1/3$ ne peut pas être exprimée de manière exacte avec un dénominateur qui soit une puissance de 10. En revanche, $1/3 = 20/60$, 20 soixantièmes. D'ailleurs, le tiers d'une heure vaut 20 minutes.

Pour exprimer leurs nombres, les babyloniens les regroupaient donc en « tas » qui formaient les « soixantaines » et les « soixantièmes ». Oui, car aussi pratique que soit la base 60, les babyloniens n'avaient pas – au moins durant un temps – de moyen de déterminer où commençait un nombre.

Ainsi, la suite 1.30.15 pouvait désigner le nombre $1 \times 60 + 30 + 15/60$ ou $1 \times 60 \times 60 + 30 \times 60 + 15$ ou $1 + 30 / 60 + 15 / (60 \times 60)$. Il fallait s'adapter au contexte. Il est toutefois commun, de nos jours, de signaler la séparations entre les soixantièmes et les soixantaines par un point-virgule.

Ainsi, 1;30.15 vaut $1 + 30/60 + 15/(60 \times 60)$, alors que 1.30;15 vaut $1 \times 60 + 30 + 15/60$.

Plimpton 322



Tablette Pimpton 322

Ceci étant dit, intéressons-nous de plus près à notre tablette **Plimpton 322**. Sur cette tablette, nous distinguons 4 colonnes, souvent appelées I', II', III' et IV' chacune composées de 15 lignes remplies de nombres inscrits en base 60.

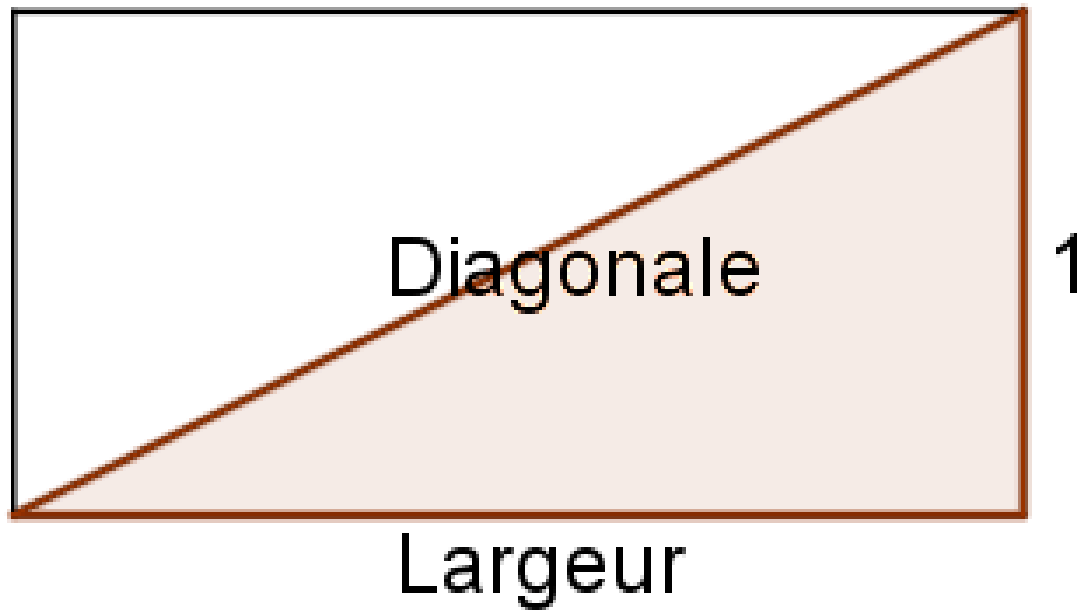
Les légendes au-dessus de la tablette signifient, respectivement pour chaque colonne :

- Le carré de la diagonale, duquel 1 est soustrait, et dont la largeur est issue
- Largeur
- Diagonale
- Ligne

Pour la première colonne, le lien peut être fait avec les triangles rectangles et le **théorème de Pythagore**, la diagonale n'étant rien d'autre que l'hypoténuse, le côté opposé à l'angle droit dans un triangle rectangle.

*Ce terme « diagonale » nous indique d'ailleurs que les babyloniens raisonnaient davantage en terme de **rectangle** (le triangle étant la moitié d'un de ceux-ci) que de cercle et d'angle, approche utilisée notamment par Hipparque.*

On se retrouve en fait dans cette configuration :



Prenons ainsi la sixième ligne de la tablette de Plimpton :

1;47.06.41.40 | 5.19 | 8.01 | 6

Le premier nombre est donc 1;47.06.41.40. La racine carré de ce nombre vaut, toujours en sexagésimal, 1;20.10. Si l'on enlève 1 à 1;.47.06.41.40, on trouve 0;47.06.41.40, dont la racine carrée vaut 0;53.10.

On obtient donc $(0;53.10)^2 + 1^2 = (1;20.10)^2$, un « triplet pythagoricien », et on note parfois ce triplet (0;53.10, 1, 1;20.10).

Par ailleurs, si l'on divise 0;53.10 et 1;20.10 par 10, nous obtenons 0;5.19 et 0;8.01, qui sont les deuxièmes et troisièmes termes de la ligne ! Il s'agit en fait d'**éliminer certains facteurs communs** à nos deux longueurs.

Tous les calculs ont été fait via l'outil [MesoCalc](http://www.mementoslangues.fr/).

Colonnes manquantes et trigonométrie

Toutefois, il a été prouvé que cette tablette contenait (ou devait contenir) 6 colonnes et 38 lignes. **Joran Friberg** a supposé que les colonnes manquantes devaient contenir les largeurs et diagonales de notre rectangle unitaire (avec un côté de longueur 1).

Ainsi, la sixième ligne complète de cette table serait vraisemblablement :

0;53.10 | 1;20.10 | 1;47.06.41.40 | 0;5.19 | 0;8.01 | 6

où l'on retrouve dans les deux premières colonnes (nommées I et II) les deux grandeurs que nous avons calculés précédemment.

Or, rappelez-vous de vos sinus et cosinus, de la célèbre règle du SOHCAHTOA (ou CAHSOHTOA, c'est selon...). Dans un triangle rectangle, le sinus d'un angle (qui n'est pas l'angle droit) est le rapport entre la longueur du côté opposé à l'angle et l'hypothénuse. Pour le cosinus, c'est la même chose avec le côté adjacent.

Ici, les deux premières colonnes nous donnent les longueurs de deux côtés de ce triangle, dont on sait que le troisième a une longueur de 1. Plutôt que de considérer 0;53.10, on s'intéresse à 0;53.10 divisé par 1, on a donc un rapport entre deux longueurs dans un triangle rectangle, similaire à nos outils trigonométriques modernes.

En fait, le premier nombre de cette colonne peut être interprété, non pas comme une longueur, mais plutôt comme le **rapport entre les longueurs des deux côtés qui soutiennent l'angle droit**. Si le grand côté a une longueur l , alors le triangle ayant pour longueur de côtés l , $0;53.10 \times l$ et $1;20.10 \times l$ est rectangle.

La tablette de Plimpton pourrait donc être interprétée comme une table des sinus et cosinus, bien que les notions d'angle n'existaient pas vraiment à cette époque ?

Il semblerait en tout cas qu'elle permette de résoudre certains problèmes géométriques, dont voici un exemple, tiré de l'[article de Mansfield et Wildberger](http://www.mementoslangues.fr/Wildberger) :

On suppose que le petit côté d'un rectangle mesure $b = 10$ et que le grand côté mesure $l = 40$. Quelle est la mesure d de sa diagonale ?

Il faut donc trouver le nombre d tel que $(10, 40, d)$ soit un triplet pythagoricien. On peut alors diviser toutes ces quantités par 40, et on se retrouve ainsi avec le triplet $(0;15, 1, d/40)$: **c'est exactement la configuration de notre tablette !**

On cherche ainsi dans la première colonne le nombre qui se rapproche le plus de la première valeur, et en l'occurrence, c'est 0; 14.57.45, à la trentième ligne. On regarde alors la deuxième colonne, qui vaut 1; 01.50.15 : c'est donc la valeur de $d/40$.

Pour retrouver notre diagonale d , il faut donc multiplier par 40 ; on obtient $d=41; 13.30$, ce qui vaut 41,225 en notation décimale

En utilisant nos techniques modernes, comme le fameux théorème de Pythagore, on peut établir que $d^2 = b^2 + l^2 = 40^2 + 10^2 = 1700$. Ainsi, $d = \sqrt{1700}$ qui vaut environ 41,231. **Autant dire que l'erreur est faible.**

Alors, cette tablette était-elle utilisée pour ce genre de problèmes ? A vrai dire, rien ne l'indique explicitement, comme l'indique les auteurs. Mais si cela s'avérait, il pourrait bien s'agir là des plus anciennes traces de trigonométrie de l'histoire humaine. D'autres tablettes n'ont pas fini de parler !

Compléments

- Plutôt trois fois qu'une, le fameux [article de Mansfield et Wildberger](#), donnant à la tablette son potentiel pouvoir trigonométrique.
- Un article plus complet du site [Images des mathématiques](#) sur la tablette Plimpton
- Friberg, Jöran. 2007. *A Remarkable Collection of Babylonian Mathematical Texts*. Vol. I, Manuscripts in the Schøyen Collection : Cuneiform Texts. New York : Springer.
- Article : [Written in stone: the world's first trigonometry revealed in an ancient Babylonian tablet](#)

Plimpton 322, cette tablette babylonienne de 3700 ans qui bouscule l'histoire des mathématiques: <https://www.dailymotion.com/video/x87ibgm>

3,700 Year Old Babylonian Tablet Proves Pythagoras Did Not Invent Pythagorean Theorem: <https://www.dailymotion.com/video/x6sgcph>

Comment les marées ont contribué à la naissance de la civilisation sumérienne

<https://www.pourlascience.fr/sd/archeologie/comment-les-marees-ont-contribue-a-la-naissance-de-la-civilisation-sumerienne-28398.php>

Selon une nouvelle hypothèse, l'irrigation, et donc l'essor de l'agriculture et de l'urbanisation en Mésopotamie, aurait été rendue possible par les marées qui pénétraient jadis dans le delta du Tigre et de l'Euphrate.



La cité d'Ur (avec ici sa ziggourat) était une des plus grandes et des plus puissantes cités sumériennes. Elle date du III^e millénaire avant notre ère.. Le défi de la bonne irrigation des cultures aurait contribué à donner naissance à une société bien organisée.

On sait depuis Hérodote que l'Égypte est un « don du Nil », dont les crues, lentes et prévisibles, favorisent les semailles. En comparaison, les deux fleuves de Mésopotamie, le Tigre et l'Euphrate, ne sont pas des cadeaux : leurs débordements, brutaux, ont lieu au printemps, trop tôt ou trop tard pour les cultures. La civilisation de Sumer, la première au monde à être majoritairement urbaine, n'a réussi à s'épanouir ici qu'en trouvant la parade aux

caprices des cours d'eau. « La zone est occupée depuis au moins l'époque d'Obeid, 6 300 ans avant notre ère, rappelle l'archéologue Hugo Naccaro, spécialiste de la Mésopotamie proto-urbaine. Il a fallu ensuite plus de 3 000 ans de complexification croissante avant que la civilisation sumérienne n'émerge. Si les populations locales ont pu profiter de la richesse du sol, c'est grâce à la maîtrise de l'irrigation qu'on a longtemps considérée comme d'origine fluviale. »

Or, Liviu Giosan, de l'institut Woods Hole, et Reed Goodman, de l'université de Clemson, tous deux aux États-Unis, suggèrent que les paysans mésopotamiens ont bénéficié d'un solide coup de pouce de la nature : à l'origine, la configuration du delta aurait permis à la marée de s'engouffrer deux fois par jour dans le Tigre et l'Euphrate. De cette manière, en repoussant les eaux douces dont elle faisait monter le niveau, elle permettait, par simple gravité, d'irriguer les champs avec un minimum d'efforts.

A lire aussi : [Le vieux génie des eaux du désert](#)

Cette hypothèse n'est pas fondée sur des découvertes archéologiques nouvelles, mais sur la reconstruction minutieuse de l'histoire du delta grâce aux photos satellitaires et à l'analyse d'un carottage de sédiments sur 25 mètres de profondeur réalisé en 2022. Le résultat ? Selon les chercheurs, il y a 6 000 à 7 000 ans, le niveau de la mer était supérieur de 1 à 2 mètres, et la côte sur le golfe Persique bien plus en retrait qu'aujourd'hui. Lors des marées, une vaste baie permettait à l'eau de mer de s'engouffrer dans l'embouchure des fleuves. Les chercheurs rappellent d'ailleurs que l'existence d'une irrigation marémotrice est documentée au Moyen Âge dans l'Irak actuel, sur de vastes zones, au profit des dattiers et des céréales. Et qu'au XX^e siècle, on en trouve encore des signes.

Il y a 5 000 à 6 000 ans, tout change. Sous l'accumulation erratique des sédiments charriés par les cours d'eau, l'entrée du Golfe se fait moins profonde et plus étroite. La baie se comble, et fait place à des marais. Les marées ne jouent alors plus leur rôle dans l'irrigation naturelle des champs. « Nous soutenons que cette transformation spectaculaire du paysage a régulé le type d'agriculture pratiqué non loin des côtes, ce qui a en retour favorisé l'urbanisation et l'émergence de l'État », concluent les scientifiques. Autrement dit, devant leurs difficultés croissantes à irriguer alors même que leur agriculture était le pilier de leur prospérité, les Sumériens auraient développé des structures sociales complexes et hiérarchisées capables de créer et d'entretenir un vaste réseau d'irrigation.

A lire aussi : [Les marais et sites du sud de l'Irak au patrimoine mondial de l'Unesco](#)

Comme toute idée stimulante, celle-ci exige un examen soigneux. « S’il y a eu coup de pouce de la nature, encore faudrait-il pouvoir en mesurer l’ampleur, tempère Bernard Geyer, géoarchéologue et chercheur associé au laboratoire Archéorient de Lyon. Or, les hypothèses avancées sur la base d’un seul carottage concernent, pour les plus marquantes, des phénomènes dont les témoins sont enfouis sous les sédiments, sur des épaisseurs parfois conséquentes. Quand ils ne le sont pas, ils ont pu être en partie effacés par les crues. Les faits mis en avant apportent du neuf, mais les analyses devraient être présentées avec plus de circonspection. Sans parler des problèmes de datation qui comptent parmi les plus épineux... »

Dans leurs conclusions, Liviu Giosan et Reed Goodman se font historiens et cherchent des traces des aléas hydrologiques dans la culture. Ils se demandent notamment si le déluge universel, tel qu’il est relaté dans un texte sumérien sur tablette du II^e millénaire avant notre ère nommé *Genèse d’Eridu*, ne serait pas l’écho, amplifié dans des proportions mythiques, d’inondations monstres quand les crues maximales des deux fleuves, incapables de s’écouler par la baie comblée, se combinaient. Là encore, Bernard Geyer appelle à la prudence : « Lier le récit du déluge aux crues fluviales me semble un peu rapide quand on sait que la “grande” inondation a très certainement été due à la remontée postglaciaire de l’océan mondial, événement autrement plus traumatisant et fondateur de mythes. » Bref, on n’en a sans doute pas fini avec Sumer...

Radical New Theory Transforms a 3,500-Year-Old North American Mystery

<https://arkeonews.net/radical-new-theory-transforms-a-3500-year-old-north-american-mystery/>



Mound A at Poverty Point

A groundbreaking reinterpretation of Poverty Point—one of [North America's](#) most iconic archaeological sites—is challenging long-held assumptions about the people who built its massive earthen monuments 3,500 years ago. New research from Washington University in St. Louis proposes that this vast complex in northeast Louisiana was not the work of a rigid hierarchy or a powerful ruling class, but rather a collaborative gathering place for egalitarian hunter-gatherer groups united by shared ritual obligations.

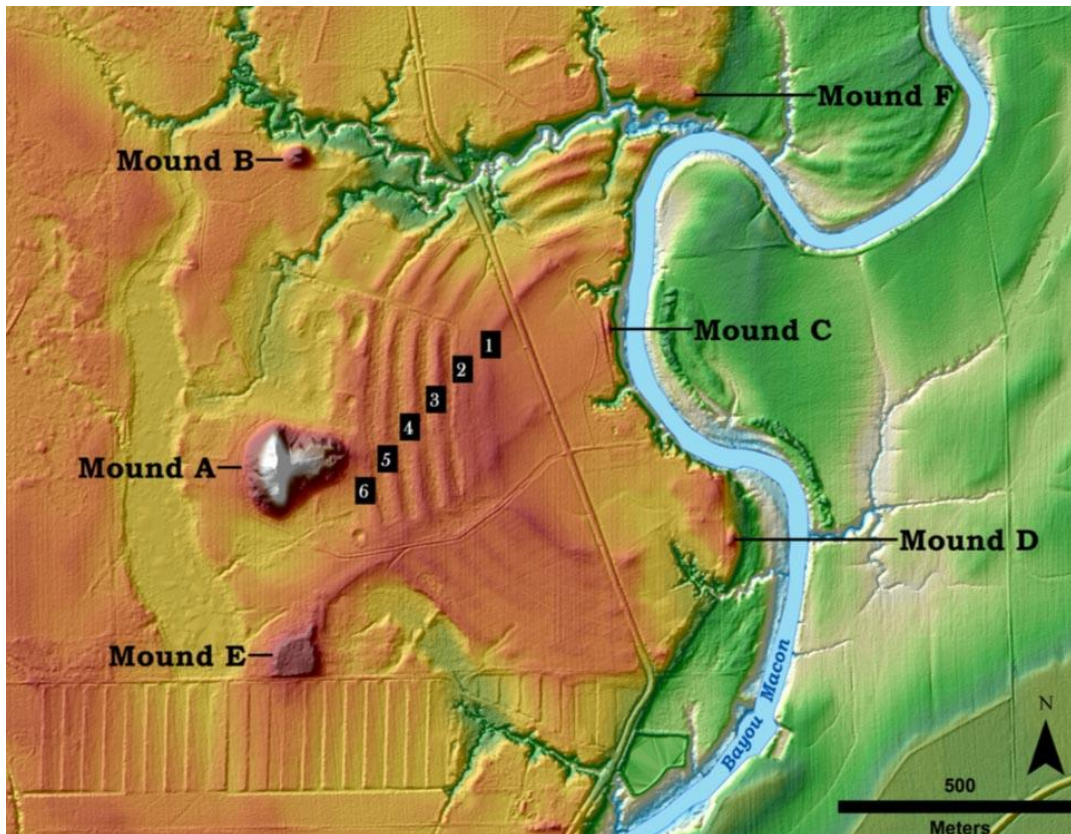
Located along the Mississippi River, Poverty Point is famed for its monumental earthworks, including concentric ridges and towering mounds that still dominate the landscape today. The scale of construction has always astonished researchers. Without horses, wheels, or agricultural infrastructure, ancient builders transported and shaped an estimated 140,000 dump-truck loads of soil—an extraordinary achievement that has puzzled archaeologists for decades.

Challenging the Old Model of Social Hierarchy

For many years, scholars believed that only a stratified society—a chiefdom with leaders who could command labor—was capable of organizing such monumental work. This assumption was largely based on comparisons with the later Cahokia Mounds in present-day Illinois, where a clear political hierarchy existed more than a millennium after Poverty Point.

However, new studies led by anthropologist T.R. Kidder dispute this interpretation. Published in *Southeastern Archaeology* and co-authored with graduate researcher Olivia Baumgartel and archaeologist Seth Grooms, the research argues that Poverty Point was neither a permanent village nor a politically centralized hub. Instead, evidence points to a periodic gathering place where thousands of people came together to trade, build, celebrate, and participate in shared rituals.

According to Baumgartel, the emerging picture is one of a community defined not by social ranks but by collective purpose. “We believe these were egalitarian hunter-gatherers,” she notes. “There is no archaeological indication of chiefs directing their labor.”



Core features of Poverty Point in northern Louisiana. The six C-shaped ridges (orange) sit on Macon Ridge, near the Mississippi River floodplain (green). Lighter areas show soil likely mined for mound construction.

A Crossroads of Long-Distance Connections

Artifacts found at the site reveal a remarkable network of interaction stretching across much of eastern North [America](#). Thousands of clay cooking balls, quartz crystal from the Ozarks, soapstone from the Atlanta region, and copper ornaments originating near the [Great Lakes](#) all point to extensive trade and travel.

These materials show that Poverty Point was not isolated but deeply connected to distant communities. The diversity of artifacts supports the interpretation of the site as a ceremonial destination—a place visited by groups converging from far-flung regions for shared cultural experiences.

Spiritual Purpose at the Heart of Construction

One of the most significant clues supporting the new theory is what archaeologists haven't found. Despite decades of excavation, there is no evidence of long-term habitation: no cemeteries, no substantial houses, and no continuous domestic activity. These absences strongly suggest that Poverty Point was not a permanently occupied settlement.

Kidder and his team propose that the massive earthworks served as spiritual offerings during a time of unpredictable environmental conditions. The ancient Southeast was prone to destructive floods and extreme weather. In response, communities may have built monumental structures, performed rituals, and deposited valuable objects in an effort to restore balance and maintain harmony with their world.

This perspective has been strengthened through conversations with [Native American communities](#), including members of the Lumbee tribe, of which co-author Seth Grooms is a member. These discussions highlight the importance of understanding Indigenous worldviews, which often emphasize communal responsibility and cosmological balance rather than economic gain.



An overview of the Poverty Point site showing the locations of the nearby Motley and Lower Jackson mounds. Note North is to the right.

Rewriting the Regional Timeline

The Washington University team also examined two related sites—Claiborne and Cedarland—in western Mississippi. Although these locations have been damaged over time, archived artifacts allowed for new radiocarbon dating. The results revealed that Cedarland predates Poverty Point by roughly 500 years, giving it a distinct cultural history.

This discovery helps disentangle the timelines of neighboring sites and provides a clearer picture of how materials and ideas moved across the region. As Baumgartel notes, giving each site its own chronology allows researchers to reconstruct the broader networks that shaped early North American societies.

Modern Tools, Ancient Insights

To further refine their understanding, Kidder and Baumgartel re-excavated several pits originally dug in the 1970s. With updated dating techniques and advanced microscopy, they aim to uncover subtle traces overlooked in earlier fieldwork.

Their painstaking approach mirrors the dedication of the ancient builders themselves. Each fragment of soil, each microscopic clue, brings archaeologists closer to understanding the motivations of a community whose monumental creations continue to inspire awe.

As Kidder reflects, the collaborative spirit behind Poverty Point may be its most enduring legacy—a reminder that some of the world's greatest achievements arise not from power, but from shared belief and collective effort.

Kidder, T. R., & Grooms, S. B. (2025). Performance, ritual, and revitalization at Poverty Point. *Southeastern Archaeology*, 1–16. <https://doi.org/10.1080/0734578X.2025.2553970>

Kidder, T. R., Baumgartel, O. C., & Bruseth, J. E. (2025). High-resolution dating of legacy collections from the Cedarland and Claiborne sites, southwest Mississippi. *Southeastern Archaeology*, 1–20. <https://doi.org/10.1080/0734578X.2025.2552058>

In 6750 BCE, A Neolithic City Built Its Own Ghosts: The Monumental Secrets of Ain Ghazal, Jordan

<https://arkeonews.net/in-6750-bce-a-neolithic-city-built-its-own-ghosts-the-monumental-secrets-of-ain-ghazal-jordan/>



Long before the pyramids rose above the Nile or the great temples of Mesopotamia carved their mark into the ancient world, a community in the hills overlooking modern Amman created something astonishing: a population of ghostlike statues with staring eyes and double faces, carefully buried beneath the floors of their abandoned homes. Archaeologists now consider Ain Ghazal—often called “[Jordan’s Çatalhöyük](#)” or even “Jordan’s Göbeklitepe”—one of the most remarkable Neolithic sites in the world, a birthplace of some of humanity’s earliest symbolism, ritual, and social complexity.

First discovered in the 1970s during highway construction, Ain Ghazal quickly proved to be a settlement that would reshape our understanding of [Pre-Pottery Neolithic culture](#). Rescue excavations led by Gary Rollefson revealed that this community thrived between 7,250 and 5,000 BCE, spanning the Middle and Late Pre-Pottery Neolithic B (MPPNB and LPPNB). Over these 2,000 years, the inhabitants pioneered farming, domesticated animals, plastered their homes with white lime, and practiced elaborate burial rituals involving skull removal and plastered faces.

Yet what sets Ain Ghazal apart—and continues to captivate scholars and the public alike—are its two caches of monumental human statues, crafted from lime plaster and reeds, and buried with ceremonial care around 6,750–6,500 BCE.

They remain among the oldest known large-scale human statues in the world.



Two-headed statue from 'Ain Ghazal, Jordan Museum, Amman.

A City of the Living—and the Dead

Life at Ain Ghazal was a blend of innovation and ritual. Archaeologists uncovered the remains of domesticated sheep and pigs, fields of wheat and barley, jars once filled with lentils and chickpeas. But beneath the floors of houses, they found something more intimate: flexed burials with skulls removed, later coated with plaster and molded into lifelike faces. Eyes were painted wide or closed, cheeks shaped with care, and sometimes pigments added.

These practices echo a deep spiritual world—one in which the lines between the living, the dead, memory, and identity were blurred. Some skulls were treated with such precision that scholars suggest the presence of ancestor veneration, or at the very least, a ritual system that used human remains as powerful social symbols.

But the statues—far larger, stranger, and more stylized—suggest something even more complex.



Closeup of one of the bicephalous statues.

The Rise of the Ghost Statues

The first cache, dating to around 6,750 BCE, contained 25 statues, including 13 full figures and 12 one-headed busts. The second cache, nearly two centuries later, held seven statues, including two full figures and three rare two-headed busts.

All were anthropomorphic. All were deliberately buried. And all appear eerily lifelike—yet not quite human.

Their eyes are enormous and rimmed with bitumen. Their noses are small and upturned. Mouths are tiny, almost lipless. Bodies are thin, nearly flat, and genitalia are almost always absent. While some early statues display painted “garments,” the later ones grow taller, more rigid, and increasingly standardized.

The evolution is unmistakable: over 200–300 years, Ain Ghazal’s statues became less human and more otherworldly.

Scholars have proposed several interpretations:

1. Ancestors of the Community

Because plastered skulls and statues share stylistic features, some believe the statues represent revered ancestors. But the lack of gender markers and the inclusion of two-headed figures challenge this view.

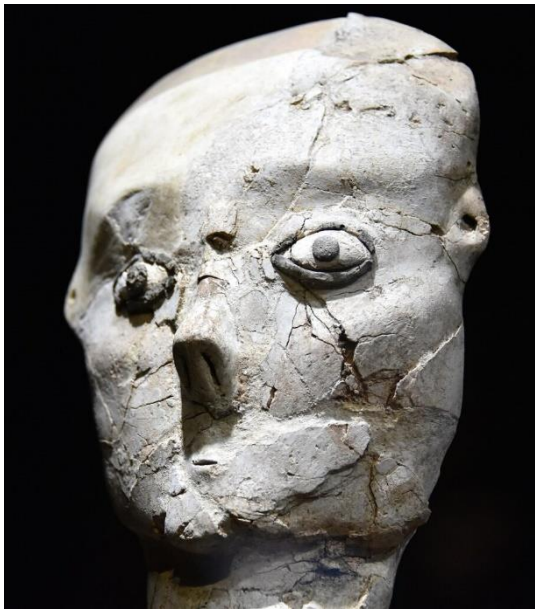
2. Ritual “Ghosts”

In the 1990s, periodical *Archaeology* dubbed them “Ghosts of Ain Ghazal.” This name stuck—for good reason. Their skeletal noses, wide staring eyes, unnatural fingers and toes (sometimes six or seven), and flat, almost corpse-like bodies evoke an uncanny, liminal presence. Ethnographic parallels from ancient Mesopotamia describe substitute figures used in rituals to expel, appease, or embody spirits, prompting some scholars to wonder whether Ain Ghazal’s statues served similar purposes.

3. Deities of an Early Near Eastern Pantheon

Other archaeologists argue the figures may be among the earliest representations of gods and goddesses. The two-headed busts echo twin deities known from Çatalhöyük, Hacilar, and later Mesopotamian iconography. One striking statue from Cache 1 shows a woman presenting her breasts—a pose associated with fertility goddesses throughout the ancient Near East. Comparisons from Anatolia to Syria support this interpretation, suggesting that Ain Ghazal may preserve one of the earliest expressions of a fertility cult linked to early farming communities.

These competing theories reveal just how ambiguous—and powerful—the statues are. Their meaning may lie in the intersection of all three: ancestors, ghosts, and gods, entwined in the symbolic imagination of a society experiencing the profound technological and emotional shifts that accompanied the birth of agriculture.



Head, human statue from 'Ain Ghazal, Amman, the Jordan Museum.

Why Bury the Statues?

Every statue from Ain Ghazal was found intentionally buried beneath abandoned homes. They were placed carefully, often oriented east–west, and generally in good condition at the time of interment. This suggests ritual retirement, perhaps after ceremonies tied to seasonal cycles, death and rebirth, or communal identity.

Their materials—reed and plaster—were perishable. Unlike stone statues meant to endure for centuries, these figures were meant to live briefly. Their burial may reflect a belief that once their ritual purpose was complete, they had to be “laid to rest,” just like the humans whose skulls were buried below the floors.

Some researchers even propose that these statues were “born,” “lived,” and then “died,” mirroring agricultural cycles and embodying early myths of dying and rising deities.



Double-headed statue from 'Ain Ghazal, Amman, Jordan Archaeological Museum.

A Neolithic Legacy Still Coming into Focus

Ain Ghazal's discovery transformed Jordan into one of the most important regions for understanding Neolithic religion and society. The site's monumental plastic art parallels traditions found at Jericho and Nahal Hemar, but its scale far surpasses them. And its statues—especially the spectral two-headed busts—feature stylistic traits unseen anywhere else in the prehistoric world.

As researchers continue to study the settlement, its residue of ritual, and its ghostlike figures, Ain Ghazal is increasingly recognized as a cradle of communal symbolism, a crossroads where spirituality, social identity, and early monumental art first converged.

In a world where humanity had just begun building permanent homes, cultivating the land, and imagining its future, Ain Ghazal's statues offer a haunting reminder: before writing or cities, people told stories in plaster and reed—stories of ancestors, spirits, gods, and the invisible forces shaping their lives.

Source

Grissom, C.A. 2000. "Neolithic statues from 'Ain Ghazal: construction and form" AJA 104: 25-45.

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Cover Image Credit: Tarrad, M., Al-Omari, O., & Alrawashdeh, M. (2012). Natural stone in Jordan: Characteristics and specifications and its importance in interior architecture. [Archaeological Science Journal, 720–727](#).

Who Were the Hittites?

<https://www.biblicalarchaeology.org/daily/ancient-cultures/ancient-near-eastern-world/who-were-the-hittites/>

Archaeology and the Bible give different answers



Who were the Hittites? At one time the Hittites were one of three superpowers in the ancient world. Tudhaliya IV (1237–1209 B.C.E.) ruled over the Hittite Kingdom during its heyday and is depicted here on a rock carving from the Hittites' sacred open-air shrine at Yazilikaya, less than a mile from the Hittite capital of Hattusa in present-day Turkey.

Who were the Hittites? This question is not as simple as it appears. There is plenty of evidence from archaeology and the Biblical texts, but the two sources of information are not compatible, which adds an element of mystery to this ancient kingdom. The article [“The Hittites—Between Tradition and History”](#) in the [March/April 2016 issue of Biblical Archaeology Review](#) examines what archaeology and the Bible say about the Hittites.

Who were the Hittites according to archaeology? As early as 1900 B.C.E., an Indo-European people began to settle in what is now Turkey. By the 16th century B.C.E., they were powerful enough to invade [Babylon](#). Their might continued to expand until they were a superpower on the level with Egypt and Assyria. Relations with Egypt were particularly volatile and included the famous Battle of [Kadesh](#) and the eventual signing of the world's oldest peace treaty. The [Hittite capital, Hattusa](#), has been excavated, revealing a formidable and religious empire.

Excavation evidence shows that Hattusa was invaded and burned in the early 12th century B.C.E., but this was after the city had largely been abandoned. In the 14th century B.C.E., [Carchemish in northern Syria](#) was made a vice-regal seat. As the Hittites began abandoning the land of Hatti during [the region-wide decline at the end of the 12th century B.C.E.](#), they may have fled to this location.

Who were the Hittites according to the Bible? The Hittites play a prominent role at key places in the Hebrew Bible: Ephron the Hittite sells Abraham the family burial ground (Genesis 23); Esau married Hittite women, and Rebecca despised them (Genesis 26:34); frequently they are listed as one of the inhabitants of Canaan (e.g., Exodus 13:5; Numbers 13:29; Joshua 11:3); [King David had Uriah the Hittite killed](#) in order to acquire Uriah's wife (2 Samuel 11); [King Solomon](#) had Hittites among his many wives (1 Kings 10:29–11:2; 2 Chronicles 1:17); and the prophet Ezekiel degrades Israel with the metaphor of a Hittite mother (Ezekiel 16:3, 45).

“The impression is that many Hittites are living in the land of Canaan during the time of the Founding Families ... And this impression is reinforced by Biblical references to Hittites during the Kingdoms of Israel and Judah,” notes the **BAR** article [“The Hittites—Between Tradition and History”](#).



The wall around Hattusa was more than 6 miles long and had several decorated gates. Visitors to the city would enter through the Lion Gate—named for the stone lions on either side of the entrance. The lion was a symbol of protection, defiance and royalty in Hittite culture.

According to the **BAR** article, “[T]his still leaves us with an open question regarding the references to the Hittites during the time of the patriarchs. To a certain extent, the composition history of the Pentateuch may be relevant to this discussion. If one were to assume that these narratives depict historical realities that were written down close to the time of occurrence, then one might conclude that the references are to the original Hittites rather than the Neo-Hittites. However, the majority of scholars believe that these narratives were composed hundreds of years after the events that they describe and often contain anachronisms for the time of composition superimposed on the narrative time. This would suggest that the references reflect the Neo-Hittites.”

So who were the Hittites? The older Hittites never self-identified as Hittites, but called their language Nesite and their land Hatti, referring to themselves as the people of Hatti. Had scholars known from the beginning what has been subsequently uncovered, these people would probably be called Nesites or perhaps Nesians. When the once-mighty kingdom collapsed, those in the former Syrian vassal states kept the culture alive, becoming [the Neo-Hittites](#). The archaeological record reveals the story of the original Hittites, while the Bible refers mostly to the Neo-Hittites.

For more on the Hittites as told through archaeology and the Bible, read the full article “[The Hittites—Between Tradition and History](#)” in the [March/April 2016 issue of *Biblical Archaeology Review*](#).

Archaeologists uncover the Americas' earliest known observatory in Peru

<https://archaeologymag.com/2025/11/the-americas-earliest-known-observatory-in-peru/>

Researchers at the Chankillo Archaeoastronomical Complex in Peru have discovered an ancient structure that existed before what was considered to be the oldest known observatory in the Americas: the Chankillo Solar Observatory. According to an announcement by the Peruvian Ministry of Culture, this discovery is rewriting current timelines for when astronomy first took root in the Andes.



Astronomical Observatory of Chanquillo in the San Rafael Valley, Casma Province, Ancash, Peru.

The newly discovered structure is situated in the desert landscape of the Casma River valley in the Ancash region, a particularly renowned area for its exceptionally early ceremonial and architectural traditions related to the Casma-Sechín culture. According to the archaeologists, the building has a clear solar orientation and thus appears to have been deliberately constructed for tracking celestial events. Given the construction materials used,

stratigraphy, and architectural features, it is considered to be considerably older than the observatory built around 250 BCE and later included in the UNESCO World Heritage List.

Although radiocarbon dating is still in progress, this evidence suggests that organized astronomical planning emerged in this region far earlier than previously documented. The researchers say that this could also make the structure one of the earliest known examples of solar-focused architecture in the Americas and extend the roots of Andean sky-watching traditions by centuries.

Excavations also revealed a corridor aligned with the lunar cycle, an element that adds a new dimension to the site's significance. The careful orientation suggests that ancient sky watchers at Chankillo were monitoring not only the annual movement of the sun across the horizon but also the far more complex rhythms of the moon. This dual system of sky observation suggests a sophisticated understanding of celestial patterns, and a scientific tradition deeper and more diverse than earlier archaeological records suggested.



The “Thirteen Towers” of Chankillo, Ancash, Peru.

Apart from the astronomically related discoveries, the scientists found a large ceremonial vessel of the Patazca style, about a meter tall, with clay figures of warriors in dynamic combat poses. It was found in an area of restricted access near the observatory, which might indicate that elite groups combined ritual authority, military leadership, and astronomical expertise. Its placement reinforces the idea that sky observation at Chankillo was closely linked to political power and ceremonial life.

The Ministry of Culture of Peru emphasized that this set of findings consolidates Casma's position as one of the most important ancient centers of astronomy in the world. Restoration and conservation works continue with the purpose of preparing the Thirteen Towers, the observatory, and the surrounding structures for future public access.

Ministerio de Cultura: Histórico hallazgo en Chankillo redefine los orígenes de la astronomía andina

<https://www.gob.pe/institucion/cultura/noticias/1296369-ministerio-de-cultura-historico-hallazgo-en-chankillo-redefine-los-origenes-de-la-astronomia-andina>

Nuevas investigaciones confirman la existencia de una arquitectura astronómica más antigua que el Observatorio Solar y revelan alineamientos solares y lunares.





24 de noviembre de 2025 - 12:49 p. m.

El Ministerio de Cultura, a través de la Unidad Ejecutora 010, anunció importantes descubrimientos en el Complejo Arqueoastronómico Chankillo, donde recientes investigaciones confirmaron la presencia de una estructura arquitectónica más antigua que el reconocido Observatorio Solar de Chankillo, construido alrededor del 250 a.C., y declarado Patrimonio Mundial por la Unesco.

Este hallazgo redefine los orígenes de la astronomía andina, y amplía de manera significativa la cronología del desarrollo astronómico en la región, convirtiéndose en uno de los registros más tempranos de planificación arquitectónica orientada a los movimientos del sol en América, y por lo tanto a la observación de fenómenos astronómicos.

La Unidad Ejecutora Chankillo prevé concluir las excavaciones y obtener los fechados radiocarbónicos que permitirán determinar la antigüedad de la estructura. Sin embargo, su orientación solar, estratigrafía y materiales constructivos confirmarían que se trata de un edificio con función astronómica, previa al Observatorio Solar de Chankillo, considerado el más antiguo del hemisferio.

A este descubrimiento se suma la identificación de un corredor alineado intencionalmente con el ciclo lunar, lo que demuestra que en el complejo se realizaban observaciones tanto solares como lunares, y el conocimiento astronómico era más diverso y avanzado de lo que se conocía hasta ahora.

Las excavaciones también revelaron una gran vasija ceremonial de estilo Patazca, de aproximadamente un metro de altura, con figuras de guerreros modeladas en arcilla en posición de combate. Su colocación en una zona exclusiva de acceso al observatorio evidencia la existencia de élites que combinaban conocimientos astronómicos con liderazgo militar, reforzando la función política y ritual del Templo Fortificado.

Estos descubrimientos consolidan a Casma como uno de los centros astronómicos ancestrales más importantes del mundo. El Ministerio de Cultura continúa con los trabajos de restauración y puesta en valor de las Trece Torres y del Observatorio Solar, con el objetivo de abrir al público este sector del sitio en los próximos años.

Un intrigant vase guerrier découvert dans le plus ancien observatoire solaire des Amériques

<https://www.geo.fr/histoire/l-oeil-de-geo-un-intrigant-vase-guerrier-decouvert-dans-le-plus-ancien-observatoire-solaire-des-ameriques-228404>

L'Œil de GEO: un intrigant vase guerrier découvert dans le plus ancien observatoire solaire des Amériques

À l'entrée de l'observatoire solaire de Chanquillo, au nord du Pérou, les archéologues ont déterré un objet inattendu, enfoui sous les sables depuis plus de deux millénaires : une curieuse jarre, qui suggère que ce haut lieu dédié au Soleil a aussi été le théâtre de rituels liés au pouvoir et à la guerre.

Vidéo GEO France - Le plus ancien calendrier solaire du monde découvert à Göbekli Tepe ?

Une découverte majeure vient enrichir la compréhension de l'un des plus anciens sites astronomiques des Amériques, Chanquillo (ou *Chankillo*). Une jarre représentant un ancien guerrier a été exhumée à l'entrée de son célèbre observatoire solaire, dans la vallée de Casma (nord du [Pérou](#)). Cette trouvaille, annoncée par le Ministère péruvien de la Culture dans un [communiqué](#) du 29 août 2025, offre un nouvel éclairage sur les liens étroits entre religion, [astronomie](#) et pouvoir militaire au sein de la mystérieuse civilisation andine y ayant prospéré il y a plus de 2 300 ans, la culture Casma-Sechín.



Vase fragmenté représentant un guerrier sur le site archéologique de Chanquillo (Pérou).

Le Soleil au centre des rituels

Situé à environ 350 kilomètres au nord-ouest de Lima, le complexe archéologique de Chanquillo est considéré comme le plus vieil observatoire solaire connu des Amériques. Sur une crête, l'alignement de ses "Treize Tours" aux tailles variées forme un horizon artificiel, qui permettait aux membres de la culture précolombienne Casma-Sechín (d'environ 2000 à 200 av. J.-C.) – antérieure à la culture de Chavín – d'observer avec précision la position du [Soleil](#) tout au long de l'année. Depuis deux points d'observation à l'est et à l'ouest, ils pouvaient en effet suivre les levers et couchers de l'astre ; déterminer [solstices](#), [équinoxes](#) et sans doute, les dates clés du calendrier agricole et rituel.

La jarre récemment décelée, fragmentée mais richement sculptée, appartient au style Patazca. Sa position, dans un lieu de haute valeur symbolique – à proximité immédiate des fameuses "Treize Tours" – lui confère, d'après les archéologues, une portée rituelle indéniable. Les spécialistes suggèrent qu'elle puisse avoir été volontairement brisée il y a plusieurs millénaires, peut-être, dans le cadre d'un rituel d'offrande solaire ou à la suite d'un épisode conflictuel sur le site.

Pouvoir, cérémonies et combats

Mais c'est sa forme de guerrier qui intrigue tout particulièrement les experts. Elle permet d'établir un lien entre le récipient et le "Temple Fortifié", une imposante structure de 300 mètres de long, caractérisée par ses trois enceintes concentriques. Dominant le complexe de Chanquillo, celle-ci est aujourd'hui interprétée comme un centre politique et militaire. La jarre vient en outre s'ajouter à un ensemble croissant d'indices – coquillages *Spondylus*, [instruments de musique](#), restes de maïs – suggérant une association entre les cérémonies solaires et l'ascension d'une élite dirigeante guerrière.

L'édifice aurait ainsi pu constituer le siège de cette caste au pouvoir, usant à la fois de la [cosmologie](#) solaire, mais aussi, de la force armée pour asseoir sa domination. *"Cette découverte renforce l'interprétation selon laquelle Chanquillo, en plus d'être le plus ancien observatoire solaire des Amériques, fut également le théâtre de combats et de la légitimation du pouvoir de ses élites"*, résumant les auteurs des recherches dans le communiqué du Ministère péruvien de la Culture.

Ce dernier a profité de l'annonce de cette incroyable découverte pour réaffirmer son engagement envers la conservation et la mise en valeur de Chanquillo, [inscrit au patrimoine mondial de l'UNESCO](#) depuis 2021. Les fouilles vont se poursuivre dans d'autres secteurs du site, dans l'espoir de mieux comprendre l'organisation sociale et les croyances des énigmatiques populations qui y ont vécu.

Exploring the Ancient Chankillo Archaeoastronomical Complex in Peru: <https://www.youtube.com/watch?v=kBDINTQs6ko>

Le plus ancien calendrier solaire du monde découvert à Göbekli Tepe ?

<https://www.geo.fr/histoire/archeologie-plus-ancien-calendrier-solaire-du-monde-decouvert-a-gobekli-tepe-collision-comete-lune-221626>

Le site de Göbekli Tepe, l'un des plus anciens exemples d'architecture monumentale, pourrait contenir un calendrier solaire, permettant aux anciens d'enregistrer leurs observations du ciel... et créé en mémoire d'une collision dévastatrice avec une comète, suggère une étude.

Vidéo GEO France - Le plus ancien calendrier solaire du monde découvert à Göbekli Tepe ?

Vieux de 12 000 ans, le site archéologique de [Göbekli Tepe](#) (province de Şanlıurfa, sud-est de la Turquie), intrigue les scientifiques depuis des décennies : ses énormes colonnes en forme de T et ses sculptures complexes laissent à penser que ses anciens habitants avaient, dès le [Néolithique](#), des formes de spiritualité et d'organisation sociale très sophistiquée.

Après des années de recherches, des archéologues de l'université d'Édimbourg (Écosse), à travers une étude publiée dans le journal [Time and Mind](#) le 24 juillet 2024, proposent une fonction aux marques inscrites sur les piliers de pierre de Göbekli Tepe : selon eux, elles pourraient être les traces du plus ancien calendrier solaire au monde, conçu comme un *"mémorial à une collision dévastatrice avec une comète"*, notent-ils dans un [communiqué](#).

Un calendrier lunisolaire préhistorique ?

Dans l'ancien complexe de Göbekli Tepe, des sortes d'enclos circulaires ou ovales ont été interprétées comme d'anciens temples ou lieux de culte. Leurs colonnes sont ornées de motifs détaillés et complexes, comprenant des représentations d'animaux, de figures humaines stylisées et des motifs géométriques. Mais ce sont des symboles en forme de V, gravés sur le "Pilier 43" très précisément, qui ont fortement attiré l'attention des auteurs de l'étude.

D'après leurs recherches, chaque "V" indiquerait un jour. Car en les comptant, les scientifiques sont parvenus à déchiffrer un potentiel calendrier solaire de 365 jours, divisé en douze mois lunaires, plus onze jours supplémentaires pour s'aligner sur l'année solaire.

Le [solstice d'été](#) semble avoir été figuré de façon distinctive : il est représenté sous la forme d'une créature ressemblant à un oiseau, avec un collier en forme de V. D'autres statues à proximité, représentant probablement des divinités, ont été trouvées avec des marquages similaires.

The Vulture Stone of Göbekli Tepe. Thought by researchers Martin Sweatman and Dimitrios Tsikritsis to be evidence of a comet strike in ~10,950 BCE. This event possibly led to the Younger Dryas, a 1,000 year cooling of the global climate that is possibly linked to the Neolithic.



5:22 PM · 9 juil. 2021



Étant donné que les cycles de la Lune et du Soleil sont tous deux figurés, les gravures pourraient représenter le plus ancien calendrier lunisolaire connu au monde, basé sur les phases de la Lune et la position du Soleil – et antérieur de plusieurs millénaires aux autres calendriers connus de ce type. – Sweatman, M. B. (2024). Representations of calendars and time at Göbekli Tepe and Karahan Tepe support an astronomical interpretation of their symbolism. Time and Mind, 1–57. <https://doi.org/10.1080/1751696X.2024.2373876>

Si elle est confirmée, ce qui rend cette découverte remarquable est en effet son ancienneté. Le calendrier précède de plusieurs milliers d'années les autres du type connus – le calendrier [mésopotamien](#) (environ 3000 av. J.-C.) ou que les *Tonalpohualli* et *Xiuhpohualli* [aztèques](#), par exemple.

Elle repousserait ainsi notre compréhension du chronométrage et des connaissances astronomiques anciennes. Il était soupçonné que l'ajout de jours pour synchroniser un calendrier avec les saisons, notamment, était apparu bien plus tard dans l'histoire.

Impact Cosmique et naissance d'une civilisation

Plus encore, l'étude suggère que les pétroglyphes du site néolithique pourraient enregistrer un événement astronomique majeur : la chute, il y a 13 000 ans, d'un essaim de fragments de comète qui aurait – selon l'hypothèse la plus discutée dans la communauté scientifique – percuté la Terre, entraînant des conséquences majeures. La collision aurait marqué le début d'une période de refroidissement climatique brusque juste avant la fin de la dernière période glaciaire, responsable de la disparition de nombreuses espèces d'animaux géants.

Cette dernière et plus longue des oscillations froides (Dryas récent) avant l'actuel Holocène, aurait forcé les populations humaines à s'adapter à de nouvelles conditions environnementales. Des méthodes agricoles plus élaborées auraient marqué le début de la sédentarisation et la naissance des groupes du [Croissant fertile](#). La fameuse comète, si elle est bien tombée, aurait ainsi pu contribuer à l'émergence des premières sociétés complexes.

Il aurait été naturel qu'après les terribles dévastations entraînées par l'impact cosmique, les habitants de Göbekli Tepe soient devenus des observateurs attentifs du ciel – et que leur cité ait servi de mémorial.

"Cet événement pourrait avoir déclenché la civilisation en initiant une nouvelle religion et en motivant des développements dans l'agriculture pour faire face au climat froid", confirme dans la publication le Dr Martin Sweatman, de l'École d'ingénierie de l'université d'Édimbourg, directeur des recherches.

Il est possible que leurs tentatives de consigner ce qu'ils ont vu soient les premiers pas vers le [développement de l'écriture](#) des millénaires plus tard. En outre, un autre pilier sur le site semble représenter le flux des Taurides, produisant durant 27 jours des météores visibles semblant provenir des constellations du Verseau et des Poissons... et qui résulteraient de la désintégration de la comète. Les découvertes suggèrent enfin que les anciens sont parvenus à appréhender la précession – le balancement de l'axe de la Terre, qui affecte le mouvement des [constellations](#) à travers le ciel – des milliers d'années avant que le phénomène ne soit documenté par l'astronome grec [Hipparque](#) en 150 av. J.-C.

Dans le cas où elles se révélaient exactes, ces théories dépeignent nos ancêtres comme plus sophistiqués qu'imaginés. Elle suggère qu'ils étaient capables de suivre des cycles célestes complexes, d'enregistrer avec précision des événements et de transmettre toutes ces connaissances de génération en génération. Le tout, sans l'avantage d'un langage écrit.

Comment des fresques du Texas qui ont traversé 175 générations révèlent le « noyau dur » des mythes mésoaméricains

<https://www.futura-sciences.com/sciences/actualites/homme-fresques-texas-ont-traverse-175-generations-revelent-noyau-dur-mythes-mesoamericains-127872/>

publié le 26 novembre 2025 à 20:03



Le noyau dur des croyances amérindiennes se trouve peut-être sur des parois de canyons au Texas.

Au cœur des canyons du Texas et du nord du Mexique, des milliers de peintures rupestres révèlent une tradition artistique et spirituelle qui a traversé plus de 4 000 ans. Datées pour la première fois avec précision, ces œuvres témoignent d'une étonnante continuité culturelle et d'une cosmovision partagée, qui pourrait bien constituer l'un des fondements les plus anciens des croyances mésoaméricaines.

La région du Sud-Ouest du Texas et du Nord du Mexique est réputée parmi les archéologues pour la richesse de son patrimoine préhistorique, comprenant des artefacts datant de plus de 12 500 ans et d'imposantes [peintures](#) murales qui ornent les parois des canyons des rivières Pecos et Devil. Ces vestiges témoignent non seulement d'une occupation très ancienne de la région, mais également d'une remarquable continuité culturelle sur plusieurs millénaires.

Des motifs qui illustrent la vision du monde des Amérindiens

Des chercheurs se sont penchés sur les vastes et complexes assemblages iconographiques laissés par les peuples autochtones d'Amérique du Nord, s'étendant sur une aire d'environ 8 000 km². Ces peintures, protégées des intempéries par les surplombs naturels des canyons, présentent un [style](#) très caractéristique et relativement uniforme, connu sous le nom de style de *Pecos River*. Les motifs stylisés reflètent la manière dont [les chasseurs-cueilleurs](#) amérindiens concevaient l'Univers, exprimant leurs croyances, leurs rituels et leur cosmovision.

Jusque-là, le contexte chronologique et la durée de production de ces peintures restaient cependant mal connus. Retracer l'histoire de ce style offre aujourd'hui une opportunité unique de mieux comprendre comment ces sociétés anciennes concevaient le monde et comment elles ont contribué à la cosmovision pan-mésaméricaine.



Peinture du style *Pecos River*.

Une continuité stylistique sur 175 générations

Pour avancer sur cette question, des échantillons de peinture ont été prélevés sur 12 sites de la région. Les chercheurs ont obtenu 82 datations, soit par radiocarbone direct, soit par datation des [minéraux](#) présents dans les couches sous et sur les peintures. Les résultats, publiés dans la revue [Science Advances](#), sont frappants : les premières peintures murales datent de 5 760 à 5 385 ans, et la production a perduré pendant plus de 4 000 ans.

Malgré les [changements climatiques](#), les évolutions technologiques et le développement des sociétés amérindiennes, le style de *Pecos River* est resté remarquablement constant. Cette continuité iconographique, tant sur le plan technique que symbolique et spatial, révèle une cosmovision profondément enracinée et un transfert très fidèle des connaissances à travers environ 175 générations.

Les chercheurs soulignent que le paysage particulier de la région a sans doute contribué à cette stabilité culturelle. Avec ses profonds canyons, ses [grottes](#), ses [gouffres](#), ses nombreux abris-sous-roche, ses sources permanentes et ses rivières sinueuses, le territoire de la rivière Pecos offre un cadre naturel exceptionnel. Dans les croyances indigènes actuelles, ces éléments géomorphologiques sont considérés comme des lieux d'[émergence](#) et sont associés au pouvoir, à la connaissance ancestrale et aux forces surnaturelles, où se déroulent les rituels.



Vue sur la *Devils River*, au Texas, à partir d'un abri-sous-roche contenant des peintures murales.

Le noyau dur des croyances mésoaméricaines ?

Enfin, les motifs du style *Pecos River* présentent des parallèles frappants avec les mythes et symboles des sociétés agricoles mésoaméricaines - telles que les [Aztèques](#) ou les Huichols - suggérant une continuité idéologique à l'échelle pan-mésoaméricaine. La cosmovision qu'ils véhiculent pourrait ainsi être considérée comme le « noyau dur » des croyances mésoaméricaines, une structure idéologique profondément résistante aux changements culturels et qui perdure depuis plusieurs millénaires.

Ces travaux montrent comment [l'art rupestre](#) peut constituer un archive visuelle durable de la pensée et des croyances humaines, traversant le temps et les espaces géographiques pour éclairer notre compréhension des sociétés anciennes.

A Stunning Taş Tepeler Discovery: 12,000-Year-Old Human Faces Emerge from Sefertepe

<https://arkeonews.net/a-stunning-tas-tepeler-discovery-12000-year-old-human-faces-emerge-from-sefertepe/>



A stunning discovery at Sefertepe reveals 12,000-year-old carved human faces and a rare double-sided serpentinite bead, offering new insight into the [Taş Tepeler world](#).

Archaeologists working in southeastern Türkiye have announced a set of discoveries that may significantly reshape our understanding of symbolic expression during the Pre-Pottery Neolithic. At a briefing held at the Karahantepe Visitor Center, Türkiye's Minister of Culture and Tourism, Mehmet Nuri Ersoy revealed new findings from the fifth year of the Taş Tepeler project—an ambitious, multi-site research program spanning the ancient uplands of Şanlıurfa.

The new season's results underscore that the Taş Tepeler landscape, which includes Göbeklitepe, [Karahantepe](#), [Sayburç](#), [Sefertepe](#), and several lesser-known mound settlements, represents one of the earliest interconnected cultural zones in the world. Rather than a cluster of isolated ritual sites, the region now appears to be a dense constellation of communities developing complex architectural forms and experimenting with visual language more than twelve millennia ago.

Among the most striking revelations came from Sefertepe, where researchers uncovered two carved human faces on neatly dressed stone blocks—one executed in high relief, the other in low relief. Their contrasting techniques, stylistic choices, and unusual proportions immediately set them apart from previously known representations at Göbeklitepe, Karahantepe, and [Sayburç](#). The subtle differences in cheek curvature, brow structure, and the treatment of the nose suggest that Sefertepe may have cultivated its own local sculptural idiom within the wider Taş Tepeler sphere.

Minister Ersoy also shared another unexpected find from the same area: a double-sided human motif carved into a black serpentinite bead. The tiny object, polished to a soft sheen, depicts two faces emerging from opposite sides of the stone. Its craftsmanship implies that small, portable items may have carried symbolic meanings just as complex as the monumental pillars for which the region is famous. This bead, together with the newly revealed relief faces, deepens the impression that Sefertepe was a place where ideas about identity, representation, and possibly even personhood were actively explored.



The Sayburç sculpture, depicting a face with a sealed mouth and evoking the stillness of death, is considered a unique insight into early Neolithic mortuary symbolism.

At Sayburç, excavations yielded a small but emotionally powerful sculpture whose expression evokes the inertia of death. The figure's tightly sealed mouth—crafted as though stitched or closed deliberately—invites reflection on how prehistoric communities conceptualized the boundary between life and death. Minister Ersoy emphasized that the sculpture expands the interpretive possibilities for early funerary symbolism, complementing evidence of skull removal, secondary burials, and ritualized post-mortem practices known from other Neolithic sites.

The briefing also provided updates on conservation efforts across the region. At Göbeklitepe, restoration of the Lion-Pillar Building was completed last year, followed by successful stabilization of Structure C. At Karahantepe, work continues on the AD Structure, whose architecture remains one of the most distinctive examples of early communal design. A similar program has now begun in Sayburç, where the restoration of a domestic space will offer visitors clearer insight into the everyday environments of the region's earliest agricultural communities.

Before addressing the press, Minister Ersoy toured a new exhibition at the Karahantepe Visitor Center with project director Prof. Dr. Necmi Karul. The display brings together previously unseen artifacts from recent excavation seasons, illustrating the evolving symbolic vocabulary of early Neolithic societies. From monumental pillars to finely carved beads, the exhibition demonstrates how representation operated on multiple scales—from intimate, handheld objects to imposing architectural elements carved with animals, humans, and geometric symbols.

Taken together, the Sefertepe reliefs, the serpentinite bead, and the Sayburç sculpture reinforce the view that the Taş Tepeler region functioned as a dynamic laboratory of symbolic experimentation between 10,000 and 12,000 years ago. The discoveries highlight not only shared traditions but also meaningful variations between individual sites, suggesting that each community contributed its own innovations to a larger cultural network.

As scientific work accelerates, southeastern Türkiye is emerging as one of the most revealing prehistoric landscapes on Earth. With the newest faces from Sefertepe joining the expanding corpus of early Neolithic imagery, the story of humanity's first artists—and the beliefs carved into stone at the dawn of communal life—continues to grow richer and more intricate with each season of discovery.

A 11,000-Year-Old Neolithic “Amphitheater” Discovered at Karahantepe

<https://arkeonews.net/a-11000-year-old-neolithic-amphitheater-discovered-at-karahantepe/>



Archaeologists working in the arid hills of southeastern Türkiye have uncovered one of the most intriguing architectural discoveries of the last decade: a large Neolithic structure resembling an amphitheater at the [Karahantepe archaeological site](#) in Şanlıurfa. The circular building—nearly 17 meters in diameter—features tiered stone benches, human sculptures, and carved heads embedded within its walls, offering an unprecedented glimpse into the social and ritual life of some of the world’s earliest settled communities.

The discovery emerges from the “Legacy to the Future” initiative led by Türkiye’s Ministry of Culture and Tourism, which supports extensive excavations across the [Tek Tek Mountains](#) National Park. Karahantepe, along with the nearby and more widely known Göbeklitepe, forms part of the [Taş Tepeler](#) (“Stone Hills”) Project—an ambitious scientific effort aiming to understand the dawn of settled life between 9,400 and 8,000 BCE.

A Window Into the Early Neolithic World

According to excavation director [Prof. Dr. Necmi Karul](#), Karahantepe was inhabited for roughly 1,400 years, beginning around 9,400 BCE. Archaeologists have identified three major settlement phases, each reflecting evolving architectural styles: early circular rooms carved partly into bedrock, later rounded-corner rectangular buildings, and eventually fully rectangular structures. These transitions document a transformative period when human groups were shifting from mobile hunter-gatherer bands to more complex, settled communities.

What makes this site particularly compelling is the blend of domestic and communal architecture. From early houses to monumental structures decorated with sculptures, [Karahantepe](#) provides rare, tangible evidence of how social organization and symbolic expression evolved hand in hand during the Neolithic Revolution.



A 17-meter-wide Neolithic structure with tiered stone benches and carved human heads, revealing rare insights into early communal life.

The Monumental Structure: A Stage for Ritual, Performance, or Community Life

The newly revealed building stands out among the site's many architectural features. Excavations have exposed its entire floor, carved directly into the bedrock, revealing human heads sculpted into the walls and several seated human statues placed on the ground. The presence of these carved figures suggests a dramatic shift from the earlier symbolic world dominated by wild animal imagery—common across Taş Tepeler—to a new emphasis on the human form. This growing focus on human representation signals a changing worldview, where people themselves were becoming central to ritual and communal identity.

Most striking of all is the building's internal layout. Three wide, tiered stone benches curve around a central focal point, where a prominent sculpture is positioned. The arrangement strongly recalls an amphitheater or odeon. Although thousands of years older than classical examples, the parallels hint at a deep-rooted human inclination to gather in shared spaces to listen, observe, and participate in communal activities. Karul notes that the design clearly suggests organized group gatherings, and that the architecture likely served as a place for people to come together rather than a temple dedicated strictly to worship.

Not a Temple—A Social Engine

Archaeologists are increasingly cautious in labeling [Neolithic structures](#) as “temples,” since such terms impose later religious concepts onto much earlier societies. Instead, Karul proposes that the building’s primary function may have been to strengthen social cohesion. As communities transitioned into settled life, new social challenges emerged: cooperation, resource management, leadership, and shared cultural practices. Monumental spaces like this amphitheater-like structure could have provided venues for rituals, storytelling, decision-making, or communal ceremonies that helped reinforce unity and identity among early inhabitants.

In this sense, Karahantepe demonstrates that monumental architecture was not only about belief systems but also about creating physical spaces that helped people live together. The structure’s scale, design, and elaborate symbolism underscore the importance of shared experiences during one of humanity’s most transformative eras.



Three-tiered stone benches curve toward a central sculpture, creating an arrangement reminiscent of an early amphitheater.

Karahantepe in the Wider Taş Tepeler Landscape

Although Karahantepe shares certain architectural and symbolic features with nearby Göbeklitepe, including T-shaped pillars and elaborate carvings, it also introduces unique elements that reshape our understanding of early settled life. The site holds one of the largest concentrations of human face depictions known from the Neolithic era, and its bedrock-carved architecture is more extensive than that of Göbeklitepe. Its interconnected chambers, corridors, and monumental rooms point to a highly organized society capable of sophisticated construction, ritual choreography, and coordinated labor.

Together, these characteristics position Karahantepe as one of the most significant archaeological sites of the 21st century. Its discoveries illuminate not only how people lived more than 11,000 years ago but also how they perceived themselves and their place within their communities.

A New Chapter in Understanding Human Beginnings

As restoration continues and standing pillars are gradually re-erected, [Karahantepe](#) is expected to become a cornerstone of global Neolithic research. Its amphitheater-like structure—possibly one of the world’s earliest designed gathering spaces—stands as a testament to humanity’s enduring desire to come together, create meaning, and share experiences.

Rather than a silent ruin, the site speaks clearly: long before cities, writing, or metal, humans were already builders of community.

The Americas' Oldest Rock Paintings Reveal a 4,000-Year Continuum of Belief—and a Possible Ancestral Link to Mesoamerican Cosmology

<https://arkeonews.net/the-americas-oldest-rock-paintings-reveal-a-4000-year-continuum-of-belief-and-a-possible-ancestral-link-to-mesoamerican-cosmology/>



A groundbreaking study reveals that Pecos River style murals in Texas and northern Mexico form the oldest securely dated rock paintings in the Americas, preserving a continuous 4,000-year spiritual and artistic tradition that may have influenced later [Mesoamerican cosmologies](#). Across the rugged limestone canyons of southwest Texas and northern Mexico, a silent archive of ancient thought stretches across rock shelter walls. Layered in reds, blacks, yellows, oranges, and whites—some panels more than 150 meters long—these are the Pecos River style murals, one of the most intricate and information-dense rock art traditions in the world. For decades, researchers struggled to situate them in time. Now, a landmark study has finally traced their origins and temporal arc, revealing a cultural tradition so enduring that it may have shaped the cosmologies of later [Mesoamerican civilizations](#).

Published in [Science Advances](#), the study presents the largest and most precise dating effort ever undertaken for a rock art region in the Americas, combining 57 direct radiocarbon dates from the paint itself and 25 additional dates from calcium oxalate crusts deposited above and below the images.

The results demonstrate that this artistic tradition began between 5,760 and 5,385 years ago—and continued, uninterrupted, for over 4,000 years, ending sometime between 1,370 and 1,035 years ago.

These dates make the Pecos River murals not only the oldest securely dated rock paintings in the Americas, but also the longest-running visual tradition on the continent.

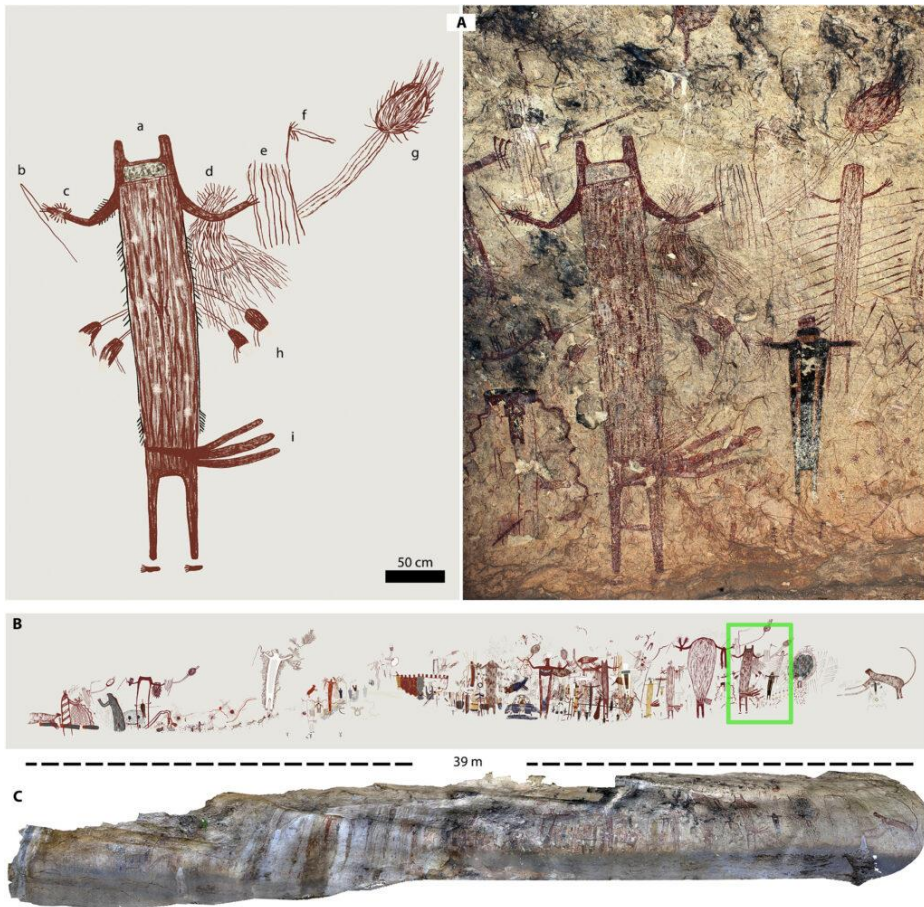
A Painted Landscape Occupied for 12,500 Years

The study area—known as the Lower Pecos Canyonlands—is a cultural and ecological crossroads where three biomes meet: the Edwards Plateau, the Chihuahuan Desert, and the Tamaulipan thorn scrub. Archaeological deposits show that hunter-gatherer groups lived here for more than 12,500 years, adapting to fluctuating climates, changing river regimes, and shifting resource availability.

But their most spectacular legacy is the rock art. More than 150 rock shelters north of the Rio Grande (and likely as many in Coahuila, Mexico) are covered with Pecos River style pictographs. Some murals rise 8 meters high; others span the length of a football field. Many required scaffolding or ladders, indicating coordinated labor and ceremonial planning.

The paintings are visually complex. Human figures—some only a few centimeters tall, others towering above life size—appear with distinctive headdresses resembling rabbit ears or antlers. They hold atlatls, darts, staffs, and a mysterious object known as the “power bundle”: an ovoid shape attached to long, parallel lines extending from the non-dominant arm. Animal imagery includes deer, felines, birds, snakes, and occasional insect-like figures.

These elements form a visual vocabulary that experts now believe encoded myths, ritual instructions, and cosmological narratives.



Anthropomorph figure from site 41VV83 showing key Pecos River style attributes, including distinctive headdresses, atlatls, wrist and elbow adornments, staffs, and power bundles. The digital illustration and orthophotograph highlight the complexity of the 67-meter mural.

Dating the “Undatable”: A Breakthrough in Rock Art Chronology

Rock art is notoriously difficult to date, especially when the pigments are mineral-based. But the Pecos River artists mixed their pigments with organic binders—likely deer bone marrow fat and sap from plants such as yucca. This organic fraction allowed researchers to directly date paint fragments as small as 1–2 square centimeters.

Using a specialized method known as plasma oxidation, the team extracted carbon from the organic binders without damaging the mineral pigments. The resulting samples were measured using accelerator mass spectrometry (AMS), producing the most comprehensive direct dating dataset for any rock art province in the Americas.

To strengthen confidence in their results, the team also dated calcium oxalate crusts naturally formed on the rock surfaces. Crusts beneath the paint provided maximum ages; crusts above the paint provided minimum ages—each confirming the direct dates. In every case, the stratigraphy aligned perfectly.

A Message Preserved for Millennia

One of the study's most surprising revelations came from analyzing how the murals were constructed. Researchers examined 588 points of paint-layer intersection using digital microscopy. In 535 cases, artists followed the same rule: black paint first, red next, then yellow, and finally white.

This strict sequence meant that figures were often woven together: one figure's black layer might lie beneath another figure's red layer, while its own yellow highlights overlapped a third figure. Such interlacing shows that many murals—sometimes comprising hundreds of figures—were created as single, deliberate compositions, not accretions built up over centuries.

Radiocarbon dates within each mural were statistically indistinguishable, reinforcing the conclusion: these were large-scale narrative events, executed in orchestrated painting sessions.



Views from the Lower Pecos Canyonlands, including the Devils River, desert vegetation, and key archaeological sites such as 41VV39 and 41VV167, where pictographs have been radiocarbon dated to between 3,560–1,380 years ago.

Persistence Through Climate Change and Cultural Shifts

The new chronological model shows that the Pecos River tradition endured through dramatic ecological and technological transformations. Middle Holocene aridity between roughly 6000 and 4000 years ago, widespread flooding along the Pecos River, shifts from broad-bladed to lanceolate and then contracting-stem projectile points, intermittent incursions of bison-hunting groups, and the introduction of new ritual motifs such as winged anthropomorphs all occurred while the Pecos River tradition remained intact.

Despite these upheavals, the rock art's core attributes—motifs, composition rules, and color sequences—remained consistent.

“It persisted for roughly 175 generations,” the authors note, with remarkable fidelity.

A Cultural Keystone Landscape

The Lower Pecos Canyonlands is filled with deep canyons, sinkholes, caves, springs, and river bends—features that, in many Indigenous worldviews, are portals to the spirit realm. The authors propose that these locations were perceived as “cultural keystone places”: powerful sites where supernatural entities dwelled and ancestral knowledge could be accessed.

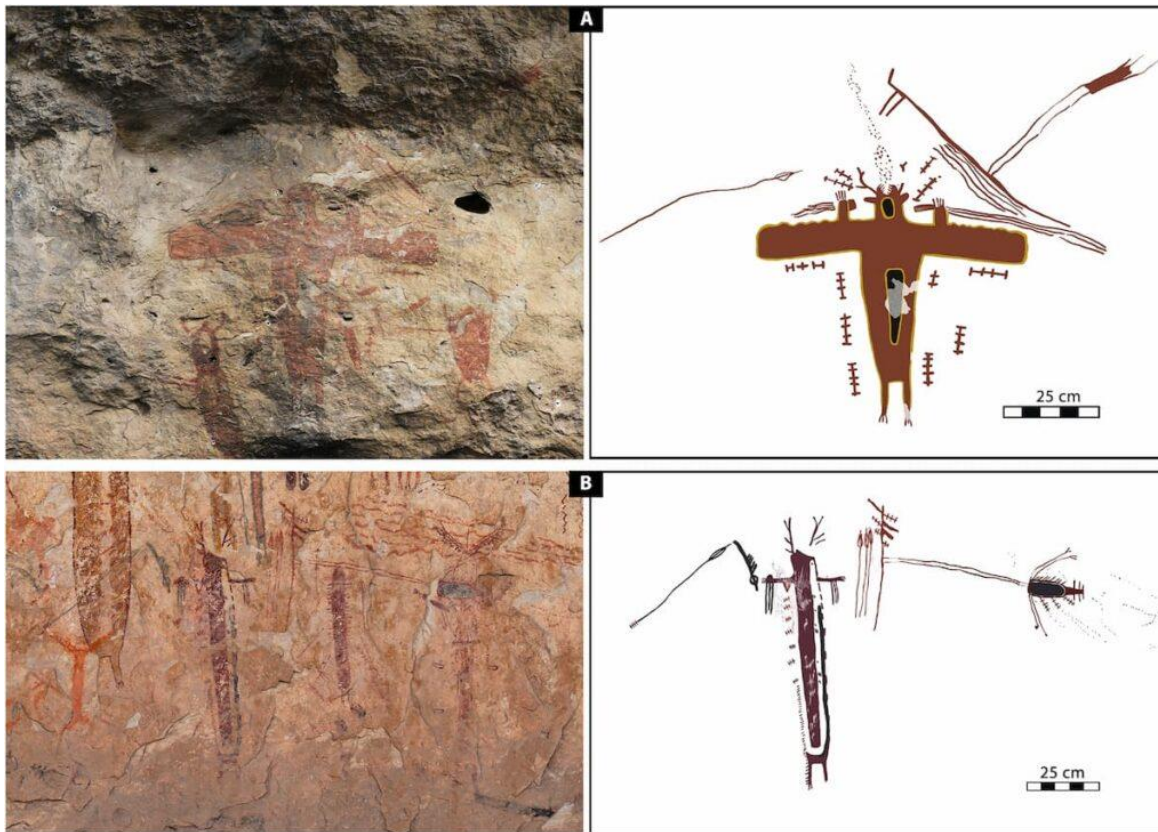
From this perspective, the murals were not simply paintings. They were living beings, embodiments of cosmological forces, and tools for transmitting sacred knowledge.

Echoes in Mesoamerican Cosmologies

Perhaps the most provocative implication of the study is the connection between Pecos River symbolism and later [Mesoamerican belief systems](#). Scholars have long noted parallels between Pecos River imagery and the cosmologies of the Aztec (Nahua) and Huichol (Wixárika). These include concepts of emergence from sacred caves, the structuring of the cosmos into layered, interconnected realms, ritualized interactions between humans and divine forces, and the presence of sacred bundles as containers of power.

The new chronology suggests that these similarities may not be coincidental. Instead, the Pecos River tradition may represent one of the earliest graphic expressions of a pan-American philosophical system—what Mexican anthropologist Alfredo López Austin famously called el núcleo duro, the “hard core” of Mesoamerican cosmovision.

“Our chronological model places Pecos River murals within a timeframe that supports this hypothesis,” the authors write.



Winged anthropomorph with a power bundle from site 41VV286 and a figure with red antlers from 41VV1230, both directly dated through radiocarbon analysis and among the best-dated Pecos River style motifs.

The Longest-Lived Visual Tradition in the Americas

The Pecos River style murals now stand as the best-dated, longest-lasting rock art tradition in the Western Hemisphere. They offer a rare, unbroken line of insight into how ancient hunter-gatherers understood their universe—and how those ideas may have shaped the spiritual landscapes of later civilizations.

Spanning a time depth greater than the period between the building of the [Egyptian pyramids](#) and the present day, these works are a monumental testament to cultural resilience, artistic sophistication, and the human drive to encode meaning onto the world.

They remind us that long before the rise of cities, pyramids, or empires, the canyon walls of the Lower Pecos already carried a story—painted stroke by stroke, generation after generation, for nearly five millennia.

Steelman, K. L., Boyd, C. E., & Dering, J. P. (2025). Mapping the chronology of an ancient cosmovision: 4000 years of continuity in Pecos River style mural painting and symbolism. *Science Advances*, 11(adx7205), 1–18. [DOI: 10.1126/sciadv.adx7205](https://doi.org/10.1126/sciadv.adx7205)

An 8,500-Year-Old Micro-Carved Bead—and a 10,000-Year-Old Skull Room—Reveal Sefertepe's Hidden Symbolic World

<https://arkeonews.net/an-8500-year-old-micro-carved-bead-and-a-10000-year-old-skull-room-reveal-sefertepes-hidden-symbolic-world/>



Human face reliefs from Sefertepe.

An 8,500-year-old micro-carved bead and a 10,000-year-old skull room uncovered at Sefertepe reveal a remarkably complex symbolic world in [Neolithic Anatolia](#).

When archaeologists returned to Sefertepe for the 2025 field season, few expected that two of the smallest objects uncovered—one carved into a pebble-sized bead, the other into a modest limestone block—would upend assumptions about the symbolic imagination of [early Neolithic communities](#). Yet on a low rise overlooking the plains of Viranşehir, the easternmost edge of Türkiye's vast [Taş Tepeler](#) region, a pair of faces and a room filled with ancient skulls have pushed Sefertepe into the center of scholarly attention.

Situated roughly 10,000 years ago within the Pre-Pottery Neolithic landscape, Sefertepe has often stood in the shadow of its monumental neighbors: [Göbeklitepe's](#) towering pillars, [Karahantepe's](#) sculpted chambers, and [Sayburç's](#) enigmatic reliefs. But recent discoveries show that

Sefertepe's significance lies not in architectural grandeur, but in the meticulous, intimate symbolism crafted into its stones, beads, and mortuary practices.

A Stone Block with Two Stories to Tell

The first major discovery of the season emerged from a partially exposed terrace wall: a small stone block bearing not one, but two human faces. Although they sit side by side, the sculptor clearly intended them to be perceived differently. One face is carved in high, confident relief; the other in a shallower, almost ghostlike form.

At first glance, the difference may appear technical. But the excavation team quickly realized the stylistic contrast was deliberate. The two faces may represent separate identities, social roles, or cosmological states—perhaps even shifting statuses in life and death. Unlike the stylized heads found at Karahantepe or the abstracted expressions at Göbeklitepe, these faces show a more experimental aesthetic, suggesting Sefertepe nurtured its own artistic tradition.

Their placement on a single stone invites interpretation. Were they meant to be seen together, as dual aspects of a single story? Or did the block once mark a threshold through which two symbolic realms intersected? For now, the stone keeps its secrets.



Basalt bead with human faces from Sefertepe.

The Double-Faced Basalt Bead

If the twin-faced block introduces the season's theme of duality, a far smaller artifact embodies it even more directly. Among the dozens of beads recovered this year, one stands out: a tiny, polished bead carved from dense black basalt, bearing two human faces—one on each side.

Such craftsmanship is extremely rare in the early Neolithic Near East. Only a few centimeters in size, the bead required remarkable precision to carve. Its presence raises immediate questions: was it worn on the body? Carried as a protective amulet? Passed between individuals during rituals?

Whatever its function, the bead reveals two crucial insights. First, Sefertepe's artisans were as skilled in micro-carving as the region's more famous builders were with monumental stone. Second, the community's symbolic lexicon extended beyond architecture into personal ornamentation, hinting at the intimate, portable dimensions of Neolithic belief.

Other beads unearthed this season deepen this picture. Crafted from jade, labradorite, and limestone, several exhibit snake-head shapes, while others bear geometric incisions. Jade and labradorite are not native to the local geology, indicating long-distance exchange networks or wandering procurement routes. "Sefertepe's bead assemblage clearly shows that this was not an isolated settlement," notes excavation director Assoc. Prof. Emre Güldoğan. "People here were connected—and they expressed those connections in the materials they chose."

Inside the 10,000-Year-Old Skull Room

Yet the most haunting discovery lies not in ornament, but in death. During the 2024 season, archaeologists uncovered a small chamber where 22 [human skulls](#) had been deliberately placed. Most lacked mandibles, and no additional bones were found—signs of intentional selection rather than random deposition. The team named the space the "skull room."

Just meters to the north, excavators encountered a contrasting mortuary pattern: seven skulls interred together with their full skeletal remains. The juxtaposition of these two burial modes suggests a layered ritual landscape in which skulls held shifting symbolic roles. Some individuals were curated long after death, their skulls gathered into communal memory spaces. Others were left intact, perhaps preserving familial identity or social belonging.

Across the Taş Tepeler region, human skulls often feature in symbolic architecture, but Sefertepe's dual mortuary system appears unique. Here, fragmentation and wholeness coexisted. Selection and preservation coexisted. Memory and anonymity coexisted. The skull room, with its careful arrangement, may have functioned as a ritual archive—one that recorded ancestors not through writing, but through the human head itself.



Bead assemblage from Sefertepe.

A Settlement Defined by Subtlety

Viewed together, the season's discoveries show that Sefertepe's symbolic world operated at multiple scales. Reliefs carved into stone blocks conveyed layered meanings. Micro-carved beads embodied personal identity or ritual function. Human skulls, curated and arranged with intention, shaped relationships between the living and the dead.

Rather than standing in the shadow of its monumental neighbors, [Sefertepe](http://www.mementoslangues.fr/) is proving to be an essential component of the Taş Tepeler cultural mosaic. It is a site where artistry was expressed through tiny, precise carvings; where ritual practice navigated the boundary between the individual and the collective; and where symbolism extended beyond enclosures into the objects people wore and carried.

As excavation continues, Sefertepe is expected to play a larger role in understanding the diversity of early Neolithic belief systems. Its micro-carved bead and its ancient skull room now stand as powerful reminders that some of the most profound expressions of meaning in the ancient world were neither the largest nor the most visible—but the most intentionally crafted.

As the Taş Tepeler project continues to map the world's earliest ceremonial landscapes, Sefertepe stands as a reminder that Neolithic symbolism was not a monolith. It was a mosaic—one in which even the smallest object could carry the weight of two faces, two stories, and two worlds.

Archaeologists Find Stunning Evidence of a Megalithic Network Hidden in Indonesia

<https://arkeonews.net/archaeologists-find-stunning-evidence-of-a-megalithic-network-hidden-in-indonesia/>



A new wave of archaeological research at Mount Tangkil is reshaping academic understanding of West Java's ancient landscapes. Recent investigations by the National Research and Innovation Agency (BRIN), supported by the Prabu Siliwangi Museum and local researchers, suggest that the forested mountain may hold one of the region's most significant megalithic sites.

The discovery began earlier this year when researcher Zubair Mas'ud identified a fragment of stone sculpture in a remote area of Mount Tangkil's densely vegetated slopes. Preliminary analysis showed that the artifact's lithic composition closely resembles megalithic objects stored in the Prabu Siliwangi Museum. According to cultural heritage advocate KH Fajar Laksana, who presented the findings during an archaeology seminar in July, the similarities point to a likely shared origin. "The composition and characteristics indicate a strong connection. This is a very promising discovery," he said.

Although Mount Tangkil has not yet been designated an official cultural site, scattered discoveries in nearby locations — including a menhir in Tugu Village and similar stone remnants on Mount Karang — have strengthened hypotheses that the area was once part of a broader megalithic network in West Java.

LiDAR Technology Provides Breakthrough Evidence

From 16–20 September 2025, BRIN deployed LiDAR technology (Light Detection and Ranging) over parts of Mount Tangkil, marking the most advanced survey of the site to date. The laser-based method, capable of penetrating thick forest canopy, revealed previously hidden stone arrangements and surface anomalies.

M. Irfan Machmud, Head of BRIN's Research Center for [Prehistoric](#) and Historical Archaeology, said the newly detected formations strongly suggest deliberate human design. "We've identified concentrated stone structures in elevated zones, indicating that the area was not used randomly but followed environmental patterns suitable for ancient human activity," he explained.

The LiDAR data points to four main terrace clusters:

First terrace: fragments of stones, menhirs, a potential statue, and remnants of a stone pathway.

Second terrace: structured stone arrangements resembling traditional dakon layouts.

Third terrace: mounded stones, possible ritual features, and vertical marker stones.

Fourth terrace: elongated stone formations and additional upright stones.

Researchers also detected anomalies believed to be remnants of ancient pathways and terraced platforms, indicating sophisticated land modification.



BRIN archaeologists conducting research at Mount Tangkil, Cikakak District, Sukabumi Regency, Indonesia.

Ceramic Findings Reveal Long-Term Trade Connections

Alongside the stone structures, BRIN's earlier field surveys uncovered hundreds of ceramic fragments dating from the 10th to 20th centuries. Ceramic experts on the team note that the pieces reflect centuries of interaction between the Indonesian archipelago and Chinese maritime traders. This, they argue, suggests that Mount Tangkil's surroundings may have once been linked to regional trade routes, expanding its significance beyond ritual or ceremonial functions.

"These ceramics provide evidence of extensive economic interaction," one researcher said. "It's not only crucial for archaeology, but also for understanding regional trade history."

Challenges in a Protected Conservation Area

While the findings are compelling, further research faces environmental and regulatory limits. Mount Tangkil lies within the protected Sukawayana nature reserve, restricting excavation and prohibiting damage to surrounding vegetation. Even trimming branches requires special permission.

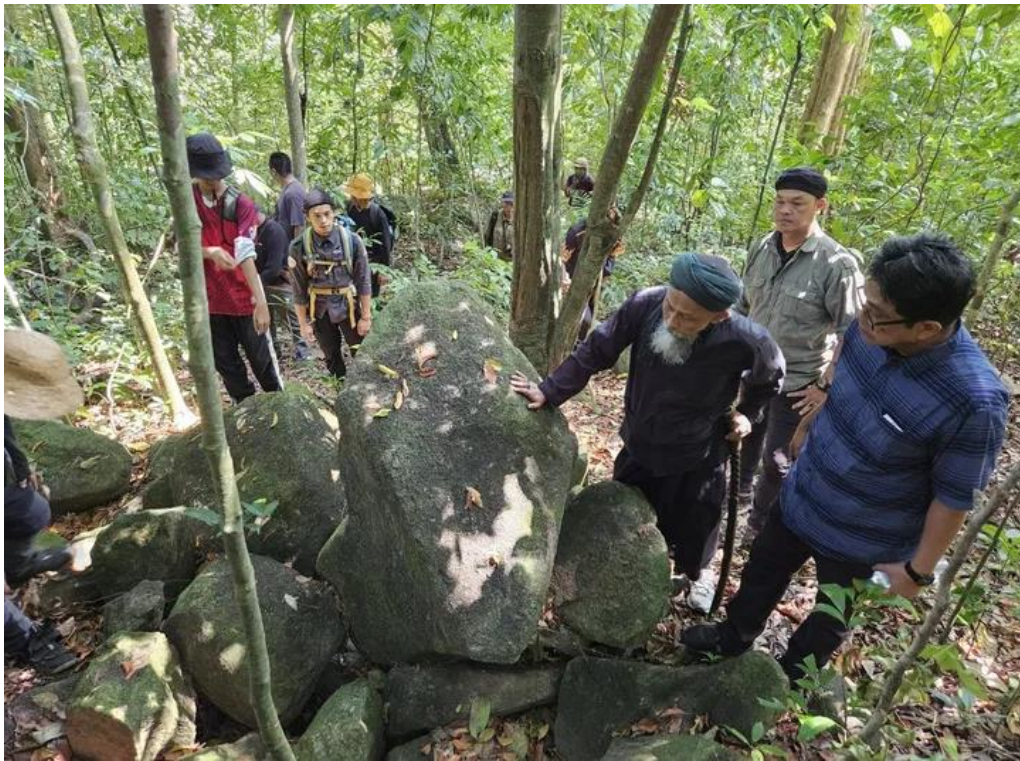
"The challenge is that we cannot yet excavate key areas," Irfan said. "For now, we remain limited to surface analysis and aerial surveys. We need more coordination with forestry authorities before proceeding."

Despite these limits, Irfan believes the site holds exceptional research potential: "The conservation area means the data has remained largely undisturbed. For archaeological integrity, this is an ideal condition."

Academic Interest and Cultural Importance Growing

Interest in Mount Tangkil is also rising among scholars. Prof. Ali Akbar of the University of Indonesia — known for his involvement at the famous [Gunung Padang site](#) — has stated that the mountain may be linked to other megalithic centers across West Java. Such connections could make Mount Tangkil an essential piece in understanding prehistoric cultural networks in the region.

Mount Tangkil also remains significant to local communities who continue ancestral rituals at several points in the area. Researchers argue that these living traditions strengthen the case for official recognition.



Recent investigations by the National Research and Innovation Agency (BRIN), supported by the Prabu Siliwangi Museum and local researchers, suggest that the forested mountain may hold one of the region's most significant megalithic sites.

Calls for Cultural Heritage Status Intensify

Given the mounting evidence, researchers from BRIN and cultural leaders have formally encouraged both regional and national governments to establish Mount Tangkil as a cultural heritage site. “What began as a routine museum verification effort has developed into strong indications of a major archaeological site,” said KH Fajar. “We urge the government to protect Mount Tangkil as cultural heritage.”

BRIN is preparing for another research phase in early September, involving drone mapping and expanded LiDAR scanning to refine structural interpretations and identify possible buried features.

If validated and protected, Mount Tangkil could become one of Indonesia's most important newly identified megalithic areas — offering insights into ancient engineering, trade, and cultural practices hidden for centuries beneath the dense Sukabumi forest.

How centuries of drought doomed the Indus Valley Civilization, one of the world's oldest civilizations

<https://archaeologymag.com/2025/11/how-drought-doomed-indus-valley-civilization/>

A new study provides the strongest evidence yet that long, recurring droughts played a decisive role in reshaping — and ultimately weakening — the [Indus Valley Civilization](#), one of the world's earliest urban societies.



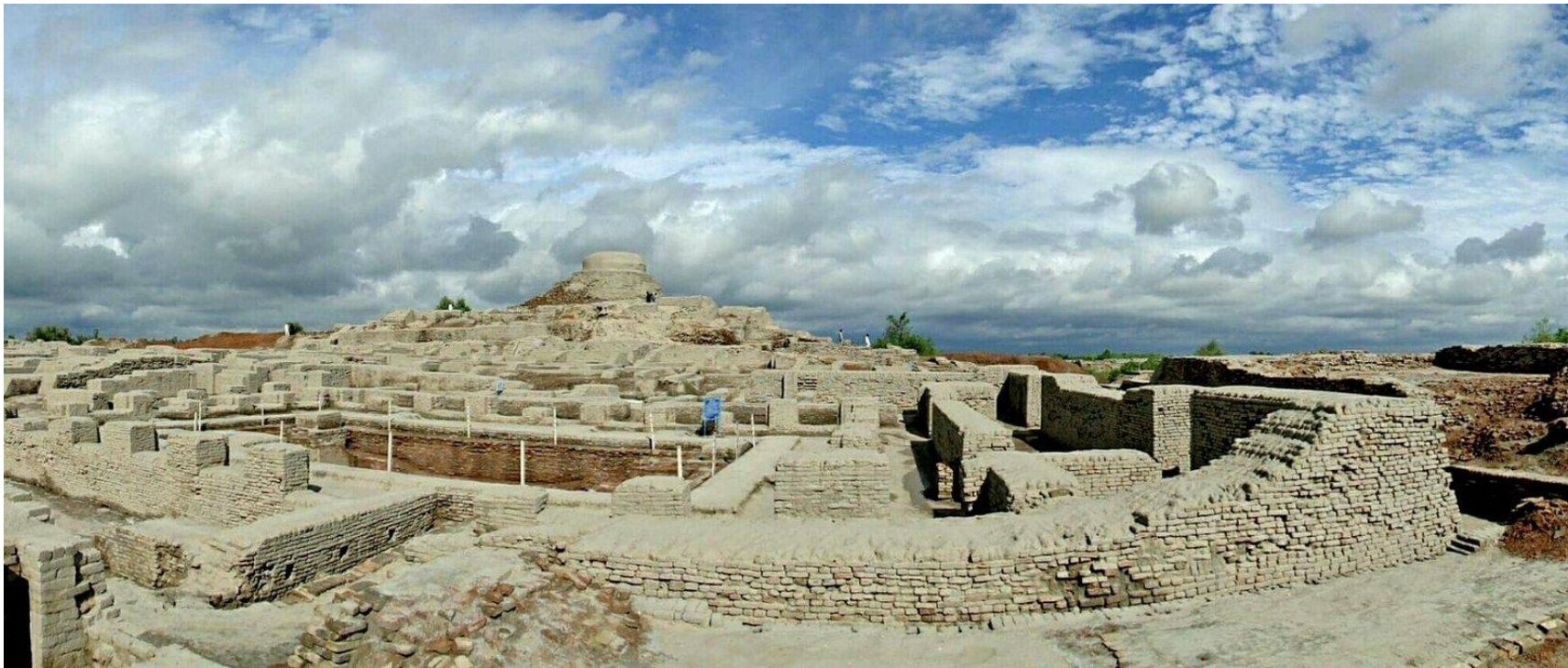
Archaeological site of Harappa.

Flourishing between roughly 5,000 and 3,500 years ago, this civilization built sophisticated cities such as Harappa and [Mohenjo Daro](#), managed extensive water systems, and maintained a long-distance trade network across South Asia and into Mesopotamia. For decades, researchers have debated why these vibrant urban centers declined. New findings point toward a prolonged, basin-wide collapse in water availability.

The research, published in *Communications Earth & Environment*, combines several lines of evidence to recreate ancient climate and river conditions throughout the Indus region. To fill in gaps in the scattered paleoclimate record, the team integrated high-resolution proxies, such as speleothem growth rates from caves and lake sediment changes, with hydrological reconstructions driven by three independent climate simulations. These models span the

period from 6,000 years ago through the late preindustrial era and offer a rare, basin-scale view of how rainfall, temperature, and river discharge changed over time.

These records show a drying trend starting from approximately 5,000 years ago, indicated by decreasing rainfall and increasing temperatures that increased evaporation. The researchers identified several major drought periods within this shift, all longer than 85 years. Four are significant between approximately 4,445 and 3,418 years before the present. The most severe, at about 3,757 years ago, may have lasted for a century and a half, with rainfall reduced by roughly 13 percent, affecting almost the entire Indus basin.



Excavated ruins of Mohenjo-daro.

When rainfall records were run through a hydrological model, the simulations indicated a steep decline in river discharge during these events. In regions around large urban centers, flow in some waterways fell by over 12 percent. Such declines would have placed significant pressure on farming, urban water supply, and food storage systems — the fundamental infrastructure that supported dense populations. Archaeological evidence matches these patterns: as water levels decreased, communities began to shift away from the traditional urban core toward areas with more reliable water sources, such as the Ganges plains and coastal regions.

The research also puts these droughts into a larger climatic context. Changes in ocean temperatures — such as El Niño-like warming in the Pacific and cooler conditions in the North Atlantic — appear to correspond with many of the intense drought intervals. These patterns are known to weaken the Indian Summer Monsoon, further reducing rainfall over the Indus basin.



A view of Harappa's Granary and Great Hall.

The researchers acknowledge that social and economic changes also contributed to the transformation of the Harappan world, but the new analysis confirms that climate-driven water stress was a critical factor. It now seems that, rather than collapsing suddenly, the civilization's urban decline reflects a long, complex process driven by repeated, widespread droughts that eroded its environmental foundations.

More information: Solanki, H., Jain, V., Thirumalai, K. et al. (2025). River drought forcing of the Harappan metamorphosis. *Commun Earth Environ* 6, 926. [doi:10.1038/s43247-025-02901-1](https://doi.org/10.1038/s43247-025-02901-1)

New genetic study reveals how modern humans first arrived in Australia 60,000 years ago

<https://archaeologymag.com/2025/12/how-modern-humans-first-arrived-in-australia/>

A sweeping genetic investigation is reshaping what researchers know about the first journeys of modern humans into Australia and its neighboring lands. Analysis of nearly 2,500 mitochondrial genomes from Indigenous communities across Australia, New Guinea, and the wider Pacific has produced one of the clearest timelines yet for the settlement of Sahul, an ancient continent that once connected these regions during the Pleistocene.

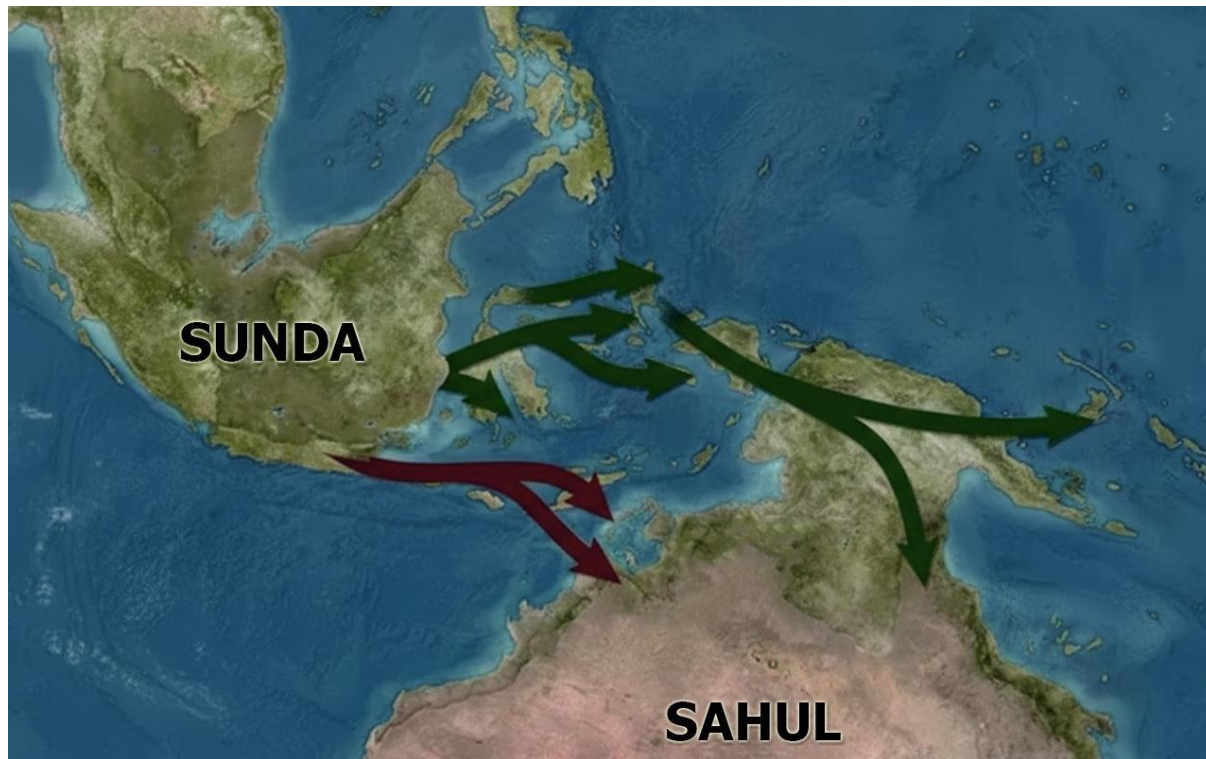


New genetic study reveals how modern humans first arrived in Australia 60,000 years ago.

For a long time, scientists have debated whether people reached Sahul around 60,000 to 65,000 years ago or several thousand years later. The earlier date, referred to as the “long chronology,” has been supported by archaeological discoveries and oral histories from Aboriginal communities. However, some genetic models have favored a shorter timeline. The new study, published in *Science Advances*, details what the authors say is the strongest genetic case to date for a 60,000-year-old settlement, closely matching the long chronology.

This research focused on extensive mitochondrial, Y-chromosome, and genome-wide data that provide a broad view of early population movements. With the use of refined molecular clock models—methods that estimate when DNA lineages diverged—researchers were able to more precisely determine when the ancestors of Aboriginal Australians and New Guineans first crossed from Sunda, the prehistoric landmass that included much of Southeast Asia, into Sahul. Their results point to two distinct migration routes: one moving southward from the Indonesian islands into present-day Australia and another traveling through the northern corridor, most likely through the Philippines, toward New Guinea.

These two groups were part of a larger population that migrated out of Africa some 70,000 to 80,000 years ago. Genetic evidence suggests that these groups separated somewhere in South or Southeast Asia several thousand years before they moved further east. The findings indicate strong population continuity in the region and add evidence that Aboriginal Australians and New Guineans retain some of the oldest unbroken lineages found outside Africa.



Map of Sunda and Sahul, illustrating possible north and south migration routes revealed by genetic analysis, based on a map by Helen Farr and Erich Fisher.

The research also sheds light on connections beyond Sahul. Near Oceania—the islands of the Bismarck Archipelago and the Solomons—appears to have been settled during the same broad time frame, with constant movement and contact continuing afterward. These genetic links challenge the long-standing tendency to treat Oceania as separate from early Sahul history.

The analysis carries broader implications for understanding humanity's migration out of Africa: while recent models have suggested more recent dispersal dates or proposed earlier waves of migration that left minimal trace, the new dataset supports a single major movement between 50,000 and 70,000 years ago. The authors argue that earlier proposed dispersals did not substantially shape the ancestry of present-day non-African populations.

Although the researchers remain constrained by the scarcity of ancient DNA from Southeast Asia and Sahul, the large-scale genetic approach deployed here enhances the precision of current timelines. Paired with archaeological and paleoclimate evidence, these findings form a more complete picture: early modern humans entered Sahul no earlier than 60,000 years ago, using watercraft to cross portions of the ocean, and they did so along more than one path.

More information: Gandini, F., Almeida, M., Foody, M. G. B., Nagle, N., Bergström, A., Olivieri, A., ... Richards, M. B. (2025). Genomic evidence supports the 'long chronology' for the peopling of Sahul. *Science Advances*, 11(48), eady9493. [doi:10.1126/sciadv.ady9493](https://doi.org/10.1126/sciadv.ady9493)

Archaeologists uncover vast Neolithic pit circle surrounding Durrington Walls near Stonehenge

<https://archaeologymag.com/2025/12/neolithic-pit-circle-surrounding-durrington-walls/>

Archaeologists working near Durrington Walls in Wiltshire have now confirmed the presence of a vast [Neolithic](#) pit structure encircling the henge, adding new depth to our understanding of the ancient landscape north of [Stonehenge](#).

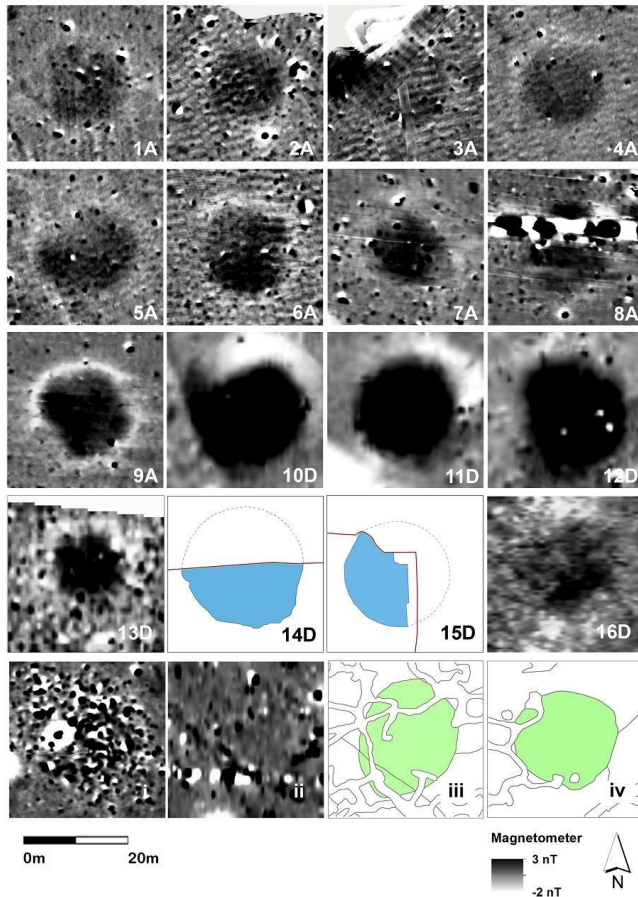


A lidar view of Durrington Walls and Woodhenge.

The latest findings are based on a discovery first made in 2020, in which researchers identified a series of large, circular features that formed two arcs around the site. Initial interpretations suggested that they may be the remains of one of the largest prehistoric constructions in Britain. That view has now been further reinforced through follow-up research, which has shown that at least sixteen massive pits once formed a near-perfect ring around Durrington Walls.

The collaborative project, led by the University of Bradford with major contributions from the University of St Andrews, carried out extensive geophysical surveys, borehole investigations, and a suite of laboratory analyses. Features previously thought to be natural sinkholes, especially along the northern arc, were re-examined in 2021. The new data showed that these were not accidental formations within the chalk bedrock but intentionally dug pits dating from the later Neolithic period.

Recent work using optically stimulated [luminescence dating](#) places the construction of the pits at around 2480 BCE. Consistency across the dates suggests that these features were created over a very short period, indicating a planned and organized effort. Many of the pits are approximately ten meters in diameter and extend as deep as five meters, indicating a project that required considerable labour and precise organization.



Composite image of 14 magnetic anomalies (1A–9A, 10D–13D and 16D) of similar magnetic character and size. Features 14D and 15D were documented through excavation and are of similar nature and size to the magnetic anomalies.

Apart from its dating, the research combined a set of techniques that are rarely used together on this scale. Sedimentary DNA analyses showed traces of ancient plants and animals from the surrounding chalk landscape that allowed researchers to reconstruct aspects of the local environment at the time the pits were in use. The geochemical signatures within the sediment fills also proved remarkably similar from pit to pit, reinforcing the notion that they belonged to a single, unified monumental design.

Fieldwork across both arcs confirmed the identity of a number of previously uncertain features and raised the total number of pits and probable pits to sixteen. One location west of Durrington Walls showed inconclusive results due to modern disturbance, but the overall pattern is now clear: a monumental circuit of large, human-made pits once surrounded the enormous henge enclosure.



Top Left – Station Quarter South Ebbsfleet solution features. Note the dark brown contact between the Chalk and overlying sediments. Top Right – Large pit cut through chalk and Thanet Sand near Ebbsfleet, Kent. Note steep sides, sub-horizontal bedding and lack of the brown rim along the edge one finds in solution hollows. Bottom – Solution features in the Chalk at Dartford A2/M25 works. Note the undulating surfaces and the haphazardly filled features.

The scale of the structure, its precision, and the labor it would have required provide new clues about the communities that lived in the region during the late Neolithic. Even in a landscape already known for extraordinary monuments, including Stonehenge, the ring of pits represents an unexpected, elaborate addition to the Durrington Walls complex.

More information: Gaffney, V., Baldwin, E., Allaby, R., Bates, M., Bates, R., Finlay, A., Gaffney, C., Hansford, T., Kinnaird, T., Neubauer, W., Löcker, K., Sparrow, T., Trinks, I., Wallner, M. and Ch'ng, E. (2025). The Perils of Pits: further research at Durrington Walls henge (2021-2025). *Internet Archaeology*, (69). [doi:10.11141/ia.69.19](https://doi.org/10.11141/ia.69.19)

Mapping Troy's Luwian Context

<https://www.biblicalarchaeology.org/daily/ancient-cultures/ancient-near-eastern-world/mapping-troys-luwian-context/>

Study maps Bronze Age Anatolian sites



This fingernail-sized bronze seal is the only written document ever recovered from Bronze Age Troy. It is inscribed with Luwian hieroglyphs.

For some, the first thing the name “Troy” brings to mind is the 2004 Brad Pitt film, if not the ancient Homeric epic, the *Iliad*, on which the movie is loosely based. But one thing people generally do not think about is the Luwians, who inhabited most of western Anatolia during the Bronze and Iron Ages. And that is a problem, because no matter how they might be portrayed in modern pop culture, the Trojans were not Greek. Nor were they [Hittites](#), the imperial power that dominated Anatolia for much of the period. Instead, the Trojans belonged to the oft-forgotten Luwian civilization.

Identifying a Civilization

In a paper published in the journal [Nature Scientific Data](#), an international team from the Luwian Studies Foundation provided the most up-to-date map of Middle and Late Bronze Age (c. 2000–1200 BCE) Luwian settlements ever catalogued, which includes ancient Troy. The study, comprising 483 settlements, illuminates the cultural landscape around Troy and challenges long-standing scholarly assumptions. Alongside the scientific article, the team also published [an interactive settlement map](#) that provides an incredible wealth of information on each site, including archaeological and chronological data.



Map of the cultural spheres surrounding Luwian territory.

To capture the information, the team participated in dozens of excavations and surveys, producing more than 400 scientific publications on the various Luwian sites they studied. The sites are spread across much of western Turkey and cover an area roughly the size of Germany. The study pushes back against the standard view that ancient western Anatolia was simply a land caught between Hittite and Mycenaean influence, despite the region's wealth of resources, as evidenced by the many important cities that later emerged there in the Hellenistic and Roman periods.



A remarkable vessel from Seyitömer Höyük reflects the distinctive artistic traditions of the Luwian cultural sphere.

The site of Troy, widely identified with modern Hisarlık in northwestern Turkey, lies just south of the Dardanelles Strait. In Hittite writings, the city was known as Wilusa, a name related to the classical Greek *Ilios* (Iliad), a secondary name for the more familiar *Troia* (Troy). Troy would have been one city among the wealth of Luwian sites. As Eberhard Zangger, President of the Luwian Studies Foundation, told *Bible History Daily*, “We consider Troy to be the epitome of a Luwian town.”



Aerial view of the citadel of Troy.

Zangger was quick to point out, however, that modern cultural terms such as Mycenaean, Hittite, or even Luwian are ultimately no more than terms of convenience. “Some 3,000 years ago, identities of this kind did not exist in the clear-cut forms we use today. When we speak of ‘Luwians,’ we are referring to a region whose inhabitants certainly did not regard themselves as part of either the Mycenaean or the Hittite cultural spheres. Linguistically and ethnically, this area was home to numerous tribes and groups. People would have identified primarily with their city-state.”

The Lost Troy of Roman Britain: How a Chance Discovery in Rutland Unlocked an Ancient Story Forgotten for 1,500 Years

<https://arkeonews.net/the-lost-troy-of-roman-britain-how-a-chance-discovery-in-rutland-unlocked-an-ancient-story-forgotten-for-1500-years/>



The duel between Achilles and Hector (Panel 1, bottom).

A lost Aeschylean version of the [Trojan War](#) emerges from the Rutland mosaic, revealing Roman Britain's surprising cultural ties to the wider Mediterranean world.

For five years, a team of historians and archaeologists at the University of Leicester had been circling around a mystery. Beneath the quiet fields of Rutland, far from the sun-soaked ruins of Greece or [Türkiye](#), lay one of the most startling pieces of [Roman art](#) ever uncovered in Britain—a sprawling, brilliantly composed mosaic unlike any other found on the island. But its true significance only emerged recently, when researchers realized it was telling a story the modern world had all but lost.

The Ketton mosaic, a masterwork crafted around 1,800 years ago, does not simply retell the familiar episodes of Homer's Iliad. It reaches deeper into antiquity, drawing instead on a forgotten tragedy by Aeschylus, the great Athenian dramatist whose works once electrified classical audiences. His play Phrygians, long vanished except for a handful of references, resurfaces here as a sweeping visual narrative—preserved not in a manuscript, but in tesserae set meticulously into a villa floor at the northern edge of the Roman Empire.

The revelation reframes the mosaic as more than a rare archaeological treasure. It becomes a bridge between worlds, proof that [Roman Britain](#) was not a cultural frontier but an active participant in the classical imagination that tied the Mediterranean together.

The story begins in 2020, during the isolation of the COVID-19 lockdown, when farmer Jim Irvine noticed fragments of patterned stone emerging from the earth of his family's land. His curiosity led him to alert specialists, drawing the attention of the University of Leicester Archaeological Services and Historic England. What they uncovered was astonishing: a villa complex of considerable size and luxury, its central room adorned with a mosaic nearly 11 meters long—a canvas of war, grief, and mythological grandeur.

The mosaic unfolds in three scenes, each devoted to the rivalry between Achilles and Hector. The duel itself is rendered with dynamic energy, each figure poised in the tension before impact. The next scene portrays the aftermath—Achilles driving his chariot as Hector's lifeless body trails behind, a moment of brutality that continues to shock after two millennia. But it is the final panel that changed everything. There, [Hector's](#) body is weighed against gold as King Priam ransoms his son.

That image does not appear in Homer. It never has. Instead, it belongs to the lost Aeschylean version of the myth, an alternate telling known only from ancient commentary and now from this mosaic. The detail is more than an artistic choice; it is a scholarly earthquake. It suggests that the villa's owner, and the artisans commissioned to decorate his floor, were drawing from a version of the Trojan legend that was already rare in the Roman world, hinting at a household deeply engaged with classical literature beyond the standard canon.



The dragging of Hector (Panel 2, middle).

Yet what makes the mosaic even more extraordinary is the lineage of its artistic vocabulary. Lead researcher Dr. Jane Masségliia and her colleagues identified patterns and motifs lifted from designs circulating across the Mediterranean for centuries before the mosaic was even conceived. One upper panel mirrors a layout found on a Greek vase from the very era of Aeschylus himself. Elsewhere, the visual language echoes Roman silverware from Gaul, coin iconography from Asia Minor, and decorative traditions passed from workshop to workshop long before they reached the shores of Britain.

Such connections undermine the long-held assumption that Roman Britain was a cultural backwater. Instead, they reveal a province plugged into the currents of Mediterranean art, trade, and intellectual life. The craftsmen who laid the mosaic were not isolated artisans improvising at the edge of empire. They were heirs to a network of pattern books, motifs, and techniques that moved from continent to continent as fluidly as any written text.

The villa's owners, too, must have been people of education, wealth, and aspiration—individuals who saw value in aligning their domestic space with stories that spoke to the deepest roots of classical culture. In the harsh winters of Britannia, far from the Aegean homeland of Achilles and Hector, they curated an artistic world that announced their sophistication to every guest who crossed their threshold.

For Irvine, who discovered the masterpiece by accident, the implications are thrilling. The mosaic, he says, paints a picture of a Roman Britain far more cosmopolitan than the one schoolbooks often describe—a place where global narratives lived vividly in the minds of provincial elites.

Scholars unaffiliated with the project agree. The mosaic, says Professor Hella Eckhardt, demonstrates how myths were preserved not only in literature but in the visual traditions artists transmitted across centuries and continents. It is a reminder that ancient stories traveled through hands as much as through words.

Today, the Ketton mosaic and its surrounding villa are protected as a Scheduled Monument, their importance securely recognized. But the deeper significance of the discovery continues to unfold. The mosaic not only extends the reach of Aeschylus's lost drama; it alters our understanding of how Roman Britain saw itself—connected, informed, and culturally ambitious.

On a quiet farm in Rutland, the stones have begun to speak again. And what they're telling us is that the edge of empire was never as distant from the classical world as we imagined.

Masségliia, J., Browning, J., Taylor, J., & Thomas, J. (2025). Troy Story: The Ketton Mosaic, Aeschylus, and Greek Mythography in Late Roman Britain. *Britannia*, 1–42. [doi:10.1017/S0068113X25100342](https://doi.org/10.1017/S0068113X25100342)

Pyramides – La découverte d'un papyrus promet de livrer le secret de leur construction

<https://www.nationalgeographic.fr/>



La Grande Pyramide de Gizeh a été construite avec plus de deux millions de blocs de pierre et a été la plus haute structure construite par l'être humain pendant plusieurs milliers d'années.

À Gizeh, les pyramides révèlent leurs secrets - Rien n'a jamais autant captivé notre imagination que les pyramides de Gizeh. Construits il y a 4 600 ans durant l'Ancien Empire égyptien, ces trois monuments abritent les dépouilles des pharaons Khéops, son fils Khéphren, et son petit-fils Mykérinos. Depuis, ils n'ont cessé d'émerveiller le monde entier, des Grecs anciens à Napoléon Bonaparte. Du haut de ses 147 mètres, la Grande Pyramide représenta longtemps la plus haute structure jamais construite par l'homme.

Et malgré le passage du temps, ces symboles d'ingéniosité et d'imagination restent chargés de mystères. Le plus grand et le plus populaire d'entre eux est peut-être : comment ces merveilles ont-elles été construites exactement ? La Grande Pyramide comprend plus de deux millions de blocs de pierre, certains pesant plus de 50 tonnes. D'où provenaient les matériaux ? Comment ont-ils été amenés sur place ? Et comment les anciens Égyptiens ont-ils empilé tous ces blocs monumentaux ? C'est une énigme vieille de plusieurs siècles, avec autant de théories adoptées un jour et abandonnées le lendemain.

Un journal de bord récemment mis au jour et un bras du Nil oublié pourraient expliquer comment les Égyptiens ont construit ces merveilles...



En 2013, une équipe multidisciplinaire travaillant le long de la mer Rouge a découvert un journal en papyrus qui répertoriait le processus de transport d'énormes blocs de pierre depuis les carrières de Toura jusqu'au chantier des pyramides.



Des papyrus lèvent le voile sur la construction de la pyramide de Khéops: <https://www.youtube.com/watch?v=4t5DnDOApOk>

Découverte d'un puits sous la pyramide de Saqqarah

<https://www.nationalgeographic.fr/video/archeologie-egypte-antique-decouverte-dun-puits-sous-la-pyramide-de-saqqarah>



C'est au fond de ce puits que se trouve le tombeau de Djéser, le pharaon ayant ordonné la construction de cette pyramide.

We Finally Know Why Roman Concrete Has Survived For Nearly 2,000 Years

<https://www.sciencealert.com/we-finally-know-why-roman-concrete-has-survived-for-nearly-2000-years>



The oculus of the Pantheon of Rome, the world's biggest unreinforced concrete dome.

A construction site dating back nearly 2,000 years to the [putative](#) demise of [Pompeii in 79 CE](#) has revealed new evidence for the secret behind Ancient Rome's ultra-durable concrete.

Last year, from under the volcanic ash that buried Pompeii, [archaeologists uncovered a fully intact construction site](#) – a rare snapshot of Roman building work frozen in time.

That site includes neatly organized piles of materials, including the ingredients used to mix the [famously durable concrete](#) behind monuments such as the Pantheon, whose vast unreinforced dome has stood for millennia.

Related: [You Won't Believe What Scientists Found in an Ancient Roman Ruin](#)

A brand new analysis reveals that the secret is a technique that materials scientist Admir Masic of the Massachusetts Institute of Technology (MIT) calls "hot-mixing".

It involves directly blending the concrete's ingredients: a volcanic ash mix called pozzolan, together with quicklime, which reacts with water to generate intense heat inside the mixture.



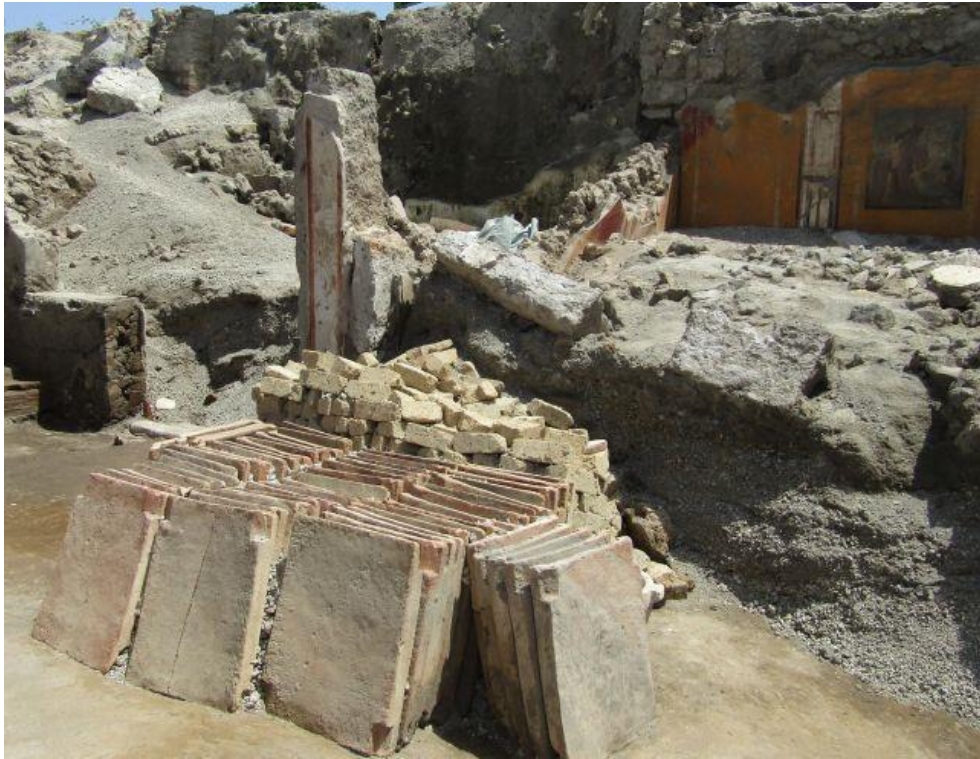
We Finally Know Why Ancient Roman Concrete Lasts Thousands of Years: <https://www.youtube.com/watch?v=l1cofsNRGcE>

"The benefits of hot mixing are twofold," [Masic said back in 2023](#) when he first discovered the technique through experimentation.

"First, when the overall concrete is heated to high temperatures, it allows chemistries that are not possible if you only used slaked lime, producing high-temperature-associated compounds that would not otherwise form. Second, this increased temperature significantly reduces curing and setting times since all the reactions are accelerated, allowing for much faster construction."

A third, and crucial, benefit is that the surviving chunks, or clasts, of lime give the concrete a remarkable [self-healing ability](#). This could be a major reason ancient Roman monuments still stand while other civilizations have crumbled.

When cracks form in the concrete, they preferentially propagate toward the lime clasts, which have a higher surface area than other matrix particles. When water enters the crack, it reacts with the lime to form a calcium-rich solution that dries and hardens as calcium carbonate, gluing the crack back together and preventing it from spreading further.



Some of the neatly organized building materials found at the site. (Archaeological Park of Pompeii)

"There is the historic importance of this material, and then there is the scientific and technological importance of understanding it," [Masic says](#). "This material can heal itself over thousands of years, it is reactive, and it is highly dynamic. It has survived earthquakes and volcanoes. It has endured under the sea and survived degradation from the elements."

Although the hot-mixing technique offered solutions to the puzzles posed by Roman concrete, it raised a new one: The recipe did not match the description of how to make the building material in the 1 BCE treatise [De architectura](#) by architect Vitruvius.

The Vitruvian method involved first mixing the lime with water in a process known as slaking, before mixing the slaked lime with the pozzolan. However, this process does not produce the lime clasts observed in real Roman concrete samples.

This mismatch has long puzzled scientists. Vitruvius' writings represent the most complete surviving documents on Roman architecture and construction. He describes a technique called [opus caementicium](#) for building walls, but physical samples from ancient buildings contradicted his instructions.

The Pompeii materials put the mystery to bed. Masic and his team used isotope analysis on five of the dry piles of materials, identifying pozzolan made of pumice and lithic ash, quicklime, and even lime clasts.



A wall at the site in Pompeii with the compositional analysis overlaid on the right. ([Archaeological Park of Pompeii](#))

Most tellingly, these dry ingredients were pre-mixed – an archaeological smoking gun.

Under the microscope, the mortar samples from the walls revealed unmistakable signatures of hot mixing: fractured lime clasts, calcium-rich reaction rims that grew into volcanic ash particles, and tiny crystals of calcite and aragonite forming within pumice vesicles.

[Raman spectroscopy](#) confirmed the mineral transformations, while isotope analysis showed the chemical pathways of carbonation over time.

"Through these stable isotope studies, we could follow these critical carbonation reactions over time, allowing us to distinguish hot-mixed lime from the slaked lime originally described by Vitruvius," [Masic says](#).

"These results revealed that the Romans prepared their binding material by taking calcined limestone (quicklime), grinding [it] to a certain size, mixing it dry with volcanic ash, and then eventually adding water to create a cementing matrix."

This doesn't necessarily mean Vitruvius was wrong – he may have described an alternative method for making concrete, or his work may have been misinterpreted – but it does indicate that the most durable form of the material had to emerge from the hot-mixing technique.

This, the researchers believe, is information that can be incorporated into the way we make concrete, many centuries after the Roman Empire fell, leaving its monuments standing as a reminder not just of its grandeur but also of the ingenuity of its people.

Modern concrete is one of the world's most widely used building materials. It's also [remarkably lacking in durability](#), often crumbling in decades under environmental stress. Producing it is terrible for the environment, too, requiring a huge resource cost and contributing to [greenhouse emissions](#). Simply improving the durability of concrete has the potential to make it significantly more sustainable.

"We don't want to completely copy Roman concrete today. We just want to translate a few sentences from this book of knowledge into our modern construction practices," [says Masic](#), who has started a company called DMAT to do just that.

"The way these pores in volcanic ingredients can be filled through recrystallization is a dream process we want to translate into our modern materials. We want materials that regenerate themselves."

The research has been published in [Nature Communications](#).

Un mur géant datant d'il y a 7 000 ans découvert sous 9 mètres d'eau au large de l'île de Sein

https://www.lemonde.fr/sciences/article/2025/12/10/un-mur-geant-de-7-000-ans-decouvert-au-large-de-l-ile-de-sein_6656810_1650684.html

Hérissée de 62 monolithes, la construction de 120 mètres sur 20 mètres de large découverte en Bretagne serait une digue ou un barrage datant du mésolithique.



Le chercheur Philippe Bodénès près d'un monolithe planté dans le mur de Toul ar Fot, au large de l'île de Sein (Finistère).

« Nous revenions d'une plongée près du phare d'Ar-Men, où nous cherchions des canons. De retour vers l'île de Sein [Finistère], comme il restait de l'air dans les bouteilles, nous avons plongé une seconde fois. » Le 5 mai 2022, Philippe Bodénès, président de la Société d'archéologie et de mémoire maritime (SAMM), découvre un mur sous 9 mètres d'eau. C'est la plus grande construction immergée en France.

Cette découverte, relatée dans un article accepté dans la revue *International Journal of Nautical Archaeology* le 6 décembre et [mis en ligne sur la plateforme HAL le 9 décembre](#), n'est pas tout à fait fortuite. Philippe Bodénès a plongé au point GPS que lui avait indiqué le géologue Yves Fouquet, sur un site visible à l'horizon depuis la pointe du Raz et la presqu'île de Crozon (Finistère). L'endroit est dangereux. Sur les hauts-fonds à l'ouest de l'île, appelés la chaussée de Sein, les courants puissants atteignent 7 nœuds. Seuls des plongeurs aguerris s'y aventurent quand la météo le permet, quelques dizaines de minutes à l'étale d'une marée de morte-eau. C'est le cas des archéologues de la SAMM, qui ont des milliers d'heures de plongée à leur actif. Et, ce jour-là, la mer est lisse comme un lac... « Une immense barre couverte d'une forêt d'algues se dressait sur la plaine sableuse, témoigne Philippe Bodénès. C'était très rectiligne, je n'avais jamais vu ça ! »

Archéologie sous marine Île de Sein, Île d'Yeu, rade de Brest: <https://www.youtube.com/watch?v=Gh3C45U-8FQ>



Figure 7. Photos taken on the TAF1 structure during winter 2023. Note the total absence of algae compared to the summer period. The green rope, deployed along the E-W orientation of the structure, makes it possible to visualize the top as well as the orientation of the monoliths and slabs. A and B: general view of the rows of monoliths at the top of the structure. C and D: double row of monoliths at the top of the TAF1 structure. The two rows parallel to the axis of the structure are about 1.5 m apart. In photo C, the rope is placed between the two rows (Photo credits: SAMM, 2023).

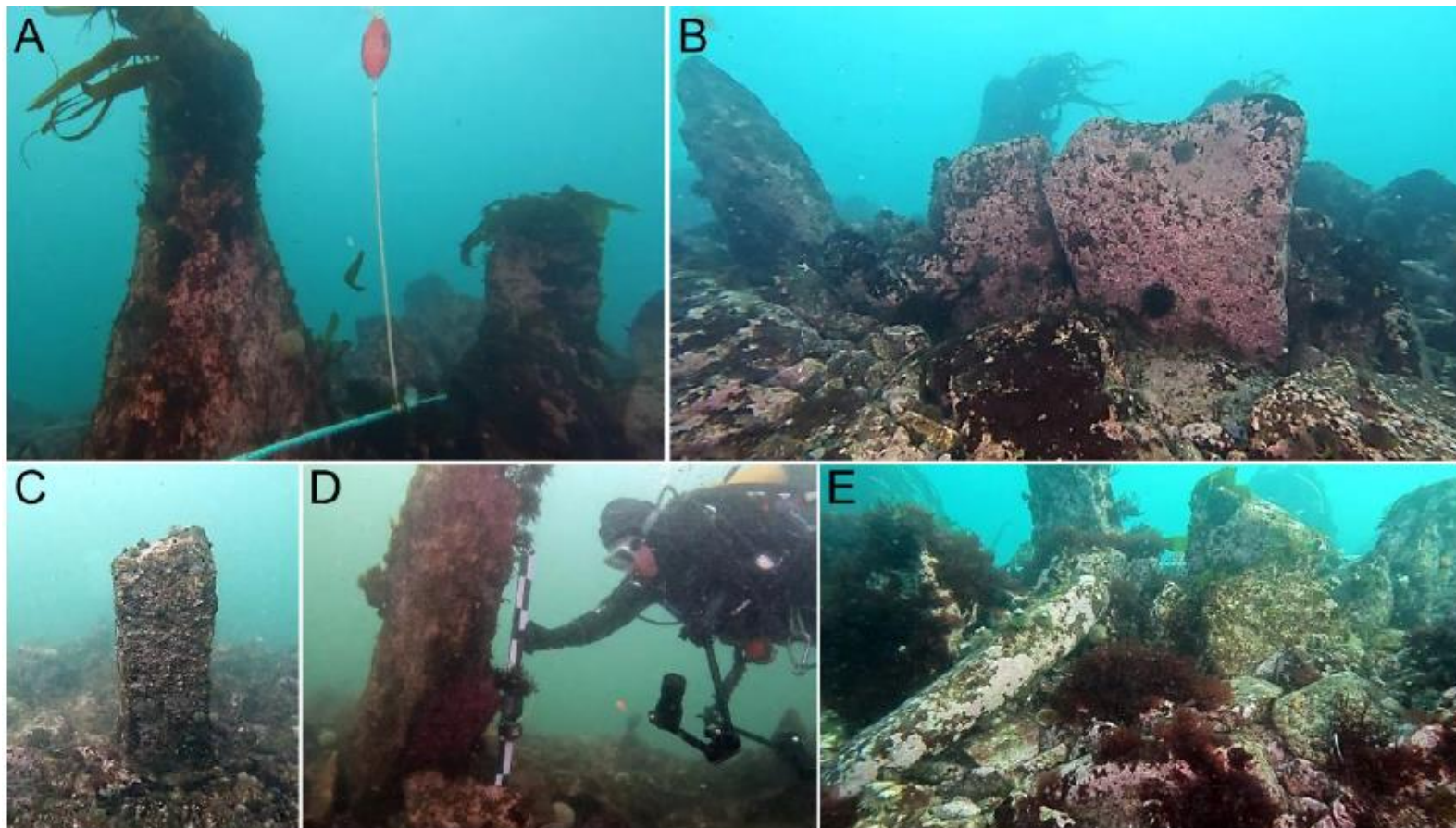


Figure 10. Photos taken on TAF1 during the winter of 2023. Monoliths at the top of the TAF1 structure. A: in the foreground on the left, a monolith with parallel edges in its upper part and a widened base. Background on the right: monolith with parallel edges. B: two large vertical slabs joined and aligned along the axis of the wall and with the monolith on the left. The monolith in the background, in the centre of the photo, corresponds to the second alignment. C: Parallelepiped-shaped monolith at the top of the wall, 1.5 m high. D: measurement of the height of a monolith, the rod held by the diver is 1 m long. E: on the left, a lying, spindle-shaped monolith, showing a regular width from top to bottom (Photo credits: SAMM, 2023).

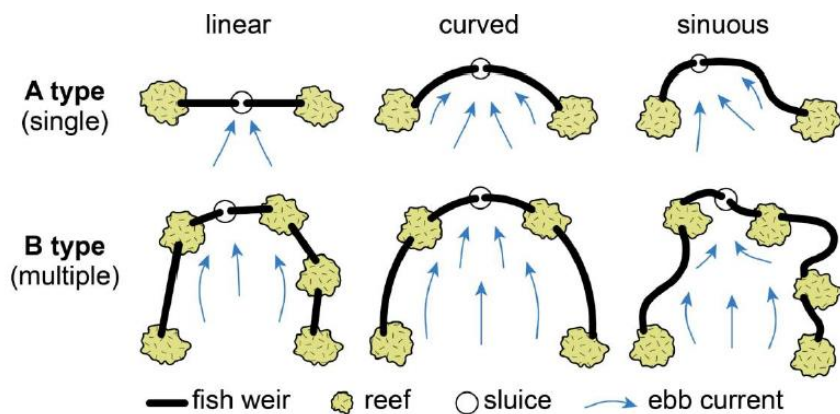


Figure 13. Type A and B fish weirs built in rocky areas and main shapes (modified after Langouët & Daire, 2009).

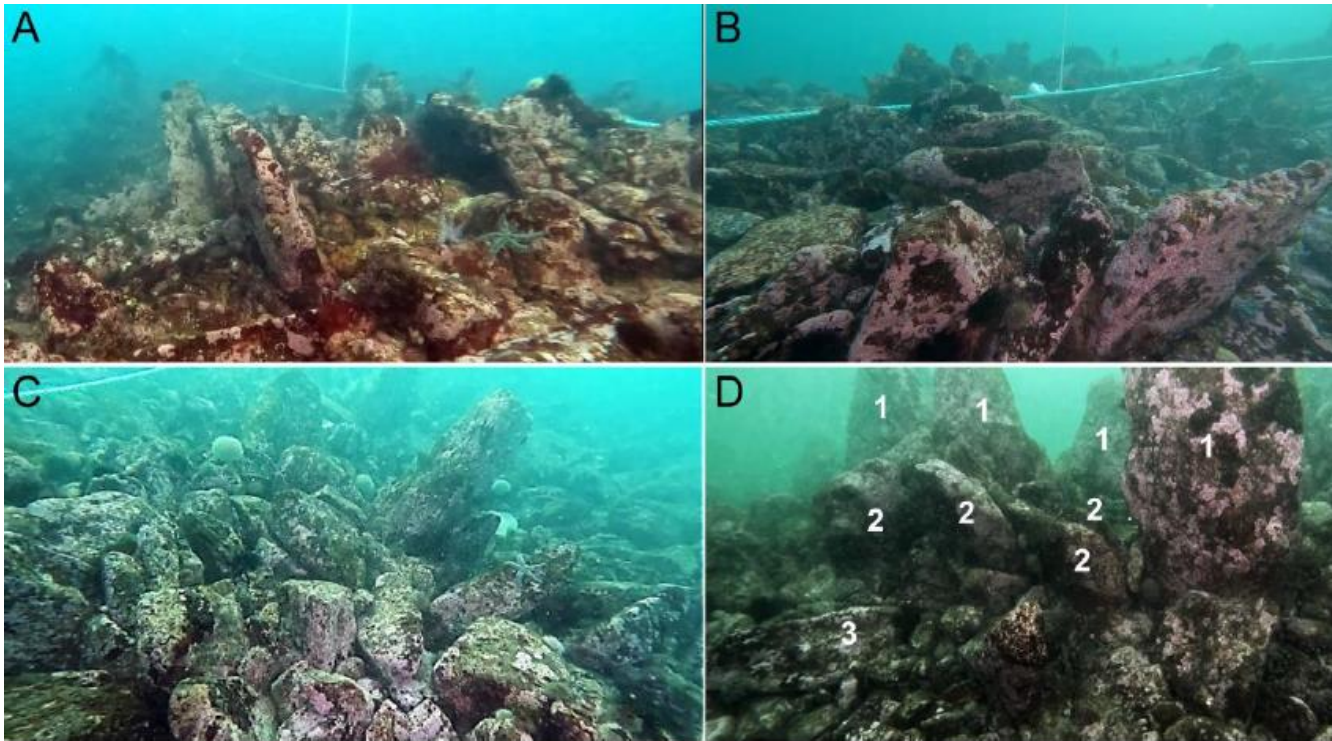


Figure 11. Photos taken on TAF1 during winter 2023. A and B: small vertical slabs placed side by side and parallel to the axis. Observed at the top and on the upper sides of the TAF1 structure. On the sides, the slabs are perpendicular to the slope, and, as a result, are inclined towards the north on the north side and towards the south on the south side of the wall. The green rope, placed on the summit, shows the axis of the wall. C: accumulation of angular, slightly blunt blocks, measuring a few tens of centimetres and making up most of the wall. D: (1) row of vertical monoliths; (2) vertical slabs, between the monoliths; (3) blocks making up the wall

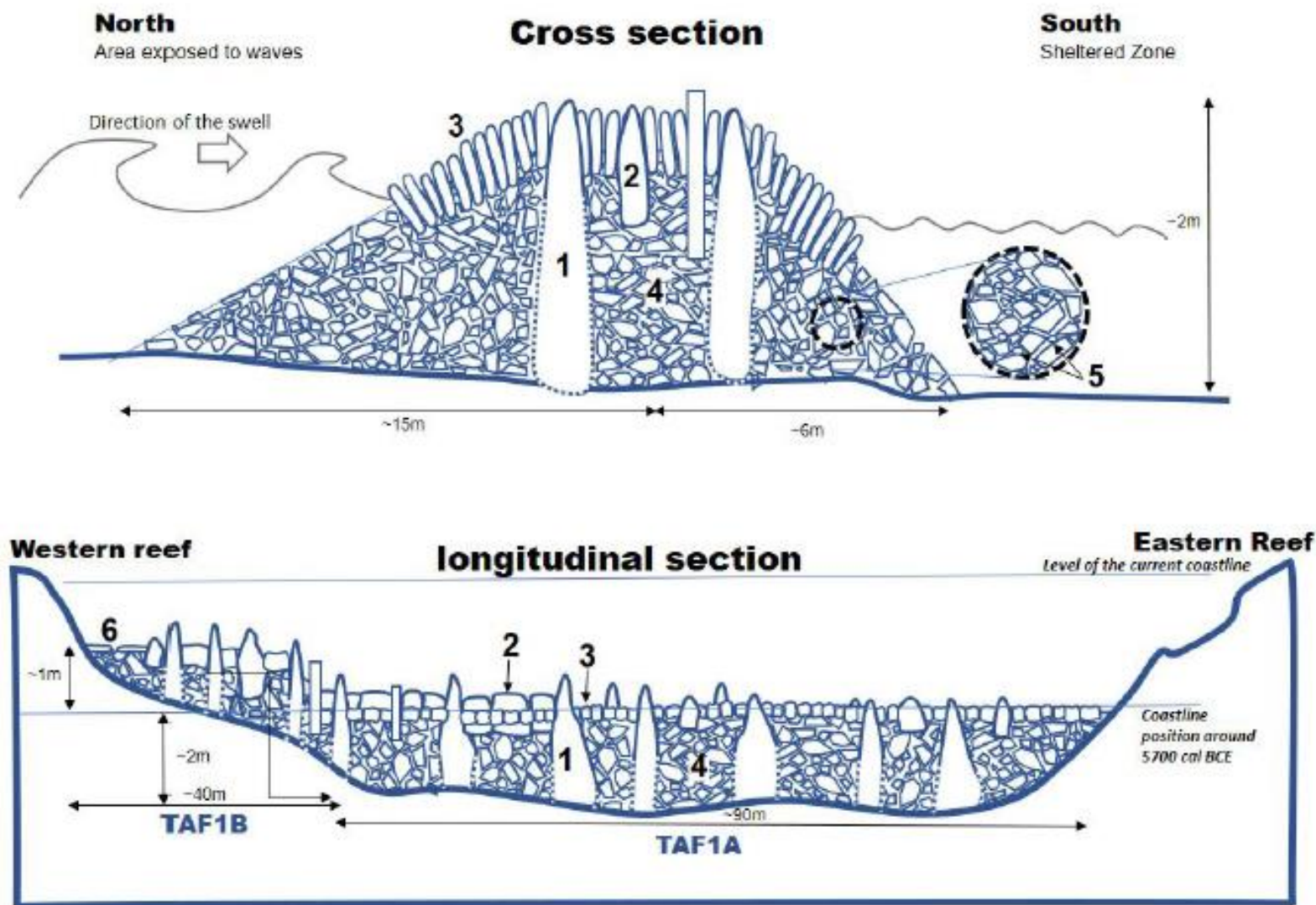


Figure 14. Interpretive diagrams of the TAF1 wall based on diving observations and sections on DEMs. Top: cross-section showing the dissymmetry of the wall and the deep anchoring of the monoliths. Bottom: longitudinal section (see also Figure 9) showing the organization in two levels (TAF1A and TAF1B). Vertical exaggeration = 3. 1: monoliths; 2: large vertical slabs; 3: small vertical slabs; 4: angular blocks; 5: Pebbles used for stabilizing the blocks; 6: horizontal slabs (Authors).

Un mur géant vieux de 7000 ans découvert au large du Finistère, sur l'île de Sein

<https://www.lefigaro.fr/sciences/un-mur-geant-vieux-de-7000-ans-decouvert-au-large-du-finistere-sur-l-ile-de-sein-20251211>



Au cours d'une soixantaine de plongées entre 2022 et 2024, des plongeurs ont confirmé la présence de onze structures en granit construites par l'homme, dont la plus grande mesure 120 mètres de long et 21 mètres de large à sa base.

Un mur submergé de 120 mètres de long, ainsi qu'une dizaine de structures plus petites construites par l'Homme il y a environ 7000 ans, ont été découverts au large de l'île de Sein (Finistère), a appris l'AFP jeudi auprès des scientifiques. *«C'est une découverte très intéressante qui ouvre des perspectives en archéologie sous-marine, pour permettre de mieux comprendre comment étaient organisées les sociétés littorales»*, a indiqué à l'AFP Yvan Pailler, professeur en archéologie à l'Université de Bretagne occidentale (UBO) et coauteur d'un article paru dans l'*International Journal of Nautical Archaeology*.

C'est Yves Fouquet, géologue retraité de l'Ifremer et originaire de l'île de Sein, qui a remarqué ces structures étranges en 2017 sur des cartes bathymétriques - cartes du relief de l'océan - réalisées grâce au Lidar, un rayon laser permettant de mesurer les fonds marins par avion avec une très grande précision. *«Au début, j'ai gardé ça sous le coude: je n'y croyais pas trop, je me disais que c'étaient des artefacts du Lidar»*, a-t-il raconté à l'AFP, confirmant des informations du quotidien *Le Monde*.

Immergées sous 9 mètres d'eau

Puis Yves Fouquet demande à des plongeurs de la Société d'archéologie et de mémoire maritime (SAMM) d'aller vérifier sur place. Au cours d'une soixantaine de plongées entre 2022 et 2024, des plongeurs confirment la présence de onze structures en granit construites par l'homme, dont la plus grande mesure 120 mètres de long et 21 mètres de large à sa base. *«Du point de vue de l'exposition aux tempêtes, aux vagues, au courant, on est dans un milieu extrême. Les archéologues ne s'attendaient pas à trouver des structures aussi bien préservées dans un environnement aussi exposé»*, souligne Yves Fouquet.

Datées entre 5800 et 5300 ans avant J.C., ces structures, immergées sous 9 mètres d'eau, ont été construites à une époque où le niveau de la mer était beaucoup plus bas qu'aujourd'hui. Il pourrait s'agir, selon les chercheurs, de pièges à poissons construits sur l'estran, ou de murs de protection contre la montée de la mer. Yvan Pailler évoque même l'hypothèse d'un piège pour la chasse. Dans leur article, les scientifiques soulignent que les structures les plus importantes *«n'ont pas d'équivalent connu en France pour cette période»*.

Ces constructions dénotent *«une capacité technique et une organisation sociale suffisantes pour extraire, déplacer et ériger des blocs pesant plusieurs tonnes, dont la masse est similaire à celle de nombreux mégalithes en Bretagne»*, pointent-ils. Ce *«savoir-faire technique»* des habitants de Sein aurait donc précédé les premières constructions mégalithiques de plusieurs siècles, à l'image des alignements de Carnac (Morbihan) érigés vers 4.500 avant J.C.

A 7,800-Year-Old Massive Stone Wall Discovered Beneath the Sea off the Coast of France

<https://arkeonews.net/a-7800-year-old-massive-stone-wall-discovered-beneath-the-sea-off-the-coast-of-france/>



A diver measures the height of an upright granite monolith on the submerged structure; the measuring rod visible in the image is 1 meter long.

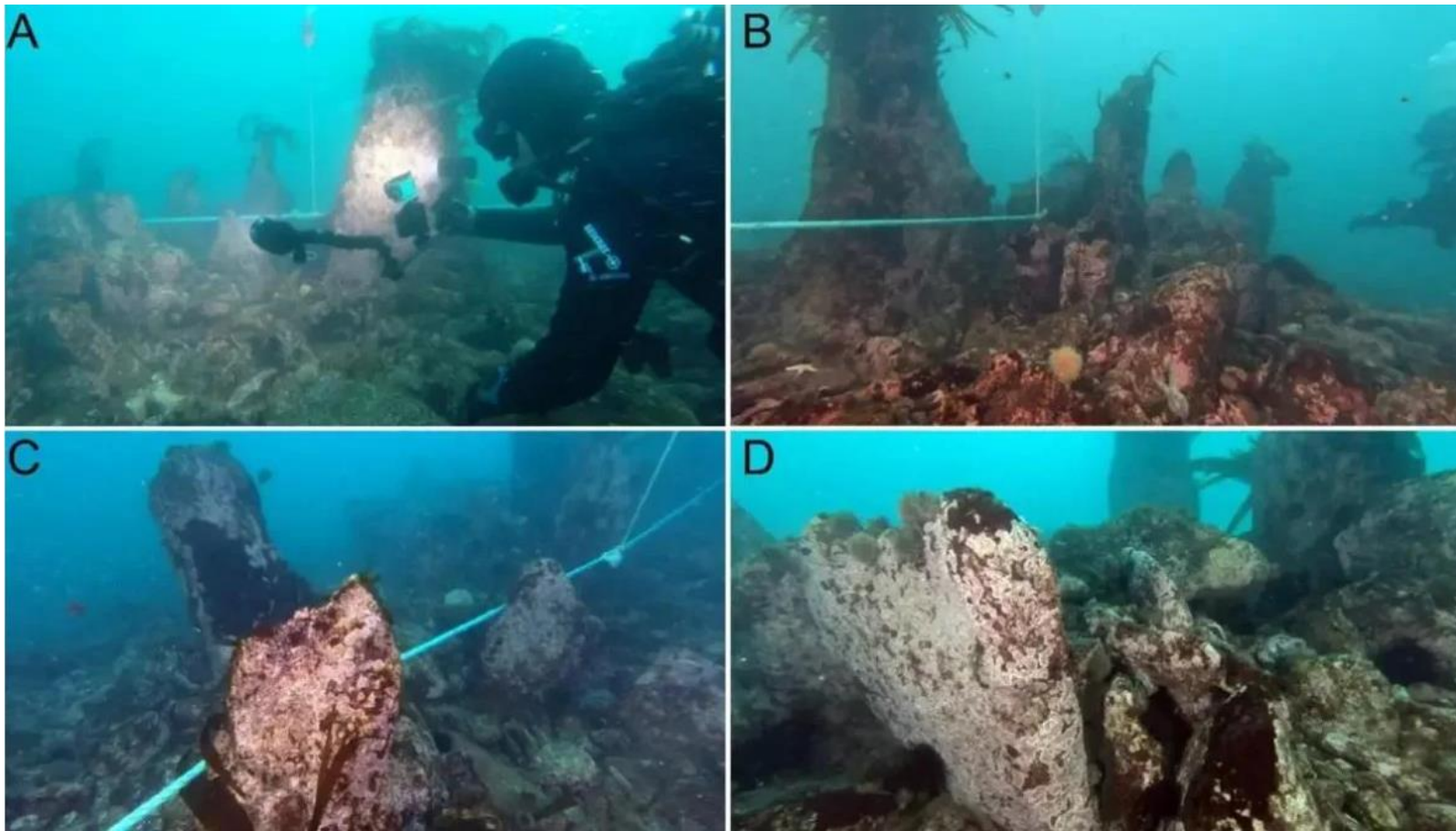
Several meters beneath the restless waters off western [France](#), archaeologists have uncovered the remains of a monumental stone construction that forces a fundamental rethink of Europe's prehistoric coastlines. Near the Île de Sein, at the outer edge of Brittany, a massive submerged wall—built around 5800 BCE—now stands as one of the earliest known large-scale stone structures created by coastal hunter-gatherers in Atlantic Europe.

Stretching roughly 120 meters across a drowned valley, the wall lies at depths between seven and nine meters below today's sea level. What first appeared as faint linear anomalies in seabed mapping has proven, after years of underwater investigation, to be a carefully engineered construction composed of stacked granite blocks reinforced with upright monoliths and vertical stone slabs. In places, these stones still rise nearly two meters high, locked in position despite more than seven millennia of marine erosion.

The discovery was initiated in 2017 through high-resolution LIDAR bathymetry, which revealed unnatural geometric forms on the seabed west of Sein Island. Subsequent dives carried out between 2022 and 2024 confirmed the human origin of at least eleven separate stone structures across the submerged plateau. Among them, the main wall—known as TAF1 by researchers—stands apart for its scale, complexity, and durability, unlike anything previously documented from this early period in France.

When the wall was built, the landscape looked radically different. Sea levels were several meters lower, and the now-submerged plateau formed a productive coastal environment shaped by tidal channels, rocky ridges, and shallow valleys. Archaeologists place the construction firmly within the transition from the Late Mesolithic to the Early Neolithic, a time when communities across [Europe](#) were beginning to experiment with new ways of organizing labor, resources, and territory.

What makes the Sein Island structures exceptional is not only their age but their engineering. The main wall is reinforced by more than sixty upright monoliths, arranged in parallel rows and anchored deeply into the bedrock. Between them, builders inserted vertical slabs and filled the structure with angular granite blocks, creating a broad, asymmetrical barrier designed to withstand powerful tidal currents and Atlantic swells. Some nearby structures follow similar principles, while others consist of narrower stone alignments made from smaller blocks.



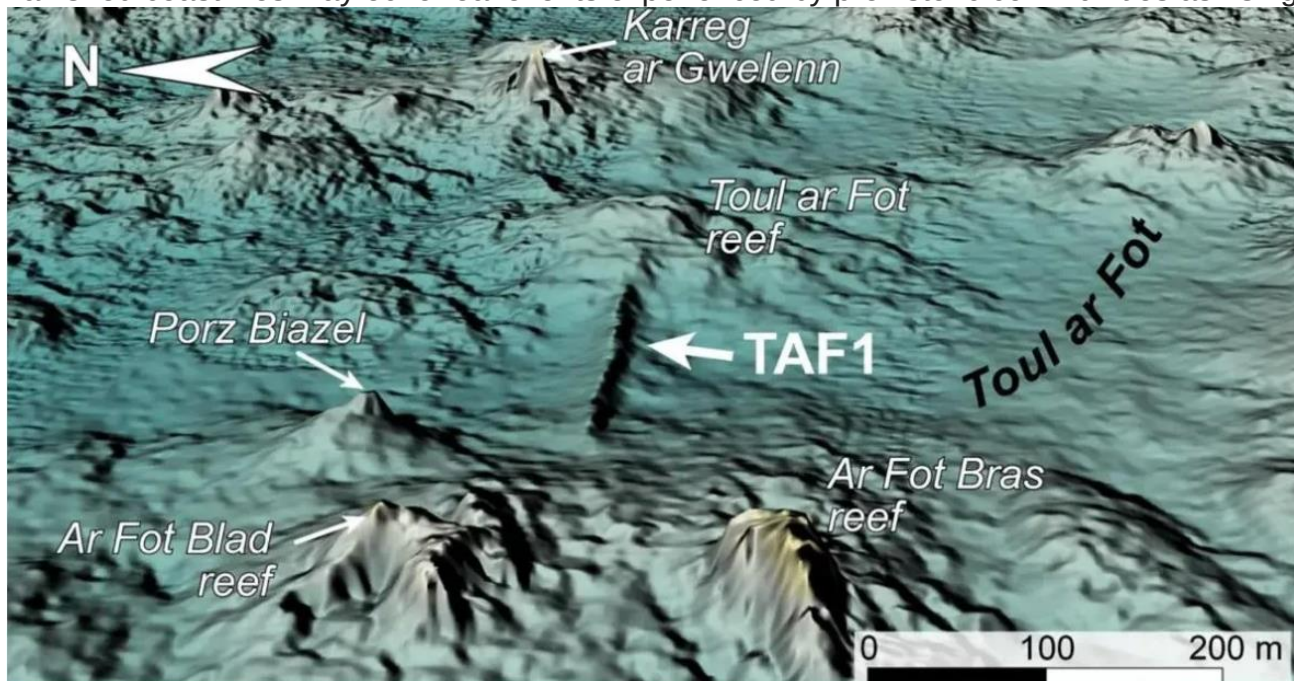
Winter 2023 views of the TAF1 structure, where the absence of algae reveals the stone architecture with exceptional clarity. A green rope laid along the east–west axis highlights the crest of the wall and the alignment of monoliths and slabs. Images A and B show a general view of the monolith rows at the top of the structure, while images C and D document a distinctive double row of upright monoliths running parallel to the wall’s axis, spaced approximately 1.5 meters apart. In image C, the rope marks the space between the two rows.

Researchers believe that at least part of this submerged complex functioned as fish weirs—stone traps designed to funnel and capture fish with the rhythm of the tides. Such installations are known elsewhere in prehistoric Europe, but the Seine Island examples are larger, deeper, and architecturally more sophisticated than most previously recorded. Their construction would have required coordinated labor, detailed knowledge of tides and marine behavior, and long-term planning—traits once assumed to belong only to later farming societies.

Yet the sheer mass of the largest walls raises additional questions. Some scholars suggest that these structures may have served multiple roles, combining fishing with coastal protection or acting as territorial markers in a dynamic shoreline landscape. The walls' unusual width and reinforced seaward sides hint at deliberate strategies to resist storm waves, suggesting that their builders were not merely exploiting the coast but actively shaping it.

The find also casts new light on the gradual rise of megalithic traditions in Brittany. The iconic standing stones and monumental tombs that would later define the region appear centuries after these submerged constructions were built. In this sense, the walls off Sein Island may represent an architectural precursor—a forgotten chapter in the long development of stone building along Europe's Atlantic façade.

Local folklore adds an evocative layer to the discovery. Breton legends speak of a drowned land or lost settlement beyond the Bay of Douarnenez, swallowed by the sea in ancient times. While archaeologists caution against literal interpretations, they acknowledge that collective memories of vanished coastlines may echo real events experienced by prehistoric communities as rising seas slowly reclaimed inhabited landscapes.



Three-dimensional view of the TAF1 structures looking east, highlighting the pronounced linearity of the construction and the asymmetrical profiles of its north (left) and south (right) flanks. Vertical exaggeration is set to 3, while brown tones indicate reefs that remain permanently above the present sea level.

Beyond France, the discovery contributes to a growing body of underwater archaeology reshaping views of Europe's deep past. Similar submerged stone alignments have recently been documented in the Baltic Sea, where prehistoric groups engineered landscapes to manage animal migrations and marine resources. Together, these finds challenge long-held assumptions about the technological limits of hunter-gatherer societies. As research continues, scientists plan to refine the dating of the Sein Island structures and search for further traces of settlement along the submerged coastline. Each new dive adds detail to a picture that is only beginning to emerge: a world where prehistoric people did not simply adapt to environmental change, but met it with ambition, planning, and stone.

Yves Fouquet, Jean-Michel Keroulle, Pierre Stéphan, Yvan Paillet, Philippe Bodénès, et al. Submerged Stone Structures in the Far West of Europe During the Mesolithic/Neolithic Transition (Sein Island, Brittany, France). International Journal of Nautical Archaeology, In Press. <https://hal.science/hal-05406477>

Gürcütepe's 9,000-Year-Old Figurines Offer Rare Clues to Life After Taş Tepeler's Monumental Age

<https://arkeonews.net/gurcutepes-9000-year-old-figurines-offer-rare-clues-to-life-after-tas-tepelers-monumental-age/>



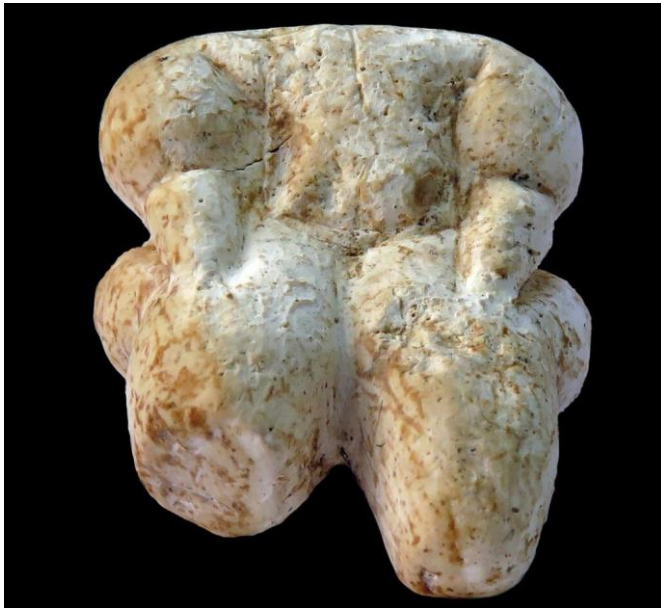
Just southeast of Şanlıurfa, on the northwestern edge of the vast Harran Plain, a small but exceptionally informative archaeological site is reshaping our understanding of the final phases of the Pre-Pottery Neolithic. Gürcütepe—located only about 4 kilometers from the city center—may not yet carry the global fame of Göbeklitepe or [Karahantepe](#), but new findings reported in [Arkeoloji Haber's](#) special coverage reveal that the site holds remarkable clues about how life continued after the monumental age of [Taş Tepeler](#).

Today, excavations at Gürcütepe continue under the leadership of Assoc. Prof. Mücella Erdalkıran of Ege University, as part of the extensive [Taş Tepeler Project](#), a large-scale archaeological initiative aimed at understanding the earliest settled communities of Upper Mesopotamia. The site dates to the very end of the Pre-Pottery Neolithic Period, a transformative chapter when societies began to shift from hunter-gatherer mobility to more permanent, agriculture-driven lifeways.

A Settlement Born After the Age of Monuments

Perhaps Gürcütepe's most significant implication is chronological rather than architectural: unlike Göbeklitepe, [Karahantepe](#), or Sayburç—settlements known for their massive [T-shaped pillars](#), megalithic enclosures, and ritual-oriented architecture—Gürcütepe was founded after these earlier ceremonial centers were abandoned. This gives the site a unique role as a “bridge” between two different cultural worlds within prehistoric Şanlıurfa.

Researchers interpret Gürcütepe not as a ceremonial hub but as a community-oriented village, representing a population that embraced agriculture, animal husbandry, and domestic production as their core way of life. Erdalkıran explains that the groups who established Gürcütepe “settled four closely located areas in the plain, relying primarily on farming and herding to sustain themselves.” In contrast to the monumental architecture of the earlier highland sites, these later communities preferred small, domestic-scale structures, reflecting a shift in social organization and daily priorities.



Some of the female figurines strongly resemble examples known from Central Anatolia, particularly from well-studied Neolithic sites such as Çatalhöyük and Aşıklı Höyük.

Small Figurines, Big Stories

Despite the absence of megalithic temples, Gürcütepe is anything but archaeologically modest. Excavations on two mounds have unearthed numerous figurines made of limestone and clay, crafted in both schematic and naturalistic styles. Many represent women or gender-neutral human forms, while others depict animals that the community either raised or hunted. These miniature objects—from simple lumps with carved outlines to carefully shaped torsos—serve as intimate windows into the beliefs and identities of early farming societies.

Some of the female figurines strongly resemble examples known from Central Anatolia, particularly from well-studied Neolithic sites such as Çatalhöyük and Aşıklı Höyük. Their presence in Gürcütepe suggests broader cultural exchanges, shared symbolic practices, or at least awareness of stylistic traditions beyond Upper Mesopotamia. As Erdalkıran notes, the diversity of the figurines “reflects both the worldview of the Gürcütepe communities and their cultural interactions with regions outside the Şanlıurfa plateau.”

These objects also highlight a fundamental transition in the symbolic landscape of Neolithic peoples. While earlier [Taş Tepeler sites](#) expressed belief systems through monumental stone architecture and large-scale animal sculptures, Gürcütepe showcases a shift toward small, personal, portable symbols—artifacts likely used in household rituals or daily life rather than communal sanctuaries. In this sense, Gürcütepe captures the “democratization of belief,” where symbolic expression moved from vast public spaces into the intimate realm of homes.



A New Chapter in Taş Tepeler Research

Gürcütepe’s importance within the [Taş Tepeler](#) constellation lies in its ability to reveal continuity rather than abandonment. Instead of a cultural collapse following Göbeklitepe’s closure, the evidence points to a reorganization of communities, who settled lower, more fertile areas and shifted their focus toward production, subsistence, and domestic life—the figurines—many only a few centimeters tall—document this transformation with remarkable clarity.

For archaeologists, Gürcütepe provides a rare opportunity to observe the evolution of Neolithic society from ritual grandeur to pragmatic village life. Its discoveries help fill the chronological gap between the iconic highland sanctuaries and the later, fully agricultural settlements that would eventually spread across Mesopotamia.

As ongoing excavations continue to uncover new figurines, structures, and ecological evidence, Gürcütepe is emerging as one of the most important sites for understanding how early societies adapted to changing social, economic, and symbolic worlds. And thanks to detailed coverage by Arkeoloji Haber, the broader public now has a front-row seat to watch this story unfold.

A 2,000-Year-Old Mystery Unlocked: Scholar Cracks the “Cryptic B” Writing of the Dead Sea Scrolls

<https://arkeonews.net/a-2000-year-old-mystery-unlocked-scholar-cracks-the-cryptic-b-writing-of-the-dead-sea-scrolls/>



Dead Sea Scrolls 109, Qohelet or Ecclesiastes, from Qumran Cave 4, the Jordan Museum in Amman.

For over seventy years, one of the last undeciphered writing systems of the [Dead Sea Scrolls](#)—known as Cryptic B—has puzzled scholars and fueled speculation about whether it preserved forbidden doctrines or encoded secrets of an ancient sect. The breakthrough finally arrived with the work of Emmanuel Oliveira of the University of Groningen, whose 2025 study in [Dead Sea Discoveries](#) reveals that the mysterious script hides not heretical knowledge but conventional biblical idioms, prophetic expressions, and familiar religious vocabulary. Rather than overturning previous understandings of the Qumran community, the decipherment confirms that their cryptic writings were rooted firmly in mainstream religious language. Yet the mystery surrounding Cryptic B endured for decades because of the formidable challenges posed by the manuscripts themselves.

The two manuscripts written entirely in Cryptic B, 4Q362 and 4Q363, survive only in tiny, damaged fragments. Some pieces measure mere millimeters, and many show cracks, fading, and uneven ink flow that complicate paleographic analysis. Even under infrared imaging, the script appears inconsistent, with letter forms shifting from fragment to fragment and occasionally within the same line. In 4Q362, the letters are unexpectedly small—around two to three millimeters—while those in 4Q363 are roughly three times larger and executed with a heavier instrument. Several characters resemble Paleo-

Hebrew or Greek shapes, while others mirror standard Jewish script with subtle alterations. This blending of visual cues created endless false leads, contributing to the long-held belief that Cryptic B might be undecipherable.

Solving the Code: Analysis Meets Intuition

Oliveiro approached the problem by building on the decipherment strategy used for Cryptic A in the 1950s. He hypothesized that Cryptic B also relied on monoalphabetic substitution, where every Hebrew letter corresponds to a single cryptic sign. Such a system technically has an astronomical number of possible combinations, too many even for sophisticated modern algorithms. To narrow the field, Oliveiro searched for repeating symbol patterns and cross-referenced them with the frequency of common words in both the Hebrew Bible and the greater Qumran corpus. He also examined the physical shapes of the letters, looking for hints that the scribe may have modified or embellished familiar characters rather than inventing entirely new ones. This combination of statistical reasoning, paleographic comparison, and gut instinct proved essential.

The decisive moment came when Oliveiro suspected that a five-character sequence in 4Q362 represented the Hebrew word “Israel.” The structure of the letters and the frequency of the pattern largely matched expectations, and when he tested the hypothesis across the fragments, the system began to unlock. With “Israel” serving as a key, he could identify additional letters, refining the substitution system until nearly the entire alphabet was readable. Only a few very rare characters remain uncertain, but the overall decipherment is strong enough to reconstruct the surviving text with confidence.



The word “Israel” in one of the manuscripts. Credit: Leon Levy Dead Sea Scrolls Digital Library, Israel Antiquities Authority

What the Texts Actually Say

Despite the drama surrounding its decipherment, the content of Cryptic B is surprisingly conventional. The newly deciphered passages contain language characteristic of prophetic and historical writings: references to Israel, Judah, Jacob's tents, divine glory, and chronological markers such as "the second year, the fifth month." The vocabulary aligns neatly with what scholars already know about Qumran's scriptural worldview.

One of the more intriguing elements, however, is the presence of repeated references to graves or tomb markers. In one fragment, the text states that someone "built cairns" near a tomb, using the Hebrew term that can refer either to signposts or to funerary markers. This dual meaning leaves the passage open to interpretation, and scholars cannot yet determine whether the context is literal, symbolic, or ritual. The fragments of 4Q363 offer even less clarity due to their extreme fragmentariness. A repeated phrase—possibly meaning "they rejected her villages" or "they rejected her daughters"—suggests a formulaic or narrative structure, but too little survives to reconstruct the meaning. The name Benayahu appears as well, common enough in ancient Hebrew that it gives no clue to the identity of the figure.

Why the Mystery Persisted for 70 Years

The longevity of the mystery surrounding Cryptic B lies not in the complexity of the content but in the material obstacles to decipherment. The irregular handwriting, inconsistent letter proportions, variations between the two hands, and heavy damage across both manuscripts created a fragmentary puzzle that defied earlier scholars. Even more challenging was the limited corpus: with only two manuscripts preserving the full script, there simply was not enough text to apply large-scale statistical methods that might resolve ambiguities. The Qumran scribes themselves added another layer of difficulty by modifying letter forms in unpredictable ways, blending familiar shapes with decorative strokes or mirrored angles. This allowed the script to appear deceptively familiar while still hiding the intended Hebrew beneath layers of visual distortion.

The decipherment of Cryptic B ultimately underscores a paradox common to ancient codes: sometimes the greatest mystery lies not in the message but in the deliberate act of encoding it. Why the Qumran community chose to encrypt otherwise ordinary religious language remains an open question. Some scholars argue that secrecy itself conveyed status, marking certain writings as reserved for an inner circle or priestly elite. Others suggest that cryptic scripts may have served as exercises in scribal training or as a symbolic gesture distinguishing sacred text from mundane writing. Whatever the reason, the breakthrough offers scholars a new doorway into the intellectual world of the community that produced the [Dead Sea Scrolls](#)—one where hiddenness, identity, and tradition were bound together in ways still awaiting full exploration.

Oliveiro, E. (2025). Cracking Another Code of the Dead Sea Scrolls: Deciphering Cryptic B (4Q362 and 4Q363) through Analysis and Intuition. *Dead Sea Discoveries*. doi.org/10.1163/15685179-bja10074

Cet ancien journal révèle comment les Égyptiens ont construit les pyramides de Gizeh

<https://www.nationalgeographic.fr/histoire/archeologie-mystere-egypte-ancienne-cet-ancien-journal-revele-comment-les-egyptiens-ont-construit-les-pyramides-de-gizeh>

Les pyramides de Gizeh sont une prouesse architecturale dont la construction nous a longtemps paru mystérieuse. Les Papyrus de la mer Rouge nous offrent aujourd'hui un aperçu sans précédent sur le travail des bâtisseurs de cette merveille antique.



Les conditions arides du site de l'ouadi el-Jarf, en Égypte, ont permis de préserver les papyrus antiques de Merer, découverts là par une équipe d'archéologues conduite par un Français.

Situé sur littoral de la mer Rouge, en Égypte, le ouadi el-Jarf est de nos jours un endroit calme et sans prétention. Ici, les arides sables du désert et l'eau bleue et placide s'étirent à perte de vue ; par-delà les flots, on peut même apercevoir la péninsule du Sinaï. Cette apparente tranquillité ne trahit rien du carrefour animé qui se trouvait là il y a plus de 4 000 ans. L'importance historique du ouadi el-Jarf fut établie une bonne fois pour toutes en 2013 lorsque l'on y découvrit trente papyrus, les plus anciens jamais découverts, cachés dans des grottes de calcaires artificielles.

Hormis leur ancienneté, ces Papyrus de la mer Rouge, ainsi qu'on les appelle, se distinguent par leur contenu. En effet, ceux-ci révèlent non seulement le lointain passé de port animé du ouadi el-Jarf, mais ils contiennent également les récits d'un homme répondant au nom de Merer qui prit part en son temps à la construction de la pyramide de Khéops.



Les pyramides de Gizeh figurent au rang des plus grandes prouesses architecturales de l'Histoire. Le tombeau de Khéphren, au centre, est aujourd'hui encore paré de certains de ses blocs de calcaire originels.

Le site du ouadi el-Jarf fut découvert en 1823 par un voyageur et antiquaire anglais, John Gardner Wilkinson, qui croyait avoir affaire aux ruines d'une nécropole gréco-romaine. Dans les années 1950, deux pilotes français férus d'archéologie, François Bissey et René Chabot-Morisseau, découvrirent de nouveau le site par hasard. Ils émettent alors l'hypothèse qu'il ait pu autrefois s'agir d'un centre de production du métal. Mais la crise du canal de Suez, survenue en 1956, retarda leurs fouilles.

Ce n'est qu'en 2008 que le travail sur le site put reprendre. L'égyptologue français Pierre Tallet y conduisit une série de fouilles qui permirent de confirmer définitivement que le ouadi el-Jarf avait été un port important en activité il y a 4 500 ans, à l'époque du règne de Khéops et de la construction de la grande pyramide du pharaon. Les équipes de Pierre Tallet révélèrent que le ouadi el-Jarf avait été un centre économique vivant situé au carrefour du commerce des matériaux ayant servi à bâtir les pyramides, situées à 240 kilomètres de là environ. Une découverte majeure corrobora les résultats de leurs investigations archéologiques : le journal de Merer, qui se trouvait parmi les papyrus mis au jour.



Photographie satellite centrée sur la mer Rouge, que les marchands égyptiens devaient traverser pour aller se fournir en cuivre dans le Sinaï.

LE PORT DES PYRAMIDES

Le site du ouadi el-Jarf se compose de plusieurs zones différentes étalées sur plusieurs kilomètres entre le Nil et la mer Rouge. Proche du Nil, la première zone, située à 5 kilomètres des côtes environ, recèle une trentaine de grandes chambres en calcaire qui servaient à l'entrepôt de navires. C'est dans ces grottes que les papyrus furent découverts.

À 450 mètres de là vers l'est, c'est-à-dire vers la mer, apparaissent une série de camps, et après ceux-ci un grand édifice de pierre divisé en treize sections parallèles. Les archéologues émettent l'hypothèse qu'il ait pu s'agir là d'une résidence. Enfin, sur la côte, se trouve le port lui-même avec ses habitations et davantage d'entrepôts. Grâce à des poteries et à des inscriptions découvertes là, les archéologues purent faire remonter le complexe portuaire à la 4^e dynastie d'Égypte, qui régna il y a 4 500 ans environ. Selon eux, le port aurait été inauguré à l'époque du pharaon Snéfrou et abandonné vers la fin du règne de son fils, Khéops. Celui-ci fut actif pendant une courte période durant laquelle il servit uniquement à la construction du tombeau de Khéops, que les Égyptiens appelaient Akhet-Khufu, c'est-à-dire l'« Horizon de Khéops ».

En plus des papyrus, de nombreuses découvertes archéologiques réalisées là révèlent l'importance de ce port. De larges édifices, comme le débarcadère en pierre de 180 mètres de long, dénotent un important investissement matériel dans la zone. Pierre Tallet et son équipe y découvrirent 130 ancres environ, dont la présence trahit l'activité du port.



C'est au port de Gizeh, vu ici sur une aquarelle de J.C. Golvin, que les ouvriers déchargeaient les blocs de pierre ayant servi à la construction de la pyramide de Khéops.

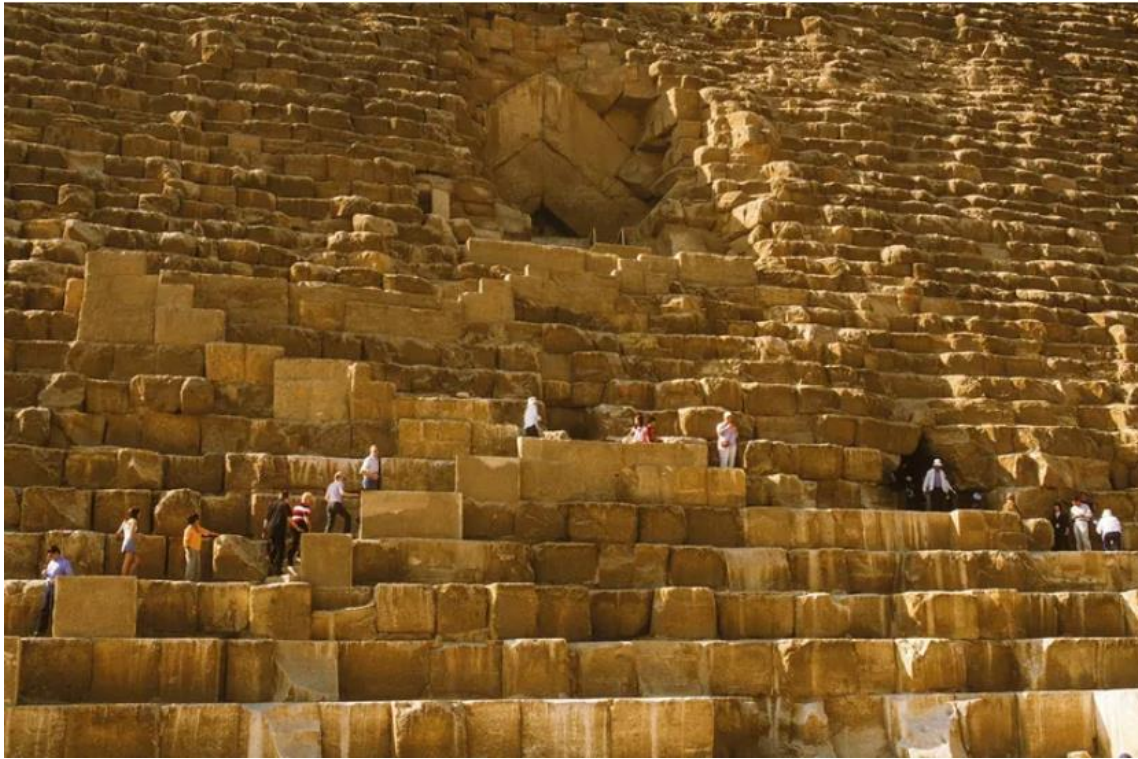
En partance du port, que les Égyptiens d'alors appelaient « Le Buisson », les navires du pharaon traversaient la mer Rouge pour rallier la péninsule du Sinaï, abondante en cuivre. Le cuivre était le métal le plus dur disponible alors, et les Égyptiens en avaient besoin pour découper les pierres de la colossale pyramide de leur pharaon. Quand les bateaux égyptiens rentraient au port, ils étaient chargés de cuivre. Entre les voyages, les embarcations étaient entreposées dans les chambres de calcaire.

DES TRÉSORS DANS LES CAVERNES

Des archives montrent qu'après la désaffectation du port du ouadi el-Jarf à l'époque de la mort de Khéops, une équipe fut envoyée de Gizeh pour refermer les espaces de stockage sculptés dans le calcaire. Celle-ci se faisait appeler l'Escorte de l'« Uræus de Khéops Est Sa Proue », surnom qui fait vraisemblablement référence au navire arborant l'Uræus (le cobra protecteur) à sa proue. Lors du remblaiement des grottes de calcaire, les documents en papyrus de Merer, obsolètes, se coincèrent probablement entre les blocs de pierre.

Ceux-ci demeurèrent exposés à l'air désertique durant quatre millénaires et demi jusqu'à ce qu'ils soient redécouverts lors d'une expédition menée par Pierre Tallet en 2013. Le premier lot des Papyrus de la mer de Rouge fut retrouvé le 24 mars de cette année-là, près de l'entrée d'un espace de

stockage désigné par la référence G2. Le second ensemble de documents, plus important, fut découvert dix jours plus tard, logé entre des blocs de l'espace G1.



Les blocs du parement de calcaire de la pyramide de Khéops, qui a disparu avec le temps, ont été transportés depuis une carrière par de nombreuses équipes comme celle supervisée par Merer. De nos jours, seules les pierres les plus dures ayant servi à l'édification de la structure interne de la pyramide subsistent.

Si les Papyrus de la mer Rouge se composent de plusieurs types de documents, ce sont bien les écrits de Merer qui suscitèrent le plus d'enthousiasme. Chef d'escouade, Merer consigna ses activités dans son journal. Il s'agit d'une archive quotidienne du travail entrepris par son équipe sur une période de trois mois lors de la construction de la pyramide de Khéops.

Son équipe se composait de 200 ouvriers qui parcouraient l'Égypte et avaient des responsabilités dans toutes les tâches relatives à l'édification de la grande pyramide. Les blocs de calcaire ayant servi au parement de la pyramide font à cet égard figure de cas particulièrement intéressant. Merer consigna avec force détails comment l'équipe allait les extraire dans les carrières de Tourah et les transportaient par bateau jusqu'à Gizeh.



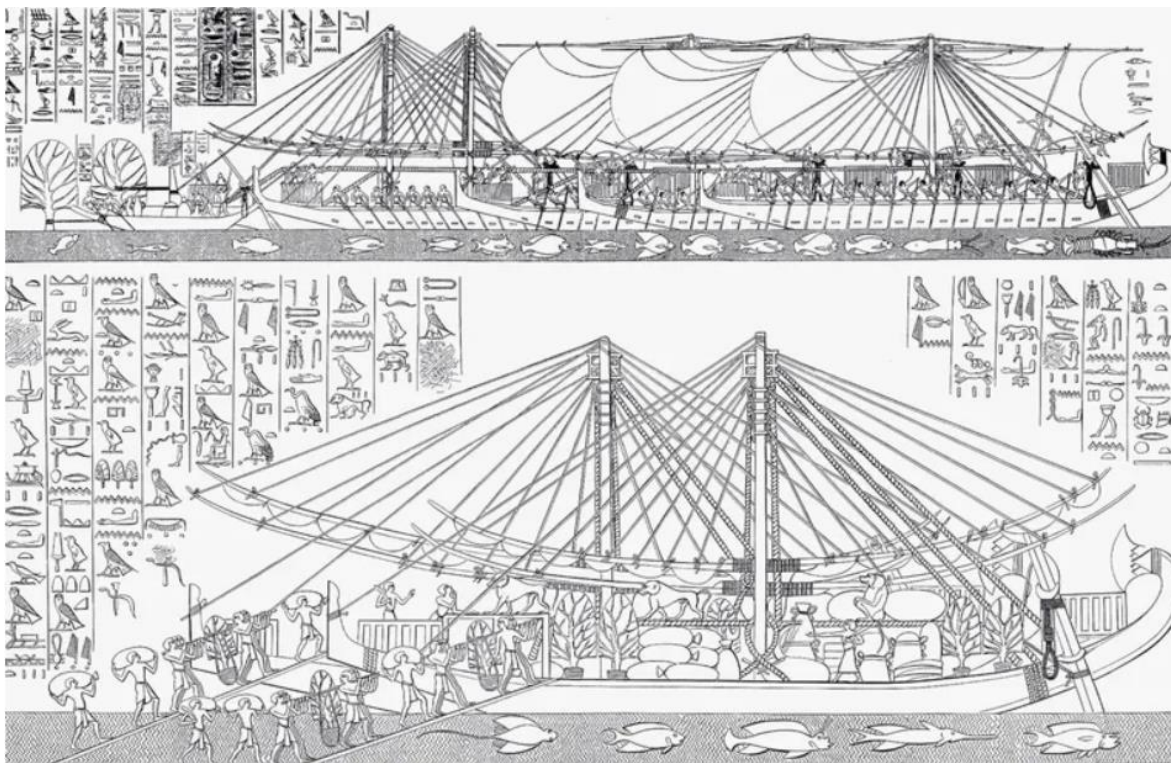
Des archéologues ont découvert des centaines de papyrus dans les grottes du ouadi el-Jarf. Rédigés à l'encre noire et rouge, les textes mentionnent le pharaon Khéops. Un certain nombre de ces fragments ont été assemblés pour former des documents ; certains mesurent 60 centimètres de long ! Le fragment du journal de Merer montré ici est extrait du Papyrus B.

Les hommes de Merer chargeaient les blocs de calcaire sur des navires, descendaient le Nil, puis passaient la nuit dans une zone administrative pour s'assurer que ces derniers y aient bien été enregistrés avant d'être emmenés à Gizeh. Un fragment du journal décrit ce voyage de trois jours de la carrière jusqu'au site de la pyramide:

Jour 25 : L'inspecteur Merer passe la journée avec son za [son équipe] à transporter des pierres à Tourah-sud ; passe la nuit à Tourah-sud. Jour 26 : L'inspecteur Merer quitte Tourah-sud avec son équipe en bateau, avec le plein de blocs de pierre, pour rallier Akhet-Khufu [la grande pyramide] ; passe la nuit à She-Khufu [zone administrative où était entreposée la pierre de taille, juste avant Gizeh]. Jour 27 : Embarquement à She-Khufu, voyage en bateau jusqu'à Akhet-Khufu avec le plein de pierres, passe la nuit à Akhet-Khufu.

Le lendemain, Merer et ses ouvriers retournaient à la carrière pour récupérer une nouvelle cargaison de pierres:

Jour 28 : Départ en bateau d'Akhet-Khufu le matin ; remontée du fleuve vers Tourah-sud. Jour 29 : L'inspecteur Merer passe la journée avec son za à transporter des pierres à Tourah-sud ; passe la nuit à Tourah-sud. Jour 30 : Inspecteur Merer passe la journée avec son za à transporter des pierres à Tourah-sud ; passe la nuit à Tourah-sud.



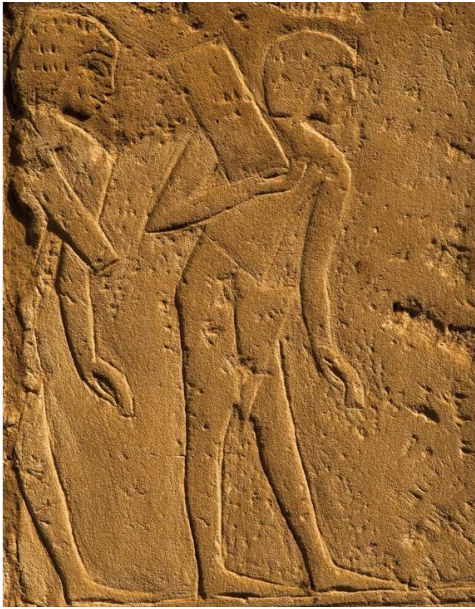
Dessin représentant un relief du 15^e siècle avant notre ère se trouvant au temple de la reine Hatchepsout à Deir el-Bahari et montrant des ouvriers chargeant des embarcations se rendant au pays de Pount.

Le journal de Merer fournit même des renseignements sur l'un des architectes de la pyramide. Ânkhkhâf, demi-frère de Khéops, occupait le poste de « chef de tous les ouvrages du roi ». Sur l'un des fragments du papyrus, on peut lire : « Jour 24 : L'inspecteur Merer passe la journée avec son za à transporter [texte manquant] avec d'éminents fonctionnaires, des équipes de construction et le noble Ânkhkhâf, directeur du Ro-She Khufu. »

DES HOMMES À L'OUVRAGE

Merer consignait également scrupuleusement les paies reçues par ses hommes. Puisqu'il n'y avait pas de monnaie dans l'Égypte des pharaons, les salaires étaient généralement prodigués en céréales. L'unité de base était la « ration », et l'ouvrier en recevait plus ou moins selon l'échelon administratif qu'il occupait. Selon les papyrus, les aliments de base du régime des ouvriers étaient le *hedj* (du pain au levain), le *persem* (du pain plat), diverses viandes, les dattes, le miel et certaines légumineuses, le tout arrosé de bière.

Si cela fait bien longtemps que l'on admet qu'il fallut une importante main-d'œuvre pour bâtir la pyramide de Khéops, les historiens n'en débattent pas moins du statut de celle-ci. En effet, nombreux sont ceux qui avancent que ces ouvriers avaient dû être réduits à l'état d'esclaves. Mais les Papyrus de la mer Rouge contredisent cette idée. Les comptes détaillés de Merer prouvent que ceux qui ont construit les pyramides étaient des ouvriers qualifiés qui étaient rémunérés en échange de leurs services.



Des ouvriers transportent des blocs de pierre dans un détail du relief du temple de Louxor.

Mais les lignes de ces papyrus fragiles recèlent une chose plus extraordinaire encore. Les mots de Merer nous offrent le témoignage direct d'une personne qui assista non seulement à la construction des pyramides mais dont l'équipe joua en outre un rôle crucial dans l'accomplissement de cette tâche pharaonique au quotidien. Grâce à cette découverte, les égyptologues disposent d'un aperçu détaillé (et quelque peu prosaïque) des étapes ultimes de l'édification de la grande pyramide de Gizeh.



[Tout comprendre sur : l'ancienne Égypte - YouTube](#)

What happened to the Ark of the Covenant? Here's what we know

<https://www.nationalgeographic.com/history/article/ark-of-the-covenant-missing-bible>

<https://www.nationalgeographic.fr/histoire/bible-archeologie-le-mystere-de-arche-alliance-relique-sacree-et-objet-de-pouvoir>

Traditional sources and scholars have long hypothesized the location of this sacred chest. But tracing its whereabouts is more difficult than it seems.



A SACRED CHEST This model of the Ark of the Covenant is based on a description in the Book of Exodus: a wooden chest with gold overlay, featuring two winged cherubs, that was thought to have held the Ten Commandments. Those engraved tablets were given to Moses by Yahweh on Mount Sinai.

In A.D. 70, after a brutal, months-long siege, Roman troops under General Titus stormed Jerusalem to crush a Jewish revolt against imperial rule. The city fell, and the Second Temple—the spiritual heart of Judaism—was plundered and burned. Roman soldiers seized its sacred treasures. However, one crucial artifact was noticeably missing: The Ark of the Covenant. Jewish historian Flavius Josephus, an eyewitness to the events, wrote an account a few years later in *The Jewish War*, detailing the temple's destruction and the triumphal parade in Rome that followed:

“The golden table, of the weight of many talents; the candlestick also, that was made of gold... and the last of all the spoils, was carried the Law of the Jews.” Amongst all the treasures, there is no mention of the ark, in which the Tablets of the Law should have been housed. The ark hadn’t been destroyed in the siege. It had vanished centuries earlier.



The ark allows the Israelites fleeing Egypt to cross the Jordan River on dry land. The biblical episode is depicted in this oil painting by Juan Montero de Rojas, Prado Museum, ca 1667.

Origins of the ark

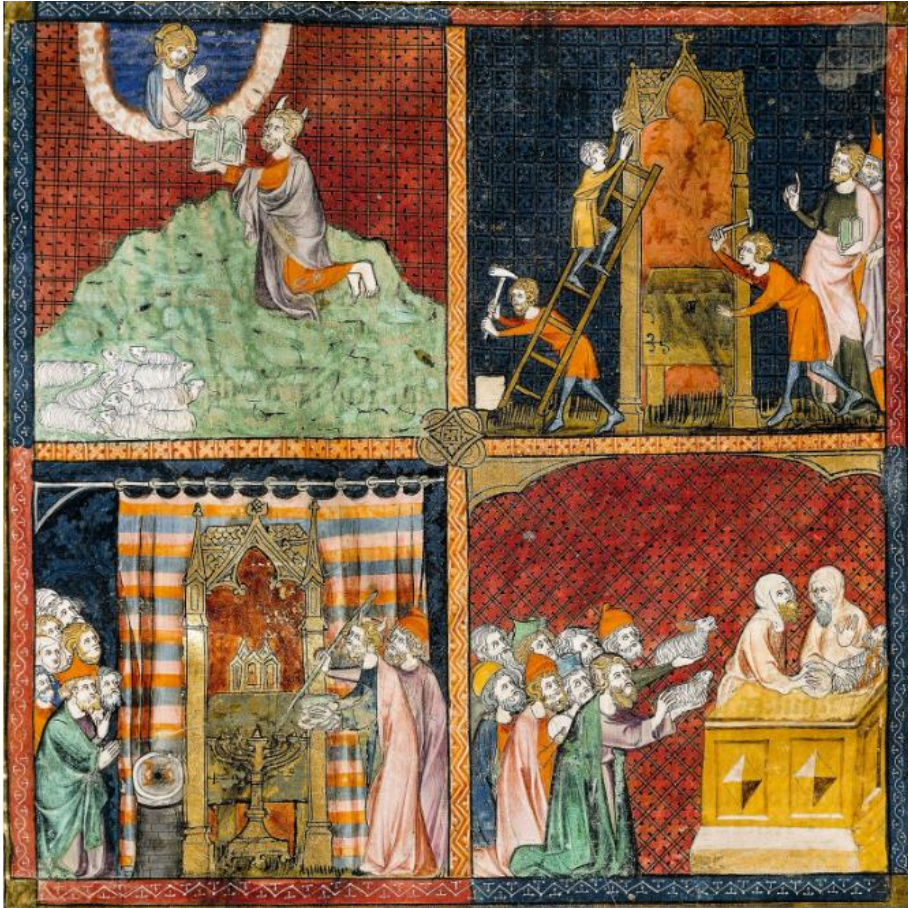
The story of the ark is difficult to pin down, mainly because sources provide differing accounts. Some scholars have raised the possibility that more than one ark may have existed—perhaps built at different times, or even used simultaneously—leaving open the question of which, if any, was the original. The Tanakh (Hebrew Bible) describes the ark’s origins at length. After the Israelites fled Egypt during the Exodus in the 13th century B.C., they made camp at Sinai, described as a wild region located outside of Egypt. They stayed there for two years, receiving divine law and guidance for their future as a nation. Yahweh (God) gave Moses the Tablets of the Law, on which he had inscribed his ten commandments. Yahweh ordered Moses to keep them in a chest made of wood and gold, with five main features. The chest was to be made of acacia wood, 2.5 x 1.5 x 1.5 cubits (3.75 x 2.25 x 2.25 feet) in size, with gold overlay inside and out.



ENRAGED PROPHET Moses smashes the first Tablets of the Law after descending Mount Sinai and finding the Israelites worshipping a golden calf. Engraving by Gustave Doré, 1866.

Four rings were to be attached to the bottom of each corner, through which carrying poles made out of acacia wood would be inserted, also in gold overlay. Finally, the Israelites were to place inside it the tablets of the law, a pot of manna, and the rod of Moses' brother Aaron, which is said to have had miraculous powers.

A home for the ark



These four miniatures illuminate a manuscript (ca A.D. 1300) combining a French translation of the Bible with a biblical commentary (Bible historiale). The images depict the ark's stories and design, following Yahweh's orders.

I - THE TABLETS OF THE LAW

Having fled Egypt, the Israelites enter the wilderness where they will remain for about 40 years. When they reach the sacred Mount Sinai, Moses, their leader, is summoned to the top by Yahweh, who appears wrapped in dense cloud and gives Moses the Tablets of the Law inscribed with the Ten Commandments. Yahweh also provides instructions on how the Israelites should offer sacrifices to him. (Top left)

II - CONSTRUCTING THE ARK

After coming down from Mount Sinai, Moses carries out Yahweh's orders to build an ark to house the Tablets of the Law: "Have them make an ark of acacia wood—two and a half cubits long, a cubit and a half wide, and a cubit and a half high. Overlay it with pure gold, both inside and out, and make a gold molding around it" (Exodus 25:10). (Top right)

III - THE TABERNACLE

Yahweh also commands Moses to cover the ark with a tabernacle—a kind of tent—made with curtains of blue, purple, and scarlet linen. The book of Exodus mentions various other items that should be made to accompany the ark. These include a lampstand (menorah) of pure gold and paraphernalia required for making offerings. This miniature depicts Moses placing the tablets inside and Aaron placing his rod. (Bottom left)

IV - BURNT OFFERINGS

The Israelites perform the first sacrifice or burnt offering after receiving the Tablets of the Law. They are obeying the following command given by Yahweh: “Bring the bull to the front of the tent of meeting, and Aaron and his sons shall lay their hands on its head. Slaughter it in the Lord’s presence at the entrance to the tent of meeting” (Exodus 29:10-11). (Bottom right)

The Israelites brought centuries of exposure to Egyptian culture to the building of the ark. The ark’s design is steeped in the ritualistic style of the Late Bronze Age (c.1550- 1200 B.C.), particularly the boatlike chests used in Egyptian religious festivals to carry images of the gods. The ark’s construction also evokes the gold-covered wooden shrines found in Tutankhamun’s tomb. The cherubs atop the ark, winged guardians, bear a striking resemblance to figures in Egyptian and Near Eastern art. On Tutankhamun’s quartzite sarcophagus, for instance, goddesses with outstretched wings are carved at each corner, shielding the pharaoh in death. Yet the inclusion of these cherubs raises a theological tension: it appears to contradict the commandment, “You shall not make for yourself an image in the form of anything in heaven above or on the earth beneath or in the waters below” (Exodus 20:4).

The presence of Yahweh



According to the Book of Samuel, the Philistines returned the ark to the Israelites who then took it to the city of Beth Shemesh. Engraving by Gustave Doré.

The ancient Israelites treated the ark with great care because it contained the Ten Commandments. However, the sacred vessel was not venerated in and of itself. Instead, the lid, when closed, became Yahweh's throne, as he had told Moses: "There, above the cover between the two cherubim that are over the ark of the covenant law, I will meet with you and give you all my commands for the Israelites" (Exodus 25:22).

While the Israelites were still wandering in the wilderness, Yahweh manifested himself in a pillar of cloud by day and fire by night, leading them onward. With the ark, his presence was believed to dwell on the "mercy seat" between the cherubs, offering a constant reminder of the covenant. After the destruction of the Temple by the Romans in A.D. 70, the teachers of Jewish law developed the concept of Shechinah to mean the "presence of God" (literally "dwelling"). Shechinah did not refer to the physical presence of Yahweh, but rather to an unmistakable sign of his nearness. In time, even without the ark or Temple, that presence was said to remain.

This contradiction between the commandment forbidding the making of graven images and the inclusion of golden cherubs atop the Ark of the Covenant has long puzzled scholars. To resolve this, many biblical scholars and theologians have pointed to the context and purpose of the cherubs. They were not idols meant for worship but symbolic guardians of the divine presence, placed atop the ark in the innermost sanctuary where no ordinary

worshipper could see or access them. Their role was not representational but theological: they framed the “mercy seat,” the space where God’s presence was said to dwell. The cherubs were divinely sanctioned and functioned more like ritual art than forbidden images, underscoring the unique and controlled nature of Israelite worship. The Ark of the Covenant became central to Israelite religious life, and during the 40 years they spent wandering in the desert following their escape from Egypt, the ark was always carried ahead of them. The Israelites believed that the ark and its precious contents had the power to protect them and punish their enemies.



WAR BOOTY? According to the Bible, the Egyptian pharaoh Shishak I attacked Jerusalem in 925 B.C. and took the ark with him to Egypt. Below, canopic chest of Shishak. State Museums, Berlin.

The journey

Joshua succeeded Moses after his death and ultimately led his people to Canaan, the Promised Land. According to the Book of Joshua, when they reached the Jordan River it was flooded. Following God’s command, the priests carrying the ark stepped on the water, and it miraculously stopped flowing, allowing the Israelites to cross on dry ground. When they faced their first military challenge, capturing the Canaanite stronghold city of Jericho, their ark-led march around the city caused its walls to collapse. The ark had an aura of immense, even dangerous, power. It was said that looking inside or touching it could lead to death.

After several conquests, the Israelites finally settled in Canaan and established the city of Shiloh as their religious center. There, they set up the Tabernacle (a portable tent), placing the sacred chest in its innermost chamber, its first permanent sanctuary. But when they went to battle against the Philistines at Ebenezer, in 1116 B.C., the Israelites brought it to the front lines for protection—only to lose both the battle and the ark itself. The Philistines captured it and took it through the cities of Ashdod, Gath, and Ekron, but wherever it went, plagues followed. Convinced they had angered the Israelite god, the Philistines returned the ark.



THE TEMPLE OF JERUSALEM Reconstruction of the Temple of Jerusalem in Roman times. The Ark of the Covenant should have been housed there, but it had in fact long since disappeared.

Later, King David (r.1000–962 B.C.), second king of a unified Israel, brought the ark to his new capital, Jerusalem, where it was also housed in a tent sanctuary. His son, Solomon, finally gave it a permanent home, the Temple on Mount Moriah. There, in the Holy of Holies, the sacred chest rested—hidden from view, accessed only once a year—and only by the high priest.

The ark's whereabouts

The Book of Chronicles refers to the ark's likely presence in the Temple in the time of King Josiah of Judah, who lived in the second half of the seventh century B.C.: "He said to the Levites, who instructed all Israel and who had been consecrated to the Lord: 'Put the sacred ark in the temple that Solomon son of David king of Israel built. It is not to be carried about on your shoulders.'" (2 Chronicles 35:3). The passage does not clarify the ark's location before the order was given to restore it to the Temple.

The trail shifts to Ethiopia



THE ARK ARRIVES IN ETHIOPIA This 19th-century Ethiopian painting depicts King Menelik I bringing the Ark of the Covenant from Jerusalem to the Church of Our Lady Mary of Zion, Aksum.

The Queen of Sheba's visit to Solomon, an episode mentioned in the Hebrew Bible, led to a theory that the Ark of the Covenant was smuggled to Ethiopia. The Kebra Nagast or the Glory of the Kings, a 14th-century text that traces the genealogy of Ethiopia's kings back to Solomon, recounts the story.

When the Queen of Sheba visited Solomon, they conceived a son, Menelik. On his 22nd birthday, Menelik went back to Israel to meet his father. Solomon recognized him as his son and heir, which riled the religious elites. Solomon was forced to send his son back to Ethiopia, but, angered by the way Menelik had been received, Solomon ordered all the first-born sons of Israel, some 12,000 males, to accompany Menelik to Ethiopia. According to this legend, it was they who stole the ark and took it with them, telling Menelik that they had the ark only when it was too late to take it back. The ark is said to have remained in Ethiopia, in the Church of St. Mary of Zion, Aksum, where it was said to be accessible only to the monk assigned to take care of it.

Non-biblical sources state that when King Nebuchadnezzar II of Babylon conquered Jerusalem and destroyed the Temple in 586 B.C. there is no mention of him finding the ark. The sacred chest was likewise missing from accounts of Titus's destruction of the Temple six centuries later. The Bible does not make explicit when, or how, the ark disappeared from the temple. Based on biblical and other accounts, some scholars argue the disappearance took place sometime between the time of Josiah in the late 600s B.C. , and 586 B.C., when the Babylonians captured Jerusalem.

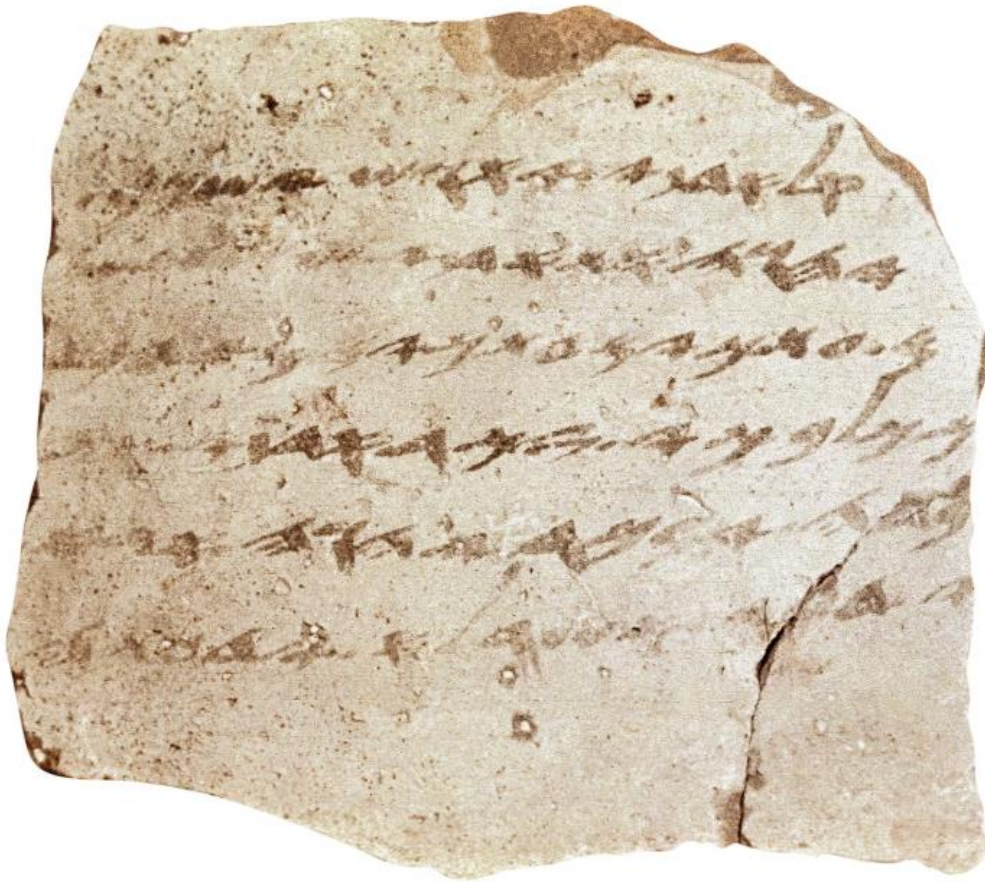
Various explanations emerged regarding the fate that might have befallen the sacred object. Several non-biblical, religious writings account for the fate of the ark. The Talmud, the foundational body of Jewish civil and religious law compiled between the third and sixth centuries A.D., recounts that some years before the Babylonian destruction of the First Temple in 586 B.C., King Josiah foresaw the threat and hid the ark. According to this version, it was buried, along with other sacred artifacts, in a chamber beneath the Temple that Solomon had prepared centuries earlier for such a purpose.



This relief from the palace of King Sennacherib in Nineveh shows the conquest of Lachish by the Assyrians in 701 B.C. The city, which is 25 miles southwest of Jerusalem, would be destroyed once again in 586 B.C., but this time by the Babylonians.

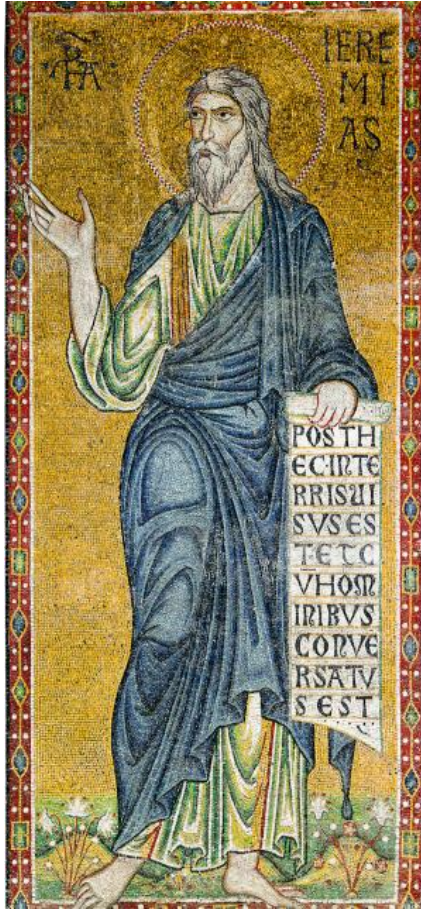
Additional accounts appear in the non-biblical, Christian texts known as the Apocrypha. An apocryphal text based on the Book of Ezra describes scenes of devastation as King Nebuchadnezzar's forces destroyed the Temple. Among the horrors witnessed, the text claims the Babylonians carried the ark away. If true, this would suggest the chest was taken to Babylon; however, no ancient source confirms this account.

Another story focuses on the early sixth-century B.C. prophet Jeremiah. According to the Second Book of Maccabees (a text recognized as part of the biblical canon by some Christian denominations, but not by others), Jeremiah received a divine revelation warning of Jerusalem's fall: "The prophet, in virtue of an oracle, ordered that the tent and the ark should accompany him, and... he went to the very mountain that Moses climbed to behold God's inheritance." Scholars believe the mountain referred to is Mount Nebo, in what is now Jordan, from whose heights Moses is said to have glimpsed the Promised Land before his death. There, Jeremiah hid the sacred objects in a cave and sealed the entrance. According to that tradition, no one who accompanied him could later find the spot again.



THE LACHISH LETTERS Fragment of an ostracon that forms part of a set of letters discovered at Lachish in Judaea. These texts recall the city's last days before the Babylonian conquest. British Museum, London.

The raiders

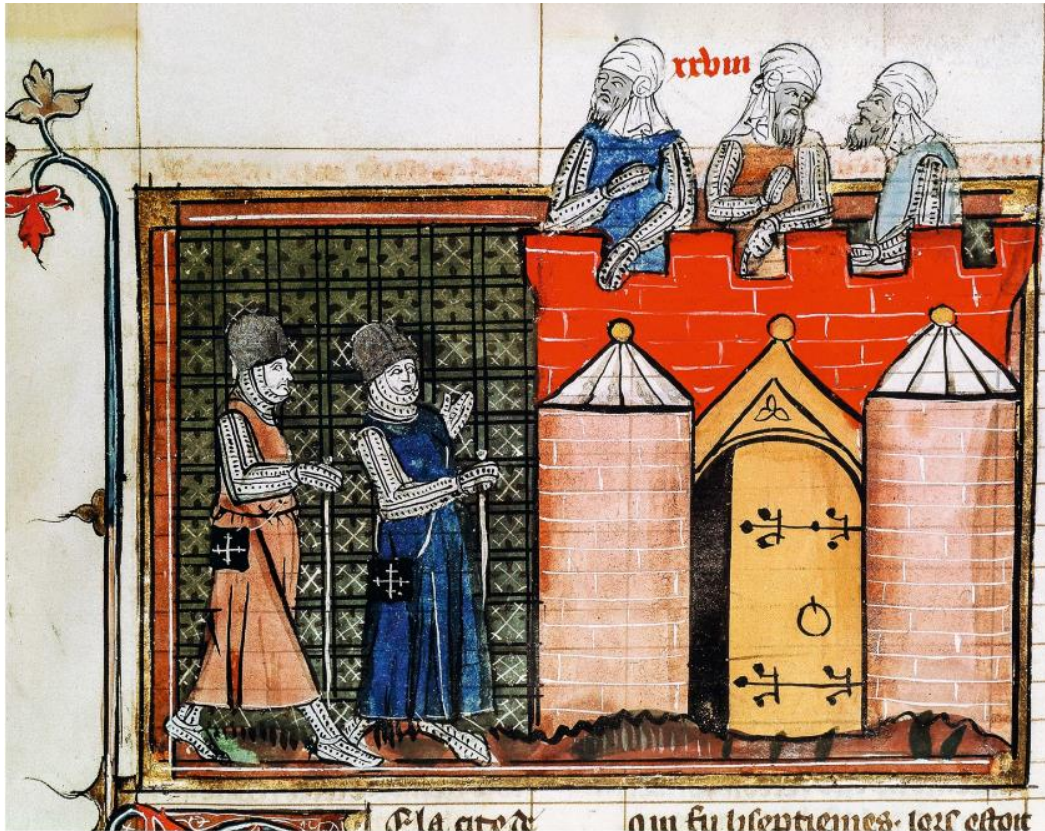


THE LOST ARK Jeremiah, pictured in a mosaic in St. Mark's Basilica in Venice, prophesied that the ark would disappear.
SCALA, FLORENCE

Scholars have sometimes speculated on the fate of the ark in biblical and religious texts where there is no explicit reference to the sacred chest. The First Book of Kings, chapter 14, states: "In the fifth year of King Rehoboam, Shishak king of Egypt attacked Jerusalem. He carried off the treasures of the Temple of the Lord and the treasures of the royal palace. He took everything." Most researchers identify this Shishak of the biblical account with Pharaoh Sheshonq I, founder of the 22nd dynasty, who around 935 B.C., undertook a military campaign in Palestine. If Sheshonq I attacked Jerusalem and carried off "the treasures of the temple of the Lord," the ark might have been among such spoils. However, in this text, Jerusalem is not included in the list of cities subdued during the campaign. All the conquered cities mentioned are, in fact, located in the Negev desert, the area in the south of the kingdom of Judah, close to Egypt but far from Jerusalem.

There is no mention of an object resembling the ark in the Egyptian sources. It could be argued that to the Egyptians, the sacred chest was nothing more than a wooden box covered with gold, and that, accustomed as they were to seeing much more sumptuous objects, they did not pay much attention to it. This, of course, is the theory explored in Steven Spielberg's *Raiders of the Lost Ark*, featuring treasure hunter and archaeology professor Indiana Jones. In the movie, the ark is believed to be in the city of Tanis in the Nile Delta, at a place known as the "Well of Souls," having been hidden there by Shishak. It is likely that the pharaoh was indeed buried in the royal necropolis at Tanis, although his tomb hasn't been found; and if it had been, it was probably looted centuries ago.

The ark and the templars



Knights Templar at Jerusalem's gates (1099). 14th c. illustration, National Library of France, Paris.

In recent decades, the fate of the ark has been tied to the Knights Templar, a powerful French military order founded around 1120 (officially recognized in 1129), under the authority of the Catholic Church. The Templars established themselves in Jerusalem just 30 years after the Crusaders seized the city, setting up their headquarters, in King Baldwin II's palace, within the Al Aqsa Mosque complex, on the very site where the ancient Temple once stood. The order took its name from this association.

The knights occupied the area near what is today known as the Dome of the Rock. This has fueled numerous legends linking the Templars to the lost Ark of the Covenant. Some stories claim the knights searched the subterranean vaults in vain; others suggest they did, in fact, discover the ark and secretly transported it to England or France. One of the most persistent versions comes from a 1966 book by Louis Charpentier, who argued that a group of Templars, fleeing persecution after the order's violent suppression in 1312, smuggled the ark to France and hid it beneath the cathedral of Chartres.

Ark hunters have found other passages in the Bible that could refer to the Ark of the Covenant without explicitly naming it. One such account reaches back to before the destruction of Solomon's First Temple. During the seventh-century B.C. reign of the "wicked" King Manasseh, Judah faced Assyrian aggression again. The Bible's Second Book of Chronicles describes how Manasseh was captured and taken to Babylon with a hook in his nose and bound in bronze shackles. Though eventually released, he returned to Jerusalem as a vassal, subject to the Assyrian empire. As such, he would have been expected to pay tribute—with regular offerings or gifts—to the Assyrian king. The Bible portrays Manasseh as a ruler who desecrated the Temple and turned away from Yahweh. This has led some to speculate that the gold-covered ark might have been offered up as tribute. Another theory is that the high priests removed the ark from the Temple so that Manasseh could not melt it down.

Mystery on the mount

Modern hypotheses have emerged surrounding the whereabouts of the Ark of the Covenant. One of the most respected theories was put forward by Leen Ritmeyer, a Dutch archaeological architect and expert on the Temple Mount. In 1996, he published an article stating he believed the Holy of Holies was located in the First Temple, arguing that there was a possibility that the ark was still located inside it. The Holy of Holies was only entered once a year by the High Priest, so it was effectively buried from view. This could explain why there is no later reference to the ark in Jewish literature.



THE TEMPLE MOUNT The Dome of the Rock, from which Prophet Muhammad is said to have ascended to heaven, now stands on the Temple Mount in Jerusalem.

Ritmeyer proposes that the Holy of Holies lies beneath a rectangular depression in the floor of the Dome of the Rock, which currently stands on the Temple Mount. The Dome of the Rock is part of the Al Aqsa Mosque complex, revered by Muslims. The theory that the ark is still under the Dome of the Rock is shared by some Orthodox and Conservative Jews who advocate the building of a third temple on the site of the previous two. Because of the centrality of the site to Judaism and Islam, the Temple Mount is a significant regional flashpoint. For now, the ark remains an enigma, its fate obscured by layers of history, theology, and politics. Each new theory, each new speculation, continues to capture the imagination of believers and nonbelievers alike.

Une découverte sous-marine inattendue en Inde met les archéologues sur la piste d'une civilisation disparue

<https://www.futura-sciences.com/sciences/actualites/archeologie-decouverte-sous-marine-inattendue-inde-met-archeologues-piste-civilisation-disparue-122701/>



Les fonds marins peuvent parfois révéler d'impressionnantes surprises, telles que des cités englouties construites par des sociétés méconnues.

Les découvertes archéologiques promettent souvent des recherches sur de longues périodes. Mais l'exploration sous-marine d'une cité engloutie par des océanographes indiens à la fin de l'année 2000, dans le golfe de Khambhat, suscitait la surprise et faisait émerger de nombreuses questions concernant une potentielle civilisation perdue, il y a 9 000 ans.

Le sous-continent indien et les pays attenants, du Pakistan à l'Afghanistan, recèlent leur lot de mystères historiques. L'un d'entre eux date du début du XXI^e siècle, lors de fouilles entreprises en eaux profondes, dans le golfe de Khambhat, au nord-ouest de l'Inde. En 2002, la [BBC](#) publiait un article intitulé [La cité perdue](#) « qui pourrait réécrire l'histoire », exposant les résultats partiels des opérations sous-marines. Les archéologues et [océanologues](#) du *National Institute of Ocean Technology* d'Inde (NIOT) décelaient alors la présence de structures [anciennes](#) par 36 mètres de profondeur.

Avaient alors été retrouvés des artefacts, des poteries et des restes humains, vieux de plus de 9 000 ans. Une découverte archéologique majeure, démontrant la présence de sociétés structurées en Inde et dans le golfe de Khambhat, bien antérieures à la civilisation harappéenne. Il n'en fallait pas plus pour voir émerger les premières théories, souvent controversées, sur d'hypothétiques [peuples](#) disparus, questionnant le récit du développement des sociétés antiques dans cette région de l'Asie.

Une vaste cité sous-marine antique

Ce ne sont pas quelques structures éparses que découvraient les explorateurs du NIOT en décembre 2000, mais bel et bien une [cité](#) s'étendant sur plusieurs kilomètres carrés. Plus précisément, huit kilomètres de long pour environ trois de large. La technologie sonar exploitée par les appareils offrait alors une vision saisissante des fonds marins, venant confirmer l'ampleur de la découverte. En parallèle, les objets remontés ainsi que les squelettes et fragments dentaires appuyaient la thèse d'une ville engloutie.



Le site de Mohenjo-daro, situé à 300 kilomètres au nord-est de Karachi, au Pakistan, est l'un des plus importants vestiges de la civilisation harappéenne.

La datation des artefacts devint toutefois un casse-tête inextricable pour les spécialistes. La présence d'une société s'étant développée vers 7000 avant J.-C. dans un golfe de l'ouest de l'Inde bouscule les observations archéologiques. Selon les universitaires, la première [civilisation](#) réellement structurée du sous-continent s'est établie autour de la cité d'Harappa, dont l'apogée survient à partir de 2600 avant J.-C. Plusieurs personnalités, telles que l'écrivain britannique Graham Hancock, défendent l'idée d'un monde ancien et relativement avancé sur le plan de la technique, disparu à cause

d'événements climatiques ou géologiques majeurs. Mais, comme le souligne le site [Indy100](#), la personnalité provocatrice de Hancock et ses extrapolations liées à la découverte polarisent largement le débat autour de cette hypothèse intéressante, bien que susceptible de faire éclater l'actuel paradigme.

Un choc des théories pour expliquer la découverte

Les structures sont bel et bien présentes sous la surface de l'eau. Comment expliquer leur présence à cet endroit précis ? Le golfe de Khmabhat aurait pu être submergé par la montée des eaux après la fin de l'[âge glaciaire](#) et l'augmentation des températures. Le niveau des mers aurait augmenté, ainsi que le [débit des fleuves et des rivières](#), recouvrant progressivement le bassin. De quoi évoquer le continent légendaire de Kumari Kandam, vaste terre rêvée ayant fait le pont entre l'Inde, Madagascar et l'Australie. Des corps ainsi que des objets auraient aussi été charriés dans le golfe, expliquant la présence d'artefacts vieux de 9 000 ans sur le site. Les bâtiments, quant à eux, semblent être d'origine humaine.



À quoi ressemblaient vraiment les anciennes villes indiennes ? : https://www.youtube.com/watch?v=zn6QjaEq_4E

Certains archéologues expliquent que les données sonar auraient été mal interprétées. D'autres chercheurs pointent la possibilité d'une erreur lors des datations au [carbone 14](#), dénonçant des résultats faussés. Mais aucune explication ne fait l'unanimité chez les experts, qui ne sont parvenus à expliquer avec certitude l'existence d'une ville immergée, construite avant l'Antiquité. Si des recherches postérieures à la découverte ont été réalisées depuis deux décennies, le mystère demeure et reste particulièrement épais.

8,000-year-old botanical art reveals the world's earliest mathematical thinking

<https://archaeologymag.com/2025/12/8000-year-old-mathematical-thinking/>

A recent study published in the *Journal of World Prehistory* suggests that the earliest botanical paintings made by human civilization were more than just aesthetically significant. These works of art, researchers claim, conveyed a remarkably sophisticated conception of number, space, and order. By analyzing painted pottery from the Halafian culture of Northern Mesopotamia, from about 6200–5500 BCE, researchers have determined that agricultural communities were embedding mathematical concepts into their artworks at least 8,000 years ago.



Nax Mallowan excavation at Arpachiyah, Iraq. From the collections of the British Museum and UCL.

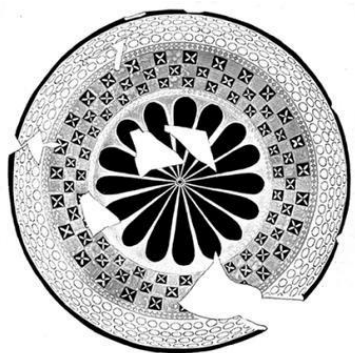
This study analyzes the finely crafted ceramic vessels that were created by the Halafians, who were small agricultural village dwellers in what is now parts of Iraq, Syria, and Turkey. While prehistoric art was dominated by human and animal representations, Halafian pottery shows a distinct preference for the representation of the plant world. Flowers, shrubs, branches, or trees are commonly found on bowls and jars, rendered with a strong sense of balance.

By analyzing data from 29 archaeological sites, the researchers documented hundreds of vegetal motifs. While some of these depictions bear a strong resemblance to real plants, other motifs are very stylized, but all display deliberate composition and symmetry. This is significant because it indicates that these motifs were likely part of a shared visual language rather than just decoration.

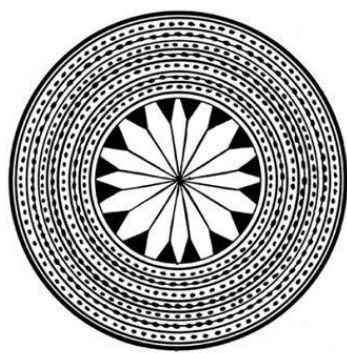


Nax Mallowan excavation at Arpachiyah, Iraq. From the collections of the British Museum and UCL.

One of the most interesting aspects of this research is the evidence of the repeated use of numerical patterns in floral motifs. Many vessels feature flowers with petals arranged in geometric sequences, groups of 4, 8, 16, 32, and in some instances even 64 elements. Such clearly demarcated progressions indicate the ability to divide space evenly and an understanding of doubling and proportional order. This, the authors of the study indicate, is indicative of a form of arithmetic that predates the development of writing or formal mathematics in Mesopotamia.



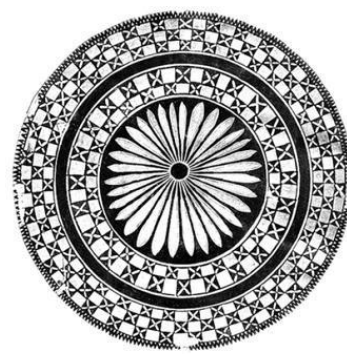
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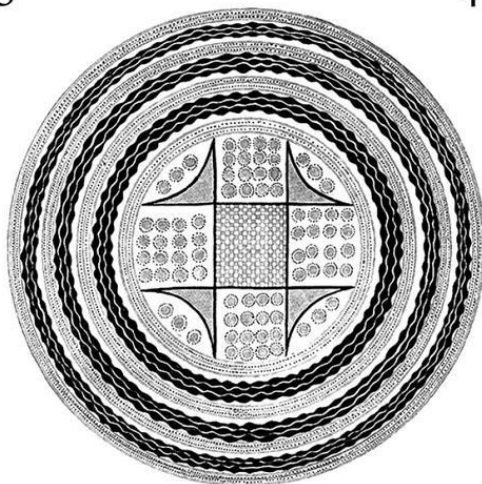
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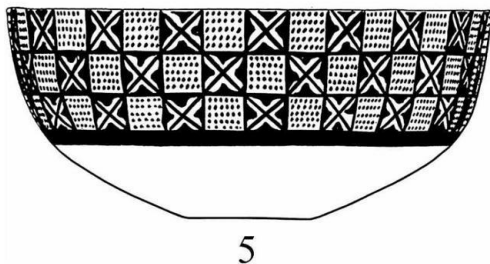
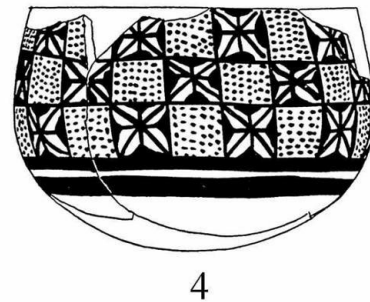
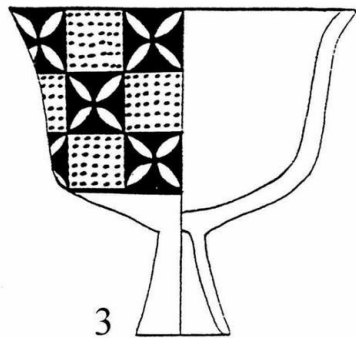
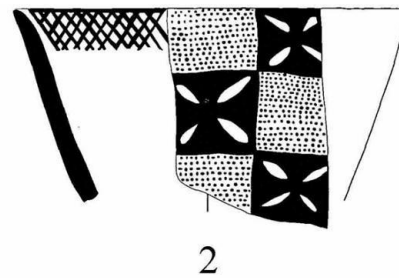
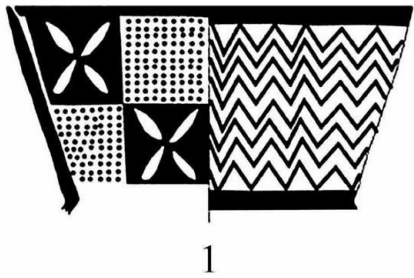


5

A meticulously executed drawing of a single large flower, depicted in a symmetrical arrangement with 16 or 32 petals, and a bowl with 64 (+ 12) flowers.

All of these skills could likely be traced back to everyday village life. Living in agricultural communities required dividing land, sharing harvests, and organizing collective labor. It is probable that the same cognitive abilities that were used for those tasks can be observed through pottery decoration, where symmetry and repetition could be explored and refined.

Interestingly, the vegetal motifs are not of such things as wheat or barley that could be consumed. Instead, these include flowers and trees, which could have been valued for their beauty, not their utility. The researchers suggest that flowers, in particular, tend to evoke positive emotional responses, which could explain their use as artistic subjects.



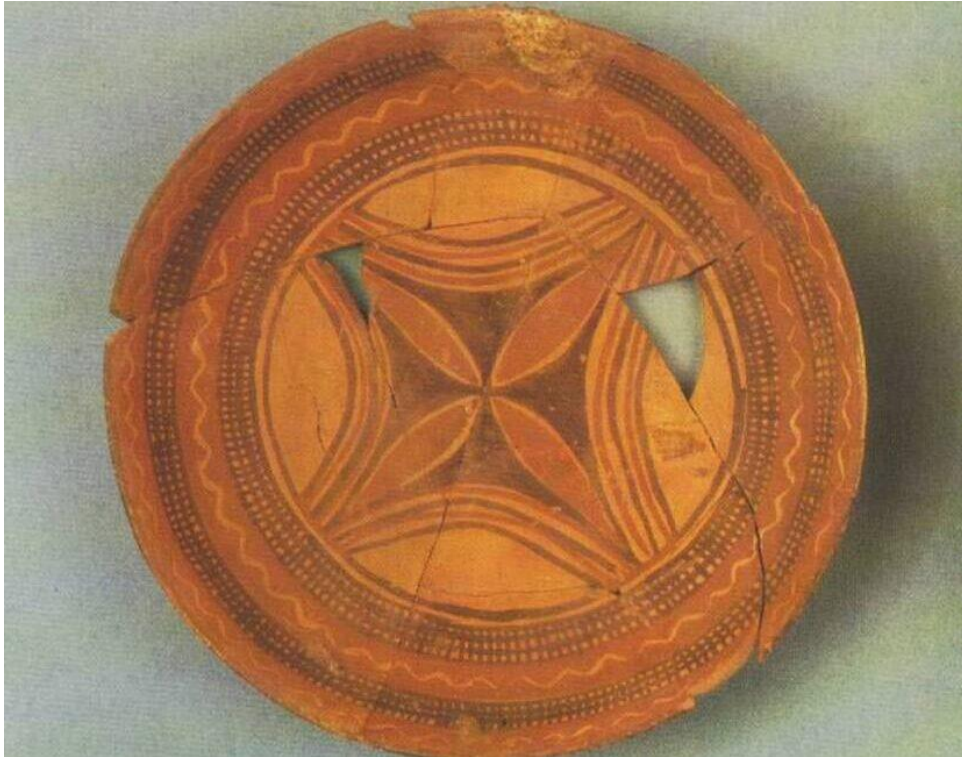
Small flowers with four petals inside black squares of a checkerboard pattern.

In highlighting the link between artistic expressions and early forms of numerical thinking, the research calls into question traditional timelines for the history of mathematics. Contrary to expectations, mathematical thinking did not originate suddenly with written records in later Sumerian society, but seems to have developed through visual practices related to everyday life.

More information: Garfinkel, Y., Krulwich, S. (2025). The Earliest Vegetal Motifs in Prehistoric Art: Painted Halafian Pottery of Mesopotamia and Prehistoric Mathematical Thinking. *J World Prehist* 38, 14. [doi:10.1007/s10963-025-09200-9](https://doi.org/10.1007/s10963-025-09200-9)

8,000-Year-Old Botanical Art Reveals Humanity's Earliest Mathematical Thinking

<https://arkeonews.net/8000-year-old-botanical-art-reveals-humanitys-earliest-mathematical-thinking/>



Long before numbers were written on clay tablets or calculations recorded in cuneiform, early farming communities in the Near East were already thinking mathematically—using flowers, symmetry, and painted pottery as their medium.

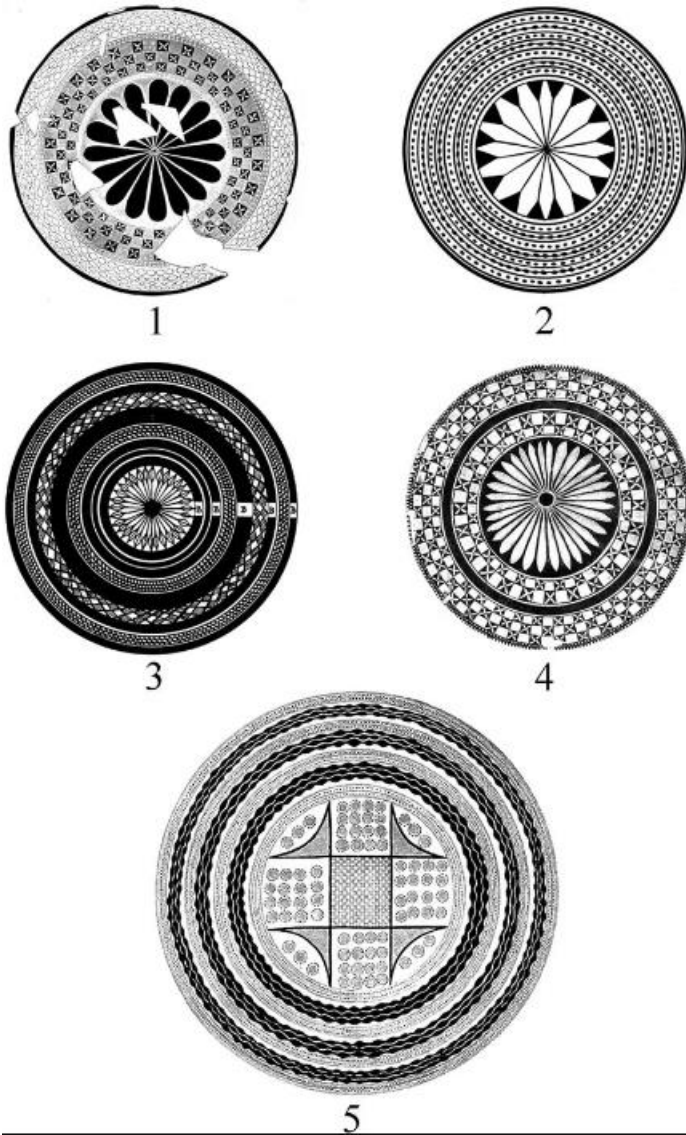
A new study published in the *Journal of World Prehistory* reveals that some of the world's earliest botanical artworks, created more than 8,000 years ago, encode surprisingly advanced numerical and spatial concepts. Far from being simple decoration, these ancient plant motifs reflect an emerging understanding of order, proportion, and arithmetic long before formal mathematics existed.

Painted Plants in the World's First Villages

The research focuses on painted ceramic vessels produced by the [Halafian culture](#), which flourished across northern Mesopotamia—today's southeastern Turkey, northern Syria, and northern Iraq—between roughly 6200 and 5500 BCE. These communities lived in small agricultural villages, relying on collective labor, shared harvests, and carefully managed land.

Unlike earlier prehistoric art, which overwhelmingly favored animals and human figures, [Halafian pottery](#) shows a striking preference for plants. Flowers, shrubs, branches, and trees appear repeatedly on bowls, jars, and plates, often rendered with meticulous balance and symmetry.

By compiling data from 29 archaeological sites and examining thousands of painted sherds, the researchers identified hundreds of vegetal motifs. While some resemble recognizable plant forms, many are highly stylized. What unites them is not botanical accuracy, but deliberate composition—suggesting a shared visual language rather than casual ornamentation.



A precisely executed Halafian depiction of a large flower arranged with 16 or 32 petals, alongside a bowl decorated with 64 (+12) floral motifs.

Flowers That Count

The most revealing discoveries lie in how these plants were arranged.

Many Halafian vessels feature large, centrally placed flowers whose petals are divided into precise numerical sequences. Repeatedly, the researchers documented flowers with 4, 8, 16, 32, and even 64 petals—numbers that form a clear geometric progression based on doubling. In one remarkable example, a bowl base was divided into a grid containing 64 individual flowers, each carefully positioned within the design.

Such patterns are unlikely to be accidental. Dividing circular space into equal segments requires careful planning, spatial reasoning, and consistency—key components of mathematical thinking. According to the study, these floral designs represent one of the earliest known expressions of arithmetic logic, predating writing by millennia.

Mathematics Before Writing

This evidence challenges long-held assumptions about the origins of mathematics. Traditionally, mathematical knowledge in Mesopotamia has been linked to later urban societies, where accounting, taxation, and administration demanded written numeracy.

The [Halafian evidence](#) tells a different story. Mathematical reasoning appears to have emerged organically from daily life in early farming villages. Dividing fields, allocating harvests, organizing communal labor, and maintaining fairness within small communities all required precise division and proportional thinking.

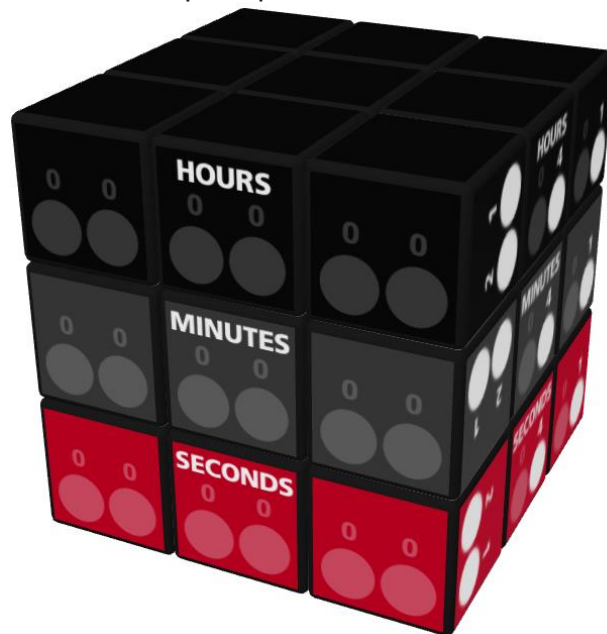
Pottery decoration, the researchers argue, provided a space where these cognitive skills could be explored visually. Symmetry, repetition, and numerical order became aesthetic principles as well as practical tools.

Note:

Les nombres 4, 8, 16, 32 et 64 sont les puissances successives de 2: $4 = 2^2$ $8 = 2^3$ $16 = 2^4$ $32 = 2^5$ $64 = 2^6$

Pourrait-on imaginer qu'ils savaient déjà calculer en base 2 qui est la base la plus simple ?

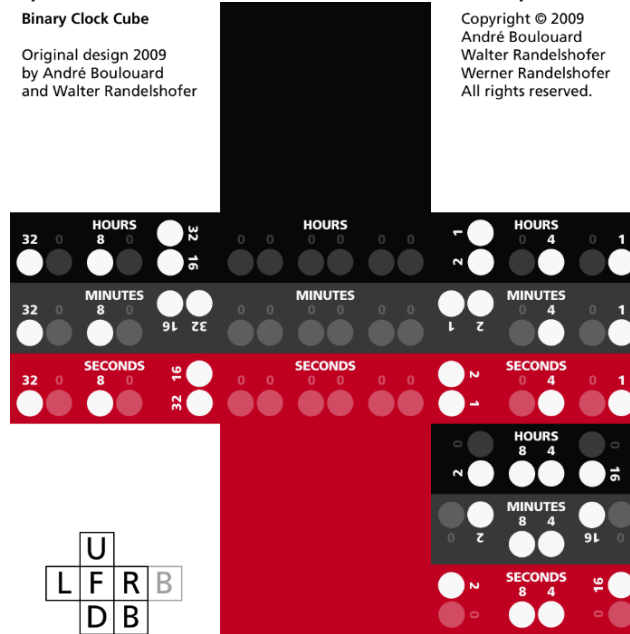
Il faut remarquer que les Sumériens ont *bien après* "inventé" les bases 10 et 60 qui sont bien plus complexes que la base 2.



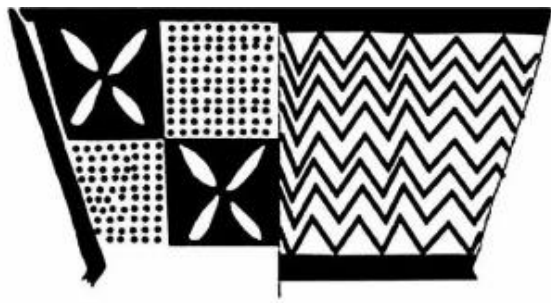
Binary Clock Cube

Original design 2009
by André Boulouard
and Walter Randelshofer

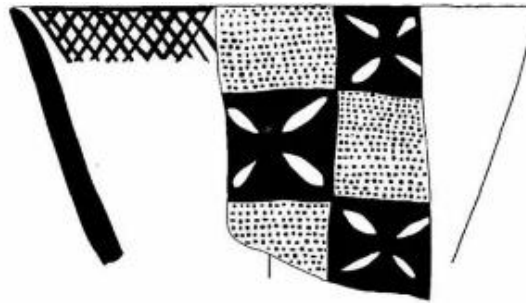
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Walter Randelshofer
Werner Randelshofer
All rights reserved.



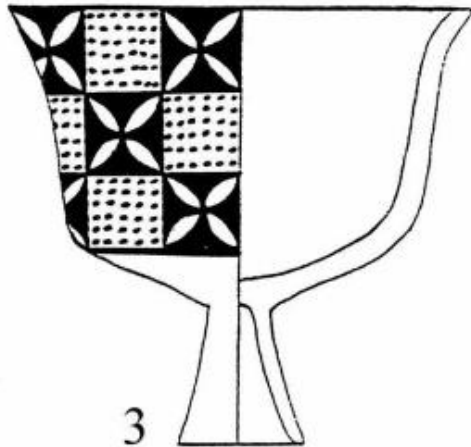
Horloge 3x3x3 animée sur écran donnant l'heure en base 2



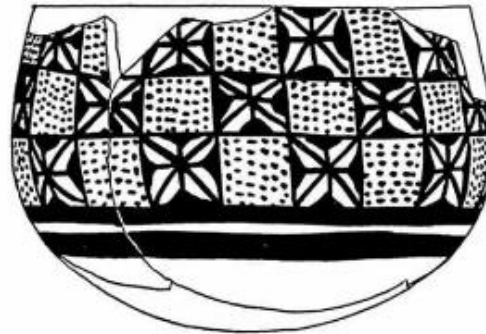
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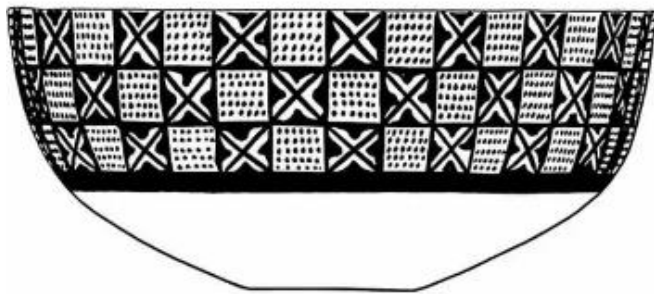
2



3



4



5



6

Small four-petaled flowers set within black squares arranged in a checkerboard pattern on Halafian painted pottery.

Why Flowers—and Not Crops?

One of the study's most intriguing observations is what doesn't appear in [Halafian](#) art. Despite being agriculturalists, these communities did not depict staple crops such as wheat or barley. Instead, they favored flowers and trees—plants valued for their form rather than their utility.

This choice suggests that the motifs were not tied to fertility rituals or agricultural magic. Instead, the authors propose that flowers were chosen for their emotional and sensory impact. Modern psychological research shows that symmetry and floral forms tend to elicit positive emotional responses—a reaction that may have deep evolutionary roots.

In this light, Halafian pottery emerges as both intellectual and emotional expression: an early fusion of beauty, order, and cognition.

Rethinking the History of Numbers

By linking prehistoric art to early numerical reasoning, the study pushes the history of mathematics far deeper into the human past. Mathematical thinking did not suddenly appear with writing and bureaucracy; it developed gradually through visual practices embedded in everyday life.

The Halafian artisans were not mathematicians in the modern sense. Yet their ability to divide space, repeat patterns, and consistently apply numerical structures reveals a sophisticated cognitive world—one in which art, agriculture, and mathematics were deeply intertwined.

Eight thousand years ago, long before numbers had names, humanity was already counting—petal by petal.

Garfinkel, Y., Krulwich, S. The Earliest Vegetal Motifs in Prehistoric Art: Painted Halafian Pottery of Mesopotamia and Prehistoric Mathematical Thinking. *J World Prehist* 38, 14 (2025). <https://doi.org/10.1007/s10963-025-09200-9>

Uncovering a Buried Assyrian Capital

<https://www.biblicalarchaeology.org/daily/ancient-cultures/ancient-near-eastern-world/uncovering-a-buried-assyrian-capital/>

Magnetometry reveals unknown palaces and gardens



Winged genie from Sargon's palace at Dur Sharrukin.

One of Sargon II's (r. 721–706 BCE) many acts—besides conquering Samaria and taking the [ten northern tribes](#) of Israel into exile, of course—was the establishment of a brand-new capital for the Assyrian Empire, Dur-Sharrukin. Before the purpose-built city was completed, however, Sargon fell in battle, and his son, Sennacherib, moved the capital instead to Nineveh, leaving the unfinished Dur-Sharrukin to be buried by history. Now, [a joint French-German team](#) is discovering that much more of the city had been completed than previously thought. The findings were presented at the annual meeting of the [American Geophysical Union](#).

Assessing an Assyrian Capital

Utilizing a high-resolution magnetometer, the team conducted a large-scale survey, scanning 2.79 million square feet of the site over a week. While this is less than ten percent of the ancient city's overall area, the team still made some incredible discoveries, including five previously unknown monumental buildings, as well as the city's water gate and several palace gardens. One of the monumental buildings was an enormous 127-room villa, twice the size of the White House. These discoveries help prove that despite only lasting for around a decade before being abandoned, Dur-Sharrukin was a genuinely lived-in city.

[Magnetometry](#), which scans for electromagnetic materials beneath the ground, allows researchers to investigate a site without the need for excavation, which can be costly in resources and time. Following such surveys, archaeologists can better target areas where digging may be the most fruitful.

The team at Dur-Sharrukin carried the 33-pound magnetometer along the ground as opposed to mounting it on a vehicle or drone to avoid additional attention, as the surrounding region is still potentially dangerous even with the Islamic State occupation of the area having ended in 2017. During their occupation, Islamic State destroyed parts of the ancient site, and it was later the site of fighting between Islamic State and Kurdish forces. Fortunately, very little of the site has been excavated and thus most of it was protected from threats.

Pompeii discovery reveals how ancient Roman builders created self-healing concrete

<https://archaeologymag.com/2025/12/how-ancient-romans-created-self-healing-concrete/>

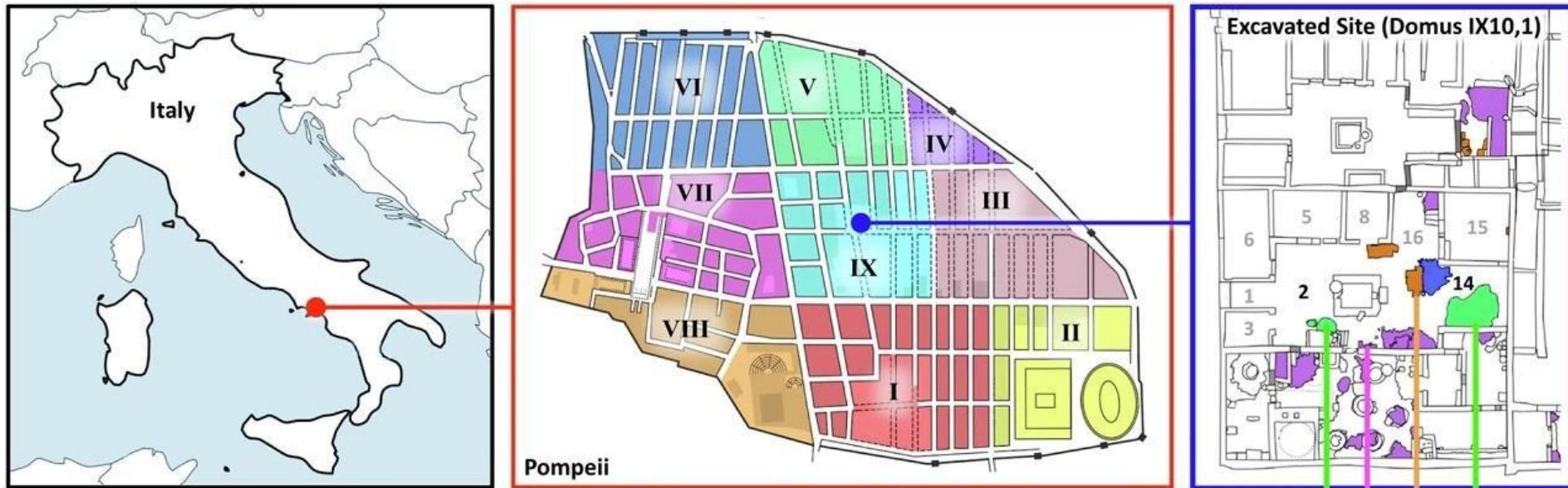
A rare piece of evidence of Roman building practice, frozen in time by the eruption of Mount Vesuvius, is revolutionizing current knowledge of ancient concrete. A new study led by researchers from the Massachusetts Institute of Technology and published in Nature Communications investigates an incomplete construction site in Pompeii, where Roman engineers were able to produce unusually durable concrete with self-repair properties.



Ancient Brick Wall Ruins in Pompeii.

Discovered in Pompeii's Regio IX, this ancient construction preserves a building in which repairs were underway when the volcano erupted in 79 CE. Builders had left behind stacked tiles prepared for reuse, amphorae used to transport construction materials, masonry tools, and piles of dry construction ingredients ready to be mixed. This combination provided a unique chance to reconstruct the workflow of Roman concrete production, from raw materials to finished walls.

Chemical and microstructural investigations have demonstrated that Roman builders pre-mixed quicklime with a dried volcanic ash known as 'pozzolana' before adding water. This process, known as hot mixing, involves an exothermic reaction and produces a high temperature in the mortar. Unlike modern concrete, which is mixed wet from the start, this method produces a distinct internal structure marked by microscopic fragments of partially reacted lime, known as lime clasts.



Pompeii Archeological Park site map, with Regio IX denoted in light blue (upper, middle) and Domus IX 10, 1 shown in additional detail, with color-coded piles of raw construction materials (right): purple: debris; green: piles of dry pre-mixed materials; blue: piles of tuff blocks.

The presence of these lime clasts in Roman buildings proved to be very important. When cracks form in the hardened concrete and water penetrates the material, the clasts react, and calcium is released to fill these cracks. The study identified reaction rims around volcanic aggregates and evidence of calcium-rich phases such as calcite and aragonite, demonstrating how cracks could gradually heal through mineral growth. Such self-healing in ancient Roman buildings was previously observed in the tomb of Caecilia Metella on the Via Appia, but the Pompeii site gives conclusive evidence of how this capability originated during construction.



Sunset Over Ancient Ruins of Pompeii, Italy.

The results have also allowed a better understanding of some ancient texts. While Vitruvius described mixing lime with pozzolana, he did not mention hot mixing, which led many scholars to assume a different process. Yet ancient texts written by Pliny the Elder describe the intense heat released when quicklime meets water, which matches closely with what is now identified at Pompeii. The texts and archaeological data suggest that Roman builders experimented with different recipes and techniques, adapting materials to local conditions and structural needs.

However, it is important to note that not all Roman concrete was produced this way. In fact, ancient authors themselves noted that poor-quality mortar caused building failures in Rome. While Pompeii is an example of skilled Roman engineering, it was not a universal rule. Questions remain about how widespread hot mixing was, whether it developed over time, and whether it was a response to frequent earthquakes in the region.

More information: Vaserman, E., Weaver, J.C., Hayhow, C. et al. (2025). An unfinished Pompeian construction site reveals ancient Roman building technology. *Nat Commun* 16, 10847. [doi:10.1038/s41467-025-66634-7](https://doi.org/10.1038/s41467-025-66634-7)

Hittite-Style Carvings and Cuneiform Found in a Czech Cave: An Archaeological Puzzle from Kateřinská Cave

<https://arkeonews.net/hittite-style-carvings-and-cuneiform-found-in-a-czech-cave-an-archaeological-puzzle-from-katerinska-cave/>



An officially documented discovery in Kateřinská Cave reveals a stone fragment with Hittite-style carvings and cuneiform script—an object seemingly out of place in [Central Europe](#), and one that forces archaeologists to confront the possibility of an extraordinary ancient journey, or an ingenious historical hoax.

Deep within the Moravian Karst of the [Czech Republic](#), Kateřinská Cave has long been known as a place of prehistoric ritual, artistic expression, and human presence stretching back tens of thousands of years. Recent archaeological and epigraphic discoveries, officially announced by the Czech Caves Administration (Správa jeskyní ČR), have once again placed the cave at the center of scientific attention—this time for a find that seems profoundly out of place.

During renewed examinations of sediment excavated in previous years, researchers uncovered an additional fragment of a stone tablet bearing cuneiform script, one of the world's oldest known writing systems. The discovery follows earlier finds of slate fragments carved with figures resembling a procession of [Hittite deities](#), imagery strikingly similar to reliefs found at the [Hittite sanctuary](#) of Yazılıkaya in present-day Türkiye.

The implications are puzzling—and potentially unsettling.

A Cave of Deep Time

Systematic archaeological and epigraphic research in Kateřinská Cave has been ongoing since 2016. To date, scientists have documented 15 prehistoric charcoal drawings on the cave walls, among the oldest cave art known in the [Czech Republic](#). Excavations have also revealed evidence of both prehistoric and medieval occupation, including the first documented medieval counterfeiters' workshop in the Moravian Karst.

Among the most valuable confirmed finds are shell ornaments crafted from the Danube river snail. Radiocarbon dating conducted by the Nuclear Physics Institute of the Czech Academy of Sciences has established their age at more than 8,000 years, firmly anchoring them in the Neolithic period.

These discoveries align well with what archaeologists expect from a sacred cave used repeatedly across millennia.

The stone tablet fragments, however, do not.

These fragments were discovered two years ago in Kateřinská Cave and likely formed a single object together with the newly found piece. They depict Hittite deities. Credit: Petr Zajíček – Správa Jeskyní CR

An Object from the Wrong World

The newly discovered fragment, identified during an October re-evaluation of previously sifted material, bears clear signs of cuneiform writing. According to Petr Zajíček of the Czech Caves Administration, the fragment matches earlier slate pieces found two years ago in both material thickness and composition, strongly suggesting they were once part of a single object.

Laboratory analysis of the earlier fragments suggested a geological composition consistent with central Anatolia, the region associated with the Hittite Empire around 1500 BCE. This indicates a possible connection, though the exact origin remains uncertain.

This creates a serious chronological and cultural contradiction.

At the time when Hittite civilization flourished in the Near East, Central Europe remained largely prehistoric, with no known writing systems and vastly different religious traditions. Direct contact between these worlds is, based on current evidence, extremely unlikely.

Discovery or Deception?

Researchers openly acknowledge the troubling nature of the find. Two main explanations remain on the table.

The first—and most extraordinary—is that the tablet somehow reached the region in antiquity, perhaps carried through unknown long-distance networks or deposited as part of a ritual whose meaning is now lost. If proven, such a scenario would challenge established models of cultural interaction in prehistoric Europe.

The second explanation is more mundane, but no less intriguing: a historical hoax.

Kateřinská Cave has been explored for over 150 years. It is theoretically possible that an artifact brought from the Ottoman Empire or Anatolia during the 19th century was intentionally—or accidentally—introduced into the cave sediments. Whether as a scholarly prank, an experiment, or a deliberate forgery, such an act would still represent a fascinating episode in the history of archaeology itself.

“At this stage, we cannot say which explanation is correct,” Zajíček has stated. “The object is extremely difficult to interpret.”



Why the Mystery Still Matters

Importantly, scientists emphasize that the uncertainty surrounding the tablet does not diminish the significance of Kateřinská Cave. On the contrary, the site’s confirmed prehistoric art, ornaments, and long-term ritual use remain among the most important discoveries in Central Europe.

The cave, along with the Punkva Caves and the Macochá Abyss, has been proposed for inclusion on the UNESCO World Heritage List, a testament to its unquestionable archaeological value.

Whether the cuneiform tablet proves to be a sensational anomaly, a misunderstood intrusion, or a brilliant historical joke, it highlights an essential truth of archaeology: not every discovery provides answers. Some exist to remind us how much we still do not know.

In the depths of Kateřinská Cave, one small piece of carved stone continues to blur the line between history, mystery, and human imagination.

No Mortar, No Cement, No Metal – How Sardinia’s Nuragic Towers Have Defied Gravity for 3,500 Years?

<https://arkeonews.net/no-mortar-no-cement-no-metal-how-sardinias-nuragic-towers-have-defied-gravity-for-3500-years/>



Nuraghe Santu Antine in Torralba

No mortar, cement, or metal—yet Sardinia’s Nuragic towers have stood for 3,500 years. New scientific research reveals the ancient engineering and physics behind these gravity-defying Bronze Age structures.

For more than three millennia, the stone towers known as nuraghi have dominated the [Sardinian](#) landscape—silent sentinels rising from hills, plains, and volcanic plateaus. Built during the Bronze Age by the Nuragic civilization between roughly 1800 and 700 BCE, these enigmatic structures have long puzzled archaeologists and engineers alike. Constructed without mortar, cement, or metal reinforcement, many of them still stand remarkably intact today.

Now, a new scientific study has finally revealed the hidden engineering logic that explains their extraordinary longevity—and it turns out the secret lies not only in massive stone blocks, but in what was once dismissed as simple rubble.

A prehistoric mystery carved in stone

More than 8,000 nuraghi are scattered across [Sardinia](#), ranging from simple single towers to vast, multi-towered complexes connected by walls and courtyards. At their core is a distinctive architectural form: a truncated cone-shaped external tower encasing an inner chamber roofed by a corbelled false dome, known as a tholos. Between the two stone shells lies a thick layer of loose fill—earth, pebbles, and small stones.

For decades, this fill material was considered inert ballast, little more than construction debris. Scholars debated whether the stability of the towers depended purely on the weight of their stones, on the circular geometry, or on the dome-like behavior of the tholos. What had never been rigorously tested was the mechanical role of the fill itself.

Simulating the past with modern physics

In a study published in the *International Journal of Architectural Heritage*, a team of Italian researchers led by Augusto Bortolussi applied advanced numerical modeling to a typical Nuragic tower. Using the Distinct Element Method (DEM), a technique designed to simulate structures made of individual blocks and granular materials, the researchers recreated the tower as it truly is: thousands of separate stones interacting through friction, gravity, and pressure.

The digital models precisely reflected real nuraghi dimensions—external towers up to 16 meters high and inner chambers up to six meters in diameter. Crucially, the simulations incorporated the physical behavior of the granular fill under compression.

The results were decisive.



Archaic Nuraghe Sa perdaia (1), Teulada (SU); single Tower Nuraghe Lighei (2) sedilo (OR), Santu Antine complex Nuraghe (3), Torralba (SS).

The fill that holds everything together

The study demonstrates that the tholos is composed of stacked horizontal rings of stone blocks that, on their own, would be unstable. Without external support, these rings tend to rotate inward and spread outward under gravity, eventually collapsing.

The compacted fill material changes everything.

As the weight of the structure presses down, the loose fill compresses and generates horizontal radial pressure in all directions. This pressure acts inward on the tholos, locking its stone rings into a stable, continuous structure. In effect, the fill transforms independent blocks into a unified system capable of standing for centuries.

But physics is unforgivingly symmetrical. The same pressure that stabilizes the tholos also pushes outward—directly against the external tower.

Why the outer wall is built like a fortress

This is where the iconic cyclopean stones of the outer wall come into play. Often weighing several tons each, these massive blocks create enormous friction at their horizontal joints. That friction counteracts the outward thrust exerted by the compressed fill.

In structural terms, the external tower functions as a gigantic retaining wall or buttress. While the fill is essential for the stability of the inner chamber, it also places the outer wall under constant stress. The balance between these three elements—the tholos, the fill, and the external tower—is what keeps the entire structure standing.

The simulations quantified this balance. The static safety factor of the tholos was calculated at an exceptionally high 6.7, thanks to the stabilizing effect of the fill. By contrast, the external tower's safety factor was 1.5, making it the most critical and vulnerable component of the system. Its stability depends almost entirely on friction between the massive stone blocks.

Reconstructing how the nuraghi were built

Understanding the statics also revealed how these towers must have been constructed. Building the tholos first would have caused it to collapse without lateral support. Constructing both stone walls and then adding fill later would not allow proper compaction.

The only feasible method, confirmed by the study, is construction by successive horizontal rings. The Nuragic builders raised one level at a time: an inner ring of tholos blocks, an outer ring of tower blocks, and then poured and compacted fill between them before moving upward.

This step-by-step technique ensured that the tholos received immediate horizontal support at every stage, while the outer wall resisted the growing pressure. It reflects a sophisticated empirical understanding of statics—achieved without mathematics, writing, or formal engineering theory.

(a)



(b)



Backfill material: (a) Soil and stones of various sizes, in Nuraghe Sa Domu e' S'Orcu, Domusnovas (SU); (b) Stones, in Nuraghe Mereu, Orgosolo (NU).

Implications for UNESCO and conservation

The findings arrive at a crucial moment. Thirty-two Nuragic sites are currently in the process of nomination for UNESCO World Heritage status. Understanding how these [towers](#) actually work is essential for their preservation.

Any restoration that removes or alters the fill material, or interferes with the friction between outer wall blocks, could severely compromise structural stability. The study provides a scientific framework for conservation strategies that respect the original engineering logic rather than unintentionally undermining it.

A legacy of intuitive genius

The endurance of the nuraghi is not the result of chance or brute force. It is the product of a refined construction system in which every element—from the smallest pebble in the fill to the largest façade stone—plays a precise role in balancing forces.

Long before modern engineering, the Nuragic civilization mastered gravity through observation, experience, and ingenuity. Their towers stand today not only as symbols of [Sardinian](#) identity, but as universal monuments to humanity's early understanding of physics—an understanding that modern science is only now fully uncovering.

Bortolussi, A., Dentoni, V., Levanti, C., Cara, S., Pinna, F., & Grosso, B. (2025). A Study on the Stability and Construction Techniques of Nuragic Towers. *International Journal of Architectural Heritage*, 1–16. <https://doi.org/10.1080/15583058.2025.2595146>

Incredible Mayan Inventions and Achievements

<https://arkeonews.net/incredible-mayan-inventions-and-achievements/>



The Mayans excelled at agriculture, pottery, writing, calendars, and arithmetic, leaving an incredible quantity of spectacular architecture and symbolic artwork behind.

The ancient Maya, a varied collection of indigenous people who lived in modern-day Mexico, Belize, Guatemala, El Salvador, and Honduras, had one of the most sophisticated and complex civilizations in the Western Hemisphere.

Mayan civilization lasted for over 2,000 years, but the period from about 300 A.D. to 900 A.D., known as the Classic Period, was its heyday. The Maya gained a sophisticated grasp of astronomy during this period. They also discovered how to grow corn, beans, squash, and cassava in sometimes inhospitable environments; how to construct elaborate cities without the use of modern machinery; how to communicate with one another using one of the world's first written languages; and how to measure time using not one, but two complicated calendar systems.



Astronomy played a huge role in Mayan life.

Beginning around 250 AD, the Classical Period was the golden age of the Mayan Empire. Classic Maya civilization reached nearly 40 cities and large populations, including Tikal, Uaxactún, Copán, Bonampak, Dos Pilas, Calakmul, Palenque, and Río Bec.

Excavations of Maya sites have unearthed plazas, palaces, temples, and pyramids. Supported by a large farming population, Mayan cities, although practicing a primitive “cut-and-burn” agriculture, also exhibited evidence of more advanced farming methods such as irrigation and terracing.

Many of the temples and palaces constructed by the Classic Maya had stepped pyramidal shapes, and they were ornamented with highly detailed reliefs and inscriptions. These structures have earned the Maya their reputation as the great artists of Mesoamerica.



Representation of a Maya astronomer with their eye outstretched.

The use of the zero and the creation of intricate [calendar](#) systems like the Calendar Round, based on 365 days, and later the Long Count Calendar, intended to last more than 5,000 years, were among the many mathematical and astronomical innovations made by the Maya under the guidance of their religious ritual.

The Maya built their temples and other holy buildings using their sophisticated knowledge of astronomy. For instance, the site of the pyramid at Chichén Itzá in Mexico is determined by the position of the sun at the spring and fall equinoxes. On these two days, the pyramid's shadow at dusk coincides with a sculpture of the Mayan snake god's head. The snake seems to crawl down into the Earth as the sun sets; the shadow serves as the serpent's body.



Chichén Itzá Pyramid.

Surprisingly, the ancient Maya were able to construct complex temples and vast cities without the use of metal or the wheel, two things we would consider to be necessary building materials. They did, however, make use of a variety of other “new” inventions and technologies, particularly in the decorative arts. For instance, they created intricate looms for weaving fabric and created a variety of glittery paints using mica, a material that is still used in technology today.

Until recently, it was widely assumed that vulcanization—the process of mixing rubber with other materials to make it more durable—was developed in the nineteenth century by the American (from Connecticut) Charles Goodyear. Historians now believe that the Maya were manufacturing rubber items 3,000 years before Goodyear got his patent in 1843.

According to researchers, the Maya discovered this procedure by accident during a sacred rite in which they blended the rubber tree with the morning-glory plant. When the Maya discovered how durable and adaptable this new material was, they began to employ it in a number of ways, including the production of water-resistant fabric, adhesive, book bindings, figurines, and the giant rubber balls used in the ritual game known as pokatok.

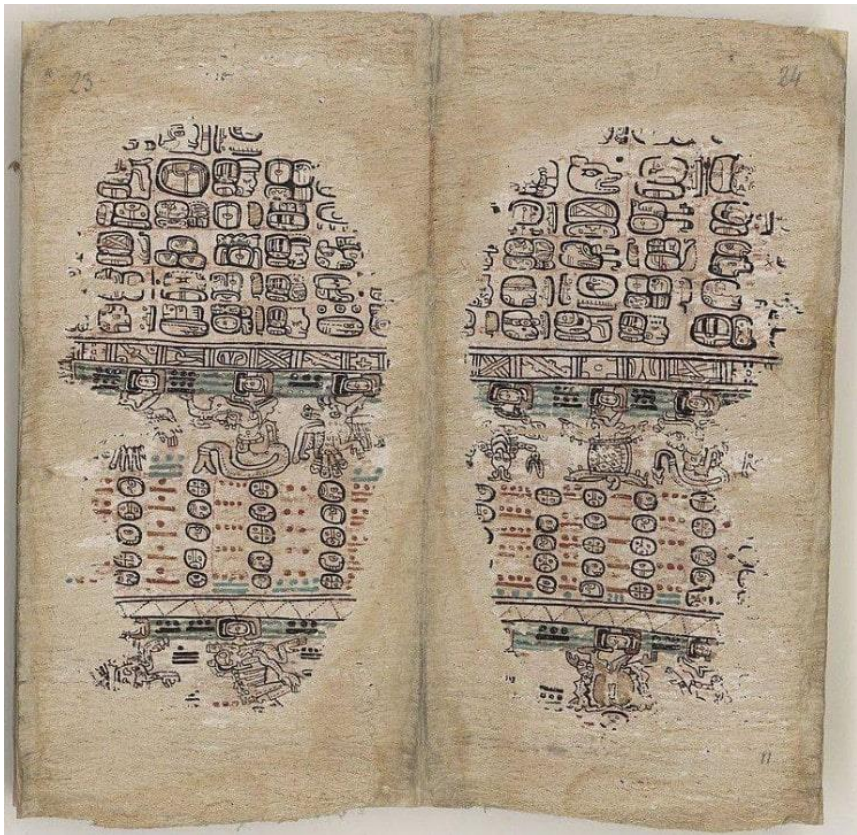


The ancient people of Mesoamerica knew how to make rubber

Like many other great lost civilizations around the world, the Maya formalized their language into a codified writing system.

Similar to Ancient Egypt, their glyphs were utilized to express words, sounds, and syllables via the use of images and other symbols. Historians believe that the Mayans used around 800 glyphs to do this and, incredibly, 80% of their language can still be understood by their descendants today.

The Mayans also created a form of an early book that chronicled everyday life, news, the exploits of their gods, and many other things. Like every other sensible civilization, the Mayans were eager to record their history and accomplishments, even going so far as to jot down important occasions on pillars, walls, and enormous slabs of stone, much like the Ancient Egyptians and Romans did. Their books were written on bark and folded into fan-like structures.



The last two pages of the '[Paris Codex](#)' are one of the few surviving Mayan books.

The Dresden Codex, the oldest surviving book written in the Americas, contains tables charting the movements of Venus, Mars, and the Moon. The Maya also calculated the occurrence of lunar eclipses based on observations and tracked the motion of Jupiter and Saturn.

Maya medicine was more advanced than one might think, and like other cultures, medicine was a mixture of religion and science.

The Mayans believed that imbalance and balance were the keys to good and bad health. Health and illness are correlated with balance. They held that a person's diet, gender, and age were always determining factors in this. They knew about stitches and often used human hair to suture wounds. They also regularly made casts to speed the healing and recovery of fractures and other bone breakages.

By all accounts, they were particularly skilled at dentistry and used iron pyrite as tooth fillings. Mayan 'witch doctors' were also skilled in creating prosthetics made from jade and turquoise and used obsidian for making cuts.

Source: Adams, Richard E. W. (2005) [1977]. [Prehistoric Mesoamerica](#) (3rd ed.). Norman, Oklahoma: University of Oklahoma Press.

Researchers solve the mystery of Mayan 819-day calendar

<https://arkeonews.net/researchers-solve-the-mystery-of-mayan-819-day-calendar/>



Researchers at Tulane University in Louisiana have solved the mystery of the 819-day ancient Mesoamerican calendar used by ancient Mayans. The researchers were able to match the planetary cycles of every planet that might have been visible to ancient astronomers using a 45-year period.

Multiple calendars that were likely used by scholars at the time have been discovered during research on the [ancient Mayan civilization](#), but not all of them make sense in today's world. One such calendar was discovered in glyphic texts – the Mayans' native writing system – and piqued the interest of researchers.

However, the astronomers did not leave behind any additional text or definitions explaining how it might work with their regular calendar system.

819-day calendar

The 819-day count and the motions of the celestial bodies, particularly Venus and Mars, were tracked by the Mayans using a calendar system. The synodic period, which is the amount of time it takes for these planets to return to their original positions with respect to the sun as seen from Earth, served as the foundation for this system.

The 819-day count was divided into 13 cycles, each lasting 63 days, and each cycle was based on a particular Venus or Mars phase. The cycles were given specific god names and were connected to various characteristics and traits. For instance, while the second cycle is named after the god of war and is associated with conflict and aggression, the second cycle is named after the maize god and is associated with growth and fertility.



Image representing ancient Mayan works

This calendar system, which the Mayans found and developed, could not be adapted to any calendar system we use today, which made the number 819 mysterious.

Anthropologists John Linden and Victoria Bricker from Tulane University have studied the mystery of the Mayan 819 daily count, a type of ancient Mesoamerican calendar system, and have come up with important findings.

The study was published in the [journal Ancient Mesoamerica](#).

When the researchers bumped into the idea of extending the time that the 819-day count can be used to represent the synodic period for all known planets, they found that the planets lined up perfectly. For example, they found that multiplying 819 by 20 equals 16,380 (about 45 years). And the 378 cycles of Saturn's 13-day synodic period add up to 914,819 days, which is the same as six times 4.

Likewise, the same process can be used to show when all known planets will appear in the sky over the next 45 years. They also note that the number of days (16,380) used in mathematics is a multiple of 260, meaning that 819 rounds of 20-day periods match the Tzolk'in (general Mayan calendar).

According to the researchers, rather than focusing on just one or two planets, the ancient Mayans developed a large calendar system that could be used to predict the synod periods of all visible planets.

Treasure Hunter Claims to Find First Council of Nicaea's Location, Demands \$50 Million for Discovery

<https://arkeonews.net/treasure-hunter-claims-to-find-first-council-of-nicaeas-location-demands-50-million-for-discovery/>



In a startling revelation, Mustafa Uysal, a treasure hunter from Bursa, has claimed to have unearthed an underground city in the Orhangazi district, which he asserts is the true location of the First Council of Nicaea, traditionally believed to have taken place in [Iznik](#). Uysal, who has kept his discovery under wraps for years, is now demanding \$50 million to disclose the exact location of this purported archaeological site.

Uysal, who turned to treasure hunting after his retirement, stated that his excavations led him to a significant find: an underground city featuring a sarcophagus cemetery and intricate symbols adorning its long corridors. He emphasized the importance of this discovery for the [Christian world](#), suggesting that it could reshape historical understanding of the First Council, which convened in 325 AD to address critical theological disputes within early Christianity.

The First Council of [Nicaea](#) was a pivotal moment in Christian history, convened by Emperor Constantine I to unify the rapidly growing Christian community and resolve theological disputes that threatened to divide it. One of the primary issues discussed was the Arian controversy, which revolved around the teachings of Arius, a priest from Alexandria. Arius argued that Jesus Christ, while divine, was not co-eternal with God the Father, a belief that contradicted the traditional understanding of the Trinity. The council ultimately produced the Nicene Creed, affirming the co-eternity of the Son with the Father and condemning Arianism as heretical.

“I have found the underground city where the Council was held,” Uysal declared in a statement to İhlas News Agency (İHA). “Inside, there are statues of Mary and Jesus Christ, 12 altars surrounding them, and the sarcophagus burial chamber of Princess Niken opposite it.” If verified, his claims could have profound implications for historical scholarship and religious heritage.



Uysal has expressed a desire for the Turkish government to assist in bringing this site to light, arguing that it could significantly boost the country's economy through tourism. “My request from the state is to bring this place to light and revitalize Türkiye's economy,” he stated. “If these demands are met, we can bring this place to tourism with the state's own means within 3 or 6 months.”

He further elaborated on the potential value of the site, claiming it could represent a reserve of \$150 billion, not including the antiquities and historical artifacts that may be found within. Uysal's insistence on a \$50 million price tag for the location has raised eyebrows, prompting discussions about the ethics of monetizing archaeological discoveries.

The First Council of Nicaea not only addressed theological disputes but also set important precedents for church governance and discipline. It established a uniform date for Easter, ensuring that Christians would celebrate this pivotal event in the life of Christ on the same day. The council's decisions helped solidify the authority of bishops and laid the groundwork for the future structure of the Church.

As news of Uysal's claims spreads, the archaeological community and historians are watching closely. If substantiated, this discovery could not only alter the narrative surrounding the First Council of Nicaea but also highlight the ongoing quest for understanding the rich tapestry of early Christian history. The world awaits further developments on this intriguing story, which could bridge the past and present in unexpected ways.

India Discovers Its Largest Ancient Circular Labyrinth Linked to Roman Trade Routes

<https://arkeonews.net/india-discovers-its-largest-ancient-circular-labyrinth-linked-to-roman-trade-routes/>



India's Largest Ancient Circular Labyrinth.

Archaeologists in [India](#) have uncovered the country's largest known ancient circular labyrinth, a remarkable stone structure believed to have guided [Roman merchants](#) traveling across the subcontinent nearly 2,000 years ago. The discovery sheds new light on the scale of Indo-Roman trade and the sophisticated navigation systems used in ancient times.

The labyrinth was found in the Boramani grasslands of Solapur district, Maharashtra, an area better known today for wildlife conservation than archaeology. Measuring approximately **50 by 50 feet (15 × 15 meters)**, the structure consists of **15 concentric stone circles**, making it the largest circular labyrinth ever discovered in India.

The find was reported by Sachin Patil, an archaeologist from Deccan College in Pune, and was first covered by The [Times of India](#). According to Patil, the labyrinth likely served as a navigational landmark for Roman traders moving inland from India's western coast toward major commercial hubs.

Evidence of Thriving Indo-Roman Trade

Patil believes the labyrinth points to intense trade activity between the ancient city of Ter (modern-day Dharashiv district) and the Roman Empire during the early centuries of the Common Era. Roman merchants are known to have exchanged gold, wine, glassware, and gemstones for Indian spices, silk, indigo, and textiles, commodities that were highly prized in Mediterranean markets.

“This region was part of a vast and active commercial corridor,” Patil explained. “Such labyrinths were likely used as orientation points along long-distance trade routes.”

The discovery aligns with historical records, including the *Periplus of the Erythraean Sea*, a Greco-Roman travel guide describing trade routes linking India with the Roman world.

International Scholarly Attention

The labyrinth has drawn global interest and will be formally documented in *Caerdroia*, a UK-based academic journal dedicated to labyrinth studies, in an upcoming issue. Jeff Seward, a leading international authority on labyrinths and editor of *Caerdroia*, described the find as exceptional.

“While this is a classical-style labyrinth, the spiral at its center is distinctly Indian,” Seward noted. “This feature, often referred to as *Chakravyuha*, reflects local cultural adaptation. It is undoubtedly the largest stone labyrinth of its type in India.”

Until now, the largest circular labyrinth known in the country had only 11 rings. Although the Boramani structure is second in overall area—after a 17-square-meter labyrinth in Gedimedu, Tamil Nadu—it remains the largest circular example ever recorded.



Head of Apollo left, Reverse Circular labyrinth. Ancient Knossos (Crete) Tetradrachm Coin, Standard Circulation, 110–67 BC, Attic Drachm (4)

A Broader Archaeological Context

According to P. D. Sabale, head of the archaeology department at Deccan College, the discovery reinforces earlier evidence that this entire region—including Kolhapur, Karad, and Ter—was a major center of international trade.

Past excavations in nearby Brahmapuri (1945) uncovered a statue of the Greco-Roman sea god Poseidon and a polished bronze mirror, further supporting Roman presence. Similar labyrinths found in Sangli, Satara, and Kolhapur suggest the existence of a continuous trade route sometimes described as a western Indian “Silk Road.”

From Wildlife Survey to Major Discovery

Interestingly, the labyrinth was first noticed by members of the Nature Conservation Circle, a non-governmental organization monitoring populations of the Great Indian Bustard and the Indian wolf in the Boramani grasslands. Recognizing the unusual stone pattern, they documented the site and alerted archaeologists.

On-site examination revealed that the labyrinth is constructed from small stone blocks, with soil layers between the rings several centimeters thick—evidence that the structure remained undisturbed for centuries. Patil also noted similarities between the design and labyrinths depicted on [Cretan](#) coins from the 1st to 3rd centuries CE, strengthening the link to the Greco-Roman world.

More Than Navigation

Beyond their practical use, labyrinths have long held symbolic and spiritual significance across cultures. In India, they are often associated with fertility, cosmic order, and meditation, suggesting the Boramani labyrinth may have served multiple purposes.

With further study planned, this extraordinary discovery promises to deepen our understanding of ancient globalization and India’s central role in early international trade networks.

Largest ancient stone labyrinth in India discovered in Maharashtra reveals 2,000-year-old trade links

<https://archaeologymag.com/2025/12/largest-ancient-stone-labyrinth-in-india/>

A circular stone labyrinth that has been found in the Boramani grasslands in the Solapur district in Maharashtra has been discovered to be the largest in the country. The discovery is not only significant in terms of the size and complexity of the structure but also for what it reveals about the trade routes that linked inland India to the Mediterranean world nearly two thousand years ago.



It is approximately 50 feet by 50 feet in size and has 15 concentric circles formed from small stone blocks. The rings guide movement inward toward a tightly coiled spiral at the center, creating a design that reflects both precision and symbolic intent.

Before this discovery, the largest known circular labyrinth in India had 11 circuits, making the Solapur example unprecedented in terms of circular complexity. Although there is a larger square labyrinth in Tamil Nadu, this newly documented site is the largest circular stone labyrinth identified in the country to date.

The labyrinth was discovered not as the result of excavation but through the work of locals who were part of a conservation group that monitored wildlife within the Boramani grassland sanctuary. This site is famous for harboring creatures such as the Great Indian Bustard and the Indian wolf. After documenting the stone formation, the conservationists alerted archaeologists.

Primary analysis indicates that this labyrinthine structure dates back around 2,000 years, placing it in the Satavahana period, a time characterized by extensive internal and overseas trade. The presence of soil accumulation between the stone rings shows that this structure has remained untouched for

several centuries. In fact, its design resembles classical labyrinth forms found in Mediterranean cultures, including motifs seen on Roman-era coins, while also incorporating a central spiral associated in India with the concept of the Chakravyuh.

It is also believed that the labyrinth might be linked to the commercial networks that connected the Deccan region with Roman traders operating along the western coast of India. There is historical evidence that goods such as spices, silk, and indigo were exchanged for gold, wine, and luxury goods, with trade routes extending far inland. Similar labyrinths have also been found in other districts, on a smaller scale, along these routes, suggesting they formed part of a broader cultural landscape shaped by movement, exchange, and interaction.

China Discovers 2,200-Year-Old Imperial Road, the Ancestor of Today's 4-lane Highways

<https://arkeonews.net/china-discovers-2200-year-old-imperial-road-the-ancestor-of-todays-4-lane-highways/>



A section of the 2,200-year-old Qin Imperial Road, regarded as the ancestor of modern highways. Official Website of Shaanxi Province

Chinese archaeologists have uncovered a remarkably preserved section of an ancient imperial highway built more than 2,200 years ago—an infrastructure marvel now being hailed as the ancestor of modern expressways. The discovery sheds new light on the extraordinary engineering capabilities of the [Qin Dynasty](#), the empire that unified China for the first time in history.

The newly identified 13-kilometer stretch is part of the legendary Qin Imperial Road, a vast transportation corridor that once extended nearly 900 kilometers across northern China. Researchers announced the find on December 9 following fieldwork led by the Yulin Institute of Cultural Heritage Protection in Shaanxi Province, according to reports from [South China Morning Post](#).

Engineering Far Ahead of Its Time

Excavations revealed surprisingly advanced construction techniques. Archaeologists identified straight-cut trenches, rammed-earth slope reinforcements, compacted roadbeds, and even entire valleys filled in to maintain a direct route. The average width of the road—around 40 meters, expanding up to 60 meters in some sections—would be wide enough for four lanes of modern traffic.

Ancient records describe how Qin engineers “filled valleys and cut through mountains” to create a straight north–south artery linking Xianyang, the Qin capital (near modern Xi’an), with Jiuyuan (present-day Baotou in Inner Mongolia). This route allowed the imperial army to rapidly deploy troops against incursions by the Xiongnu nomads, a constant threat to China’s northern frontier.

Built by Order of China’s First Emperor

Historical chronicles attribute the road’s construction to Qin Shi Huang, [China’s first emperor](#), who ruled from 221 to 210 BCE. Astonishingly, the project took only five years to complete—an incredible feat considering the scale, terrain, and technology of the era.

The famous historian [Sima Qian](#), author of Records of the Grand Historian, personally traveled the road and documented its construction. He noted that work began in 212 BCE, during the 35th year of Qin Shi Huang’s reign, and continued until 207 BCE, when the project was completed under his successor, Er Shi Huang.



2,200-year-old ancestor of modern highways.

More Than a Road: A Military Lifeline

Nearby, archaeologists also uncovered a small settlement believed to have functioned as a postal relay station, active during both the Qin and subsequent Han Dynasty. Pottery fragments found at the site helped confirm its age and purpose, highlighting how the road supported not only military logistics but also communication, governance, and trade.

China Cultural Heritage News has described the Qin Imperial Road as the second most important defensive project of ancient China, surpassed only by the Great Wall. While the Wall served as a static barrier, the road was a dynamic lifeline, enabling fast troop movement, supply transport, and administrative control over vast territories.

A Glimpse Into Qin Dynasty Power

The discovery reinforces the idea that pre-industrial China built one of the world's earliest long-distance land transport networks. The Qin Dynasty, though short-lived (221–207 BCE), left an outsized legacy. Beyond roads and walls, the Qin standardized weights, measures, coinage, axle widths, and even written script, laying the foundation for Chinese civilization for centuries to come.

Ironically, after the fall of the Qin, the same road designed to repel invaders sometimes made it easier for hostile forces to penetrate deep into China's heartland. Over time, natural erosion, human activity, and shifting landscapes caused large portions of the highway to disappear.

Rediscovered From Space

Modern archaeologists used satellite imagery and remote sensing technologies to trace faint linear patterns across reforested desert areas. On the ground, they uncovered nine straight trench segments, compacted earth layers, hardened traffic surfaces, and filled valleys—clear physical proof of the ancient texts.

Although parts of the Qin Imperial Road were first rediscovered in 1974, much of its route remained a mystery. In 2009, a section in Fuxian County, Shaanxi, was named one of China's Top 10 Archaeological Discoveries. This latest find brings scholars closer than ever to fully understanding the scale of the project.

The Legacy of the World's First Superhighway

Today, archaeologists see the Qin Imperial Road not just as an ancient relic, but as a symbol of state power, engineering ambition, and centralized governance. More than two millennia later, it stands as a reminder that the concept of high-speed, long-distance connectivity is far older than we ever imagined.

1,800-Year-Old Staircase Leading to One of Western Anatolia's Best-Preserved Libraries Discovered in Ancient Nysa

<https://arkeonews.net/1800-year-old-staircase-leading-to-one-of-western-anatolias-best-preserved-libraries-discovered-in-ancient-nysa/>



Nysa, one of the most intellectually vibrant cities of Roman Asia Minor, has yielded a new architectural discovery that deepens our understanding of how guaranteed access to knowledge was physically organized in antiquity. Archaeologists have uncovered a 1,800-year-old stone staircase that once provided direct passage from the city's main street to its monumental library—considered one of the best-preserved library buildings in western Anatolia.

The newly revealed staircase is not a minor architectural detail. Instead, it clarifies how the library was integrated into Nysa's urban fabric, physically and symbolically linking the daily flow of the city with an institution dedicated to [learning, education, and elite culture](#).

A forgotten route from street to scholarship

The excavation is being carried out under the direction of Prof. Dr. Serdar Hakan Öztaner from Ankara University's Department of Archaeology, within the framework of Türkiye's national "Heritage for the Future" program. Since 2024, the team has focused on the main colonnaded street extending from the city's central bridge toward the sacred zone of Akharaka.

During the 2025 season, excavations reached the axial alignment of the library complex. At this point, archaeologists uncovered a staircase rising from the street level—resolving a long-standing question about how visitors negotiated the roughly two-meter height difference between the city's main artery and the elevated library precinct.

According to Prof. Dr. Öztaner, the staircase dates to approximately the mid-2nd century AD and consists of five carefully constructed steps leading to a marble-paved forecourt directly in front of the library. This architectural solution demonstrates deliberate planning: the ascent was meant to be visible, ceremonial, and central rather than hidden or secondary.



The Nysa Library and Roman intellectual culture

Archaeological evidence suggests that [the library](#) was constructed around AD 130, a period marked by intense architectural patronage across Roman Asia Minor. The building contained 16 built-in book cupboards, indicating a substantial collection of scrolls and manuscripts, including literary, philosophical, and scientific texts.

Scholars have long noted that the library of Nysa was built shortly after the famous Celsus Library, reflecting a regional competition among cities to assert cultural prestige through monumental learning spaces. While smaller than its Ephesian counterpart, the Nysa Library stands out for its remarkable state of preservation, making it a key reference point for the study of Roman libraries.

The newly discovered staircase confirms that [the library](#) was not isolated from daily urban life. Instead, it occupied a central position within the city's movement network, reinforcing the idea that education and public knowledge were integral to civic identity.

A city shaped by learning and landscape

Founded in the Hellenistic period, Nysa boasts a continuous history spanning more than 2,300 years. The city was uniquely built on both sides of a deep ravine, connected by bridges and terraces—an arrangement that earned it the ancient epithet “the twin city.”

Nysa's reputation as a center of education is firmly grounded in ancient literary sources. The renowned geographer Strabo, author of *Geographica*, received part of his education in Nysa. In his writings, Strabo described the city as a place distinguished by its schools and intellectual atmosphere, placing it among the leading educational centers of the Roman East.

Monumental structures such as the theater, gymnasium complex, stadion, bouleuterion, agora, and wide colonnaded streets further underscore Nysa's prominence within Roman Anatolia.



Akharaka and the sacred dimension of the city

Beyond its urban core, Nysa was closely connected to the sanctuary of Akharaka, one of the most intriguing sacred sites in the region. Known in antiquity for its chthonic associations and healing rituals, Akharaka attracted pilgrims seeking cures through dream incubation and divine intervention.

Ancient sources describe a sacred cave emitting vapors believed to possess therapeutic properties. The main street linking Nysa to Akharaka—now partially excavated—highlights the city's integration of intellectual life, religious practice, and civic movement.

Why the staircase matters

Although modest in size, the newly uncovered staircase carries disproportionate significance. It provides concrete evidence of how Roman urban planners managed elevation, movement, and visibility within complex cityscapes. More importantly, it illustrates how access to knowledge was carefully staged: ascending from the street to the library was both a physical transition and a symbolic act.

For modern visitors, the staircase restores an authentic experience of ancient Nysa—allowing them to follow the same route once taken by students, scholars, and citizens nearly two millennia ago. As excavations continue, Nysa is increasingly reaffirming its status as a key site for understanding the architecture of learning in the ancient Mediterranean world.



Nouvelles recherches sur l'architecture, l'orientation et la situation des sépultures mégalithiques entre Hérault et Rhône

<https://books.openedition.org/pup/5077?lang=fr>

RÉSUMÉ

Depuis la publication des thèses de J. Arnal (Arnal 1963) et d'Y. Chevalier (Chevalier 1984), l'étude architecturale des dolmens entre Hérault et Rhône n'a pas connu d'évolution majeure. Pourtant, les recherches récentes enregistrent des faits nouveaux, à l'échelle locale ou régionale, allant dans le sens d'une plus grande diversité. Nous présentons ici quelques-unes de ces pistes de réflexion. Une vingtaine de dolmens à couloir de la région de Montpellier ont des dalles de chevet se réduisant progressivement vers le haut. De cette façon, les dalles latérales épousent étroitement l'inclinaison des flancs du chevet. Ainsi, la dalle de couverture de la tombe est sensiblement réduite par rapport à la surface d'inhumation, mais il en résulte surtout un meilleur équilibre de la totalité de l'édifice. En Ardèche, des dolmens simples utilisent cette même technique. Toujours dans la région de Montpellier et du Larzac oriental, l'orientation des dolmens à couloir est fondée sur le coucher du soleil au solstice d'hiver (Sud-Ouest), tandis que les dolmens ardéchois s'ouvrent au Sud-est. L'implantation des dolmens dans les paysages n'est pas fortuite. Plusieurs sont construits en position très dominante, d'autres, juchés sur des reliefs plus modestes, valorisent la tombe dans son environnement proche.

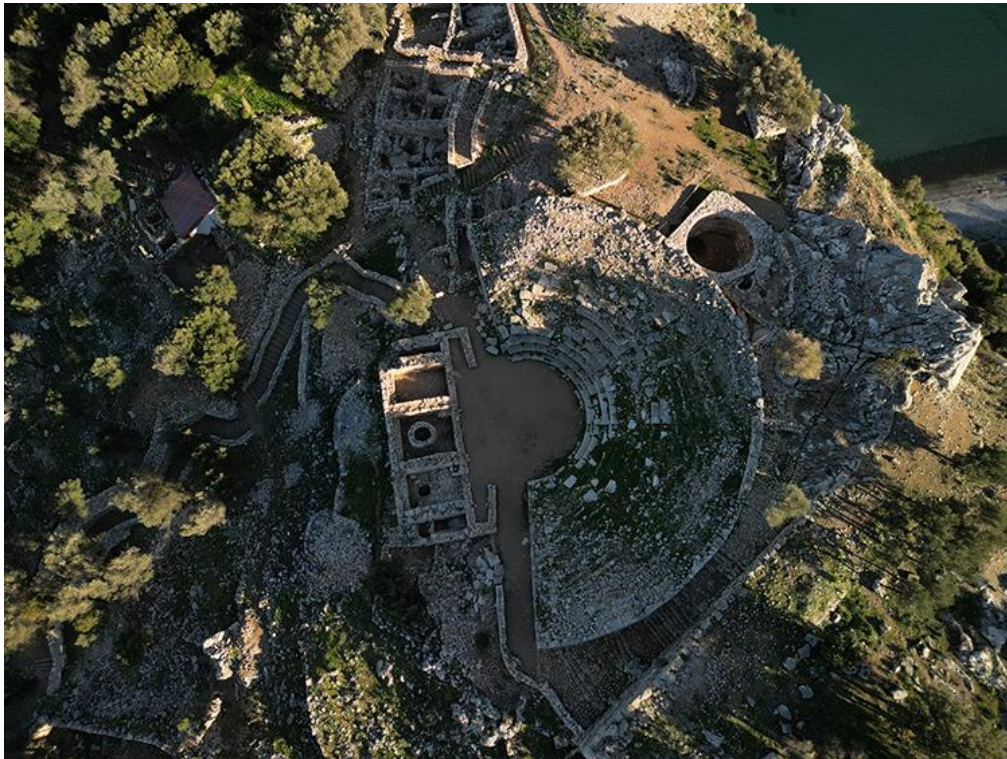
Notes:

Orientation Sud-Ouest = orientation vers le Soleil au solstice d'hiver (au 21 décembre)

Orientation Sud-Est (ou Nord-Ouest) = orientation vers le Soleil au solstice d'été (au 21 juin)

Silver Necklace with Eight-Pointed Star and Ishtar Symbol Discovered at Amos Ancient City in Türkiye

<https://arkeonews.net/silver-necklace-with-eight-pointed-star-and-ishtar-symbol-discovered-at-amos-ancient-city-in-turkiye/>



A striking archaeological discovery has been made in Türkiye's southwestern [Muğla province](#), where excavations at the Amos Ancient City in Marmaris have revealed a silver necklace believed to depict the [Assyrian goddess Ishtar](#). The jewelry piece features a lion motif and an eight-pointed star — powerful symbols historically associated with the revered goddess of love, war, and fertility in the ancient Near East. The ongoing excavations at Amos, whose history dates back more than 2,200 years, are conducted under the authorization granted by presidential decree in 2022 and supported by Türkiye's Ministry of Culture and Tourism within the Heritage for the Future Project. The work continues with the sponsorship of Marmaris Chamber of Commerce, Marmaris Municipality, and Martı Hotel & Marina, under the leadership of Assoc. Prof. Mehmet Gürbüz from [Muğla Sıtkı Koçman University](#).

A Unique Artifact Signaling Cultural Interaction

Speaking about the discovery, Gürbüz emphasized that each excavation season brings new and compelling findings that deepen understanding of the site's past. This year's standout artifact is the silver necklace found during excavations in the theater's orchestra area and nearby residential sectors.

“The necklace bears the attribute of the goddess Ishtar, along with a lion figure and an eight-pointed star,” Gürbüzler noted, highlighting its symbolic and cultural significance. He explained that Ishtar — known earlier in Sumerian culture as Inanna — became one of the most influential deities of the Assyrian and Babylonian worlds. Her imagery frequently included lions, representing strength and sovereignty, and the eight-pointed star, a celestial emblem linked to power, fertility, and protection.

According to Gürbüzler, the artifact suggests that Amos was not only a local settlement but a city engaged in wide-ranging cultural, economic, and commercial exchange with regions of the Near East. From the 7th century BCE onward, maritime and military connections helped transfer advanced cultural elements across the Eastern Mediterranean — and Amos appears to have been an active participant in this network.



Gürbüzler noted that the excavations at Amos are still very recent and stated that the 2026 season will continue in the residential areas and at the Temple of Apollo Samnaios.

Amos: A Strategic Harbor City of the Eastern Mediterranean

Situated on Asarcık Hill, overlooking the Gulf of Marmaris, Amos was a strategically positioned settlement that flourished under Hellenistic and Roman influence. Archaeological evidence reveals the presence of impressive city walls, a well-preserved theater, terraces, and sacred areas such as the Temple of Apollo Samnaios, where recent work has cleared dense vegetation and rubble.

Historically, Amos has been recognized as a coastal city connected to major trade routes and politically aligned with the Rhodian Peraea, the mainland territories governed by the island of Rhodes. Its harbor access and fortified landscape indicate that Amos functioned as both a defensive stronghold and a regional commercial hub.

One of the most remarkable earlier discoveries at the site dates back to the mid-20th-century excavations led by G. E. Bean. Researchers uncovered stone-inscribed lease contracts related to lands rented out by the city — documents that provided rare insights into the economic administration and land management practices of ancient Amos. These contracts, estimated to be nearly two millennia old, helped establish Amos's reputation in international archaeological scholarship.

Excavations Continue With New Research Focus

The current excavation program — relaunched in 2021 and conducted year-round — explores multiple areas of the city, including residential districts, the theater complex, and sacred precincts. Gürbüzler stated that findings from early historical layers continue to offer crucial clues about the city's origins, revealing Amos as a settlement of considerable economic and cultural strength for its time.

The 2026 excavation season is expected to continue in the civil architecture zones and around the Temple of Apollo Samnaios, further expanding knowledge of religious practices and urban life in the ancient settlement.



A silver necklace featuring an eight-pointed star and Ishtar symbol has been discovered at Amos Ancient City in Türkiye.

The Legacy of Ishtar and Her Symbols

Beyond its archaeological value, the Ishtar-themed necklace sheds light on the symbolic world of the ancient Mediterranean. Ishtar, or Inanna, was one of the most important deities of [Mesopotamia](#) — associated with love, fertility, political power, and warfare. Her cult spread widely through trade connections, diplomacy, and cultural exchange, influencing artistic and religious traditions across neighboring civilizations.

The lion, frequently shown alongside Ishtar, signified courage and royal authority, while the eight-pointed star became one of the most recognizable emblems of the goddess. The appearance of these symbols on an object found in Amos suggests the presence of inter-regional contacts, imported beliefs, or personal devotional items, possibly belonging to a high-status individual or merchant active in the city.

A Discovery Linking Cultures and Eras

For researchers, the necklace is more than a striking artifact — it stands as proof of Amos's role within the interconnected world of the ancient Mediterranean. The find reinforces the view that cultural ideas and religious imagery traveled alongside goods and people, illustrating how a coastal Anatolian city could become part of a shared artistic and spiritual landscape stretching from Mesopotamia to the Aegean.

As excavations continue, archaeologists hope that future discoveries will further illuminate the social life, trade networks, and spiritual traditions that shaped Amos across centuries — and help restore this remarkable ancient city as an enduring heritage site for future generations.

6 'lost' cities archaeologists have never found

<https://www.livescience.com/archaeology/6-lost-cities-archaeologists-have-never-found>

Scholars know of some important ancient cities from texts, but they haven't been able to find them



A Chinook helicopter flies over a stretch of desert in Iraq. Many ancient cities that have not been found are in the Middle East

[Archaeologists](#) have been very busy excavating lost civilizations, but they haven't found everything. There are still prominent ancient cities, including capitals of large kingdoms and empires, that have never been unearthed by scholars.

We know these cities exist because ancient texts describe them, but their location may be lost to time.

In a few cases, looters have found these cities, and have looted large numbers of artifacts from them. But these robbers have not come forward to reveal their location. In this countdown Live Science takes a look at six ancient cities whose whereabouts are unknown.

1. Irisagrig



Ancient inscriptions, some of them from Irisagrig, are on display at a ceremony where they were returned to Iraq.

Not long after the 2003 U.S. invasion of Iraq, thousands of ancient tablets from a city called "Irisagrig" began appearing on the antiquities market. From the tablets, scholars could tell that [Irisagrig](#) was in Iraq and flourished around 4,000 years ago.

Those tablets reveal that the rulers of the ancient city lived in palaces that housed many dogs. They also kept lions which were fed cattle. Those that took care of the lions, referred to as "lion shepherds," got rations of beer and bread. The inscriptions also mention a temple dedicated to Enki, a god of mischief and wisdom, and say that festivals were sometimes held within the temple.

Scholars think that looters found and looted Irisagrig around the time the 2003 U.S. invasion took place. Archaeologists have not found the city so far and the looters who did have not come forward and identified where it is.

2. Itjtawy



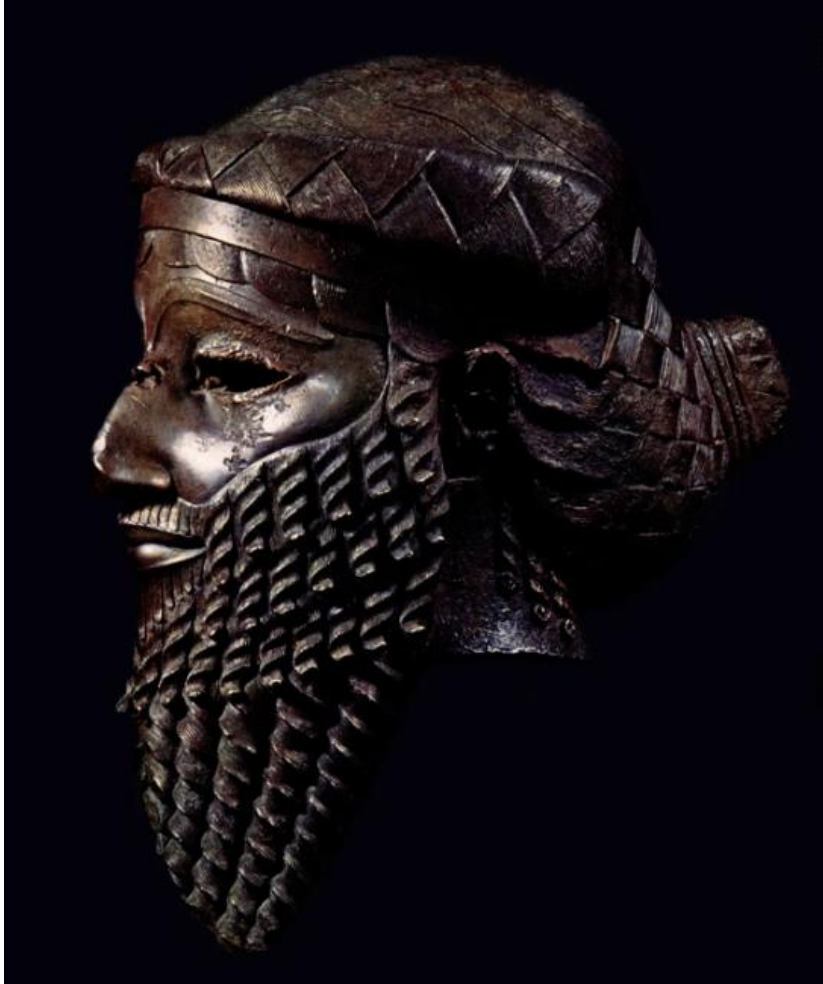
The remains of the pyramid of Amenemhat I at Lisht. The capital city he built has never been found, although scholars think that it is likely somewhere near Lisht.

Egyptian pharaoh Amenemhat I (reign circa 1981 to 1952 B.C.) ordered a new capital city built. This capital was known as "Itjtawy" and the name can be translated as "the seizer of the Two Lands" or "Amenemhat is the seizer of the Two Lands." As the name suggests Amenemhat faced a considerable amount of turmoil. His reign ended with his assassination.

Despite Amenemhat's assassination, Itjtawy would remain the capital of Egypt until around 1640 B.C, when the northern part of [Egypt](http://www.mementoslangues.fr/) was taken over by a group known as the "Hyksos," and the kingdom fell apart.

While Itjtawy has not been found, archaeologists think it is located somewhere near the site of Lisht, in central Egypt. This is partly because many elite burials, including a pyramid belonging to Amenemhat I, are located at Lisht.

3. Akkad



A bust of Sargon of Akkad, an early ruler of the Akkadian Empire.

The city of Akkad (also called Agade) was the capital of the Akkadian Empire, which flourished between 2350 and 2150 B.C. At its peak the empire stretched from the Persian Gulf to Anatolia. Many of its conquests occurred during the reign of "Sargon of Akkad," who lived sometime around 2300 B.C. One of the most important structures in Akkad itself was the "Eulmash," a temple dedicated to Ishtar, a goddess associated with war, beauty and fertility.

Akkad has never been found, but it is thought to have been built somewhere in Iraq. Ancient records indicate that the city was destroyed or abandoned when the Akkadian empire ended around 2150 B.C.

4. Al-Yahudu



A painting dating to 1830, which depicts Jewish exiles in the Babylonian empire.

Al-Yahudu, a name which means "town" or "city" of Judah, was a place in the Babylonian empire where Jews lived after the kingdom of [Judah](#) was conquered by the [Babylonian](#) king Nebuchadnezzar II in 587 B.C. He sent part of the population into exile, a practice the Babylonians often engaged in after conquering a region.

About 200 tablets from the settlement are known to exist and they indicate that the exiled people who lived in this settlement kept their faith and used Yahweh, the name of God, [in their names](#). Al-Yahudu's location has not been identified by archaeologists, but like many of these lost cities, was likely located in what is now Iraq. Given that the tablets showed up on the antiquities market, and there is no record of them being found in an archaeological excavation, it appears that at some point looters succeeded in finding its location.

5. Waššukanni



A cylinder seal from the Mitanni empire. It is now in the Metropolitan Museum of Art in New York City. (Image credit: Gift of Martin and Sarah Cherkasky, 1987; Metropolitan Museum of Art; Public Domain)

Waššukanni was the capital city of the Mitanni empire, which existed between roughly 1550 B.C. and 1300 B.C. and included parts of northeastern Syria, southern Anatolia and northern Iraq. It faced intense competition from the Hittite empire in the north and the [Assyrian](#) empire in the south and its territory was gradually lost to them.

Waššukanni has never been found and some scholars think that it may be located in northeastern Syria. The people who lived in the capital, and indeed throughout much of its empire, were known as the "Hurrians" and they had their own language which is known today from ancient texts.

6. Thinis



The Narmer palette, shown here, depicts King Narmer — also known as Menes — smiting an enemy. It dates back around 5,000 years ago to when Egypt was being unified.

Thinis (also known as Tjenu) was an ancient city in southern Egypt that flourished early in the ancient civilization's history. According to the ancient writer Manetho, it was where some of the early kings of Egypt ruled from around 5,000 years ago, when Egypt was being unified. Egypt's capital was moved to Memphis a bit after unification and Thinis became the capital of a nome (a province of Egypt) during the Old Kingdom (circa 2649 to 2150 B.C.) period. Ali Seddik Othman, an inspector with the Egyptian Ministry of Tourism and Antiquities, noted in an article published in the [Journal of Abydos](http://www.mementoslangues.fr/).

Thinis has never been identified although it is believed to be near Abydos, which is in southern Egypt. This is partly because many elite members of society, including royalty, were buried near Abydos around 5,000 years ago.

7,500-Year-Old Stone Seal Discovered at Tadım Höyük in Türkiye

<https://arkeonews.net/7500-year-old-stone-seal-discovered-at-tadim-hoyuk-in-turkiye/>



Archaeologists working at [Tadım Castle and Höyük in Elazığ](#), eastern Türkiye, have uncovered a stone seal believed to be around 7,500 years old — a discovery that sheds new light on the deep cultural history of the Upper Euphrates Basin and confirms the region as one of Anatolia’s earliest settlement centers.

The excavations, carried out under the coordination of the Elazığ Museum Directorate and the Provincial Directorate of Culture and Tourism with the support of the Ministry of Culture and Tourism and the [Governorship of Elazığ](#), form part of the national “Heritage for the Future Project.” The multi-layered mound at Tadım Höyük has revealed cultural remains stretching from the Ottoman and Seljuk eras back to the Neolithic period.

A Unique Artifact Linked to Identity, Ownership, and Early Social Organization

Governor Numan Hatipoğlu emphasized the exceptional nature of the seal within the context of discoveries made so far at Tadım Höyük.

“Among the finds unearthed in Tadım Village, we discovered a stone seal unlike anything previously seen in our city,” Hatipoğlu said. “It is believed that this seal may have been associated with ownership, property marking, or an early form of identity. Research is ongoing. This discovery indicates that civilization in our region dates back to approximately 7500 BCE. All of these finds show that Elazığ has been a settlement center since ancient times.”

The stone seal is currently preserved at the Elaziğ Archaeology and Ethnography Museum, where specialists are conducting detailed analysis to better understand its function, symbolism, and possible administrative role within prehistoric society.

Stone seals from this period are often interpreted as indicators of emerging economic organization, particularly in relation to grain storage, exchange systems, trade, or household ownership marks. The Tadım Höyük seal therefore, offers rare evidence of early social structure and proto-bureaucratic practices in prehistoric Anatolia.



Archaeologists working at Tadım Castle and Höyük in Elaziğ, eastern Türkiye, have uncovered a stone seal believed to be around 7,500 years old.

Discovery of a Bull-Headed Altar Adds Ritual Dimension to the Site

Beyond domestic and administrative remains, [Tadım Höyük](#) has also yielded striking ritual artifacts. Among the most remarkable is a 160 x 130-centimeter bull-headed altar dated to the Late Chalcolithic and Early Bronze Age.

The altar — featuring symbolic bull imagery associated with power, fertility, and communal ritual in ancient Near Eastern cultures — suggests that Tadım was not only a residential settlement but also a site with ceremonial and spiritual significance. Together with ritual hearths and stylized figurines found at the site, the altar strengthens interpretations of Tadım Höyük as a center where daily life and religious practice were deeply intertwined.

A Site Layered With History: From Neolithic Life to Early Urban Culture

Tadım Höyük, located near Tadım village in the Fırat Basin, is one of the most important multi-layer archaeological mounds in Eastern Anatolia. The site occupies a strategic location along historical trade and migration routes connecting Mesopotamia, the Caucasus, and Central Anatolia. Previous seasons of excavations have uncovered [Karaz-type ceramics](#), stylized figurines, geometric pottery, grain stamp seals, stone tools, arrowheads, ritual hearths, and a monumental bull-headed altar dated to the Late Chalcolithic and Early Bronze Age.

These findings suggest that Tadım Höyük was not only a domestic settlement but also a ritual, economic, and possibly administrative center. The presence of specialized pottery styles—shared with regions such as Nakhchivan and Erzurum—indicates cross-regional interaction and cultural exchange. Archaeologists believe the community may have played a role in early agricultural organization and trade networks in the Upper Euphrates Basin. The newly unearthed stone seal strengthens this interpretation.



Previous seasons of excavations have uncovered Karaz-type ceramics, stylized figurines, geometric pottery, grain stamp seals, stone tools, arrowheads, ritual hearths, and a monumental bull-headed altar dated to the Late Chalcolithic and Early Bronze Age.

Year-Round Conservation and Expanding Excavations

Excavation work at Tadı̇m Castle and Höyük continues throughout the year with conservation, restoration, analysis, and documentation activities led by the Elazığ Museum Directorate. The project not only contributes to scientific research but also supports cultural tourism and regional heritage awareness.

Beyond Tadı̇m Höyük, excavations across Elazığ—including Harput Castle, Palu Castle, and Salkaya village—have produced equally striking results. A Roman bath identified through ground-penetrating radar and a mosaic featuring animal figures are among the latest discoveries that add to the city’s archaeological richness. Plans are underway to expand excavation areas, establish visitor facilities, and enhance accessibility for cultural tourism in upcoming seasons.

Governor Hatipoğlu emphasized that uncovering and preserving such finds strengthens both historical knowledge and local identity. “As we continue working layer by layer, we expect even more significant archaeological outcomes for our province,” he noted.



Beyond domestic and administrative remains, Tadı̇m Höyük has also yielded striking ritual artifacts.

Tadım Höyük: A Growing Focus for Global Archaeology

With its deep stratigraphy and rare artifacts, Tadım Höyük is increasingly recognized as a key reference site for researchers studying early Anatolian societies and the origins of organized settlement life. The site helps bridge gaps between Near Eastern civilizations and the emerging complex cultures of prehistoric Anatolia.

The discovery of the 7,500-year-old stone seal marks a milestone in this research journey—illuminating how early communities expressed identity, managed resources, and shaped the foundations of social organization long before written records emerged.

As excavations continue, Tadım Höyük is expected to shed even more light on the origins of culture in the Upper Euphrates Basin—firmly establishing Elazığ as one of the most important archaeological landscapes in Türkiye.

Two medieval burials in Spain's Menga dolmen reveal its lasting sacred role

<https://archaeologymag.com/2025/12/medieval-burials-in-spain-s-menga-dolmen/>

New genetic research from southern Spain is shedding light on how prehistoric monuments retained their significance long after their construction. A recent study examining medieval burials at the Menga dolmen in Antequera, Málaga, reveals that this iconic [Neolithic](#) structure continued to play a symbolic role almost four millennia after it was built.

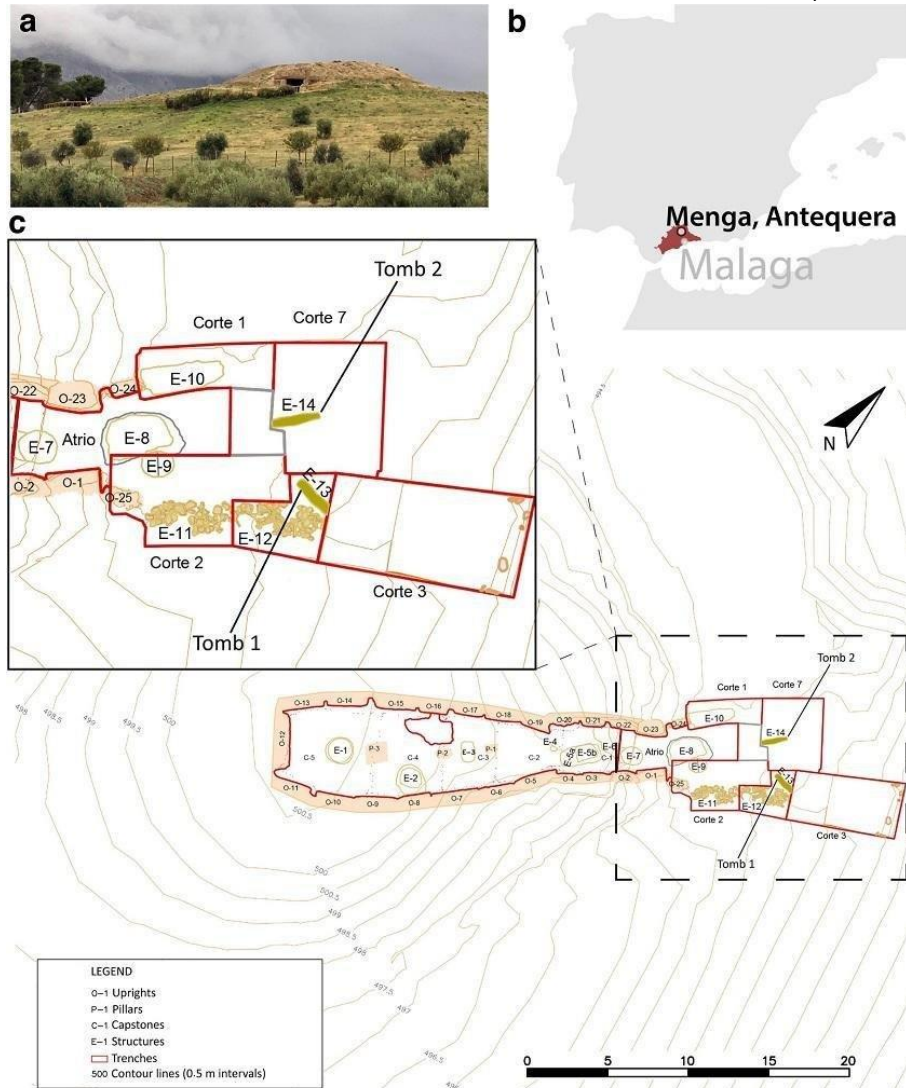


Inside the Menga dolmen in Spain.

The Menga dolmen, erected around the fourth millennium BCE, is one of the largest and best-known megalithic tombs in Europe today, forming part of a UNESCO World Heritage Site. While it was originally erected as a communal burial monument, archaeological evidence has long suggested that the site was later reused by subsequent societies. The new study, bringing ancient DNA analysis together with archaeology and historical context, provides the clearest picture yet of this later phase.

Researchers focused on two adult individuals found in the dolmen's atrium during the 2005 excavations. Radiocarbon dating places their burials between the 8th and 11th centuries CE, a time when this region was part of Al-Andalus during the early medieval period. Without grave goods, both individuals were buried face down, with their bodies carefully oriented in relation to the monument's central axis. This broadly fits Islamic funerary practice; however, the deliberate alignment with the dolmen itself sets these burials apart from typical Islamic cemeteries in the area.

Poor preservation in the Mediterranean climate meant that recovering ancient DNA from the remains proved difficult, and of the two individuals, only one, an adult male, called Menga1, produced genetic data of sufficient quality to analyze. The results, however, were remarkable. His genetic profile reflects a mix of ancestries related to Western Europe, North Africa, and the eastern Mediterranean. While his paternal lineage was common in Europe, aspects of his maternal lineage are closely related to modern North African populations. His ancestry at the genome-wide level resembles that observed in other Iberian individuals of Roman and medieval times, reflecting many hundreds of years of mobility, trade, and migration across the Mediterranean.



Location of the Menga site and radiocarbon dating. a) View of Menga, as seen from the northeast. Photograph by Lucy Shaw Evangelista. b) Location of Menga site in Antequera (present-day Malaga province, Spain, is shown in red). c) Location of the medieval inhumations (Tomb 1 and Tomb 2) in Menga's atrium (shown with other features located in the 2005 excavation season); inset focussing on the locations of Tombs 1 and 2. Modified from Mora Molina et al., 2018.

These results are in good concordance with historical documents reporting intensive contacts between Iberia, North Africa, and the Levant, particularly during the period following the Islamic expansion into the peninsula in the early 8th century. Simultaneously, however, the study emphasizes that genetic ancestry cannot be equated directly with religious or cultural identity.

More than individual origins, the research highlights the persistence of the relevance of the Menga dolmen itself. The reutilization of such a monumental prehistoric structure implies that medieval communities did not consider it simply to be an ancient ruin. Similar examples of reuse in other parts of the Iberian Peninsula demonstrate that megalithic monuments may have been reused as burial sites during the Islamic period, possibly because they were perceived as sacred, powerful, or linked to ancestral memory.

Rather than being a point of termination in prehistory, the Menga dolmen emerges as a locale with an extremely long biography. Genetics, archaeology, and history together indicate how it is possible for sacred landscapes to transcend cultures and religions, remaining meaningful across thousands of years.

More information: Silva, M., García Sanjuán, L., Fichera, A., Oteo-García, G., Foody, M. G. B., Fernández Rodríguez, L. E., ... Richards, M. B. (2026). Genetic and historical perspectives on the early medieval inhumations from the Menga dolmen, Antequera (Spain). *Journal of Archaeological Science, Reports*, 69(105559). [doi:10.1016/j.jasrep.2025.105559](https://doi.org/10.1016/j.jasrep.2025.105559)

Medieval Islamic Burials in a Neolithic Giant: DNA Reveals the Afterlife of Spain's Menga Dolmen

<https://arkeonews.net/medieval-islamic-burials-in-a-neolithic-giant-dna-reveals-the-afterlife-of-spains-menga-dolmen/>



Menga dolmen: view inside from the entrance.

A new interdisciplinary study suggests that the [Menga dolmen](#)—one of Europe's largest Neolithic monuments—did not lose its symbolic importance with the end of prehistory. Genetic, archaeological, and historical evidence indicates that two individuals buried at the site during the medieval Islamic period were intentionally placed within the monument, pointing to a deliberate reuse of a structure already thousands of years old.

More than five millennia ago, [Neolithic builders](#) hauled enormous stone slabs across the plains of southern Iberia to create the Menga Dolmen, one of the largest and most enigmatic [megalithic monuments](#) in Europe. Rising from the landscape near Antequera, the structure predates Stonehenge and the Egyptian pyramids. Yet its story did not end in prehistory.

New research reveals that Menga was drawn back into human ritual life more than 4,000 years after its construction—when two individuals were deliberately buried within its atrium during the early medieval period. Their graves, aligned with the monument's ancient axis, raise profound questions about memory, sacred landscapes, and cultural continuity in Islamic-era Iberia.

A multidisciplinary study published in *Journal of Archaeological Science: Reports* combines archaeology, radiocarbon dating, historical analysis, and ancient DNA to reconstruct the identities—and possible meanings—behind these unexpected burials.

A Monument Older Than History, Reused by History

Constructed in the fourth millennium BCE, the Menga dolmen is part of a UNESCO World Heritage landscape famed for its colossal architecture and precise orientation. Unlike most [European megaliths](#), Menga does not face the rising sun but instead aligns with a natural rock formation, suggesting a worldview rooted as much in landscape symbolism as in astronomy.

Archaeological evidence shows that the monument's significance endured long after the Neolithic period. Over the centuries, Menga was revisited, modified, and reinterpreted—by Bronze Age communities, Iron Age groups, Romans, and eventually medieval inhabitants of Al-Andalus.

In 2005, excavations in the dolmen's atrium uncovered two human burials. Both individuals were over 45 years old at death and were interred without grave goods. Radiocarbon dating places their deaths between the 8th and 11th centuries CE, spanning the early centuries of Islamic rule in southern Iberia.

What set these burials apart was not just their location, but their orientation.



A panoramic view inside the Menga dolmen, revealing its massive stone chamber.

Bodies Aligned With Stone and Faith

Both individuals were buried in a prone position, lying face down, with their heads resting on the right side. Their faces were oriented southeast—toward Mecca—consistent with Islamic funerary practices. Yet their bodies were also aligned precisely along the dolmen's prehistoric axis of symmetry, a choice without parallel in nearby Islamic cemeteries.

This deliberate alignment appears to acknowledge the monument itself as a meaningful presence, not merely a convenient shelter or ruin.

Such a gesture complicates straightforward interpretations. Islamic burials in Al-Andalus typically followed standardized orientations but did not reference prehistoric architecture in this symbolic way. Why, then, were these individuals deliberately aligned with a monument already ancient by medieval standards?

To address this question, researchers turned to genetics.

Extracting DNA From a Hostile Climate

Recovering ancient DNA in the [Mediterranean](#) is notoriously difficult. Heat, soil chemistry, and microbial activity degrade genetic material rapidly. In the case of Menga, DNA preservation was exceptionally poor. Less than one percent of the recovered genetic material was human, and most fragments were extremely short.

Using advanced enrichment techniques targeting more than 1.2 million specific genetic markers, researchers succeeded in reconstructing the genome of one individual, known as Menga1. The second individual's DNA was too contaminated for reliable analysis.

Despite these limitations, the genetic results proved remarkably informative.

A Man of Many Shores

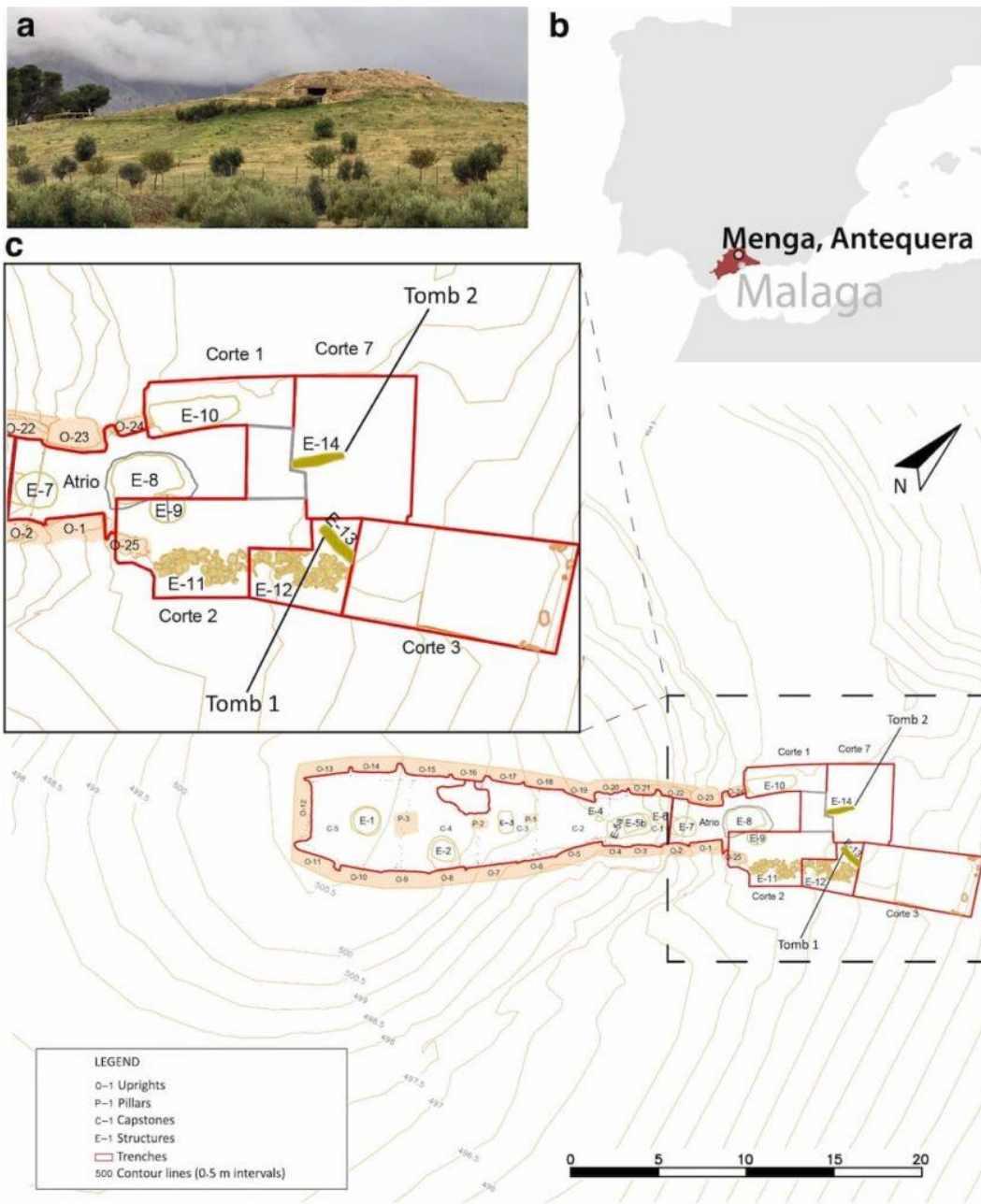
The genetic profile of Menga1 reflects the deep interconnectedness of the medieval Mediterranean.

Along his paternal line, he belonged to Y-chromosome haplogroup R-P312, a lineage common in western Europe and present in Iberia since at least the Chalcolithic period. His maternal lineage, mitochondrial haplogroup V34a, is also European—but with a notable twist. His specific genetic signature shares mutations with modern populations in Morocco and Algeria, hinting at trans-Mediterranean connections.

Autosomal DNA analysis revealed an even richer picture. Statistical modeling suggests that Menga1's ancestry was composed of roughly 44 percent local Iron Age Iberian heritage, 18 percent North African ancestry, and 37 percent Levantine-related ancestry. This genetic mosaic mirrors patterns seen in other Roman and early medieval individuals from Iberia and Italy.

Such diversity is not surprising. For centuries, Iberia was embedded in Mediterranean trade networks shaped by Phoenician, Roman, and later Islamic expansion. After the Islamic conquest of 711 CE, movement between Iberia, North Africa, and the eastern Mediterranean intensified, leaving enduring genetic traces.

Importantly, the researchers caution against equating genetic ancestry with religious identity. DNA does not encode belief.



Location of the Menga dolmen and radiocarbon dating context. (a) View of the Menga dolmen from the northeast. (b) Location of the site in Antequera, southern Spain (the province of Málaga highlighted in red). (c) Position of the medieval burials (Tombs 1 and 2) within the atrium of the dolmen, alongside features documented during the 2005 excavation.

Islamic Burial—or Something More?

Archaeologically, the Menga burials are broadly compatible with Islamic practice: simple graves, no grave goods, and orientation toward Mecca. Yet their symbolic engagement with a Neolithic monument is highly unusual.

The study situates this anomaly within a wider pattern. Across Iberia, [prehistoric monuments](#) were occasionally reused during the Islamic period. At the Alberite I dolmen in Cádiz, at least seventeen individuals were buried in Islamic fashion during the Almohad period. Similar practices have been documented in Portugal, where Islamic and Christian burials appeared within Chalcolithic enclosures.

Why did medieval communities return to these ancient places?

Historical sources from the Islamic world describe fascination with pre-Islamic ruins, often seen as talismanic or imbued with hidden power. In rural landscapes especially, certain locations may have retained a reputation for sanctity that transcended religious boundaries.

The researchers propose that Menga may have functioned as a qubba or marabout—a shrine or retreat associated with holy individuals or ascetics. Its monumental scale, visibility, and isolation outside medieval Antequera would have made it an ideal place for spiritual withdrawal or venerated burial.

A Biography Spanning Five Millennia

What emerges from this study is not simply the story of two medieval individuals, but the extended biography of a monument.

Menga was not a relic frozen in the past. It was a living landmark—reinterpreted, re-sacralized, and woven into new belief systems across thousands of years. The medieval burials aligned with its axis suggest a conscious engagement with deep time, an acknowledgment that the past still mattered.

By combining genetics, archaeology, and historical context, the research demonstrates how sacred landscapes can persist beyond cultural and religious transformations. The fragile DNA recovered from Menga has added a new chapter to the monument's long life—one that connects Neolithic builders, medieval communities, and modern science in a single narrative arc.

In doing so, it reminds us that monuments do not simply endure. They continue to mean.

Silva, M., García Sanjuán, L., Fichera, A., Oteo-García, G., Foody, M. G. B., Fernández Rodríguez, L. E., Navarrete Pendón, V., Bennison, A. K., Pala, M., Soares, P., Reich, D., Edwards, C. J., & Richards, M. B. (2026). Genetic and historical perspectives on the early medieval inhumations from the Menga dolmen, Antequera (Spain). *Journal of Archaeological Science: Reports*, 69, 105559. <https://doi.org/10.1016/j.jasrep.2025.105559>

Decoding the First Farmers: A 12,000-Year-Old DNA Map Emerges from Çayönü in Türkiye

<https://arkeonews.net/decoding-the-first-farmers-a-12000-year-old-dna-map-emerges-from-cayonu-in-turkiye/>



On a low rise overlooking the upper reaches of the Tigris River, archaeologists are revisiting one of humanity's most transformative chapters. At [Çayönü Tepesi](#), a 12,000-year-old settlement in southeastern Türkiye, human bones buried for millennia are now yielding genetic clues that may redefine how the world's earliest farming societies emerged, organized themselves, and interacted across vast regions.

Known for decades as a key site in the transition from foraging to agriculture, [Çayönü](#) is now at the center of an ambitious interdisciplinary project that combines archaeology, physical anthropology, and ancient DNA research. The goal is not only to understand how people lived here, but also who they were, where they came from, and how deeply connected they were to neighboring regions such as Mesopotamia and the Caucasus.

A Landmark Site in the Birth of Sedentary Life

Located near the modern town of Ergani, [Çayönü](#) was first identified during surface surveys in 1963 and excavated beginning in 1964 by Halet Çambel and Robert J. Braidwood. From the outset, the site stood out. Unlike temporary camps typical of mobile hunter-gatherers, Çayönü revealed long-term settlement, planned architecture, and evidence for early plant cultivation and animal management.

These discoveries placed the site among a small group of Neolithic settlements that fundamentally altered prevailing theories about where and how agriculture began. Rather than a single “origin point,” Çayönü suggested a complex mosaic of innovation, experimentation, and cultural exchange across Upper Mesopotamia and southeastern Anatolia.

After a long interruption due to security concerns in the 1990s, excavations resumed in recent years with renewed scientific scope and modern analytical tools.



Human skeletal remains discovered at Çayönü Tepesi in the Ergani district of Diyarbakır are being analyzed at Hacettepe University to investigate the genetic makeup of Neolithic and Bronze Age communities.

Scientific Leadership and Fieldwork

The current excavation program is conducted under the scientific directorship of Assoc. Prof. Dr. Savaş Sarıaltun from Çanakkale Onsekiz Mart University, with anthropological and bioarchaeological studies coordinated by Prof. Dr. Ömür Dilek Erdal of [Hacettepe University](http://www.hacettepe.edu.tr). The project brings together specialists from ten universities across Türkiye and operates with permission from the Ministry of Culture and Tourism.

Since May 2025, teams have conducted intensive excavations over an area exceeding 3,200 square meters. These efforts have exposed a remarkably continuous occupation sequence, from the Pre-Pottery Neolithic through the Pottery [Neolithic](#) and into the Early Bronze Age.

Among the most striking discoveries are grid-planned buildings dated to the Pre-Pottery Neolithic B phase (approximately 9000–8500 BCE), a large communal structure believed to have hosted gatherings or collective activities, and a carefully engineered water channel from the Bronze Age. Together, these features point to a settlement that was deliberately planned and socially coordinated, rather than organically improvised.

Burials, Objects, and Social Signals

Excavations have also revealed an Early [Bronze Age cemetery](#) dated to around 2900–2750 BCE. Eight graves have been investigated so far, seven belonging to the Early Bronze Age and one to the Neolithic period. The burials contained pottery vessels, copper and bronze objects, tools, daggers, and two seals discovered in the surrounding area.

According to Sariaultun, these seals are particularly significant. They suggest the existence of early economic networks and possibly indicate social roles or group identities within the community. Yet despite such material distinctions, the overall burial record does not point to rigid social hierarchies.



By analyzing ancient DNA, researchers are reconstructing kinship patterns, mobility, and population dynamics over thousands of years.

From Excavation House to Laboratory

All skeletal remains are first documented at the Çayönü excavation house, then transferred—following official permits—to Hacettepe University's anthropology laboratories. There, Prof. Erdal and her team carry out detailed cleaning, restoration, and analysis according to international standards.

To date, approximately 255 individuals have been studied, making [Çayönü](#) one of the most comprehensively analyzed Neolithic populations in the region. The results depict a highly heterogeneous community, both biologically and culturally.

Skeletal markers reveal a physically demanding way of life. Even children show evidence of early participation in agricultural work and daily labor. Differences between individuals buried in larger and smaller houses do not translate into clear biological signs of inequality. People across the settlement appear to have shared similar workloads and burial customs.

Gender-based divisions of labor are visible but balanced. Men display markers associated with herding and outdoor activity, while women show patterns linked to repetitive indoor production. Both roles were essential to the community's survival.

DNA and Long-Distance Connections

The most transformative aspect of the project lies in its genetic research. By analyzing ancient DNA, researchers are reconstructing kinship patterns, mobility, and population dynamics over thousands of years.

Preliminary findings indicate that Çayönü was far from isolated. Genetic signatures point to sustained connections with Mesopotamia and the Caucasus, showing that individuals from outside regions settled at the site and became integrated into the community.

“These connections are not theoretical,” Erdal notes. “We can observe them directly in the genome. People moved, mixed, and formed new social bonds here.”



The DNA research is ongoing and expected to continue for several years, with comprehensive results planned for public release between 2026 and 2027.

Rethinking Early Societies

Together, the archaeological and genetic evidence from Çayönü challenges simplified narratives of early civilization. Rather than a straightforward march toward hierarchy and inequality, the site reveals a community that was organized, cooperative, and deeply interconnected with its wider world.

In tracing the genetic footprints of some of the first farmers, Çayönü is helping scientists answer a question that still resonates today: how did humans learn to live together in permanent communities—and what did they gain, and lose, in the process?

Ancient Mosaic Room Featuring “Solomon’s Knot” Unearthed in Smyrna to Ward Off the Evil Eye

<https://arkeonews.net/ancient-mosaic-room-featuring-solomons-knot-unearthed-in-smyrna-to-ward-off-the-evil-eye/>



Archaeologists working in the heart of İzmir have uncovered a remarkable mosaic-floored room in the [ancient city of Smyrna](#), revealing a striking Solomon’s Knot motif believed to have served as a protective symbol against envy and the “evil eye” during Late Antiquity. The discovery was made along the North Street of the Smyrna Agora as part of the Turkish Ministry of Culture and Tourism’s year-round Heritage for the Future Project.

Measuring roughly 3 by 4 meters, the mosaic floor features interlaced geometric panels and vegetal designs, with the symbolic knot positioned prominently at its center. According to excavation director Prof. Dr. Akın Ersoy of İzmir Katip Çelebi University, this is the first mosaic pavement found at the site in nearly 70 years, making the discovery both rare and scientifically significant.

A Planned City of the Hellenistic World

Founded on a new urban plan following the era of Alexander the Great, Smyrna was one of the most important port cities of the eastern Mediterranean. Known today as İzmir, the city flourished under Hellenistic, Roman, and Byzantine rule, serving as a major hub of trade, culture, and civic life. The Agora of Smyrna, where excavations are concentrated today, functioned as the city’s political, commercial, and administrative center.

Excavations in recent years have focused on the Agora and the [ancient theater](#), revealing layers of architecture that document Smyrna's continuous urban life across centuries. The newly uncovered mosaic room lies along one of the city's key streets, which appears to have remained active well into the Late Roman period (4th–6th centuries CE).



Excavations in Smyrna revealed the site's first mosaic pavement discovered in nearly 70 years, under the direction of Prof. Dr. Akin Ersoy of İzmir Katip Çelebi University.

Protective Symbols Against Envy and Misfortune

Prof. Ersoy explains that the architectural function of the building—whether a private residence or a public space—has not yet been fully clarified. However, the symbolism of the mosaic provides important cultural clues. Late Antiquity mosaics frequently incorporated protective motifs, believed to shield inhabitants or visitors from jealousy, misfortune, or hostile intentions.

At the center of this floor is the Solomon's Knot, a centuries-old geometric emblem created from two interlaced closed loops. Found in Roman villas, synagogues, early Christian churches, and later Islamic and Byzantine art, the motif is widely interpreted as a symbol of eternity, harmony, wisdom, and spiritual protection. In Mediterranean cultures, it has often been associated with the idea of binding or neutralizing negative forces—similar in meaning to protective amulets used against the “evil eye.”

In the [Smyrna](#) mosaic, the knot is framed by smaller cross-like elements and ornamental patterns. Ersoy notes that many of these symbols originally developed as decorative elements but were later imbued with religious and cultural meanings as new belief systems spread across the region.

Regardless of interpretation, he emphasizes, “they were understood as protective signs intended to safeguard either the building itself or the people who used it.”

A Space Reused 1,500 Years Later

One of the most intriguing findings relates to the building’s later history. Evidence shows that the mosaic floor was reopened and reused in the 19th century, likely by nearby households or a non-Muslim hospital operating in the area at the time. Mortar from later walls was discovered resting directly on the mosaic surface, indicating that the ancient flooring was intentionally preserved and incorporated into new constructions some 1,500 years after its creation.

This pattern of reuse highlights Smyrna’s long tradition of urban continuity, where later communities adapted, repaired, and reoccupied earlier structures rather than discarding them. According to Ersoy, expanding excavations planned for 2026 may reveal additional rooms or adjoining architectural units connected to the mosaic space.



Measuring roughly 3 by 4 meters, the mosaic floor features interlaced geometric panels and vegetal designs, with the symbolic knot positioned prominently at its center.

Cultural Legacy Beneath Modern İzmir

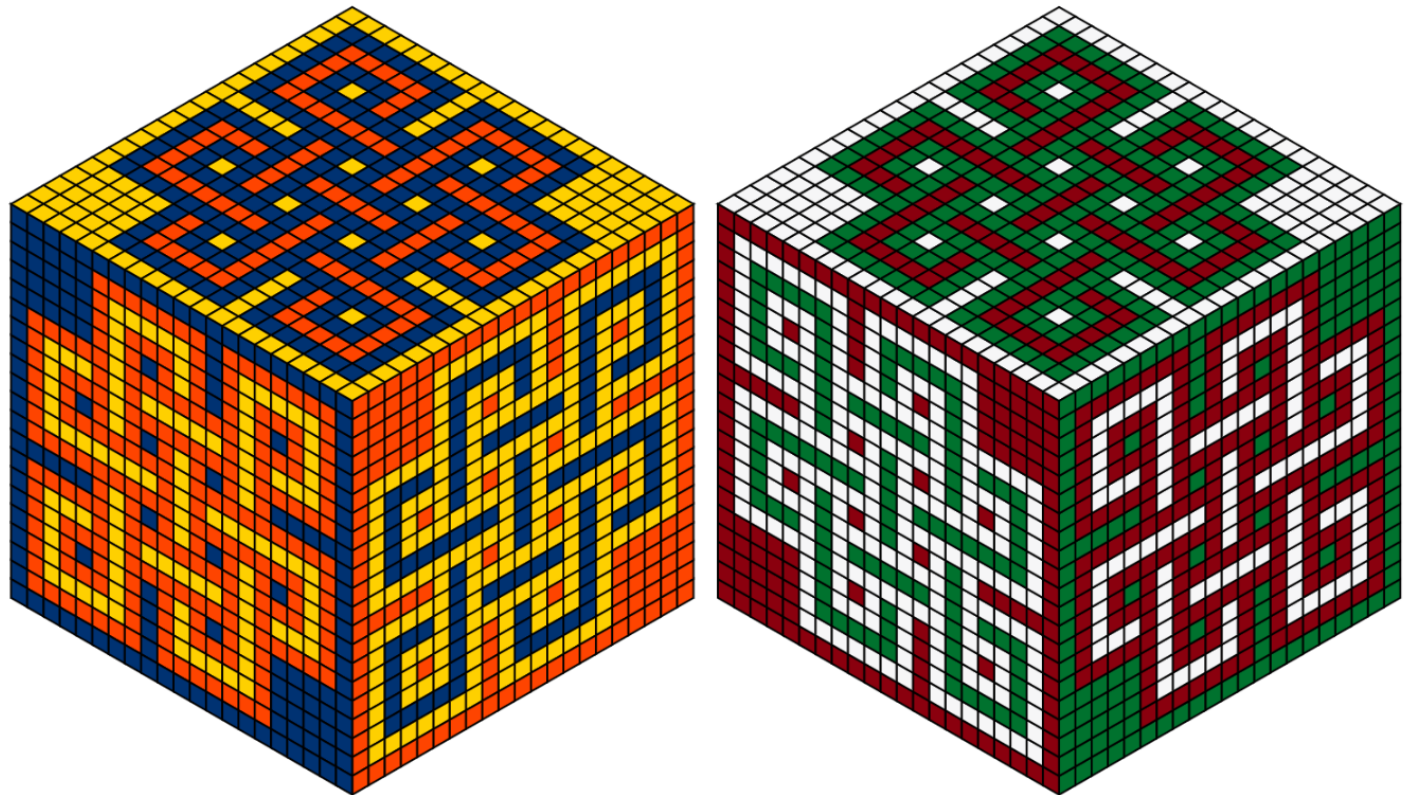
The discovery underscores Smyrna's role as a layered archaeological landscape where ancient urban life survives beneath the modern city. From its Hellenistic grid plan to its Roman streets, Byzantine churches, Ottoman neighborhoods, and 19th-century civic buildings, Smyrna represents one of the rare Mediterranean cities where thousands of years of architecture overlap in a single place.

Today, excavations continue with the support of the [İzmir Metropolitan Municipality](#), Yaşar Education and Culture Foundation, İzmir Chamber of Commerce, and Güzel Enerji. Each new discovery—like the mosaic room with its enduring Solomon's Knot—adds another piece to the story of a city where art, belief, and everyday life have remained intertwined across time.

Noeuds



Noeud de Salomon



6 Noeuds sans fin sur cube 21x21x21 (*Pretty Patterns*)

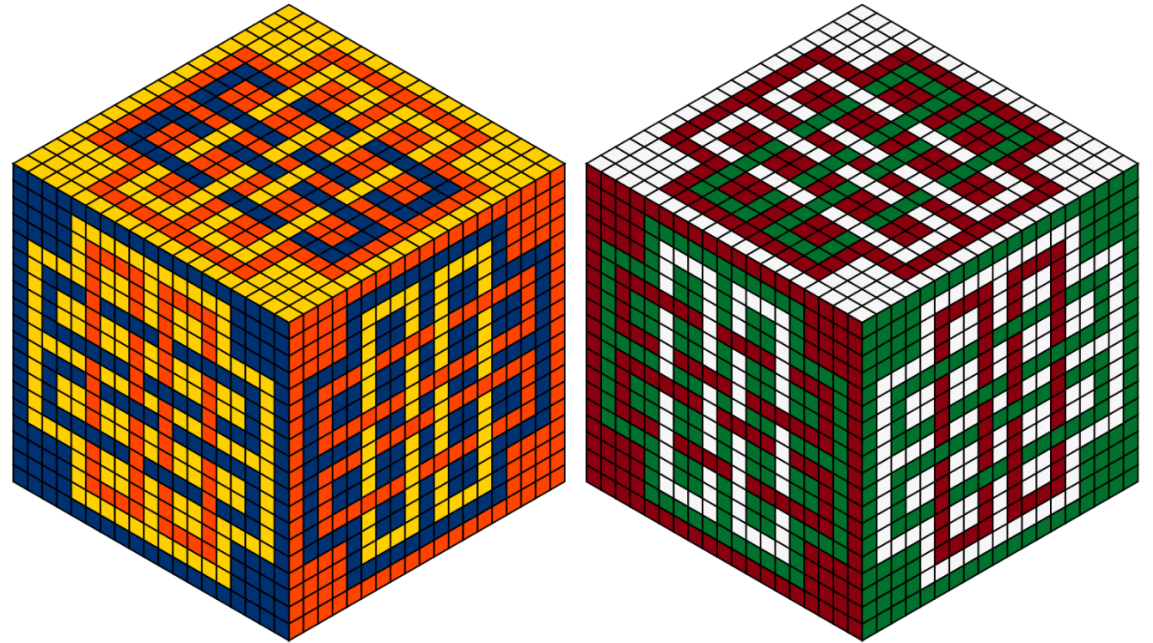
Rare Late Roman mosaic with Solomon's Knot discovered beneath modern İzmir

<https://archaeologymag.com/2026/01/late-roman-mosaic-with-solomons-knot-turkey/>

Archaeologists excavate the ancient city of Smyrna underneath the modern urban fabric of İzmir and have uncovered a rare mosaic-floored room that offers new insights into Late Antique daily life and belief systems. The discovery was made along the Agora's North Street during year-round excavations conducted as part of Turkey's "Heritage for the Future" project, which protects and researches archaeological remains hidden within densely built cities.



Multiple Solomon's knot motifs in a mosaic at the Church of the Nativity in Bethlehem



6 Anneaux imbriqués sur cube 19x19x19 (*Pretty Patterns*)

The newly uncovered mosaic floor measures three by four meters and consists of interlocking twelve-sided geometric panels, a decorative motif widely used during the Late Roman period. At the center of the design is a striking Solomon's Knot motif, formed by intertwined loops. This symbol appears across many cultures and historical periods and is commonly interpreted as an apotropaic sign, intended to protect people and spaces from misfortune, envy, and harmful forces often described as the "evil eye."

The mosaic belongs to a building dated between the fourth and sixth centuries CE, when Smyrna was a well-planned urban center reconstructed after the time of Alexander the Great. The main archaeological investigations at the site have concentrated on the agora and the ancient [theater](#), two core elements of civic life in the classical world. While the exact use of the building is unknown, its position on one of the city's principal streets indicates that it was an important structure, either as a private residence or a semi-public space.

The floor, apart from having this central knot, features an arrangement of plant-based motifs, geometric ornaments, and small cross figures around the main symbol. Although the crosses later came to be closely associated with monotheistic religions, their inclusion here indicates the complex visual language in which traditional symbolic conventions coexisted with a new, developing religious iconography. The combined motifs seem to have been selected primarily for the spiritual protection of the building and its users.

One of the most remarkable aspects of the find is evidence that the mosaic room was reused nearly 1,500 years after it was first laid. In the nineteenth century, structures linked to a non-Muslim hospital or nearby residences were built directly over the ancient floor. Traces of wall plaster applied on top of the mosaic indicate that the design was uncovered, recognized, and incorporated into later buildings, allowing it to remain visible and functional long after antiquity.

Only a few mosaic floors have been found in Smyrna, and the last similar discovery was made about seventy years ago. The appearance of another mosaic room after such a long time has therefore become a significant event for the researchers. Excavations are planned to be expanded in 2026, and archaeologists hope that other rooms or structures related to it may come to light.

To view the original image and learn more about this discovery, you can visit [this page](#)

Replacing Archaeologists with AI

<https://www.biblicalarchaeology.org/daily/archaeology-today/replacing-archaeologists-with-ai/>

Archaeologists create a semi-autonomous detection system



Can AI replace archaeologists?

Although you probably won't see robots walking around an excavation site anytime soon, that doesn't mean some archaeological tasks are not already being handled by artificial intelligence (AI). Publishing in the [Journal of Archaeological Science](#), a team of researchers from the University of Haifa has presented a new method to detect and record walls in archaeological contexts through drone imaging and artificial intelligence. Now, a task that could have taken days or even weeks can be done in a matter of hours.

Mapping a Site

Although [Indiana Jones](#)'s wild search for artifacts might be the popular image of archaeology, in reality, one of the most important aspects of any excavation is the painstaking recording of details. And especially because archaeology is an inherently destructive science, it is these details that end up telling the story of a site. However, the size, funding, and expertise of an excavation team can make a significant difference in the level of recording, which will nearly always result in some important information being lost. This is especially a problem when it comes to recording building stones. As

walls can be made up of hundreds if not thousands of stones, it is a highly time-intensive task to thoroughly record the details of each individual stone. As such, archaeologists often resort to simple sketches, ground plans, and photographs, which can overlook important details. Thanks to advancements in artificial intelligence and imaging technology, however, that might not be a problem for much longer.

The University of Haifa researchers developed a new semi-autonomous artificial intelligence system that can detect building stones and wall segments in archaeological contexts. The system uses meticulously collected drone imagery to generate a detailed map of an entire site. The AI then scans the composite image and identifies various archaeological features, particularly stone walls and features. From this, it can then compare the stones to an extensive database to suggest what stone features belong together. Despite this automation, however, the system leaves room for archaeologists to manually correct the scans in cases where their interpretations of a feature differ. Once the features have been identified, the system can run various algorithms to automatically compare the site with other sites in its database and propose possible dates for the site and the construction methods used in its formation.

Although the system remains imperfect, it has the potential to significantly improve the speed of archaeological recording, particularly during survey work, where a team often covers a large area within a short period. Additionally, depending on the drone used, the system can achieve per-pixel resolution below 1 centimeter, and the programmability of drones enables a far more thorough record of the site than would be possible with a standard camera. Finally, when paired with mounted [LiDAR](#) or multispectral imaging equipment, this system has the potential to penetrate through heavy vegetation and even below the surface.

Clay Cylinders of the Builder-King of the Neo-Babylonian World Reveal the Restoration of the Kish Ziggurat

<https://arkeonews.net/clay-cylinders-of-the-builder-king-of-the-neo-babylonian-world-reveal-the-restoration-of-the-kish-ziggurat/>



Ruins near the ziggurat of Kish at Tell al-Uhaymir, Mesopotamia, Babel Governorate, Iraq.

Two inscribed clay cylinders discovered at the ancient city of Kish in Iraq have shed new light on the architectural ambitions of [King Nebuchadnezzar II](#) — one of the most influential rulers of the Neo-Babylonian Empire. Handed over to the State Board of Antiquities and Heritage in 2013 and later translated by researchers, the artifacts provide the first confirmed foundation text documenting the king's restoration of the city's monumental ziggurat.

The find is historically significant. Until now, Nebuchadnezzar II's involvement at Kish had only been inferred from stamped bricks recovered during excavations. The newly translated inscriptions transform inference into evidence — offering a rare, firsthand royal account of sacred architecture, divine patronage, and kingship in [ancient Mesopotamia](#).

Tell Al-Uhaimir: The Ziggurat That Time Tried to Erase

The cylinders were found at Tell Al-Uhaimir, the mound that preserves the ruins of Kish — once a powerful political and religious centre. The ziggurat there was dedicated to the war-god Zababa and the goddess Ishtar, figures deeply associated with power, protection, and royal legitimacy.

Archaeological research shows that the structure underwent several major phases of construction and rebuilding. Originally attributed to the age of Hammurabi in the early second millennium BC, it was later restored by successive rulers before falling again into decay. The cylinders reveal that Nebuchadnezzar II returned to the monument after centuries of erosion and collapse, determined to restore its sacred presence.

In the inscription, the king describes how the walls had weakened and rain had washed away the brickwork — a familiar fate for mudbrick architecture across [Mesopotamia](#). Feeling divinely inspired, he rebuilt the damaged sections, strengthened the structure, and “embellished its outward appearance to shine like daylight” for the gods Zababa and [Ishtar](#).



3D-Scan of cylinder Kz-1 (IM.227410). Credit: Jawad and Al-Ammari 2025

Nebuchadnezzar II: Builder-King of the Neo-Babylonian World

Nebuchadnezzar II (604–562 BC) is widely remembered as the ruler who transformed [Babylon](#) into a global metropolis of antiquity. His reign produced monumental architecture, grand temples, towering fortifications, and vast urban renewal projects. Ancient tradition also associates him with the legendary Hanging Gardens, symbolizing splendour, sophistication, and royal might.

But the Kish cylinders reveal another layer of his legacy — one rooted not in conquest, but in preservation. For Mesopotamian rulers, restoring ancient temples and ziggurats was not only a political act, but a sacred responsibility. Kings were expected to maintain cosmic order, honour the gods, and protect the continuity of worship. By rebuilding venerable monuments, they connected themselves to earlier rulers and reinforced their legitimacy.

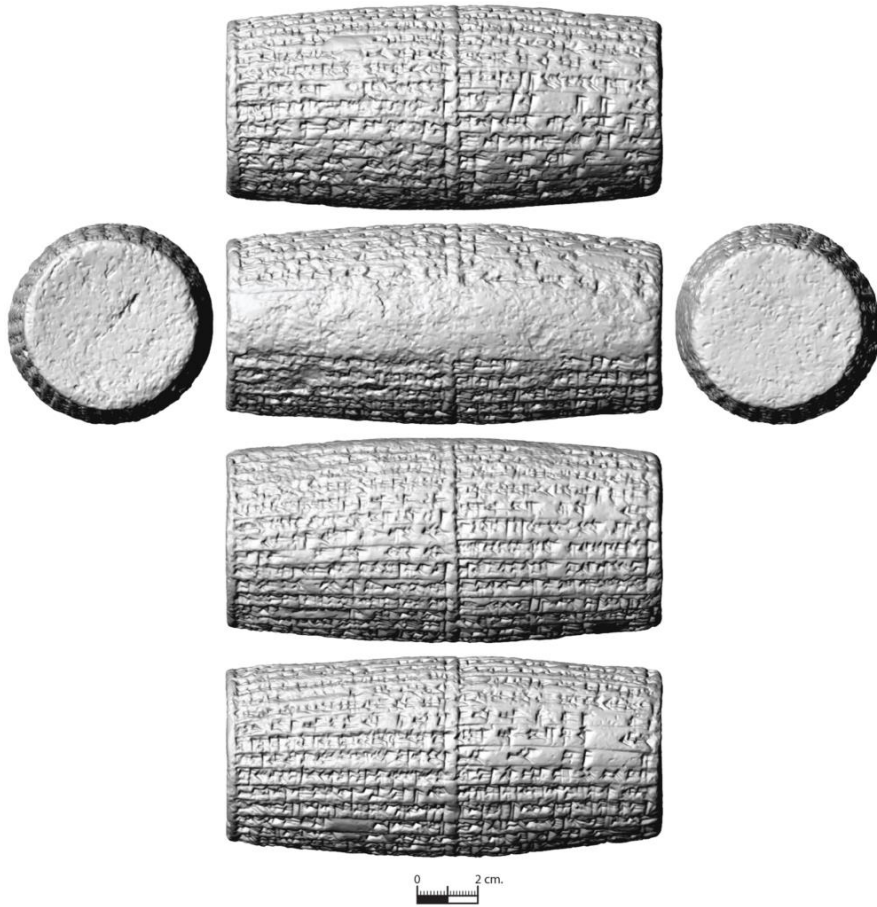
These themes echo across the inscription, where Nebuchadnezzar presents himself as a pious caretaker chosen by the gods Marduk and Nabû to safeguard holy places. Restoration was devotion — and power — written in brick.

What Ziggurats Meant to Ancient Mesopotamia

Ziggurats were among the most iconic structures of the ancient Near East. Towering above city skylines, their tiered, stepped platforms symbolized a bridge between earth and the heavens. Unlike temples, which housed cult rooms, ziggurats functioned as monumental foundations for sacred space, expressing cosmic order, territorial identity, and divine presence.

To rebuild a ziggurat was to renew the world.

The Kish monument belonged to a broader sacred landscape that included multiple temples and additional ziggurats in neighbouring districts. The city served as a symbolic centre of kingship from early Mesopotamian history onward — making Nebuchadnezzar's intervention both religious and politically meaningful.



3D-Scan of cylinder Kz-2 (IM.227488). Credit: Jawad and Al-Ammari 2025

Foundation Inscriptions: Messages for the Gods and the Future

The two cylinders are nearly identical, reflecting a standard Neo-Babylonian tradition. Foundation texts were often placed within temple walls or buried beneath structures during construction ceremonies. They commemorated the builder, invoked divine favour, and preserved a message for future generations — or future kings.

The Kish inscriptions follow this pattern closely. After recounting the restoration, Nebuchadnezzar closes with a prayer: he asks the gods to grant him a long life, military success, and victory over his enemies. The words link sacred architecture with royal destiny — a recurring theme in Mesopotamian state ideology.

Their survival today allows that royal voice to speak again across 2,600 years.

Rewriting the Story of Kish — and Nebuchadnezzar's Legacy

Beyond confirming a single restoration project, the cylinders deepen our understanding of how Nebuchadnezzar shaped religious landscapes beyond Babylon itself. They demonstrate the geographic reach of his architectural program and reinforce his identity as a ruler deeply engaged in preserving ancient cult centres.

For archaeologists and historians, the discovery also strengthens the timeline of Kish's ziggurat — aligning textual sources, excavation data, and religious history into a more complete narrative.

In a region still rich with undiscovered heritage, finds like these remind us how much of Mesopotamia's story remains buried beneath the soil — waiting, like these cylinders, to re-emerge and reshape the past.

Jawad AA, Al-Ammari HF. TWO INSCRIBED CYLINDERS OF NEBUCHADNEZZAR II FROM THE ZIGGURAT OF KISH. Iraq. Published online 2025:1-11. [doi:10.1017/irq.2025.10023](https://doi.org/10.1017/irq.2025.10023)

The Enigmatic Architecture of Sacsayhuaman: The Sacred Stronghold of Massive Stones and Mysteries

<https://arkeonews.net/the-enigmatic-architecture-of-sacsayhuaman-the-sacred-stronghold-of-massive-stones-and-mysteries/>



Inca people built Sacsayhuamán with enormous rocks.

Sacsayhuaman Fortress, located just outside [Cusco](#), Peru, is one of the most astonishing archaeological complexes in the world. Initiated by Inca Pachacutec in the 15th century, this remarkable site serves as a testament to pre-Columbian engineering and a gateway through time, connecting us to the mystical world of the Incas.

Renowned for its impressive stonework and intricate architecture, Saksayhuaman showcases the advanced engineering skills of the Incas and presents a series of mysteries that continue to intrigue historians and archaeologists. Sacsayhuaman, with its massive zigzagging walls and breathtaking panoramic views, is a masterpiece of architecture, history, and spirituality.

Originally, Sacsayhuaman was an ancient temple dedicated to the Sun God, Inti, where sacred ceremonies were performed. Its spiritual significance was second only to the Temple of Qoricancha. However, with the arrival of the Spanish, the site transformed from a ceremonial center to a military stronghold, playing a crucial role in the resistance against the invaders. Today, it stands as a symbol of cultural identity, encapsulating a vital historical and cultural space for Peru and the Americas.



Panoramic view of Sacsayhuamán.

Architectural Marvels

The architecture of Sacsayhuaman is notable for its impressive construction, which includes residences, towers, sanctuaries, and aqueducts. The site is perfectly integrated with the surrounding landscape, reflecting a deep spiritual connection with other sacred sites, such as Machu Picchu.

The most striking aspect of Saksaywaman is its monumental stone walls, constructed from massive, irregularly shaped stones that fit together with remarkable precision. Some of these stones weigh over 100 tons, and the technique used to assemble them—known as ashlar masonry—demonstrates the Incas' sophisticated understanding of construction. The stones are so tightly fitted that even a piece of paper cannot be inserted between them, a testament to the skill of the builders.

The iconic main wall, built in a zigzag design, features colossal stones that reach heights of up to 5 meters and widths of 2.5 meters, weighing between 90 and 125 tons. The precision with which these stones were cut and assembled remains a mystery, showcasing the advanced engineering skills of the Incas. The walls are devoid of mortar, yet they fit together so seamlessly that they have withstood centuries of natural wear.

The site features a series of terraces and platforms that create a visually stunning landscape, harmonizing with the natural surroundings. The largest wall, known as the “main wall,” stretches over 400 meters and is a prime example of the Inca's ability to blend functionality with aesthetics. The strategic placement of these structures suggests that they were not only built for defense but also for ceremonial purposes.



Sideways view of the walls of Sacsayhuamán showing the details of the stonework and the angle of the walls.

The Mysteries of Construction

Despite its grandeur, the methods used to construct Sacsayhuaman are still a subject of intrigue. How did the Incas transport such massive stones from distant quarries? Various theories suggest the use of sledges, ramps, and levers, but the absence of written records leaves much to speculation. The fortress's design, with its megalithic walls and underground chambers, further adds to the enigma surrounding its construction.

Furthermore, the exact purpose of Saksaywaman is still debated among scholars. While it is widely believed to have served as a ceremonial and military site, the specifics of its functions remain elusive. Some researchers argue that it may have been a religious center, while others suggest it played a crucial role in the defense of Cusco during conflicts. In fact, it is possible that Saksaywaman functioned as both a spiritual hub for Inca rituals and a strategic stronghold, reflecting the multifaceted nature of its significance in Inca society.

Sacsayhuaman is not just an architectural wonder; it is a cultural symbol that reflects the Inca civilization's values and beliefs. The site is a focal point for cultural events, particularly during Inti Raymi, the Festival of the Sun, which honors the Inca sun god. This connection to cultural practices underscores the enduring legacy of the Incas and their relationship with the site.



The Inca Throne

What to Explore at Sacsayhuaman

Visitors to Sacsayhuaman can explore a variety of fascinating features:

Cyclopean Ramparts: These imposing terraces, named “Illapa” after the thunder god, showcase Inca architectural mastery with their enormous limestone rocks arranged in zigzagging levels.

Muyucmarca Pyramid: This truncated stepped pyramid served ceremonial and socio-political purposes, with its top platform housing the foundations of significant structures.



[Muyucmarca Pyramid](#)

Rumipunku: This stone gateway connects to the Chuquipampa esplanade and highlights the Inca's organizational skills.

Chincanas (Tunnels): The mysterious underground tunnels at Sacsayhuaman captivate visitors. Legends speak of attempts to discover their ends, with many believing they connect to the Temple of the Sun.

Sacsayhuaman stands as a remarkable embodiment of Inca ingenuity and architectural brilliance. Its massive stones, intricate design, and the mysteries surrounding its construction and purpose continue to intrigue researchers and visitors alike. As ongoing studies seek to unravel the secrets of this ancient site, Sacsayhuaman remains a key to understanding the enigmatic world of the Incas and their extraordinary achievements.

Source: Reader's Digest: "Mysteries of the Ancient Americas: The New World Before Columbus", 1986, pp. 220–21

Chronicles of Peru Part II Pedro Cieza de León 1553 Ch.51 p.161-5 (Translated and Published posthumously) [Translated by Clements R. Markham 1883](#)

En 2025, ces découvertes archéologiques ont remodelé notre compréhension de la Bible

<https://www.nationalgeographic.fr/histoire/en-2025-ces-decouvertes-archeologiques-ont-remodele-notre-comprehension-de-la-bible>

De la découverte d'un jardin sous le Saint-Sépulcre à la révision de l'âge des manuscrits de la mer Morte, ces études jettent une lumière nouvelle sur les récits de la Bible.



Dans l'église du Saint-Sépulcre à Jérusalem, ce sanctuaire abrite, selon la tradition chrétienne, le lieu où aurait été déposé le corps de Jésus Christ après sa mort. Une équipe d'archéologues mène actuellement des fouilles sous le sol de la structure.

En 2025, les découvertes bibliques de l'archéologie nous ont révélé un vaste monde interconnecté dont l'écho résonne à travers les millénaires, que ce soit par l'étude des textes ou les campagnes de fouilles. Dans l'église du Saint-Sépulcre de Jérusalem, érigée selon la bible sur le site de la crucifixion et la sépulture du Christ, les fouilles actuellement menées continuent de livrer leurs secrets sur la probable géographie du site avant la construction de l'église au 4^e siècle. Ailleurs, les archéologues nous ont offert une fenêtre sur la propagation du christianisme à travers le monde, avec la découverte de vestiges monastiques datant du 7^e siècle dans le golfe Persique. D'autres recherches nous ont révélé les routes que Saint Paul, l'apôtre qui a répandu le christianisme à travers l'Empire romain, aurait pu emprunter au cours de sa mission. Parallèlement, le recours aux nouvelles technologies a permis d'approfondir notre compréhension des manuscrits de la mer Morte et même d'éclairer d'un jour nouveau les routes commerciales tentaculaires qui pourraient expliquer les nombreuses mentions de l'ivoire dans l'Ancien Testament.

Ensemble, ces découvertes et ces études apportent de solides arguments concernant la réalité matérielle des récits bibliques, allant même jusqu'à transformer notre perception de la Bible, du livre de foi au témoin de l'ancien monde.

UN JARDIN SOUS LE SAINT-SÉPULCRE

L'église du Saint-Sépulcre de Jérusalem est un site chrétien de pèlerinage et de dévotion depuis sa construction ordonnée au 4e siècle par l'empereur romain Constantine. Depuis, l'édifice a bien entendu subi les affres du temps, si bien que l'essentiel de l'actuelle structure date des travaux réalisés par les croisés européens au 12e siècle, et le site connaît actuellement une importante campagne de restauration visant à consolider ses fondations instables afin de le préserver pour les générations à venir. Cette nouvelle vague de travaux présente pour les archéologues une occasion rare et précieuse, celle de percer les plus anciens secrets du sanctuaire.

Dirigée par Francesca Romana Stasolla, professeure à l'université La Sapienza de Rome, une équipe sonde actuellement le sous-sol de la structure, en épluchant l'histoire, couche après couche, afin de retracer l'utilisation du site au fil des millénaires. Les archéologues ont ainsi découvert les traces d'une carrière datant de l'âge de la pierre, qui aurait progressivement évolué en lieu de culture. Plus précisément, l'analyse archéobotanique a révélé la présence de céréales, de raisins et de figes. Cela concorde avec la description faite dans l'évangile selon Saint-Jean, qui indique qu'il y avait un jardin à l'endroit où Jésus fut crucifié : « L'évangile mentionne un espace vert entre le Calvaire et le tombeau, et nous avons identifié ces champs cultivés », déclarait Stasolla au journal *The Times of Israel*.

LES PREMIERS PAS DU CHRISTIANISME

Des trouvailles issues de diverses régions offrent une fenêtre sur le monde qui a vu naître le christianisme. Ensemble, elles peignent le portrait de la vitalité et du mouvement des idées, mais aussi celui de la diversité des communautés qui ont embrassé cette religion émergente.

En bordure d'Abu Dhabi, les archéologues ont découvert une croix en plâtre vieille de 1 400 ans à proximité d'un complexe monastique des 7e et 8e siècles sur l'île de Sir Bani Yas, ce qui confirme que les habitations faisaient partie du monastère et témoigne de la propagation du christianisme dans la région avant l'avènement de l'Islam. D'autres découvertes notables mettent en lumière la propagation du christianisme. Ainsi, en Turquie, des archéologues travaillant dans la cité antique d'Olympos ont mis au jour une impressionnante mosaïque à l'entrée d'une église chrétienne datant du 5e siècle, sur laquelle on découvre le message solennel : « Seul peut franchir cette porte celui qui suit le droit chemin ». Dans le désert du Néguev à Israël, une autre équipe a annoncé la découverte de statuettes africaines en bois d'ébène dans des tombes chrétiennes datant des 4e et 7e siècles, soit à la période byzantine ; les propriétaires des statuettes auraient été originaires d'Éthiopie.

Les chercheurs ont également dévoilé une nouvelle façon de s'intéresser aux connexions entre les premières communautés chrétiennes : une carte des routes romaines en accès libre. Baptisé Itiner-e, le site offre un outil pratique pour visualiser les routes que l'apôtre Jean aurait pu emprunter durant sa mission à travers le vaste Empire romain.

Ces nouvelles s'ajoutent à l'annonce, survenue fin 2024, de la découverte par des archéologues de la plus ancienne trace de la propagation du christianisme au nord des Alpes, à savoir une petite amulette en argent mise au jour à Francfort, en Allemagne, dans une tombe datant de 230 à 260. Gravées sur cet objet fragile, les chercheurs ont identifié 18 lignes de caractères latins, dont une partie a pu être traduite : « Au nom de Jésus-Christ, Fils de Dieu, le Seigneur du Monde ».

NOUVELLE DATATION DES MANUSCRITS DE LA MER MORTE

Les manuscrits de la Mer morte font l'objet d'une fascination extrême depuis leur redécouverte en 1947, après plusieurs centaines d'années passées dans les grottes où ils avaient été entreposés. Généralement, les universitaires situent la création de ces anciens textes religieux entre le 3e siècle avant notre ère et le 2e siècle. Il est difficile de dater individuellement les manuscrits, car les textes en eux-mêmes livrent peu d'indices et la datation de chaque manuscrit au radiocarbone pose des problèmes d'ordre pratique.

Par chance, cette année, une équipe de chercheurs a annoncé la mise au point d'un outil révolutionnaire : Enoch, un modèle d'intelligence artificielle portant le nom du prophète éponyme de l'Ancien Testament et père de Mathusalem, entraîné à l'aide de manuscrits datés au radiocarbone et donc capable d'estimer la date d'un manuscrit non daté en analysant son style graphique. D'après les premières analyses d'Enoch, les parchemins de la mer Morte seraient bien plus âgés que prévu.

Autre application fascinante de la technologie, des chercheurs ont annoncé la redécouverte d'une hymne babylonienne perdue à la gloire de la divinité Marduk, patron de la cité et du royaume de Babylone. Les scientifiques ont identifié l'hymne en utilisant l'intelligence artificielle pour analyser des tablettes cunéiformes numérisées ; l'hymne apparaît dans plusieurs textes du 7e au 1er siècle avant notre ère, une période qui inclut notamment la conquête du royaume de Juda par l'empire néo-babylonien sous le règne du roi Nabuchodonosor II.

LES ROUTES COMMERCIALES DE L'IVOIRE

L'ivoire apparaît à plusieurs reprises dans la Bible, comme signe de grandeur et de richesse avec le trône du roi Salomon, par exemple, ou même dans une dimension plus charnelle avec le Chant de Salomon : « Son ventre : un bloc d'ivoire, couvert de saphirs. » Mais alors, d'où pouvait bien provenir tout cet ivoire ? En 2025, une équipe pluridisciplinaire de chercheurs a publié une étude approfondie portant sur l'analyse de centaines d'objets en ivoire en provenance du Levant méridional et concluant que, pendant près d'un millénaire, entre 1600 et 600 avant notre ère, la réponse était l'Afrique subsaharienne, plus précisément par l'entremise de marchands venus de Nubie, connue sous le nom de royaume de Koush dans l'Ancien Testament.

NOUVELLES RÉVÉLATIONS À MEGIDDO

Vous connaissez peut-être la cité antique de Megiddo par le nom grec sous lequel elle apparaît dans le livre de l'Apocalypse : Armageddon. Pourtant, ce site inscrit au patrimoine mondial de l'UNESCO possède une riche histoire qui remonte au troisième millénaire avant notre ère, à l'âge du Bronze, où Megiddo était une importante forteresse cananéenne, un peuple qui apparaît souvent dans l'Ancien Testament en tant qu'antagoniste des Israélites. L'année dernière, les archéologues opérant sur le site ont annoncé la découverte d'une vaste couche de poteries égyptiennes datant du 7e siècle avant notre ère. La trouvaille est intrigante car dans la Bible, Megiddo est le site d'une terrible bataille entre le roi Josias et le pharaon Nékao II, qui entraîna la mort de Josias, mais aucune preuve archéologique ne permettait de corroborer l'événement jusqu'à présent. Les poteries suggèrent qu'une armée égyptienne aurait pu être stationnée au bon endroit, au bon moment.

Une autre équipe travaillant sur un site voisin a également annoncé la découverte d'un ancien pressoir à vin, âgé de 5 000 ans, taillé directement dans la roche, ainsi que celle d'un ensemble d'objets soigneusement enterrés dont la fonction était probablement cérémonielle, notamment un récipient en forme de bélier intact, un état rare de conservation, et qui pourraient apporter de précieuses informations sur les pratiques religieuses des Cananéens. La trouvaille offre une nouvelle perspective sur une civilisation qui occupe une place majeure dans la Bible, mais reste pourtant entourée de mystère.

DATATION DU SITE DE L'UN DES MIRACLES DU CHRIST

Au sud des remparts de Jérusalem, le bassin de Siloé de la cité de David apparaît dans l'évangile selon Saint-Jean du Nouveau Testament. D'après cet extrait, il s'agirait du site de l'un des miracles de Jésus. Jean, chapitre 9, raconte que Jésus aurait dit à un homme aveugle de naissance d'aller « se laver dans le bassin de Siloé ». « Il y alla, se lava et s'en retourna voyant clair », poursuit l'évangile.

En 2025, les chercheurs ont annoncé qu'ils avaient daté au carbone 14 le muret en pierre du bassin à 800 avant notre ère, ce qui suggère qu'il aurait été construit dans le cadre d'une réponse vigoureuse et soigneusement ordonnée au bouleversement climatique de l'époque.

RÉVÉLATION SUR UN ROI DE L'ANCIEN TESTAMENT

Des archéologues en poste dans l'actuelle ville de Mossoul, en Irak, ont annoncé la découverte de ce qui pourrait bien être le plus grand lamassu néo-assyrien jamais découvert, une immense statue de pierre de six mètres de hauteur représentant une créature hybride avec le corps d'un taureau ailé et une tête humaine. Les chercheurs ont mis au jour l'imposante sculpture dans ce qu'ils pensent être le palais d'Assarhaddon, un roi assyrien du 7^e siècle avant notre ère qui apparaît plusieurs fois dans l'Ancien Testament. Comme le font remarquer les spécialistes de la Bible, l'histoire d'Assarhaddon s'apparente à celle de Joseph, le fils de Jacob, dans l'Ancien Testament. Tout comme Joseph, le roi assyrien était le fils favori de son père parmi les plus jeunes de sa fratrie, arraché à son foyer et plongé dans la misère avant de finalement devenir roi contre toute attente. La découverte du lamassu témoigne de l'incroyable richesse et de la toute-puissance à la disposition d'Assarhaddon, un élément majeur de sa biographie biblique.

DES INSCRIPTIONS MINUSCULES, MAIS FASCINANTES

Le vaste et puissant Empire assyrien est évoqué à plusieurs reprises dans l'Ancien Testament, allant même jusqu'à réduire le royaume de Juda au statut d'État vassal. Lors d'une campagne de fouille menée sur le mont du Temple de Jérusalem, l'actuel site du dôme du Rocher, les chercheurs ont découvert un fragment de poterie portant une inscription en cunéiforme vieille de 2 700 ans. Le fragment en question est en fait une *bullā*, un sceau royal apposé sur une lettre que le roi d'Assyrie aurait adressé à l'un des rois de Juda, probablement Ézéchiass, Manassé ou Josias, et qui contenait un bref résumé du contenu de la lettre. L'inscription mentionne une échéance, le 1^{er} Av, un mois estival du calendrier juif, ainsi que le nom d'un messenger, ce qui pousse les archéologues à suggérer que le message invitait le roi de Juda à régler un retard de paiement dans les plus brefs délais, sous peine de subir de fâcheuses conséquences.

4,400-year-old sun temple of King Nyuserre uncovered at Abusir necropolis in Egypt

<https://archaeologymag.com/2025/12/4400-year-old-sun-temple-uncovered-at-abusir-necropolis/>

Archaeologists in the necropolis of Abusir in Egypt have discovered remains of a long-lost valley temple belonging to the solar complex of King Nyuserre, who was one of the most powerful rulers of the Fifth Dynasty and reigned more than 4,300 years ago. The find, made by an Italian archaeological mission in [Abu Ghurab](#), is one of the most significant advances in the study of ancient Egyptian sun temples in over the past century.



4,400-year-old sun temple of King Nyuserre uncovered at Abusir necropolis in Egypt.

For the first time, more than half of the temple's original structure has been exposed, and a monumental complex of over 1,000 square meters has been discovered. Its layout is unparalleled among any known valley temple in the Memphite region and underlines the architectural ambitions of Nyuserre's solar cult. Only two sun temples from ancient Egypt have been conclusively identified to date.

The temple's location was discovered by German Egyptologist Ludwig Borchardt in 1901; however, excavations could not be carried out due to high groundwater levels. Recent conditions have finally made it possible to investigate the site, where the entrance to the temple lay buried under approximately 1.2 meters of Nile River silt. The excavation revealed the original floor of the temple, a limestone column base, and fragments of a granite column that may have been part of the entrance portico. Door frames made of granite and lintels were also discovered in their original positions. Other discoveries include sections of stone casing that originally lined the passage between the entrance and the causeway that led toward the main solar sanctuary. A well-preserved quartzite gateway, along with the remains of an internal staircase leading to the roof, was discovered during an earlier season, indicating that a secondary entrance also existed on the northwestern side of the temple. A sloping ramp has also been detected, which likely connected the complex directly to the Nile or one of its ancient branches, and emphasizes the temple's close relationship with the river.



Ministry of Tourism and Antiquities وزارة السياحة والآثار
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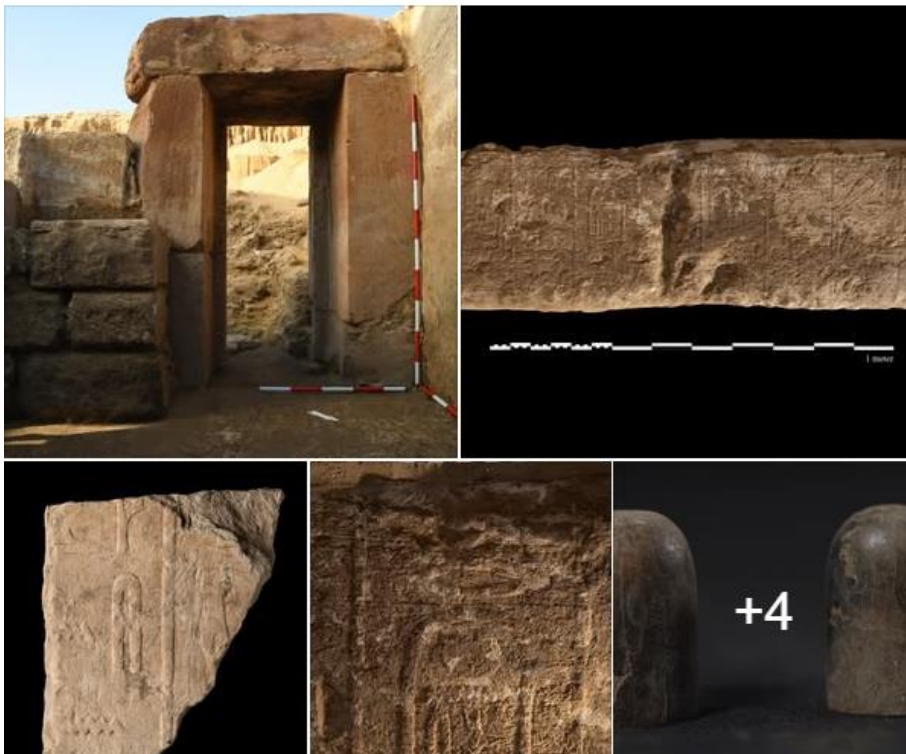


الكشف عن بقايا معبد الوادي للمجموعة الشمسية للملك "تي أوسر رع" بمنطقة أبوصير الأثرية

كشفت البعثة الأثرية الإيطالية بمنطقة أبو غراب في أبوصير، برئاسة كل من الدكتور ماسيميليانو نونسلو والدكتور روزانا بيريللي من جامعتي تورينو و نابولي، عن بقايا معبد الوادي للمجموعة الشمسية للملك "تي أوسر رع" من عصر الأسرة الخامسة، وذلك خلال أعمال الحفائر الجارية بالموقع.

وأكد الدكتور محمد إسماعيل خالد، الأمين العام للمجلس الأعلى للآثار، على أهمية هذا الكشف موضحاً إن هذا المعبد أحد معبدي

الشمس الـ ...
Voir plus ...



One of the most interesting finds to come to light is a massive stone threshold featuring hieroglyphic inscriptions that include an extensive festival calendar associated with the temple and references to King Nyuserre. There have also been discoveries of well-carved fragments of limestone and a large number of pottery vessels that range from the late Old Kingdom period to the early Middle Kingdom. A vast amount of the pottery belongs to the First Intermediate Period, which was a time when central authority in Egypt weakened.

Evidence indicates that afterward, when the solar cult was no longer functioning, the abandoned temple was reused as a small settlement. This secondary use is a rare historical find that provides insight into life in the Memphis region during a poorly documented period of Egyptian history. Other [artifacts](#) that have been found include wooden pieces from the ancient Senet board game, showing leisure activities practiced by later inhabitants. Archaeological excavations will continue in future seasons, with archaeologists working to trace the full extent of the complex and unlock the secrets of how sun temples functioned during the Fifth Dynasty of ancient Egypt.

More information: [Ministry of Tourism and Antiquities](#)

Temple of the Sun Discovered at Abusir

<https://www.biblicalarchaeology.org/daily/ancient-cultures/ancient-egypt/temple-sun-discovered-abusir/>

Excavations reveal unparalleled sun temple



Massive lintel from the sun temple at Abusir.

Archaeologists working at the site of Abusir, one of the main burial grounds of the ancient Egyptian capital of Memphis, have uncovered an extensive temple complex dedicated to the solar deity. Dating to the mid-third millennium BCE, the temple marks one of the most significant advancements in the study of Egyptian sun worship over the past century.

Worshipping the Sun



Cartouche of King Nyuserre from the sun temple at Abusir.

The newly discovered sun temple, which covers an area of more than 10,000 square feet, is architecturally unparalleled within the Memphis region. As shown by hieroglyphic inscriptions, it was constructed sometime in the 25th century BCE by King Nyuserre, who was remembered as one of the most prolific builders of Egypt's Fifth Dynasty. According to a press release by the Egyptian Ministry of Tourism and Antiquities, this is only the second sun temple ever discovered from ancient Egypt and is one of the largest and most prominent valley temples in the Memphis necropolis.

The Italian excavation team working in Abusir has uncovered approximately half of the temple, discovering many fascinating architectural elements still within their original context, including massive granite lintels and doorways, a well-preserved quartzite gate, and even the remains of an internal staircase. One of the lintels was inscribed with hieroglyphs that describe the temple's calendar of religious ceremonies. The team also unearthed a large number of artifacts, including wooden game pieces that were used to play the popular ancient board game Senet. Interestingly, the excavations also revealed that after the temple fell out of use as a place of worship, it was transformed into a small residential area during the First Intermediate Period (c. 2181–2055 BCE). This provides a new information for understanding the daily lives of the inhabitants of the Memphis region during this little-documented period of ancient Egyptian history.

Mycenaean Gold Ornaments Reveal Surprising Northern European Solar Symbols

<https://arkeonews.net/mycenaean-gold-ornaments-reveal-surprising-northern-european-solar-symbols/>



Gold ornament from Lakkithra. Greek Ministry of Culture, Ephorate of Antiquities of Kephallenia and Ithaki.

Two small gold objects discovered in [Mycenaean tombs](#) on the Greek island of Cephalonia are reshaping what archaeologists know about cultural connections at the end of the Bronze Age. A new study published in the *European Journal of Archaeology* reveals that the solar symbols decorating these ornaments originated not in the Aegean, but in Northern and Central Europe—offering striking evidence of long-distance interaction, hybrid art, and early globalization in the 12th–11th centuries BC.

A Remarkable Discovery in Mycenaean Cemeteries

The artifacts were unearthed in two separate Late Bronze Age cemeteries in the Livatho region of southwest Cephalonia. Both objects are crafted from hammered gold and date to the post-palatial [Mycenaean period](#), a time marked by political fragmentation but expanding maritime mobility.

The first object, found at Mazarakata, is a fragment of a circular gold disk once measuring around 12 centimeters in diameter. It is decorated with concentric circles in relief—a striking but unfamiliar motif in Mycenaean visual culture.

The second object, discovered at Lakkithra, is a complete elongated gold ornament about 9.7 centimeters long. It features a four-spoked wheel—a cross enclosed within a circle—flanked by two bands ending in symmetrical volutes. This piece was recovered from a collective “cave-dormitory” tomb alongside weapons, pottery, and what may have been a wooden shield, strongly suggesting the burial of a warrior.



Interior of tomb A, Lakkithra. Credit: Greek Ministry of Culture, Ephorate of Antiquities of Kephallenia and Ithaki.

Solar Symbols from the European North

What makes these objects exceptional is not their material value, but their iconography. According to the study, neither the concentric circles nor the four-spoked solar wheel are typical of [Mycenaean art](#). Instead, these motifs closely resemble solar symbols widely used in Bronze Age Northern and Central Europe, where they were deeply tied to cosmology, religious belief, and the sun’s daily journey across the sky.

Comparable gold disks have been found in Italy, particularly at Gualdo Tadino in Umbria and Rocavecchia in Apulia. These Italian examples are themselves understood as adaptations of Central European solar imagery, creating a cultural chain that stretches from northern Europe to the eastern Mediterranean.

Not Simple Imports, but Cultural Hybrids

Rather than viewing the Cephallonia objects as straightforward imports, the researchers argue for a more complex process of transcultural exchange.

The Mazarakata disk is the closest match to the Italian examples and may indeed be a foreign-made object that entered the Mycenaean world through exchange or travel. Its probable use as a funerary garment ornament aligns with Aegean burial practices, although the use of gold in this context was rare and prestigious.

The Lakkithra ornament, however, tells a more intricate story. While the central solar wheel clearly reflects European symbolism, other features are distinctly Mycenaean. The volutes may reinterpret familiar Aegean spiral or lily motifs, while the zigzag infill parallels decorative patterns found on local pottery. Even the manufacturing technique—folded edges used for attachment—matches Mycenaean goldworking traditions.

This object represents what scholars describe as “material entanglement” or “creative translation”: a hybrid artifact in which foreign ideas are actively reworked to fit local artistic language and belief systems.



(a, b) The Mazarakata ornament, recto and verso. Credit : Laténium, parc et musée d'archéologie, Hauterive (Neuchâtel) Switzerland.

Function, Symbolism, and the Afterlife

The precise function of the Lakkithra ornament remains debated. Based on its shape, researchers suggest it may have covered the handle of a bronze mirror or possibly the hilt of a small dagger. The mirror interpretation is particularly compelling.

Mirrors were elite objects in the Late Bronze Age Aegean and are overwhelmingly found in funerary contexts. Across cultures, mirrors often carry symbolic links to the sun due to their reflective surfaces. This association reinforces the meaning of the solar imagery and suggests the object may have played a role in beliefs about death, rebirth, or the soul's journey.

In European Bronze Age iconography, solar symbols are frequently linked with boats and chariots—vehicles of cosmic travel. Similar ideas existed in the Aegean, where boats, birds, and water were long associated with the divine and the afterlife.

Cephalonia at the Crossroads of the Bronze Age World

The study places Cephalonia within a dense network of maritime routes connecting the Aegean, the Adriatic, and Italy, and ultimately Central Europe. After the collapse of the Mycenaean palace system, these routes became less regulated, allowing local elites greater freedom to travel, trade, and form alliances.

Archaeological evidence supports this picture. Baltic amber beads, likely arriving via northern Italy, and glass beads linked to the Po Valley site of Frattesina have also been found in Cephalonia's cemeteries. Together, these finds suggest that island elites—possibly warriors—were active participants in long-distance exchange networks.



Chain and beads from Lakkithra tombs above and A below. Credit: Greek Ministry of Culture, Ephorate of Antiquities of Kephallenia and Ithaki.

A Bronze Age World More Connected Than We Imagined

As author Christina Souyoudzoglou-Haywood emphasizes, these gold ornaments are powerful indicators of both early globalization and cultural adaptability. Rather than passively absorbing foreign ideas, Mycenaean communities selectively adopted and reshaped them within their own symbolic frameworks.

Ultimately, these two small objects provide outsized insight into a dynamic, interconnected Bronze Age Mediterranean—one in which ideas, symbols, and beliefs traveled as far and as meaningfully as goods themselves.

Souyoudzoglou-Haywood C. The Aegean Meets Europe: Two Ornaments with Solar Motifs from Mycenaean Kefalonia (Greece). *European Journal of*

over Image Credit: Gold ornament from Lakkithra. Greek Ministry of Culture, Ephorate of Antiquities of Kephallenia and Ithaki.

Seven Lost Cities Mentioned in Ancient Texts That Archaeologists Have Yet to Find

<https://arkeonews.net/seven-lost-cities-mentioned-in-ancient-texts-that-archaeologists-have-yet-to-find/>



For centuries, ancient texts have described powerful cities, wealthy capitals, and sacred trade centers that once shaped human civilization. While archaeology has uncovered many remarkable sites, some of the most important cities mentioned in ancient writings have never been located. Wars, climate change, shifting rivers, and the passage of time have erased their physical traces, leaving scholars to rely on inscriptions, tablets, and historical accounts.

Here are seven ancient cities mentioned in early texts whose exact locations remain unknown, followed by other legendary lost cities that continue to puzzle researchers.

1. Irisagrig: The City Known Only Through Tablets

Irisagrig is known almost entirely from Sumerian administrative tablets dating back nearly 4,000 years. These texts surfaced on the antiquities market after the 2003 invasion of Iraq, suggesting the city was looted before archaeologists could document it.

The tablets describe a prosperous city with royal palaces, kennels filled with dogs, and a temple dedicated to Enki, the god of wisdom and water. Despite detailed records of daily life, festivals, and religious practices, the physical ruins of Irisagrig have never been found, and its location remains undisclosed.



Funerary stele of Intef, limestone, Middle Kingdom, early 12th Dynasty, reign of Amenemhat I, Abydos necropolis.

2. Itjtawy: Egypt's Missing Middle Kingdom Capital

Founded by King Amenemhat I around 1980 BCE, Itjtawy served as the capital of Egypt during the Middle Kingdom. Ancient Egyptian texts portray it as a symbol of political unity following years of instability. Unlike earlier capitals rooted in religious tradition, Itjtawy appears to have been deliberately placed to control both Upper and Lower Egypt, reflecting a new model of centralized governance.

Ancient texts suggest that Itjtawy functioned as a bureaucratic and military hub, housing royal residences, administrative offices, and possibly training centers for officials. The city oversaw extensive irrigation projects and agricultural redistribution, which helped stabilize Egypt after a period of political fragmentation.

Although its exact location remains unknown, archaeological clues—such as Middle Kingdom cemeteries, inscriptions, and administrative records—indicate that Itjtawy likely stood near the Faiyum region or the Memphite area, close to major Nile routes. After the decline of the Middle Kingdom, the city gradually disappeared from historical records, possibly abandoned or absorbed by later settlements.

Despite its disappearance, Itjtawy played a crucial role in shaping the classical Middle Kingdom state, influencing later royal capitals in both layout and administrative structure.



The name “Itjtawy” as written on the stele above, shown within a fortified enclosure sign.

3. Akkad: Capital of the First Empire

Akkad (Agade) holds a unique place in history as the capital of the world's first known empire. Founded around 2300 BCE by [Sargon of Akkad](#), the city became the political, military, and ideological heart of an empire that unified Mesopotamia under a single ruler for the first time.

Unlike many ancient capitals, Akkad is known almost entirely through royal inscriptions, administrative tablets, and later Mesopotamian chronicles. These texts describe Akkad as a city favored by the goddess Inanna, whose main temple, the Eulmash (Ulmas) Temple, played a central role in state ideology. Kings claimed divine support through rituals performed there, reinforcing Akkad's authority over distant regions.

Akkad was not only a military center but also a bureaucratic innovation hub. Akkadian became the first widely used international diplomatic language, replacing Sumerian in many official contexts. Clay tablets record standardized taxation, ration distribution, and provincial governance—systems that influenced later Assyrian and Babylonian administrations.

One of the most intriguing aspects of Akkad is its mysterious collapse around 2150 BCE. Later texts refer to the “Curse of Akkad,” a literary composition blaming the empire's fall on divine punishment after King Naram-Sin allegedly offended the gods. Modern research suggests that severe drought and climate instability may have played a decisive role, disrupting agriculture and trade networks.

Despite intensive surveys in Iraq, Akkad has never been identified archaeologically. Scholars believe the city may lie beneath later settlements, river sediments, or modern urban areas, possibly near the ancient course of the Euphrates. Continuous habitation in Mesopotamia may have erased visible traces of the city.

Although Akkad itself remains undiscovered, its influence is unmistakable. The concept of empire, centralized kingship, and state-controlled religion all trace their roots back to Akkad. Later Mesopotamian rulers continued to invoke Akkad's name as a symbol of legitimate power long after the city vanished.



The so-called “Mask of Sargon”, after restoration, in 1936.

4. Washukanni: The Elusive Mitanni Capital

Washukanni was the capital of the [Mitanni Empire](#), a powerful state that dominated parts of northern Mesopotamia between 1550 and 1300 BCE.

Washukanni is primarily known from Hittite, Egyptian, and Assyrian diplomatic texts, including royal letters and international treaties. These sources suggest that the city was not only a political capital but also a key diplomatic center during the Late Bronze Age.

One of the most intriguing aspects of Washukanni is its association with Indo-Aryan royal names and deities, such as Mitra, Varuna, and Indra, which appear in Mitanni treaties. This indicates a culturally diverse elite ruling over a largely Hurrian-speaking population.

Some scholars propose that Washukanni may have been located near a major river or water source, as its name is sometimes interpreted as meaning “source of good water.” Despite archaeological surveys in northeastern Syria, no site has been definitively identified as the Mitanni capital.



Kingdom of Mitanni at its greatest extent under Barattarna c. 1490 BC.

5. Thinis: The City of Egypt's Earliest Kings

Thinis (also called Tjenu) appears in ancient Egyptian records as a major political center during the early dynastic period. According to later historians, some of Egypt's first kings ruled from this city during the unification of the country around 3000 BCE.

Thinis occupies a unique place in Egyptian history as a political center before the rise of Memphis. Early Egyptian king lists and later historians suggest that Thinite rulers were instrumental in the unification of Upper and Lower Egypt.

Although the city itself has never been found, its influence is evident in the nearby royal cemeteries of Abydos, where some of the earliest dynastic tombs are located. These burials indicate a highly organized elite society capable of state formation.

Thinis is also significant for giving its name to the Thinite Period, a formative phase in Egyptian civilization. After losing its status as a capital, the city appears to have continued as a religious and administrative center, gradually fading from historical records while leaving behind a lasting legacy.



Nearby Abydos (Osireion pictured), after ceding its political rank to Thinis, remained an important religious centre.

6. Aratta: The Wealthy Rival of Uruk

Aratta is mentioned in Sumerian epic texts, particularly in stories describing diplomatic conflicts with the [city of Uruk](#). It is portrayed as a distant land rich in precious metals, skilled craftsmanship, and monumental architecture.

Whether Aratta was a real city or a legendary ideal remains debated. Possible locations include the Iranian Plateau or eastern Anatolia, but no archaeological evidence has confirmed its existence.

7. Punt: The Land of the Gods

The Land of Punt is frequently mentioned in ancient Egyptian inscriptions as a vital trade partner supplying gold, incense, ebony, and exotic animals. Reliefs from the reign of Queen Hatshepsut depict detailed trade expeditions to Punt.

Despite these vivid depictions, Punt's exact location remains unknown. Theories place it somewhere in the Horn of Africa or southern Arabia, but no city definitively identified as Punt has been found.



This relief depicts incense and myrrh trees obtained by Hatshepsut's expedition to Punt.

Other Legendary Lost Cities in Ancient Sources

Beyond these seven, ancient literature speaks of other mysterious places whose existence remains uncertain. Dilmun, mentioned in Sumerian texts as a sacred trade hub, is associated with Bahrain, yet its capital city has not been clearly identified. Thule, described by Greek and Roman writers as the northern edge of the known world, may represent a real settlement or a symbolic boundary rather than a single city.

Perhaps the most famous of all is [Atlantis](#), described by Plato as a technologically advanced civilization that vanished beneath the sea. While often considered mythical, Atlantis continues to inspire debate and exploration.

A Past Still Buried

These lost cities demonstrate how written history can survive long after physical structures disappear. Advances in satellite imagery, remote sensing, and artificial intelligence may one day reveal their locations. Until then, they remain among archaeology's greatest mysteries—silent cities waiting to be rediscovered.

Mysterious Underwater 'Atlantis' Is Like a Lost City in The Ocean

<https://www.sciencealert.com/mysterious-underwater-atlantis-is-like-a-lost-city-in-the-ocean>

https://fr.wikipedia.org/wiki/Structure_sous-marine_de_Yonaguni



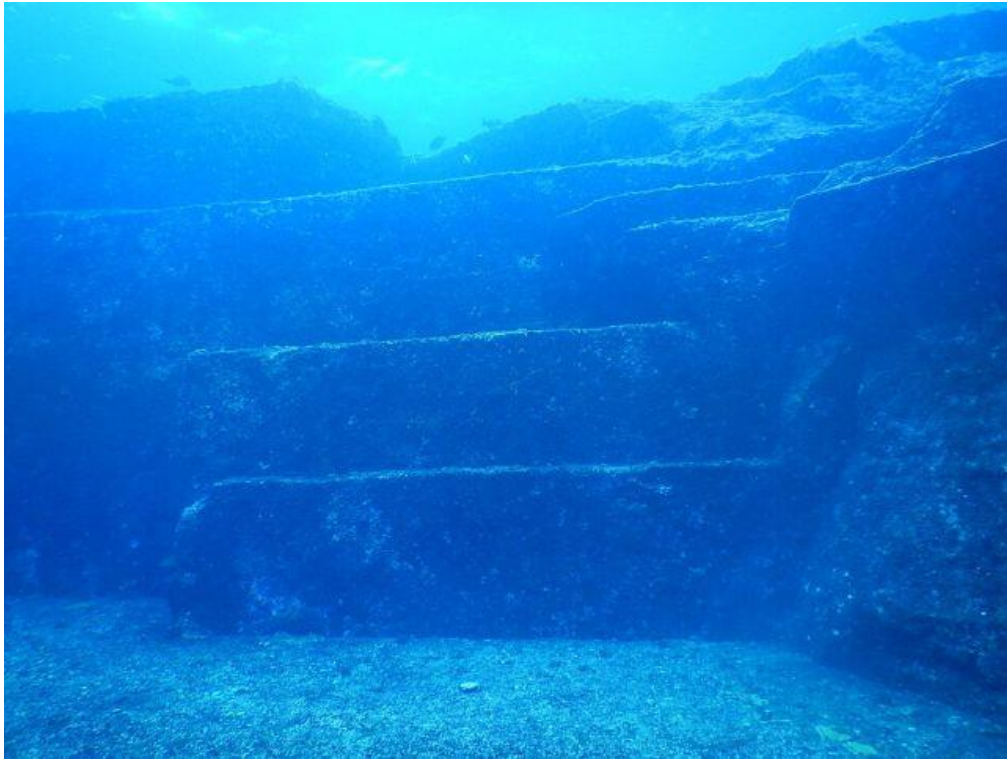
A diver at the Yonaguni Monument.

In the shimmering blue waters off Japan's Yonaguni Island lies a geological wonder.

With its top peaking just 6 meters (20 feet) below sea level, extending down to a depth of 24 meters, the Yonaguni Monument looks, for all the world, like a vast, ruined citadel, a remnant of an ancient civilization drowned by the waves.

According to most geologists, of course, it's no such thing; its stepped sandstone and mudstone form is understood as a natural creation, shaped along fractures and bedding planes by tectonic stresses and relentless erosion.

Related: [Scientists Found a 'Yellow Brick Road' at The Bottom of The Ocean](#)



Some of the sandstone blocks at Yonaguni Monument.

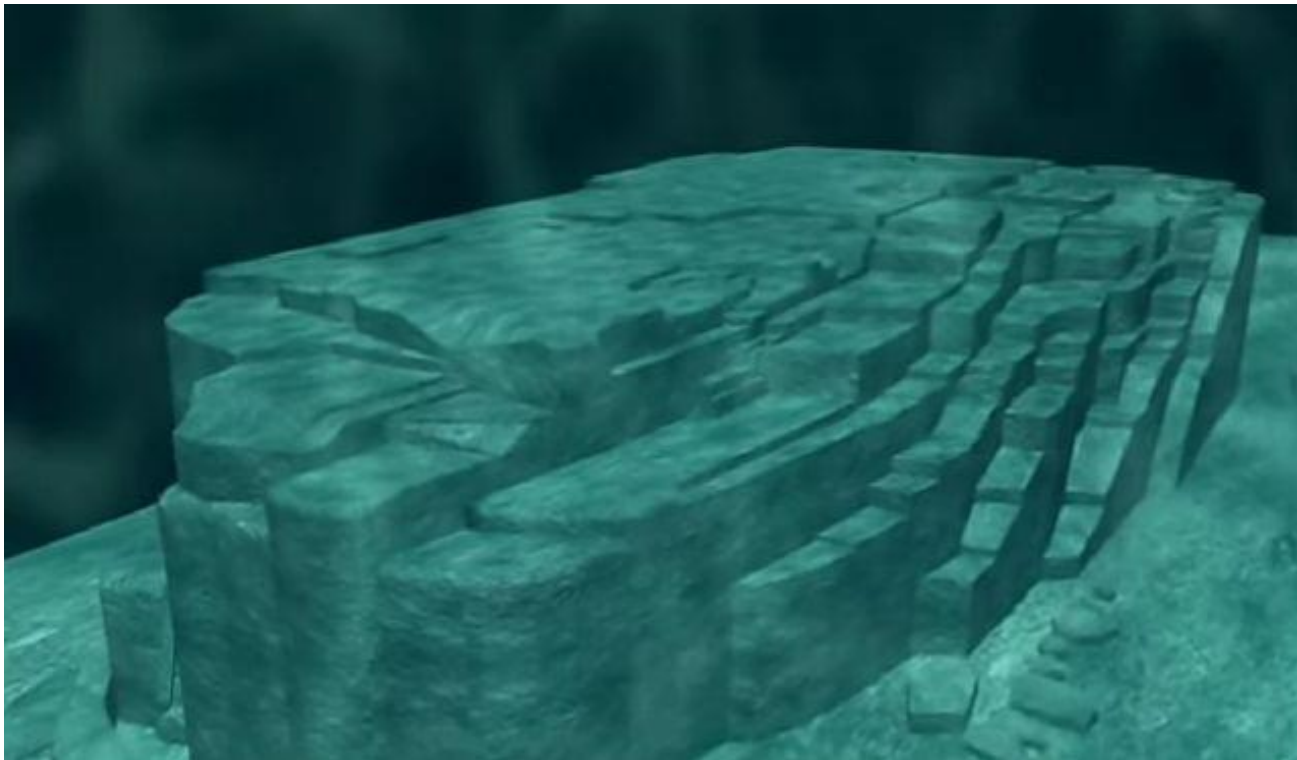
The formation was [discovered in 1987](#) by diving instructor Kihachiro Aratake, and quickly attracted the attention of geologists. It was, in a nutshell, unlike many other geological formations familiar to scientists, especially in its scale and unusually ordered appearance.

It consists of large slabs of stone, arranged in a way that resembles steps or terraces, with crisply squared edges and corners – shapes that are uncommon in natural settings at this scale, which have invited comparisons to stepped pyramids or ziggurats.

So striking was the appearance up close that geologist Masaaki Kimura of the University of the Ryukyus spent several years [compiling a detailed argument](#) that the structure had been modified or constructed by human hands, before being submerged by rising seas around 10,000 years ago.

This view is highly controversial among his fellow geologists.

While relatively few peer-reviewed studies have focused directly on the Yonaguni formation, a broader body of geological evidence suggests that its strange, structured appearance can be explained by natural processes acting over thousands of years.



A render of the Yonaguni formation. ([明智光秀/YouTube](#))

Yonaguni Monument - Japan's Lost Atlantis: <https://www.youtube.com/watch?v=jYBJnX9AHOg>

The truth behind Japan's mysterious 'Atlantis' – BBC REEL: <https://www.youtube.com/watch?v=h6mT7TD1ETo>

We know that our planet can make some remarkably geometric rocks.

The hexagonal columns of Ireland's [Giant's Causeway](#) and Scotland's [Fingal's Cave](#) are, literally, the [stuff of legend](#).

The [Tessellated Pavement](#) of Tasmania, Australia, looks like neatly laid paving stones at the edge of the ocean, while the [Al Naslaa rock](#) of Saudi Arabia is split by an astonishingly clean, straight fracture.

Meanwhile, [Preikestolen](#) in Norway – Pulpit Rock – is famed for its sheer, flat geometry.

There are several natural geological features and processes relevant to the Yonaguni formation.

A [bedding plane](#) is a natural layer in sedimentary rocks like sandstone and mudstone, the boundary where two deposition epochs meet, separating layers of rock with different properties. These are often flat planes and a natural point of weakness in a rock formation.

Perpendicular to these, rock formations can develop [joint sets](#). These are fractures in the formation, often [parallel to one another](#), that split open when the rock is stressed – under tremors, for example – separating the rock into [surprisingly neat blocks](#). [As noted](#) by geologist Robert Schoch of Boston University, who dived at the site in 1997, "Yonaguni lies in an earthquake-prone region; such earthquakes tend to fracture the rocks in a regular manner."

Because Yonaguni [lies in a fault zone](#), it experiences significant tremor activity that could easily explain both the regularity of the fractures and the stepped formation.

When the ground shakes under the formation, the rocks break and slip away from each other at these natural weakness points – activity that can produce the shape of the Yonaguni Monument.

Meanwhile, the constantly moving ocean currents erode the fractures, separating the rocks from each other and scouring the surfaces flat.



Rock formations at Sanninudai, Yonaguni Island.

Schoch also noted that nearby rock formations on Yonaguni Island, although rounded and more strongly eroded, were arranged in a similar manner to the underwater formation.

"Though the slope itself, now a tumult of ragged, fractured planes," [wrote the late author John Anthony West](#), who explored with Schoch, "did not much look like the underwater formation we'd been studying, it was clear enough that it was basically the same geomorphology – just that the slope, exposed only to wind and rain, had taken on a very different and ragged appearance over thousands of years."

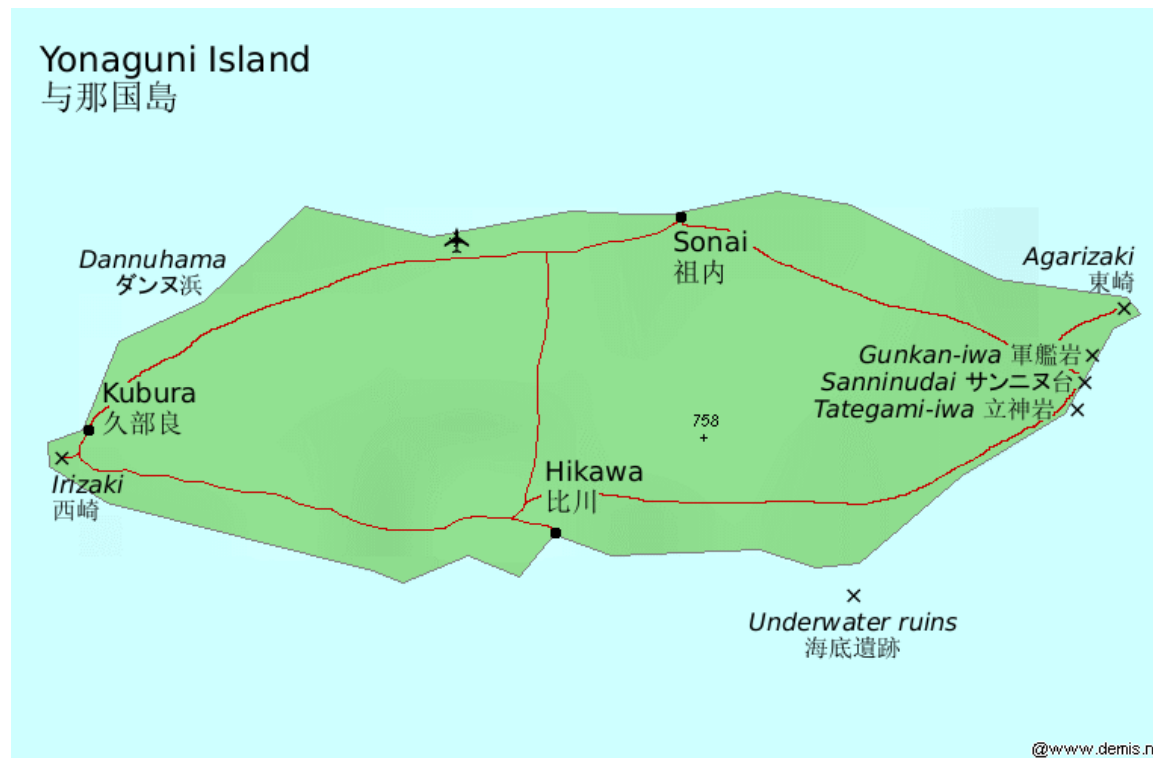
Related: ['Lost City' Deep Beneath The Ocean Is Unlike Anything We've Seen Before on Earth](#)

Because underwater geology is difficult and expensive, and everything about the Yonaguni Monument and its surrounding geology can be explained by natural processes, more detailed surveys of the site are yet to be undertaken.

However, "While these formations were once thought to be artificial, no archaeological remains or traces of human activity have been found," [noted a team of geologists](#) led by Hironobu Suga of Kyushu University at the 2024 Association of Japanese Geographers Spring Academic Conference.

"Through underwater observations, we were able to observe erosion processes, such as bedrock detachment, abrasion, and gravel generation, as well as the ongoing formation of erosional formations, such as potholes of various shapes and sizes.

"These findings suggest that the ruin-like formations are being created through the continuous weathering and erosion of sandstone on the seafloor." And honestly? The fact that Earth can create such dazzling structures just through time and jiggling is fascinating enough.



Yonaguni est l'une des îles de Yaeyama située à l'est de Taiwan



L'île Yonaguni marque le point le plus à l'ouest du Japon

Cette stèle de limite de pays, écrite en caractères chinois, peut être comprise à la fois par des japonais et par des taiwanais

日本国 *Rìběnguó – Nipponkoku* Japon

最西端之地 *zuì xīduān zhī dì – Sai seitan no ji* la terre la plus à l'ouest

与那国島 *Yǔnàguó dǎo – Yonaguni jima* l'île Yonaguni

Après le mur géant, de nouvelles découvertes archéologiques au large de l'île de Sein

<https://www.ouest-france.fr/sciences/archeologie/exclusif-apres-le-mur-geant-de-nouvelles-decouvertes-archeologiques-au-large-de-lile-de-sein-des-plongees-a-venir-a03e31f4-f3b0-11f0-bfca-235f15251990>

Plus d'un mois après avoir communiqué la découverte d'un mur géant vieux de 7 400 ans au large de l'île de Sein, Jean-Michel Keroullé, le président de la SAMM (Société archéologique de mémoire maritime), annonce à Ouest-France que de nouveaux vestiges ont été découverts dans le secteur. Pour la première fois au Ponant, une allée couverte sous-marine a été mise au jour. De nouvelles plongées se tiendront à partir du mois de mars 2026.



L'une des premières photos de l'allée couverte découverte à l'Est de l'île de Sein.

Après l'annonce de la découverte d'un mur géant vieux d'environ 7 400 ans au large de l'île de Sein (Finistère), Ouest-France s'est entretenu avec Jean-Michel Keroullé, président d'honneur de la SAMM (Société archéologique de mémoire maritime) et directeur scientifique des opérations archéologiques au large de l'île de Sein, à l'occasion d'une conférence organisée à Douarnenez, vendredi 16 janvier 2026.

Après le mur géant, avez-vous fait de nouvelles découvertes ?

Oui, car la publication était prête avant l'été, donc les opérations de l'été et automne 2025 ont permis de nouvelles découvertes. Sous 5 m d'eau, on a découvert une allée couverte de 26 mètres de long, à l'Est de l'île de Sein. Inconnue jusque-là, c'est la première fois que l'on...

One of Europe's Most Mysterious Languages May Share Ancient Roots with Iberian

<https://arkeonews.net/one-of-europes-most-mysterious-languages-may-share-ancient-roots-with-iberian/>



Irulegi's hand and his inscription.

By combining epigraphy, linguistics, and historical analysis, new research suggests that the mysterious ancient Iberian language may be more closely related to [Basque](#) than previously believed.

For centuries, the origin of the Basque language has puzzled linguists. Spoken today in parts of northern Spain and southwestern France, Basque (Euskara) is famously unrelated to any known [Indo-European](#) language. Now, a new scientific study led by Eduardo Orduña Aznar of the University of Barcelona is shedding fresh light on this mystery by uncovering potential connections between Basque and the ancient Iberian language, once spoken across much of the Iberian Peninsula before Romanization.

What makes this research particularly significant is that it moves beyond the well-known similarities in number systems and explores a deeper, more meaningful layer of language: kinship terms and personal designations. These findings suggest that Basque and Iberian may share a remote common origin rather than being linked by coincidence or simple cultural contact.

A Longstanding Linguistic Debate Revisited

The idea that Iberian and Basque might be related is not new. As early as the 16th century, historians such as Ambrosio de Morales speculated about a connection. In the 19th century, linguist Wilhelm von Humboldt argued that Iberian peoples and Basque speakers were historically linked, based largely on place names.

However, enthusiasm for this theory, known as [Basque-Iberianism](#), declined sharply in the 20th century. Once scholars deciphered the Iberian script, it became clear that Basque could not directly translate Iberian inscriptions. As a result, many modern linguists dismissed any genetic relationship between the two languages.

Orduña's work represents a revival of a more cautious and evidence-based version of Basque-Iberianism, grounded in internal textual analysis rather than speculation.

The Breakthrough That Started with Numbers

The strongest evidence for a connection emerged in the early 2000s with the decipherment of the Iberian numeral system. Research by Orduña and later expanded by Joan Ferrer i Jané revealed that Iberian numerals closely mirror Basque ones, both in form and structure.

Examples include:

Iberian ban (one) and Basque bat

Iberian bi (two) and Basque bi

Iberian laur (four) and Basque lau

Iberian borste (five) and Basque bost

Iberian orkei (twenty) and Basque hogei

Even more striking is how these numbers combine. Iberian orkeiborste (25) follows the same logic as Basque hogei ta bost ("twenty and five"). These forms appear in practical contexts such as weights and measures, leaving little doubt about their meaning.

Because numbers are part of a stable and conservative vocabulary, many scholars see this level of similarity as strong evidence of a genetic relationship.

Beyond Numbers: Family Ties in Language

In his latest study, Orduña asks a logical next question: if Iberian and Basque are related, should we not find similarities in other core vocabulary? He focuses on kinship terms, such as “father,” “son,” and “relative,” which are ideal candidates because they are culturally central and linguistically stable.

Using a rigorous contextual method, Orduña identifies repeated elements in Iberian inscriptions that do not behave like typical personal names. These elements appear frequently, combine with each other, and often occur in funerary or dedicatory texts.

For example, in a lead inscription from Castellón, sequences like *aur*, *uni(n)*, *aste*, and *be(i)* recur in ways that suggest meaningful lexical elements rather than names. Orduña compares these with Basque and ancient Aquitanian (an early relative of Basque) forms:

ata- possibly linked to Basque *aita* (“father”)

uni(n)- comparable to Basque *unide* (“wet nurse” or family helper)

-kidei- resembling Basque *-(k)ide*, meaning “companion” or “member of”

-be- paralleling Aquitanian elements found in words meaning “son” or “child”

-ko and *-so*, similar to Basque kinship suffixes as in *izeko* (“aunt”) or *aitaso* (“grandfather”)

Crucially, these elements tend to form a distinct subgroup within Iberian inscriptions, much like numerals do, reinforcing the idea that they belong to a shared semantic system.

Grammar, Verbs, and New Archaeological Evidence

The study also highlights grammatical similarities. Iberian appears to use a suffix *-en* to mark possession, comparable to the Basque genitive *-en*. Another suffix, *-te*, may function similarly to the Basque ergative marker, a rare grammatical feature in Europe.

Verbal forms offer further parallels. Iberian terms such as *egiar* or *ekiar*, possibly meaning “made,” resemble Basque *egin* (“to make”). These similarities suggest not just shared words, but shared grammatical structures.

Recent archaeology adds weight to the argument. The discovery of the Bronze Hand of Irulegi in Navarre revealed a Vasconic (early Basque) inscription written using an adapted Iberian script. One verb on the artifact, *efaukon*, closely resembles an archaic Basque form meaning “he/she gave,” and mirrors Iberian verbal forms found elsewhere.

A Cautious but Compelling Conclusion

Orduña is careful not to overstate his case. Iberian remains only partially understood, and some proposed sound correspondences are still debated. Yet the accumulation of evidence—from numerals and kinship terms to morphology and inscriptions—points in a consistent direction.

Rather than isolated coincidences, the similarities between Iberian and Basque form interconnected systems that repeatedly align with one another. As Orduña concludes, exclusive and systematic parallels of this kind cannot be ignored.

Piece by piece, the linguistic puzzle of pre-Roman Iberia may finally be coming together, offering new insight into the deep history of one of Europe's most enigmatic languages.

Orduña Aznar, E. (2026). The relationship between Basque and Iberian: Beyond the numerals. *Palaeohispanica*, 25(1) (Actas del XV Coloquio de Lenguas y Culturas Paleohispánicas). <https://doi.org/10.36707/palaeohispanica.v25i1.690>

Les Romains, grands bâtisseurs du monde antique

<https://www.nationalgeographic.fr/histoire/culture-generale-archeologie-les-romains-grands-batisseurs-du-monde-antique>

L'expansion de l'une des plus grandes puissances de la Méditerranée n'était pas uniquement due aux conquêtes. Les Romains ont bâti des infrastructures titanesques, dont certaines tiennent encore debout.

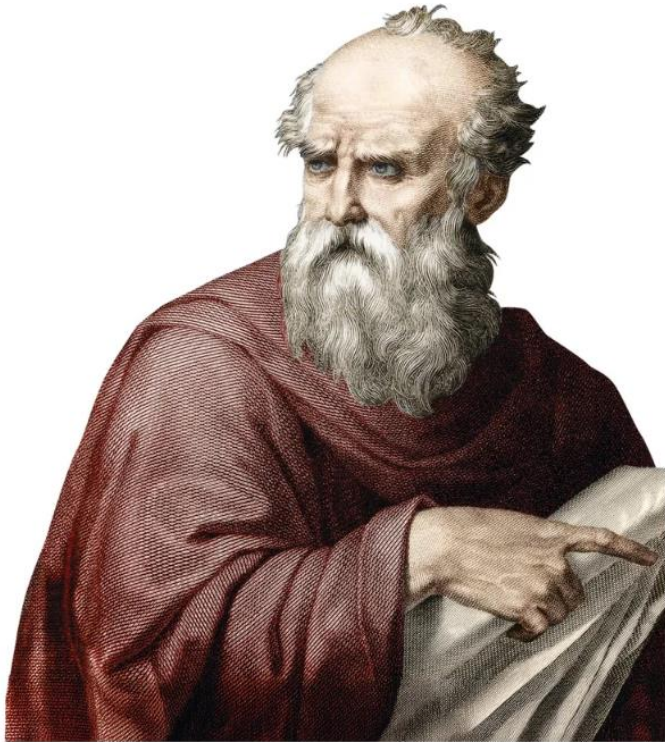


Bâti entre la fin du 1^{er} et du 2^e siècle apr. J.-C., l'aqueduc de Ségovie, dans le centre de l'Espagne, est constitué de pierres dressées, assemblées sans mortier. Les pierres en coin, ou voussoirs, formant les arches, étaient percées de trous, permettant aux Romains de les soulever et de les positionner grâce à des grues.

Le monde romain était relié à sa capitale par une toile invisible faite de lois, de coutumes et d'un réseau tangible de routes, aqueducs, égouts et ports. Cette merveille d'infrastructures, dont les ruines suscitent encore l'admiration, proclamait la domination de Rome à travers l'Europe, le Moyen-Orient et l'Afrique du Nord.

L'ingénierie est l'un des héritages les plus durables que nous a laissé la Rome antique. L'adoption de technologies inventées par les Grecs, les Étrusques, les Égyptiens et les Babyloniens permit aux Romains de les adapter à leur propre esprit utilitariste.

L'utilité, ou *utilitas*, était un concept central de la philosophie romaine. Vitruve, architecte romain du 1^{er} siècle av. J.-C., également ingénieur et théoricien, méditait sur son admiration des mathématiciens et des ingénieurs sur qui reposaient la grandeur de Rome : « Des hommes dont les recherches sont une possession immortelle, pas seulement pour le développement de leur caractère, mais aussi pour l'utilité publique. »



Cette gravure colorisée de l'architecte et ingénieur romain, Vitruve, a été réalisée par l'artiste Jacopo Bernardi au 19^e siècle.

DÉPASSER LA NATURE

Tacite, historien du 1^{er} siècle de notre ère, raconta l'histoire de deux ingénieurs qui conçurent un canal de plus de 160 kilomètres de long pour l'empereur Néron. Ce canal devait relier la baie de Baïes, près de Naples, au Tibre. Le canal ne fut jamais bâti, mais les mots de Tacite expriment l'estime portée aux ingénieurs par les Romains : « Les architectes et ingénieurs étaient Sévère et Célère, qui possédaient l'ingéniosité et le courage d'opposer la force de l'art contre le veto de la Nature elle-même. »

Le secret derrière le triomphe des infrastructures romaines repose sur la mise en pratique de découvertes centenaires dans les domaines des mathématiques, de la physique et de la chimie. Archimède, au 3^e siècle av. J.-C., avait grandement défini les lois de l'hydraulique, l'application pratique de la mécanique des fluides, et de l'hydrodynamique, la dynamique des fluides. Les Romains les mirent en pratique en construisant des citernes, des aqueducs et des ports. Les progrès en topographie et en cartographie réalisés par les Égyptiens, les Grecs et les Étrusques servirent de base au système romain d'arpentage, la centuriation. Celle-ci marqua le début de la construction de leurs routes et d'autres infrastructures.



L'Aqua Claudia, un aqueduc qui approvisionnait Rome en eau, fut bâti au 1^{er} siècle apr. J.-C. Cette section était située le long de la via Latina, un axe majeur du sud de l'Italie.

Rome fut la première puissance à implémenter l'ingénierie civile, mécanique et militaire à grande échelle à travers tous ses territoires. Beaucoup de ces constructions restèrent en usage durant des siècles, voire des millénaires, et certains aqueducs, routes, ponts et ports de Rome sont encore debout et utilisés aujourd'hui. Leurs amphithéâtres, cirques et basiliques toisent des rues modernes à travers l'Europe. La longévité de ces monuments vient du dévouement sans faille des Romains à la qualité. Aucun raccourci n'était emprunté. Les meilleurs matériaux étaient toujours utilisés et leur savoir-faire était précis. Chaque détail comptait.

SUR LA ROUTE

De nombreuses structures emblématiques et pérennes de Rome étaient associées aux transports. L'expansion territoriale de l'empire reposait sur un réseau robuste de routes afin d'assurer sa cohésion politique et culturelle. À son apogée, au cours de la première partie du 2^e siècle apr. J.-C., Rome régnait sur près d'un cinquième ou un quart de la population mondiale. Un empire qui s'étendait sur plus de 5 millions de kilomètres carrés, connecté par 320 000 kilomètres de routes, dont près de 85 000 étaient pavés.

Lorsque les ingénieurs romains conçurent ces routes, leur priorité était d'assurer un moyen de transport fluide pour les véhicules à roue. Les routes furent choisies avec soin. Ils eurent recours à différentes solutions selon le relief des terrains. Pour traverser des chaînes de montagnes, ils

choisissaient toujours de passer par le côté le plus accessible, le sommet le plus bas et le versant le plus ensoleillé. Ils choisissaient le plus faible gradient de dénivelé et évitaient l'eau à tout prix. Malgré ces méthodes, ils firent tout de même face à de nombreux défis.

Les zones plates ou ondulées étaient les plus faciles à traverser. Les irrégularités du terrain étaient le plus souvent lissées grâce à des talus. L'ajout de matériaux provenant des carrières créait plusieurs strates sous la surface de la route. C'est pour cette raison qu'on les appelait également. Ce terme aboutit à l'existence de *strada* en italien et de *street* en anglais. Dans d'autres circonstances, le terrain devait être creusé pour construire la route. Sur la voie Apienne, à Terracina, les ouvriers creusèrent à travers 36 mètres de roche, un exploit connu et marqué par une ancienne inscription.

L'eau représentait le plus grand défi, elle menaçait la stabilité et la pérennité des infrastructures. S'il était question d'un lac ou d'un marécage, le problème pouvait être aisément résolu en drainant de vastes zones à l'aide de tranchées ou de chaînes de drainage. Ces petites structures ou tuyaux demeuraient cachés aux yeux des voyageurs.

Pour franchir les cours d'eau, il fallait construire des ponts, l'une des structures les plus complexes et les plus coûteuses à ériger. Ils devinrent l'un des grands symboles de la civilisation romaine, mais comptèrent également parmi ceux qui résistèrent le moins aux aléas du temps.



Reconstitution d'un groma, un instrument de mesure utilisé par les géomètres romains pour poser les routes ou diviser les terres en lots.

Le pourcentage de ponts en pierre datant de l'époque romaine qui tiennent encore debout aujourd'hui est faible. La plupart ployèrent devant les catastrophes naturelles, telles que des inondations ou des tremblements de terre. Ou bien ils tombèrent en ruines, au-delà de toute réparation possible, avec la chute de l'autorité romaine. D'autres encore furent détruits, et leurs pierres servirent à édifier de nouveaux bâtiments. Toutefois, un petit nombre survécut, un exploit qu'ils doivent à leur emplacement, à la qualité de leur construction et à leur utilisation continue. Ces ponts, comme celui d'Alcantara datant du 2^e siècle apr. J.-C., dans le sud-ouest de l'Espagne, ou le pont Saint-Martin, bâti au 1^{er} siècle dans le nord de l'Italie, se trouvaient dans des zones à la géologie stable et loin des courants de rivières les plus destructeurs.

Leurs immenses arches de pierre furent conçues par une main de maître pour distribuer le poids et soutenir la pression hydraulique. Bon nombre de ces ponts étaient des passages cruciaux pour les communautés médiévales et du début des temps modernes. Leur maintenance était donc assurée.

Certains, comme le Pont du Gard, érigé au 1^{er} siècle apr. J.-C. dans le sud de la France, furent même réadaptés et protégés par des dirigeants qui reconnurent leur utilité ou leur valeur symbolique. Leur survie est tout autant le résultat d'une continuité pragmatique que de l'expertise romaine.

DEUX FOIS PLUS COMPLEXE

Construire un pont représentait un double défi. D'une part, les fondations devaient être solides. Des piliers verticaux devaient être enfoncés profondément dans le lit de la rivière pour fournir une base stable. D'autre part, le pont devait couvrir entièrement la distance entre les deux berges, avec suffisamment de force pour soutenir sa route et le poids des chariots, des animaux de trait et des légions de soldats. Encore et encore, les ingénieurs romains firent montre d'un talent remarquable pour résoudre ces deux problèmes, associant une connaissance structurelle précise à des techniques de construction innovantes.

Les premiers ponts de Rome étaient faits en bois et respectaient la conception traditionnelle grecque. Des poutres étaient placées à l'horizontale sur des soutiens verticaux pour former une structure en pilier et linteau, ou architrave. Ce simple cadre était soutenu par des rangées de piliers en bois enfoncés dans le lit de la rivière. Dans la ville de Rome, le premier pont connu était le pont Sublicius, qui enjambait le Tibre près du Forum Boarium. La tradition veut qu'il ait été construit au 7^e siècle av. J.-C. Son nom, qui signifie « pont fait de planches de bois », vient des *sublicae*, les madriers de soutien fichés dans le sol. Au fil du temps, les Romains réalisèrent que ce type de structure était trop faible pour soutenir le poids des chariots, des légions et d'autres trafics lourds. Les ponts de bois, loués pour la facilité de construction et de déconstruction, continuèrent d'être utilisés par les armées pour permettre à un petit nombre de troupes de traverser des obstacles.

PASSER LE RHIN

En 55 av. J.-C., les légions de Jules César bâtirent un pont qui enjambait le Rhin, un audacieux exploit d'ingénierie militaire qui n'avait pas son égal dans le monde antique. Dans son livre, *La Guerre des Gaules*, Jules César écrit : « [avoir] résolu de passer le Rhin ; mais le traverser sur des bateaux ne lui semblait ni assez sûr ni assez convenable à sa dignité et à celle du peuple romain. Aussi, malgré l'extrême difficulté qu'offrait la construction d'un pont, à cause de la largeur, de la rapidité et de la profondeur du fleuve, il crut cependant devoir le tenter ; autrement il fallait renoncer à faire passer l'armée. » En seulement dix jours, les Romains bâtirent un pont qui enjambait le large et rapide fleuve, le traversèrent et le démontèrent pour empêcher l'ennemi de s'en servir.



Rebâti en 142 av. J.-C., le pont Æmilius devint le premier pont de Rome fait entièrement en pierre. Tout ce qu'il en reste aujourd'hui est une arche médiévale, qui se tient sur les fondations romaines d'origine.

Pour permettre des traversées plus souples, les ingénieurs romains avaient souvent recours à des ponts flottants. Ces structures flottantes se servaient de bateaux, placés bord à bord et surmontés par un pont soutenu par des piliers verticaux. Elles étaient simples à assembler et idéales pour de larges fleuves prompts aux crues, tels que le Rhône, en France actuelle, où bâtir un pont de pierre permanent était trop cher, voire impossible à réaliser.

DES ARCHES RÉVOLUTIONNAIRES

La quintessence du pont romain était un pont de pierre. Bien qu'ils ne fussent pas une invention de Rome, les Romains en révolutionnèrent la forme avec une innovation clé : une arche ronde. Cette structure, simple, mais solide, est devenue la clé de voûte de l'ingénierie romaine.

Dans une arche, chaque pierre de taille en forme de coin, ou voussoir, transfère son poids à sa voisine, orientant la charge vers l'extérieur puis vers le bas, en direction des fondations. La clé de voûte, l'élément central, scelle l'intégralité de la structure en place. Les arches, car elles nécessitaient moins de piliers de soutien, permirent à Rome de construire des ponts durables pour enjamber de vastes fleuves avec grâce.

Le pont Saint-Martin, dans la Vallée d'Aoste, en Italie, fut construit près de la cité romaine d'Augusta Praetoria. Ce pont à une arche, d'une longueur de 36 mètres, joignait les deux rives. Sa construction était si audacieuse que les locaux pensaient qu'il s'agissait de l'œuvre du diable.

Les Romains bâtirent des ponts encore plus grandioses. Celui d'Alcantara, en Espagne, est l'un des plus grands ponts romains du monde avec ses 55 mètres de haut. Mais en longueur, le pont d'Augusta Emerita, aujourd'hui Mérida, également en Espagne, le dépasse. Il enjambe le fleuve Guadiana sur une longueur de 790 mètres et repose sur soixante arches, encore intactes.

Certains des ponts les plus ambitieux n'existent plus aujourd'hui. Le pont de Trajan, construit au-dessus du Danube entre 103 et 105 apr. J.-C., était une merveille hybride. Des piliers de pierre colossaux soutenaient des arches en bois de charpente, qui furent plus tard remplacées par de la pierre, pour un pont s'étendant sur près de 800 mètres de longueur. Une gravure sur la Colonne Trajane commémore sa conception audacieuse. L'historien romain, Dion Cassius, en eut le souffle coupé : « Trajan a bâti [...] un pont en pierre et je ne saurais trop l'admirer pour cela. Une œuvre brillante, cela ne fait aucun doute, à l'instar de ses autres réalisations. »

Mais, même ce pont fut plus tard surpassé en grandeur. En 328 apr. J.-C., l'empereur Constantin demanda à ses ingénieurs de bâtir un pont pour traverser le Danube, d'une longueur de 2,5 kilomètres. Le pont ne tint que quarante ans, mais il fut le pont le plus long de l'Antiquité. Aujourd'hui encore, avec les avancées énormes en ingénierie structurelle, il compte parmi les plus longs ponts jamais bâtis.

LES FONDATIONS D'UN MONDE MODERNE

Les Romains accomplirent des avancées structurelles majeures dans un autre domaine de leur réseau de transport : les ports qui animaient le commerce maritime et approvisionnaient Rome.

Les ingénieurs romains mélangeaient de la cendre volcanique, du limon et de l'eau de mer dans leur ciment, afin de créer un matériau qui pouvait durcir sous l'eau. Cette invention changea la donne dans le domaine de l'ingénierie structurelle, permettant la construction et la réparation d'aqueducs plus sophistiqués et de ports marins.

Grâce aux avancées des Romains dans le ciment, les ports n'avaient plus besoin de dépendre de la protection offerte par les formations naturelles, et pouvaient s'étendre au-delà des défenses des digues et des jetées. Terminées sous le règne de l'empereur Trajan en 110 apr. J.-C., les immenses fondations en ciment du port de Centocelle, situé à seulement 65 kilomètres au nord-ouest de Rome, servirent de base au port de Civitavecchia. Les bateaux de croisière et les ferrys qui traversent la Méditerranée et arrivent dans le port aujourd'hui mouillent directement au-dessus des énormes structures de l'époque de Trajan, qui résistent aux âges et aux marées depuis près de deux millénaires.

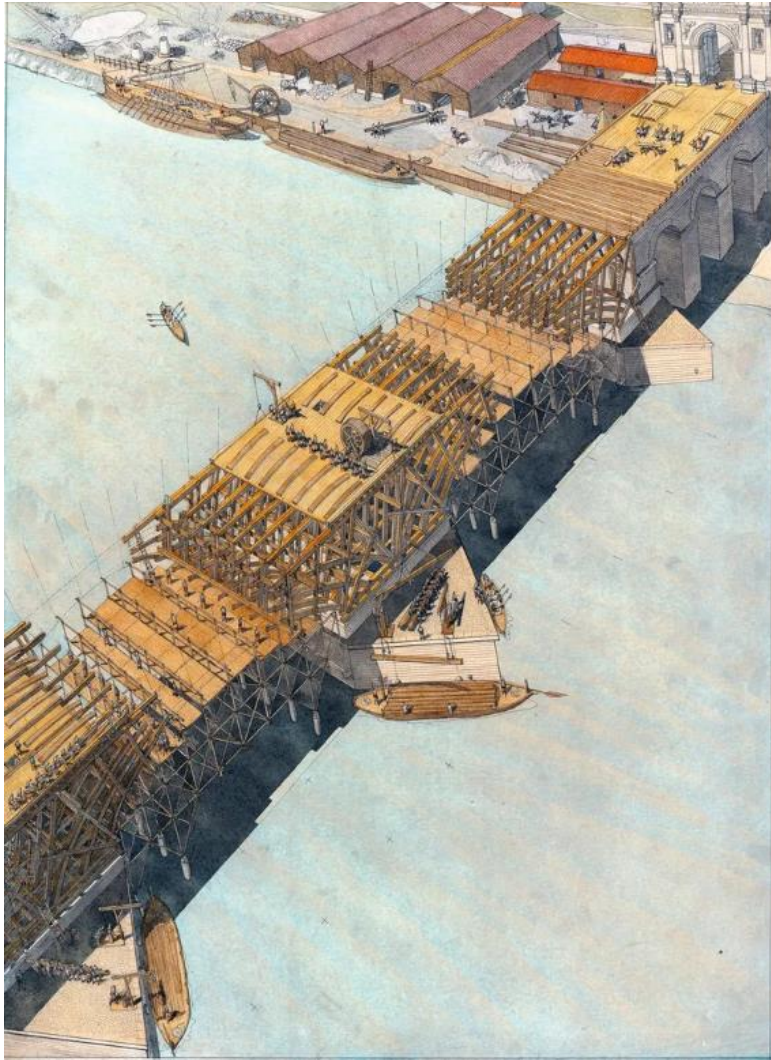


Traversant le fleuve Guadiana sur plus de 790 mètres, ce pont résistant fut construit après la fondation d'Augusta Emerita, en 25 av. J.-C. Aujourd'hui, cette ville est connue sous le nom de Mérida et se trouve en Espagne.

En plus de ports comme celui de Civitavecchia, les fondations de nombreux ponts, routes et aqueducs romains continuent de soutenir des infrastructures modernes. À ces fondations physiques s'ajoute la philosophie des États modernes, pour lesquels le contrôle politique dépend des progrès techniques qui facilitent la circulation des marchandises et des armées. Les solutions d'ingénierie qui permirent la construction de routes sur des terrains considérés auparavant comme infranchissables renforcèrent la domination de Rome sur des territoires de plus en plus éloignés.

À la fin de la République, la rapidité de déplacement sur les routes était synonyme de pouvoir. Dans *La Vie des douze Césars*, l'historien Suétone décrit la vitesse remarquable des voyages de Jules César. « Il franchissait les plus longues distances avec une incroyable célérité, sans apprêt, dans une voiture de louage. Il faisait ainsi jusqu'à cent milles [160 kilomètres] par jour. [...] Il lui arrivait souvent de devancer ses courriers. » Des années plus tard, à en croire Plinie l'Ancien, Tibère « se rendant en toute hâte en Germanie auprès de son frère Drusus malade, et relayant trois fois, mit un jour et une nuit à faire ce long voyage : la distance était de 200 000 pas [290 kilomètres] ».

Dans son ouvrage *The Roads to Rome*, l'historienne Catherine Fletcher explore le rôle des routes romaines dans la facilitation des échanges humains à travers les générations. Elle écrit : « L'histoire des routes romaines est l'histoire de l'Europe et de ses voisins, racontée depuis le sol sous nos pieds. » Une grande partie de ce passé est à présent enterrée sous des siècles d'histoire. Pourtant, elle continue d'influencer les déplacements, les échanges et les connexions entre les peuples.



Construction des arches de bois du pont du Danube.

World's Oldest Rock Art Discovered in Indonesian Cave

<https://www.sciencealert.com/worlds-oldest-rock-art-discovered-in-indonesian-cave>



The tips of the fingers were pointed, a style only seen in Sulawesi, and which may have been related to animals

The dark bowels of a limestone cave on Muna Island, off the coast of Sulawesi in Indonesia, just yielded an ancient secret. There, a team of archaeologists has discovered human-made rock art [older than any other](#) reliably dated example, with a minimum age of 67,800 years ago. The eerie hand stencils with their pointed fingers represent an important piece of the puzzle about early human migration across the region, tens of thousands of years ago.

"What we are seeing in Indonesia is probably not a series of isolated surprises, but the gradual revealing of a much deeper and older cultural tradition that has simply been invisible to us until recently," archaeologist Maxime Aubert of Griffith University in Australia, who co-led the research, told ScienceAlert.

"The amount and great age of rock art found there show that this was not a marginal or temporary place. Instead, it was a cultural heartland where early humans lived, travelled, and expressed ideas through art for tens of thousands of years."

Related: [Cave Painting of a Pig Hunt Could Be The Oldest Story Ever Recorded](#)

In recent years, both Sulawesi and the Indonesian portion of Borneo have emerged as unexpectedly important sites for understanding early human creativity and migration. In many cases, cave paintings were discovered decades ago, but researchers lacked reliable methods to determine their age. Thanks to advances in dating techniques, scientists now know that some of these artworks are far older than previously thought, with minimum ages exceeding [40,000 years](#) and stretching beyond [51,000 years](#).

"Each time we apply these methods in new areas, the ages turn out to be much older than expected," Aubert said. "That tells us the problem was not that early humans were suddenly making art in one place, but that we have been looking in the wrong places, or not looking carefully enough." This most recent finding was made in Liang Metanduno, a cave long known to contain [ancient rock art](#). Aubert and his colleagues wanted to determine where the creations in this cave fit into the timeline of ancient art in the Indonesian archipelago.



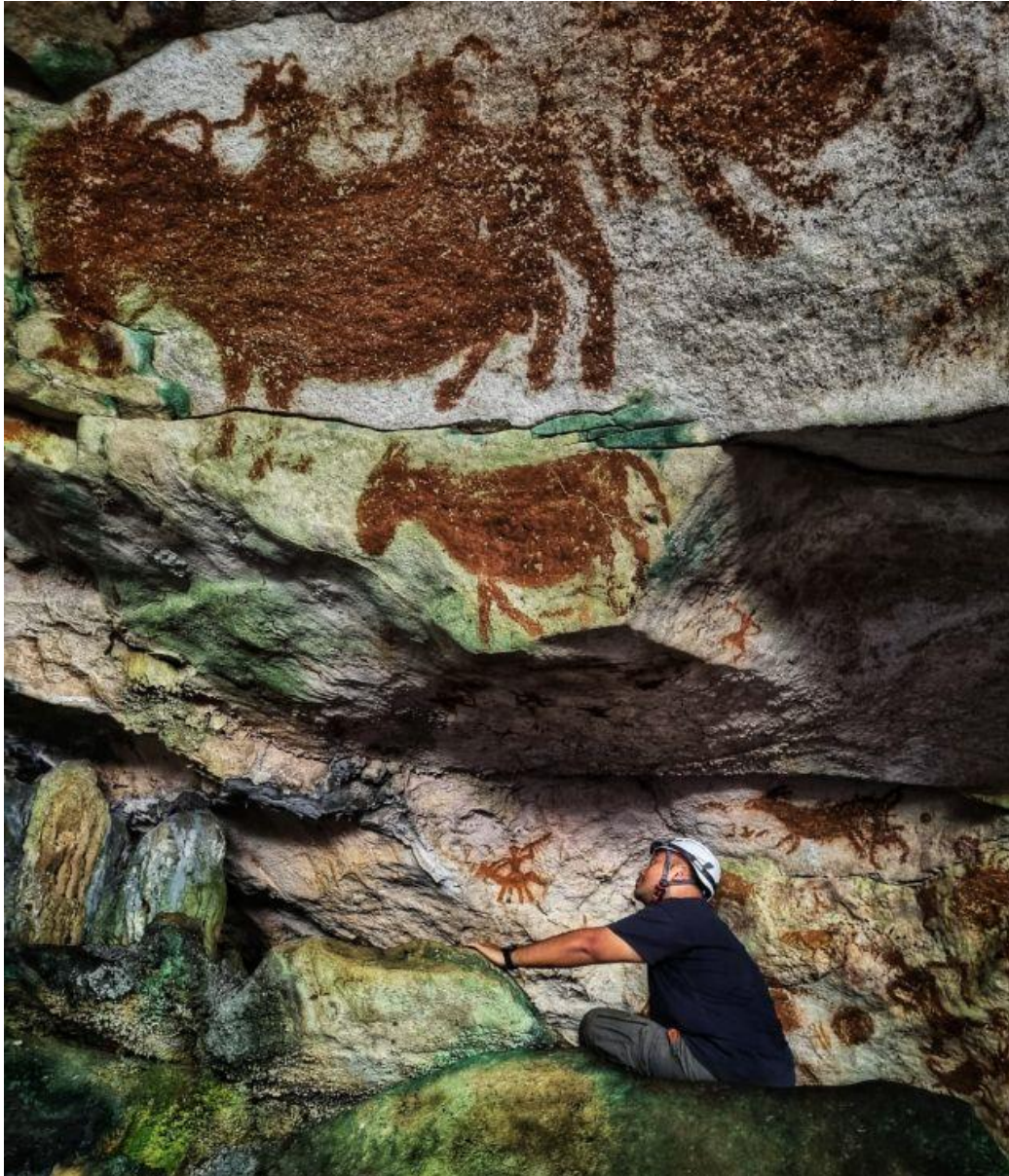
Maxime Aubert in Liang Metanduno.

If archaeologists are lucky, over a timespan of thousands of years, a thin layer of calcite is deposited over the art, precipitated from water running over the surface of the rock. This water often contains a small amount of uranium, which is soluble in water. Over time, uranium decays into thorium, which is not water-soluble.

Because the rate at which uranium decays into thorium is precisely known, scientists can look at the ratios of uranium and thorium in samples of the coating to determine how old it is.

That means it is not the paint itself that has been dated to 67,800 years ago, but the mineral crust that formed on top of it. The art beneath must therefore be at least that old.

And, combined with previous evidence, this suggests that much of the rock art in the region is potentially far older than previously estimated, which in turn would change how we understand Sulawesi – a key stopping point for [early human migration to Australia](#).



Archaeologist Shinatria Adhityatama of Griffith University and the Indonesian National Archaeology Research Institute working in the cave.

"Art may have become especially important as populations grew and groups interacted more often," Aubert said.

"One way to think about this is through modern examples. Traffic lights are needed in large cities, but not in small villages. In a similar way, art, symbols, and shared images may have helped people communicate identity, belonging, and shared meaning as social networks became larger and more complex."

For archaeologists, this kind of symbolic behavior matters because of when and where it appears. The newly dated art sits along a proposed northern migration route that early modern humans are thought to have taken as they moved through Island Southeast Asia toward [Sahul](#), the Ice Age landmass that once joined Australia and New Guinea.

Finding evidence of complex artistic traditions along this corridor helps fill a long-standing gap between early sites in mainland Asia and the earliest traces of people in Australia, and suggests that humans could have arrived on Sahul by as early as 65,000 years ago. It also throws open many more exciting questions, such as how much more rock art of this era remains to be discovered in the surrounding area, how symbolic traditions traveled and spread, and whether there are even earlier chapters of this story yet to be discovered.

"What excites us most is that this art shows early people in Southeast Asia were already expressing ideas, identity, and meaning through images tens of thousands of years ago. These were not isolated experiments. They were part of a long-lasting cultural tradition," Aubert said.

"For us, this discovery is not the end of the story. It is an invitation to keep looking."

The research has been published in [Nature](#).

World's Oldest Hand Stencil Art Discovered in Indonesia, Dating Back Nearly 70,000 Years

<https://arkeonews.net/worlds-oldest-hand-stencil-art-discovered-in-indonesia-dating-back-nearly-70000-years/>



Deep inside a limestone cave on the [Indonesian](#) island of [Sulawesi](#), faint red handprints sprayed onto rock walls nearly 70,000 years ago are forcing scientists to rethink when, where, and how modern humans first expressed symbolic thought.

An international team of archaeologists has identified the oldest known hand stencil [rock art in the world](#), dated to at least 67,800 years ago, at the cave site of Liang Metanduno in Southeast Sulawesi. The discovery, published in *Nature*, predates Europe's earliest known cave art and places Indonesia at the very centre of the story of human creativity.

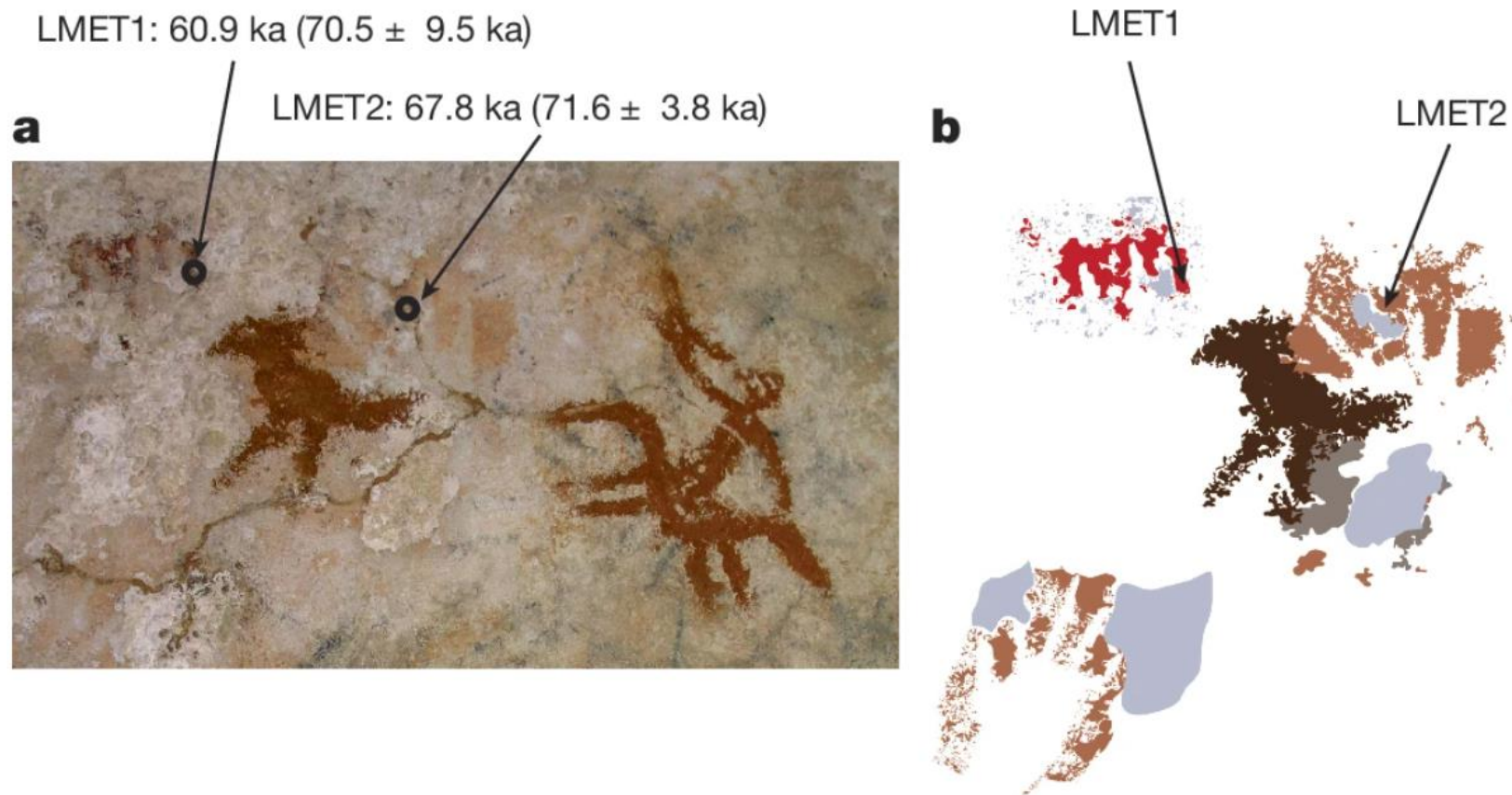
These ancient hand stencils—negative impressions created by spraying pigment around an outstretched hand—are more than simple marks on stone. According to researchers, they represent some of the earliest evidence that humans used art to communicate identity, presence, and meaning.

Older Than Europe, Older Than Expected

Using advanced laser-ablation uranium-series dating, scientists analysed calcium carbonate deposits that formed naturally over the paintings. The results showed that one hand stencil was created at least 67.8 thousand years ago, while another nearby stencil dates to more than 60,000 years ago. These ages make the Sulawesi hand stencils older than famous European cave art traditionally associated with the dawn of human creativity.

Until recently, many scholars believed symbolic art emerged first in Europe around 40,000 years ago. The Sulawesi discoveries challenge that long-held assumption.

“This is the earliest securely dated evidence for hand stencil art anywhere in the world,” said Professor Adam Brumm of Griffith University, one of the study’s senior authors. “It shows that humans in Island Southeast Asia were producing complex symbolic art tens of thousands of years earlier than previously thought.”



a,b, Samples LMET1 and LMET2 collected from over distinct hand stencils: photograph of the rock art panel with the two hand stencils (a) and digital tracing (b).

A Global First for Hand Stencil Rock Art

Hand stencils are among the most widely distributed forms of prehistoric art, appearing on cave walls across Europe, Asia, Australia, and the Americas. However, until recently, most of the earliest dated examples were thought to come from Europe and to be around 40,000 years old.

The Sulawesi hand stencils fundamentally change that picture. At Liang Metanduno, one stencil was dated to a minimum age of 67.8 thousand years, while another nearby stencil indicates repeated artistic activity at the site over tens of thousands of years.

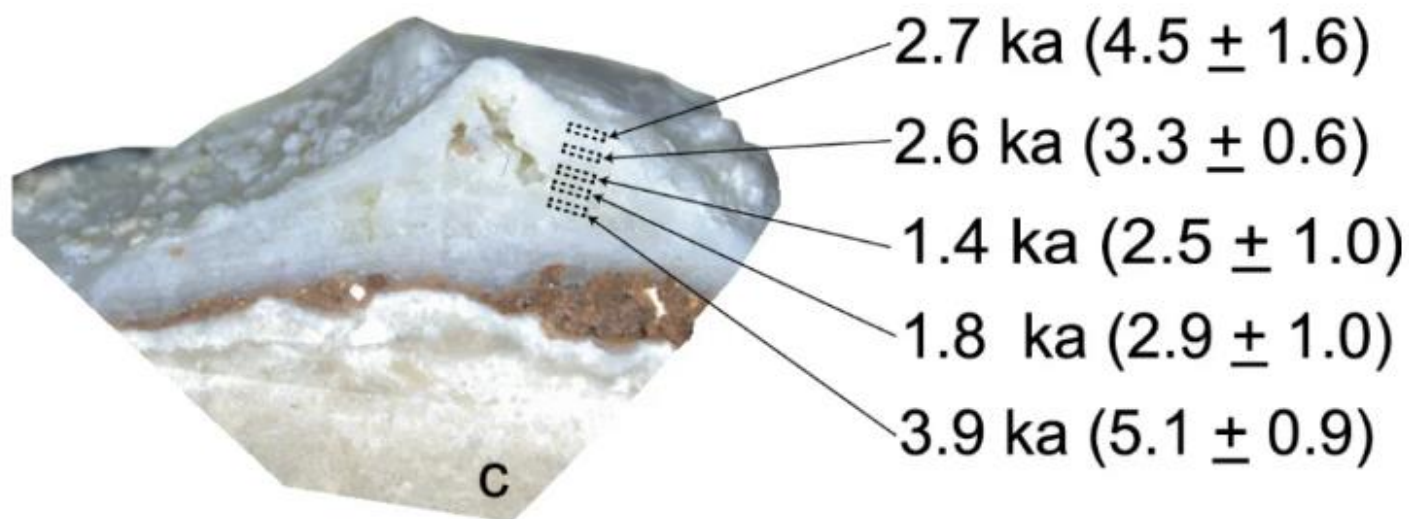
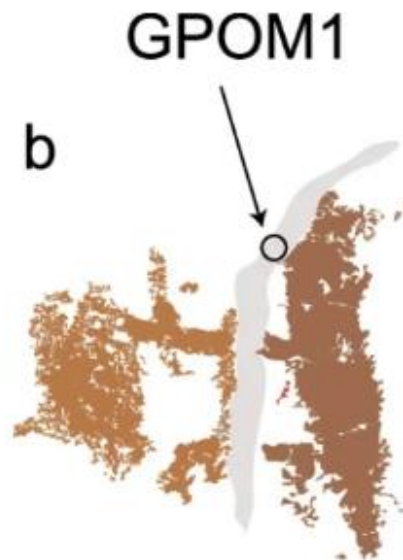
These findings suggest that symbolic behaviour—using images to mark presence, identity, or meaning—was already well established among early humans in Island Southeast Asia during the Late Pleistocene.

Distinctive Hand Shapes and Cultural Traditions

One of the most unusual aspects of the Sulawesi hand stencils is their distinctive finger morphology. Several examples show narrowed or modified fingers, a feature rarely documented elsewhere in the prehistoric art record.

The repeated appearance of this trait suggests it was intentional rather than accidental, pointing to shared cultural conventions among the artists. Researchers note that this stylistic tradition appears to have persisted for a long period, indicating cultural continuity rather than isolated acts of decoration.

These artistic traditions align with archaeological evidence from nearby sites showing long-term human presence and repeated use of caves as meaningful places within the landscape.



a-b, Dating sample GPOM1, collected from flowstone covering part of the head of a human figure (25 × 24 cm, executed in brown pigment) portrayed in a standing position with material culture objects in both hands. (a, photograph of human figure; b, digital tracing).

Sulawesi's Deep Human History

The hand stencil discoveries gain additional significance when viewed alongside archaeological excavations at Leang Bulu Bettue, a cave site in South Sulawesi that preserves one of the deepest and most continuous records of human activity in Wallacea.

Excavations at Leang Bulu Bettue have revealed archaeological deposits extending more than eight metres below the current ground surface, with evidence of human occupation dating to at least 132,000–208,000 years ago. These early layers contain stone tools, animal remains, and signs of systematic butchery that predate the arrival of modern humans on the island.

“The depth and continuity of the cultural sequence at Leang Bulu Bettue now positions this cave as a flagship site for investigating whether these two human lineages overlapped in time,” said Basran Burhan, a PhD candidate from South Sulawesi who led the excavations under the supervision of Professor Adam Brumm from Griffith University.

Previous research has shown that archaic hominins occupied Sulawesi from at least 1.04 million years ago, while *Homo sapiens* are thought to have reached the island sometime before the initial peopling of Australia around 65,000 years ago.

A Major Cultural Transition

Archaeological evidence from Leang Bulu Bettue indicates a dramatic cultural shift around 40,000 years ago. Earlier occupation layers dominated by cobble-based stone tools and animal remains—particularly dwarf bovids known as anoas and now-extinct Asian straight-tusked elephants—were replaced by a new technological and cultural phase.

“This later phase featured a distinct technological toolkit, and the earliest known evidence for artistic expression and symbolic behaviour on the island – hallmarks associated with modern humans,” Mr Burhan said.

According to the research team, this behavioural break may reflect a major demographic transition linked to the arrival of *Homo sapiens* and the disappearance of earlier hominin populations on Sulawesi.

Implications for Human Migration

The great antiquity of the Sulawesi hand stencils also has implications for understanding early human migration. The sites lie along the northern route through Wallacea, one of the pathways proposed for modern humans travelling from mainland Asia to Australia.

The presence of sophisticated symbolic art in this region before 65,000 years ago supports the idea that early humans moving through Island Southeast Asia already possessed advanced cognitive and cultural capabilities.

“That is why doing archaeological research in Sulawesi is so exciting,” Professor Brumm said.

“But there were hominins in Sulawesi for a million years before we showed up, so if you dig deep enough, you might go back in time to the point where two human species came face-to-face.”

An Incomplete Story

Researchers emphasize that both the rock art sites and the deep archaeological deposits of Sulawesi remain only partially explored. At Leang Bulu Bettue, excavations have not yet reached the bottom of the cultural sequence, leaving open the possibility of even older discoveries.

“There may be several more metres of archaeological layers below the deepest level we have excavated,” Mr Burhan said.

Together, the world’s oldest hand stencils and the deep archaeological record of Sulawesi underscore the island’s critical role in rewriting the global story of human origins, symbolic behaviour, and early migration.

Oktaviana, A.A., Joannes-Boyau, R., Hakim, B. et al. Rock art from at least 67,800 years ago in Sulawesi. Nature (2026). <https://doi.org/10.1038/s41586-025-09968-y>

Découverte de la plus ancienne peinture pariétale au monde, en Indonésie

https://www.sciencesetavenir.fr/archeo-paleo/anthropologie/la-plus-ancienne-peinture-parietale-au-monde-decouverte-en-indonesie_190517

Des mains qui montrent le chemin : des chercheurs ont découvert en Indonésie le plus ancien exemple d'art pariétal au monde, vieux de 67.800 ans, nouvelle piste de réflexion sur les routes de migration de l'Homme moderne.



Image fournie par Maxime Aubert de l'université Griffith le 21 janvier 2026 de peintures rupestres préhistoriques découvertes sur l'île de Sulawesi, en Indonésie.

Ces trésors archéologiques se trouvent sur l'île de Célèbes (en français), dénommée Sulawesi en indonésien. Cette grande île en forme de K, territoire de l'archipel indonésien situé entre Brunei et les Moluques, au nord de l'Australie, est bien connue pour sa riche sse pariétale.

"On travaille en Indonésie depuis longtemps. En 2014, on avait daté des peintures d'au moins 40.000 ans. Puis d'autres de 45.000 ans. Et puis l'année dernière, on en avait daté de 52 à 53.000 ans, qui étaient donc les plus anciennes du monde avant notre nouvelle découverte", retrace auprès de l'AFP l'archéologue canadien Maxime Aubert, de la Griffith University de Brisbane en Australie et co-auteur de l'étude publiée le 21 janvier 2026 dans la revue Nature.

"Des mains en négatif, faites au pochoir, probablement à l'ocre rouge"

Ces dernières années, les travaux de Maxime Aubert et de ses collègues des universités australiennes et de l'agence nationale de recherche et d'innovation indonésienne (BRIN) ont bouleversé notre connaissance des origines de l'art pariétal.

Longtemps pensées comme seulement européennes, et notamment liées aux découvertes des grottes de Lascaux (23.000 ans avant notre ère), puis de la grotte Chauvet (36.000 ans), les origines de l'art pariétal ont basculé vers l'Asie et pris dans le même temps un coup de vieux, plus proche de la datation estimée de la sortie d'Afrique de l'Homo sapiens, l'homme moderne, 70.000 ans avant notre ère.

Depuis, l'équipe continue ses recherches et remonte le fil du temps, des arts, et des migrations de l'homme moderne. *"Là, on a décidé d'aller dans des grottes de l'île de Muna, au sud-est de Sulawesi, sur les conseils d'Adhi Agus Oktaviana, premier auteur de l'étude", explique Maxime Aubert. Ils y ont découvert "des mains en négatif, faites au pochoir, probablement à l'ocre rouge, avec sur l'une d'elle, des doigts retouchés pour devenir pointus, comme des griffes, un style de peinture qu'on voit uniquement à Sulawesi", souligne-il.*

LIRE AUSSI [GROTTE CHAUVET : EN IMMERSION DANS LA CATHÉDRALE DE L'ART PARIÉTAL](#)

"Popcorns des cavernes"

Pour les dater, l'équipe de chercheurs internationaux a eu recours à la datation uranium-thorium. Celle-ci consiste à prélever des carottes de 5 mm de diamètre au sein des "cave popcorn" (popcorns des cavernes), des amas de calcite qui se forment couche après couche sur les parois des grottes et donc sur les peintures.



Image fournie par Maxime Aubert de l'université Griffith le 21 janvier 2026 de peintures rupestres préhistoriques découvertes sur l'île de Sulawesi, en Indonésie.

Dans ces popcorns, se trouve de l'uranium, à différent état de précipitation selon les couches, puis du thorium, élément plus stable. Or, "on connaît très précisément le rythme de précipitation de l'uranium", souligne Maxime Aubert. "Cela donne un âge minimum quand la couche est au-dessus de la peinture, et un âge maximum quand elles sont formées en dessous".

Dans le cas présent, les mains se sont révélées vieilles d'au moins 67.800 ans, soit [15.000 ans de plus que la précédente marque de référence](#). Les chercheurs ont également pu établir par là-même occasion que les grottes de Muna avaient été utilisées pour des oeuvres pariétales à plusieurs périodes et pendant longtemps, "certaines peintures étant recouvertes par d'autres peintures réalisées 35.000 ans après".

Vers l'Australie

Cette découverte offre également matière à réflexion quant aux premières migrations humaines vers Australie. Jusqu'à présent, deux routes sont en balance pour expliquer le passage d'Homo Sapiens de l'Asie à l'Australie.

Par la route du Nord, *"les gens arrivant d'Asie marchaient jusqu'à Bornéo et rejoignaient ensuite en bateau l'Indonésie avant d'aller d'île en île jusqu'en Papouasie. Ils pouvaient ensuite rejoindre l'Australie à pied, puisqu'à cette époque-là les niveaux marins étaient plus bas et la Papouasie et l'Australie ne formaient qu'un seul continent, Sahul"*, relate Maxime Aubert.

La route du Sud, elle, fait passer les migrations depuis l'Asie par Sumatra, Java, puis Bali. Avant de mettre le cap sur le Timor et l'Australie par bateau. *"Avec ces peintures, on a la première preuve que l'Homme moderne était là sur ces îles indonésiennes, à ce moment-là. Ca renforce l'idée que les gens sont arrivés en Australie par la Papouasie, il y a peut-être à peu près 65.000 ans"*, avance le chercheur, sans pour autant exclure que d'autres populations aient pu arriver dans le même temps par l'autre route.

A 4,200-Year-Old Silver Goblet May Depict the Creation of the Universe

<https://arkeonews.net/a-4200-year-old-silver-goblet-may-depict-the-creation-of-the-universe/>



A small silver vessel discovered more than half a century ago in the [Judean Hills](#) has once again become the center of debate among archaeologists. Known as the 'Ain Samiya Goblet, the 8-centimeter-tall cup dates to the Intermediate Bronze Age (ca. 2650–1950 BCE) and is decorated with one of the most intricate mythological scenes ever found from this period in the southern Levant.

In a newly published study, geologist-turned-geoarchaeologist Eberhard Zangger and his colleagues argue that the goblet does not depict a specific myth such as the Babylonian Enuma Elish, as long believed. Instead, they suggest it represents a far older and more universal idea: the creation of cosmic order from primordial chaos.

The claim has reignited long-standing discussions around the object — and around Zangger himself, a researcher whose earlier theories, including high-profile claims linking Bronze Age cultures to [Atlantis](#), have drawn sharp criticism from many specialists.

A Unique Object from a Modest Grave

The goblet was uncovered in 1970 in a high-status tomb near the spring of 'Ain Samiya, east of Ramallah. Although the burial itself contained mostly ordinary pottery and weapons, the silver cup stood out immediately. To this day, it remains the only known luxury silver vessel from this period ever found in the southern Levant.

Its outer surface is decorated with two complex scenes arranged side by side. Hybrid creatures, serpents, plants, and celestial symbols are rendered in repoussé relief, forming a dense narrative that has puzzled scholars for decades. Early interpretations linked the imagery to the Mesopotamian creation epic *Enuma Elish*, which describes the [god Marduk](#) defeating the chaos monster Tiamat.

However, the goblet predates the written version of that myth by nearly a thousand years.



Ain Samiya Goblet, the 8-centimeter-tall cup dates to the Intermediate Bronze Age (ca. 2650–1950 BCE).

Chaos, Order, and the Rising Sun

Zangger and his team propose a different reading. According to their analysis, the two scenes illustrate successive stages of creation rather than a violent divine battle.

In one scene, a chimera-like being — part human, part bull — appears alongside an upright serpent and stylized plant forms. The figures seem fused and unstable, symbolizing a world before proper separation: before animals, humans, plants, and even genders had distinct roles.

In the second scene, two human figures lift a crescent-shaped object containing a radiant sun disk. Beneath it, the serpent appears subdued, lying horizontally rather than rearing upright. The researchers interpret the crescent as a “celestial boat,” a motif known across the ancient Near East that carried the sun and moon through the sky.

Together, the scenes are read as a visual narrative of cosmic organization — the transition from chaos to a structured universe governed by cyclical renewal.

Influences Beyond the Levant

The study argues that while the goblet was buried in the Judean Hills, its artistic and symbolic roots lie elsewhere. Comparative analysis suggests that the iconography draws heavily on Mesopotamian traditions, with parallels in Sumerian, Akkadian, Egyptian, and even Anatolian cosmology.

Zangger’s team proposes that the design was conceived by a southern Mesopotamian artist, while the object itself may have been crafted in northern Syria, where access to silver was easier. From there, the goblet could have traveled south along established trade routes before eventually being deposited in the tomb.

To support their argument, the researchers point to a little-known limestone prism from Lidar Höyük in southeastern Türkiye, decorated with similar celestial imagery. Though far cruder in execution, the prism suggests that such cosmological symbols circulated widely long before classical mythological texts were written.



A flat rendering of the scenes depicted on the Ain Samiya Goblet.

Scholarly Caution Remains

Despite the study's detailed iconographic comparisons, many scholars urge restraint. Zangger's past work has often been criticized for drawing far-reaching conclusions from limited evidence, and some experts argue that the goblet's imagery remains too ambiguous to support a single overarching interpretation.

Critics also note unresolved issues surrounding the goblet's restoration history and the fragmentary state of the object, which complicate efforts to reconstruct the full narrative.

Still, even skeptics agree on one point: the 'Ain Samiya Goblet represents an extraordinarily early attempt to visualize humanity's place in the cosmos.

Whether it depicts the birth of the universe, a funerary vision of rebirth, or a broader Near Eastern cosmological worldview, the tiny silver cup continues to punch far above its weight — reminding researchers just how much of the ancient imagination remains open to interpretation.

Zangger, E., Sarlo, D., & Haas Dantes, F. (2025). The earliest cosmological depictions: Reconsidering the imagery on the 'Ain Samiya goblet. *Journal of the Ancient Near Eastern Society* ["Ex Oriente Lux"](#), 49–66.

A 2,300-Year-Old Thracian Inscription Reveals the Man King Seuthes III Could Not Lose

<https://arkeonews.net/a-2300-year-old-thracian-inscription-reveals-the-man-king-seuthes-iii-could-not-lose/>



Bronze Head of Seuthes III, sculpted by Silanion or one of his circle of sculptors.

New research sheds light on a long-standing ancient mystery, suggesting that a previously unknown figure named Epimenes may have served as the personal physician of King Seuthes III of [Thrace](#).

For more than seven decades, a massive stone inscription discovered in central Bulgaria has puzzled historians. Known as the Great Inscription of Seuthopolis, the text dates back over 2,300 years and records a solemn oath involving the Thracian royal family. At the heart of the inscription stands a shadowy individual named Epimenes—a man so important that kings and queens swore publicly to protect him, yet so enigmatic that his identity remained unknown.

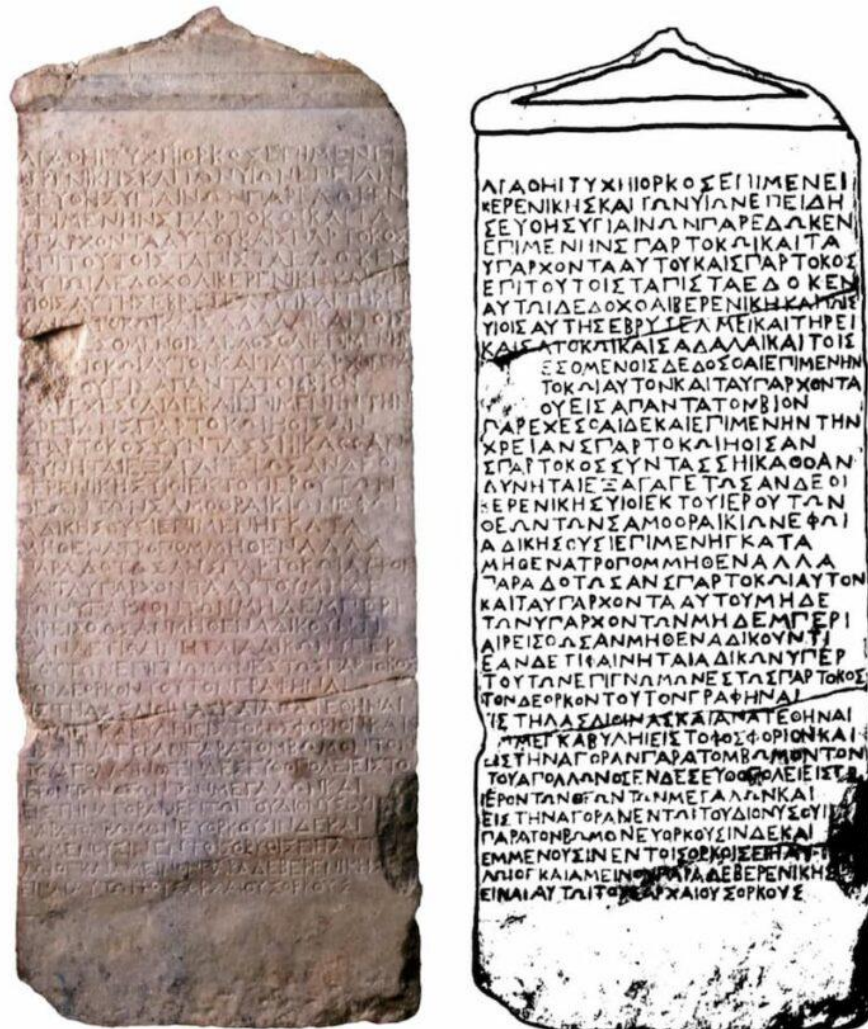
Now, a recent academic study published in *Studies in Ancient Art and Civilization* proposes a compelling solution: Epimenes was likely the personal physician of the [Odrysian](#) king Seuthes III, one of the most powerful [Thracian rulers](#) of the early Hellenistic age.

The Discovery of Seuthopolis and Its Greatest Puzzle

The story begins in 1953, when rescue excavations in what is now central [Bulgaria](#) revealed the ruins of an unknown ancient city. Archaeologists soon realized they had uncovered Seuthopolis, a royal capital founded at the end of the 4th century BCE and named after its ruler, King Seuthes III.

Within the palace complex—specifically in a temple dedicated to the Great Gods of Samothrace—researchers found a large Greek inscription carved on stone. The text records an oath sworn by Queen Berenice and her sons, confirming that Epimenes and all his possessions were to be handed over to another ruler, Spartokos, for lifelong service. Crucially, the oath guarantees Epimenes' personal safety and the protection of his property.

But who was this man, important enough to require such extraordinary legal and religious safeguards?



The Seuthopolis inscription.

A New Interpretation: Epimenés as Royal Physician

In their study, historians Jordan Iliev and Andrii Zelinskyi reexamined every detail of the inscription and earlier interpretations. Their conclusion challenges decades of speculation that portrayed Epimenés as a military commander, political hostage, or temple servant.

Instead, the researchers argue that Epimenés was a highly specialized professional, most plausibly a physician attached to the royal household.

One key detail supports this theory: the inscription explicitly states that Seuthes III transferred Epimenés “while being in good health.” Such a remark is extremely rare in ancient legal texts and would be unnecessary unless health itself were central to the relationship. The authors suggest that this phrase subtly acknowledges Epimenés’ medical role.

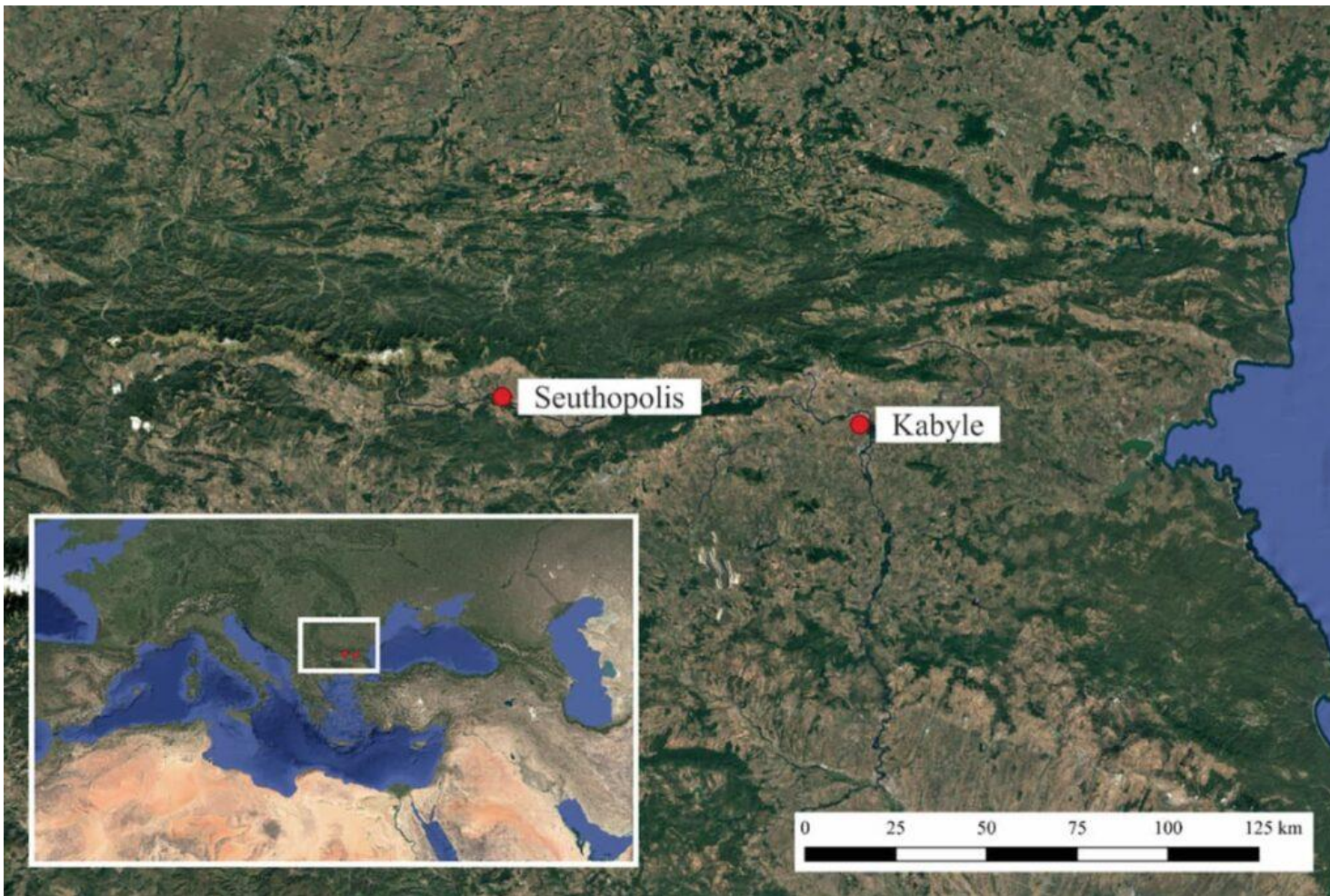
Equally telling is the fact that Epimenés and his possessions are inseparable throughout the text. He had no entourage, no political title, and no territorial authority—yet his personal belongings were so important that confiscating them was strictly forbidden. This fits well with the idea of a physician whose portable tools, medicines, and instruments were essential to his work.

Life Inside the Palace Walls

Another striking clue lies in Epimenés’ residence. According to archaeological evidence, he lived in the temple of the Samothracian Gods, located within the most secure part of the royal palace, next to the throne room itself. This would have been an impossible refuge for an ordinary fugitive.

For Iliev and Zelinskyi, the location makes sense only if Epimenés needed constant access to the king and his family—exactly what would be expected of a personal physician in a royal court.

The gods invoked as guarantors of the oath add further weight. Copies of the inscription were displayed near sanctuaries of Apollo, the Greek god of healing, and Artemis Phosphoros, associated with childbirth and well-being. Their presence may have been deliberately chosen to reflect Epimenés’ medical function and to reassure him of divine protection.



Locations of Seuthopolis and Kabyle.

Who Was King Seuthes III?

Understanding Epimenides also requires understanding the man he served. Seuthes III ruled the Odrysian kingdom during a turbulent period following the death of Alexander the Great. A skilled political operator, Seuthes navigated the power struggles between Alexander's successors while consolidating his own authority in Thrace.

He founded Seuthopolis as a planned royal capital, blending Thracian traditions with Greek urban design, administration, and language. His court was cosmopolitan, attracting Greek artisans, scribes—and, quite possibly, physicians trained in the Hippocratic tradition.

Royal medicine was not a luxury in the Hellenistic world but a necessity. Kings depended on personal physicians not only for treatment, but also for survival in an era of intrigue, poisonings, and constant warfare.

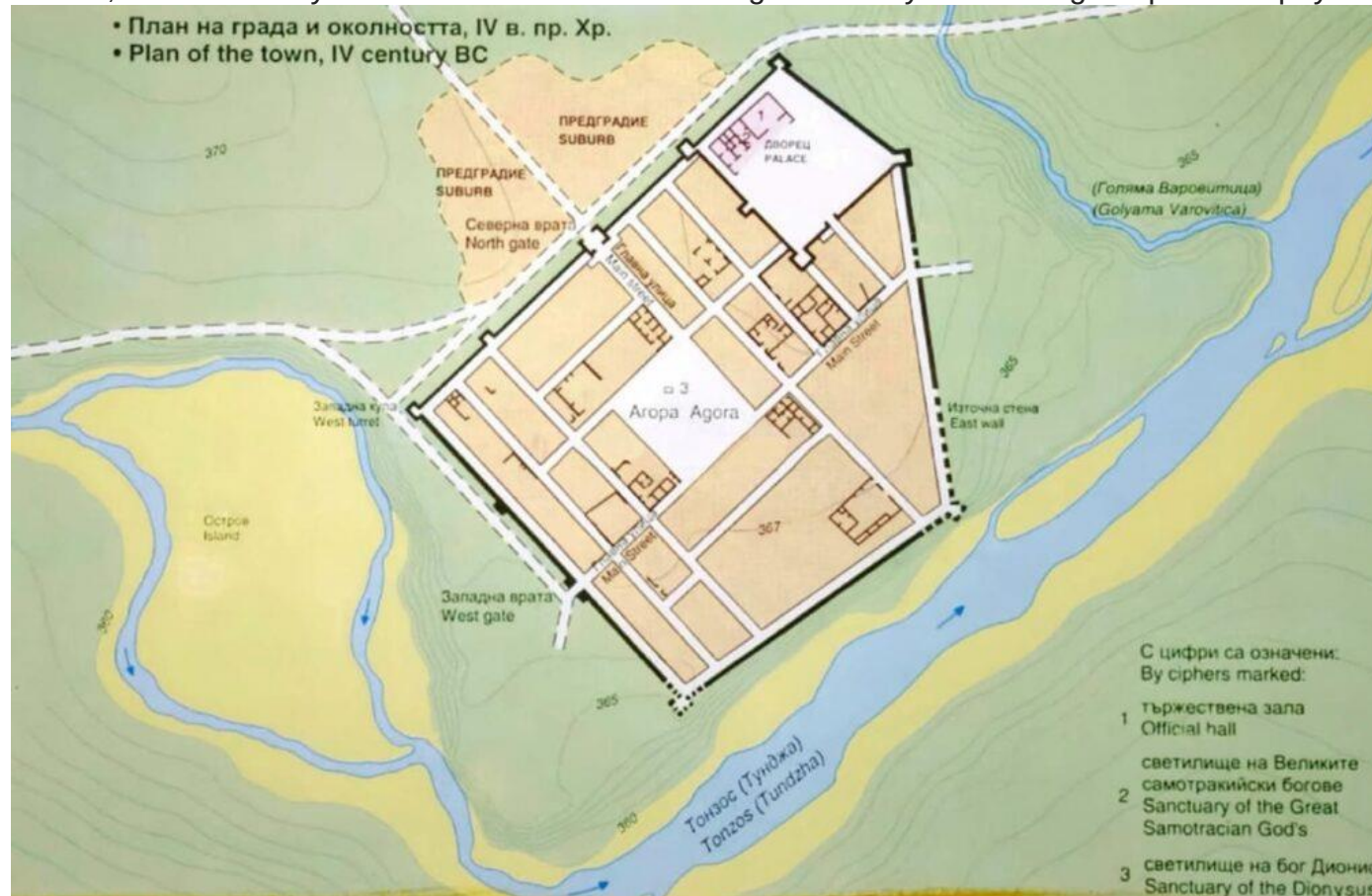
Parallels from Ancient History

The scholars point to a famous parallel: Democedes of Croton, a celebrated Greek physician who served the Persian king Darius I in the 6th century BCE. Like Epimenēs, Democedes enjoyed high status and wealth but lacked personal freedom, remaining bound to royal service. Even royal oaths were sworn in his favor after successful treatments.

Epimenēs' situation appears remarkably similar—valuable, protected, indispensable, yet not free.

How Did Epimenēs Reach Thrace?

The study outlines several possibilities. Epimenēs may have arrived voluntarily from Greek coastal cities known for medical expertise. Alternatively, he could have been captured during conflicts between Seuthes III and the Macedonian general Lysimachus. A third scenario links him to Queen Berenice herself, who was likely of Macedonian aristocratic origin and may have brought a personal physician with her.



Plan of Seuthopolis highlighting the royal palace and the Temple of the Great Samothracian Gods, where the Great Inscription was displayed within the court of King Seuthes III.

A Mystery Reframed, Not Closed

No medical instruments have yet been found at Seuthopolis, and Epimenēs is mentioned nowhere else in surviving sources. The authors are careful to present their conclusion as a well-supported hypothesis, not a definitive solution.

Still, by grounding their argument entirely in epigraphic evidence and historical parallels, Iliev and Zelinskyi offer the most coherent explanation to date.

More than 2,300 years after it was carved in stone, the Great Inscription of Seuthopolis may finally be telling us what it was meant to preserve: the story of a king, his family, and the physician entrusted with their lives.

Iliev, J., & Zelinskyi, A. (2025). Epimenēs of Seuthopolis as a possible physician in the Odrysian royal court. *Studies in Ancient Art and Civilization*, 29, 119–136. <https://doi.org/10.12797/SAAC.29.2025.29.06>

A Mysterious Sand Layer Beneath an Ancient Assur Temple: A Unique Discovery in Northern Mesopotamia Rewriting the Origins of the Goddess Ishtar

<https://arkeonews.net/a-mysterious-sand-layer-beneath-an-ancient-assur-temple-a-unique-discovery-in-northern-mesopotamia-rewriting-the-origins-of-the-goddess-ishtar/>



The Ishtar Temple of Assur was first exposed by Walter Andrae. Altaweel et al. (2026)

A groundbreaking archaeological discovery in northern Iraq reveals that a mysterious layer of sand beneath an ancient temple may reshape what we know about Mesopotamian religion, architecture, and cultural exchange.

Archaeologists working at the ancient city of Assur, once the spiritual and political heart of the [Assyrian](#) world, have uncovered a surprising secret hidden beneath the foundations of the Ishtar Temple. Beneath the stone and brick lies a thick, deliberately placed layer of sand—one that is now transforming scholars' understanding of early Mesopotamian civilization.

According to a newly published scientific study, this sand is not local debris or a natural deposit. Instead, it was carefully sourced, transported, and laid down nearly 5,000 years ago, long before Assur rose to imperial power. The discovery offers rare insight into ancient building rituals, long-distance connections, and the early origins of the cult of the goddess Ishtar.

A Temple Built on Purposeful Foundations

The [Ishtar Temple](#) in Assur is one of the oldest known religious structures at the site. While archaeologists have studied its walls and artifacts for more than a century, the deepest layers beneath the temple remained unexplored—until recently.

Using modern coring techniques, researchers drilled beneath the temple's inner chamber and encountered an unexpected feature: a thick, clean sand deposit placed directly under the earliest floor. No tools, pottery, or everyday debris were found within it, suggesting it was not accidental or domestic in

This matters because in ancient southern Mesopotamia, laying purified sand beneath temples was a known ritual practice. The sand symbolized cleanliness and divine preparation, transforming the ground into a suitable dwelling place for a god. Until now, there was no firm evidence that this tradition extended to northern Mesopotamia—making the Assur discovery a first of its kind.



Locations of cores C21–C24 within the Ishtar Temple. The plan on the right (georeferenced from Andrae 1922: pl. 4) highlights the earliest temple phase (Temple H) in red. Adapted from Altaweel (2025: fig. B2.5).

Where Did the Sand Come From?

The real surprise came when scientists analyzed the sand itself.

Through detailed mineralogical testing, the research team discovered that the sand did not originate from the nearby Tigris River, even though the river flows directly past Assur. Instead, the sand's unique mineral composition points to an origin in the Zagros Mountains, over 30–50 kilometers away.

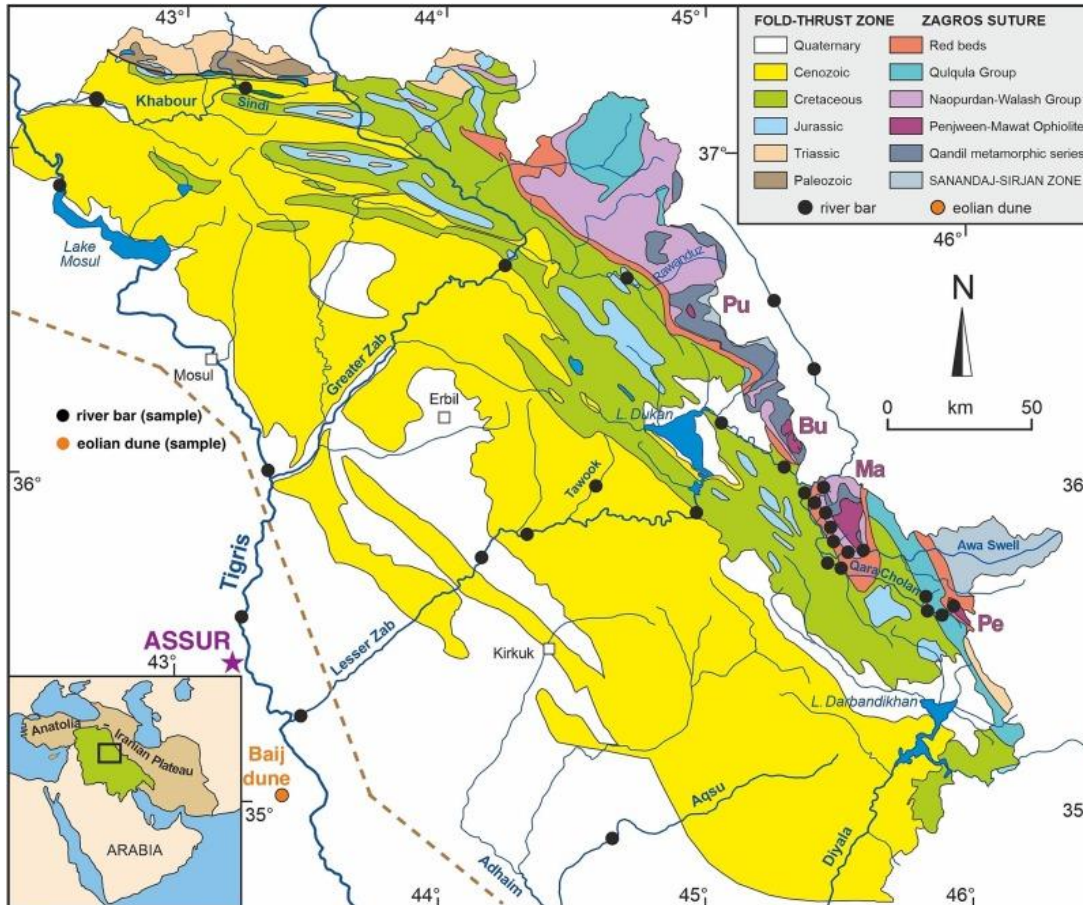
The sand contains rare minerals such as glaucophane and lawsonite, which form only under extreme geological conditions. These minerals act like geological fingerprints, allowing researchers to trace the sand's journey across landscapes and cultures.

In other words, the builders of the Ishtar Temple deliberately avoided the most convenient local materials and instead chose sand with a specific origin and appearance.

Dating the Birth of Assur Earlier Than Expected

Charcoal fragments found just above the sand layer were radiocarbon dated to 2896–2702 BCE, pushing the foundation of the temple—and possibly the earliest settlement at Assur—back earlier than many scholars had believed.

This challenges long-standing chronologies that placed [Assur's](#) beginnings later in the third millennium BCE. Instead, the city now appears to have been an important religious center much earlier, during a formative period in Mesopotamian history.



Microscopic image showing identified heavy minerals from sand in sample 36 from core C24, with all present transparent heavy mineral species labelled.

Ishtar, Inanna, or a Mountain Goddess?

Beyond architecture and dating, the sand raises deeper cultural questions.

[Ishtar](#) is best known from southern Mesopotamia, where she was worshipped as Inanna, a powerful goddess of love, war, and fertility. However, in northern Mesopotamia and the surrounding highlands, a closely related goddess named Shaushka was revered by Hurrian-speaking populations.

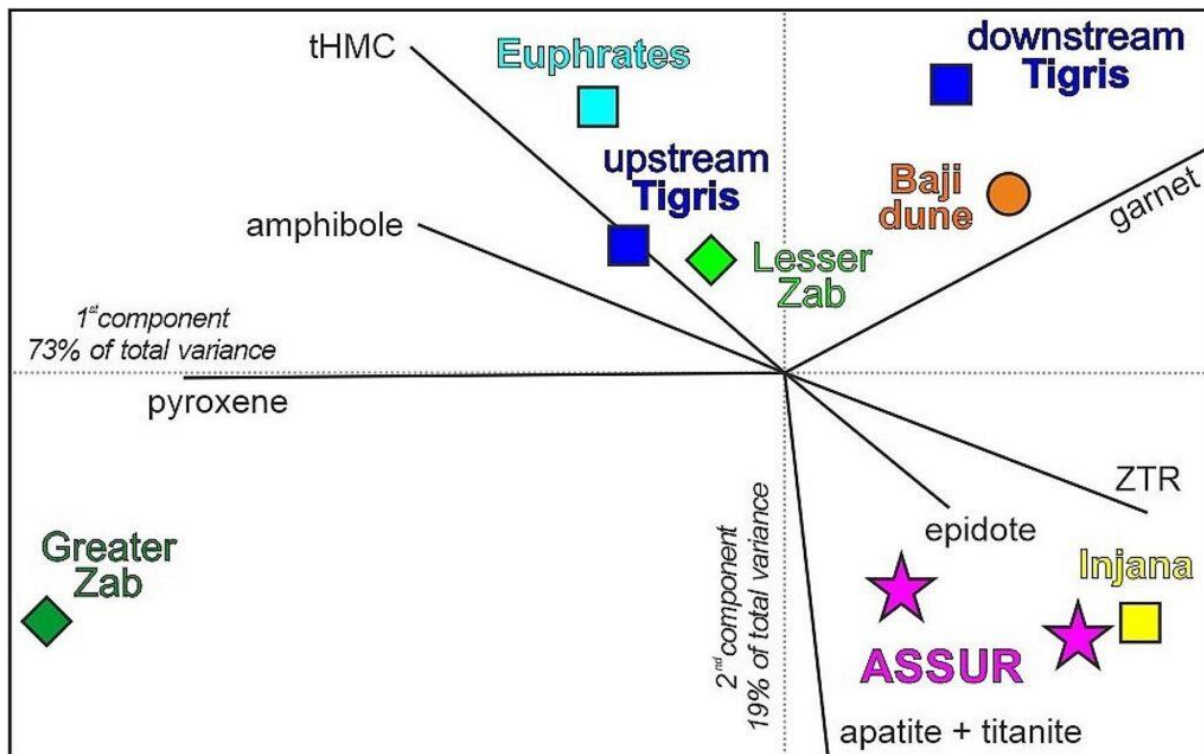
The Zagros Mountains—identified as the sand's ultimate source—were closely linked to Hurrian cultures. This has led researchers to propose a fascinating possibility: the sand may symbolically connect the Ishtar of Assur not only to southern Mesopotamian traditions, but also to mountain-based religious identities.

Rather than choosing one origin, Assur's early inhabitants may have intentionally blended multiple traditions, reflecting the city's role as a cultural crossroads.

Why Only This Temple?

Interestingly, similar sand foundations were not found beneath other major temples at Assur, including those dedicated to gods like Sin, Shamash, or Anu. This makes the [Ishtar](#) Temple stand out as architecturally and ritually unique.

The selective use of sand suggests that Ishtar held a special status—one that required distinct construction practices and deeper symbolic meaning.



The biplot highlights the affinity of the Assur sand samples 36 and 37 with sandstones of the Injana Formation and the dissimilarities to all fluvial sands in the region.

A New Chapter in Mesopotamian Archaeology

This discovery marks the first systematic mineralogical study of temple foundation sands in Iraq, opening the door to new methods and perspectives in archaeology. It shows that even materials as humble as sand can carry powerful stories about belief, identity, and human choice.

By combining archaeology, geology, and history, researchers are now uncovering hidden layers of meaning beneath ancient monuments—quite literally.

Sometimes, the most important clues to civilization are found not in towering walls or golden artifacts, but beneath our feet.

Altaweel, M., Squitieri, A., Eckmeier, E., Garzanti, E., & Radner, K. (2026). The sand deposit underneath the Ishtar Temple in Assur, Iraq: Origin and implications for the foundation of the goddess's cult and sanctuary. *Journal of Archaeological Science: Reports*, 69, 105574. <https://doi.org/10.1016/j.jasrep.2026.105574>

The Taş Tepeler Horizon Expands: Göbeklitepe-Style T-Pillars Discovered in Adıyaman

<https://arkeonews.net/the-tas-tepeler-horizon-expands-gobeklitepe-style-t-pillars-discovered-in-adiyaman/>



Göbeklitepe-style T-shaped pillars discovered in [Adıyaman](#) reveal the wider Taş Tepeler culture and reshape the Neolithic map of Upper Mesopotamia. A remarkable new archaeological discovery in southeastern Türkiye is reshaping our understanding of the Neolithic world. In Adıyaman's Samsat district, structures resembling the iconic "T"-shaped pillars of [Göbeklitepe](#) have emerged after water levels receded in the Atatürk Dam reservoir. This find strongly suggests that the cultural sphere known as Göbeklitepe or Taş Tepeler culture extended much farther than previously documented.

The discovery was made near Kızılöz village, where falling water levels exposed stone features along the shoreline. Following a local report, teams from the Adıyaman Museum Directorate conducted on-site investigations and identified T-shaped stone structures believed to date back approximately 11,000 years, to the [Pre-Pottery Neolithic period](#).

A New Node in the Göbeklitepe Cultural Network

According to [Prof. Dr. Sabahattin Ezer](#) from Adıyaman University's Department of Archaeology, the newly uncovered stones display architectural and symbolic traits consistent with Göbeklitepe and other Taş Tepeler sites in Şanlıurfa. These include small-scale enclosures, stone slabs arranged around pits, and centrally placed T-shaped pillars, which are considered hallmarks of this early ritual architecture.

The Taş Tepeler (Stone Hills) project, launched in recent years, has already identified multiple Neolithic sites such as [Karahantepe](#), [Sayburç](#), [Sefertepe](#), [Kurtepesi](#), and Çakmaktepe. The Adıyaman discovery now indicates that this cultural horizon was not confined to Şanlıurfa but extended northwest into the Euphrates basin, strengthening the idea of a widespread and interconnected prehistoric landscape.



Meaning of the T-Shaped Stones

The T-shaped pillars are among the most enigmatic features of early human history. At Göbeklitepe, these massive monoliths are widely interpreted as stylized human figures, often featuring carved arms, hands, belts, and symbolic animals. While the Adıyaman examples are smaller in scale, their form and placement suggest they served similar ritual or communal functions.

The presence of these pillars in Adıyaman implies shared belief systems, architectural knowledge, and social organization across a broad region. This challenges older models that viewed Göbeklitepe as an isolated “exception” and instead supports the idea of a regional tradition of monument building before agriculture became widespread.

Regional Expansion and the Upper Mesopotamian Context

The Samsat discovery is especially significant because of its location near the Euphrates River, a major corridor for human movement, communication, and resource exchange during the Neolithic period. This geographic setting strengthens arguments that Taş Tepeler sites formed a network of ritual centers, rather than a single focal point.

Archaeologists increasingly believe that communities across Upper Mesopotamia participated in shared ceremonial practices, periodically gathering at monumental sites. The Adıyaman structures may represent a local expression of this broader tradition, adapted to regional conditions while maintaining core symbolic elements.



Threats and Rescue Archaeology

Museum Deputy Director Mustafa Çelik emphasized that the site was originally buried 2–3 meters below soil, but fluctuating dam water levels gradually eroded the sediment, revealing the structures. While this process enabled discovery, it also poses a serious threat.

Rescue excavations are now underway to document and preserve the remains before water levels rise again. Such dam-related discoveries highlight both the risks faced by submerged heritage and the urgency of systematic archaeological surveys in reservoir zones.

From Local Find to Global Significance

The artifacts recovered from the site are now exhibited at Perre Ancient City, allowing the public to engage with one of humanity's earliest monumental traditions. More importantly, the find adds momentum to the idea that southeastern Türkiye was a core innovation zone during the Neolithic transition.

As further excavations are planned, researchers expect that Adıyaman may yield additional structures, possibly revealing a larger settlement or ritual complex. Each new discovery reinforces a transformative conclusion: the origins of complex symbolic behavior and monumental architecture were regional, collaborative, and deeply rooted in Upper Mesopotamia.



Redefining the Neolithic Map

The emergence of Göbeklitepe-style T-pillars in Adıyaman marks another step in redefining early human history. Rather than a single birthplace of civilization, the Taş Tepeler region now appears as a vast cultural landscape, stretching across provinces and river systems.

This discovery not only expands the geographical boundaries of the Taş Tepeler culture but also deepens our understanding of how early societies organized belief, space, and community—long before cities, writing, or farming as we know them today.

Could the Great Pyramid Be Far Older Than We Thought? A New Study Says Yes

<https://arkeonews.net/could-the-great-pyramid-be-far-older-than-we-thought-a-new-study-says-yes/>



Great Pyramid of Giza

A newly published preliminary study has reignited one of archaeology's most enduring controversies: when was the [Great Pyramid of Giza](#) actually built?

In a paper released in January 2026, Italian engineer Alberto Donini presents an unconventional dating approach—known as the Relative Erosion Method (REM)—which he argues may challenge the long-accepted chronology placing the construction of the [Pyramid of Khufu](#) around 2560 BC. According to Donini's calculations, erosion patterns at the pyramid's base could suggest a construction date tens of thousands of years earlier, potentially as far back as the late Paleolithic period.

The claim, if substantiated, would have far-reaching implications for the history of ancient Egypt and early civilization. Yet it also raises immediate questions about methodology, assumptions, and how such results should be interpreted within archaeological science.

Dating Stone Through Erosion

At the core of Donini's work is REM, a method designed to estimate the age of stone structures by comparing relative erosion on adjacent rock surfaces made of the same material and exposed to the same environment.

The logic is straightforward. At Giza, much of the Great [Pyramid](#) was once covered with smooth limestone casing blocks. Historical sources indicate that these casing stones were systematically removed and reused in Cairo after major seismic events—particularly following the powerful earthquake of 1303 AD—and during the Mamluk period. This means that some limestone surfaces at the pyramid's base have been exposed to wind, moisture, salts, and foot traffic for roughly 675 years, while neighboring surfaces have remained exposed since the monument's original construction.

By measuring the difference in erosion between these two surfaces, Donini argues, it is possible to calculate how long the older surfaces must have been exposed.



Uniform erosion on limestone rock.

Measuring Wear at the Base of the Pyramid

The study focuses on twelve measurement points around the base of the Great Pyramid. At each point, Donini examined either pitting erosion—small cavities formed by chemical and physical weathering—or uniform surface wear, estimating the volume or depth of material lost.

In one representative example, a pavement slab shows deeply pitted erosion on the side exposed since the pyramid's construction, compared with much shallower erosion on the side uncovered only after the casing stones were removed. Using the ratio between these two erosion volumes and applying a linear erosion model, Donini calculates an exposure time of over 5,700 years before present for that point alone.

Other points yield far higher values. Several measurements suggest erosion equivalent to 20,000 to more than 40,000 years of exposure, while the arithmetic mean of all twelve points produces a result of approximately 24,900 years before present, corresponding to roughly 22,900 BC.

Probability, Not Precision

Donini emphasizes that REM is not intended to provide an exact construction date. Instead, it estimates an order of magnitude. To address uncertainty, the study applies a basic statistical analysis, calculating a standard deviation and constructing a Gaussian probability curve.

Based on this model, the report concludes that there is a 68.2% probability that the Great Pyramid was constructed sometime between roughly 9,000 BC and 36,000 BC, with the highest probability centered around the early 20,000s BC.

The author stresses that these conclusions are preliminary and invites further measurements and collaboration.



Base of Akhet Khufu with the few remaining limestone blocks of the cladding.

Sources of Uncertainty

The paper openly acknowledges numerous factors that could affect erosion rates over time. Climate conditions in ancient Egypt were likely wetter than today, potentially accelerating erosion in the distant past. Conversely, modern pollution and acid rain may have increased erosion rates in recent centuries, possibly skewing comparisons.

Human activity is another complicating factor. The base of the Great Pyramid now receives thousands of visitors daily, whereas foot traffic in antiquity would have been far lighter. Periodic burial of stone surfaces beneath sand—similar to what occurred at the Sphinx—may also have shielded parts of the pyramid from erosion for long intervals.

Because of these variables, Donini argues that individual measurement points may overestimate or underestimate age, but that averaging multiple points reduces error.

A Challenge to Established Chronology

The REM-based dates stand in sharp contrast to the conventional Egyptological timeline, which relies on historical records, inscriptions, tool marks, radiocarbon dating of associated organic material, and broader archaeological context to place Khufu's reign firmly in the Fourth Dynasty of the Old Kingdom.

Donini suggests that this discrepancy could mean the pyramid predates Khufu and was merely renovated or repurposed during his reign—a hypothesis long present in fringe literature but rejected by mainstream scholarship.

At present, the study has not undergone peer review in a major archaeological journal, and its conclusions remain outside academic consensus. Most archaeologists caution that erosion rates are highly variable and difficult to model linearly over tens of thousands of years.



Red markers indicate the points where relative erosion measurements were taken on the G1 Pyramid of Akhet Khufu (Google Earth image).

An Ongoing Debate

Whether REM will prove to be a useful complementary tool or a methodological dead end remains to be seen. What is certain is that the study underscores how even the most iconic monuments of the ancient world can still provoke fundamental questions.

For now, the Great Pyramid remains securely anchored in the Old Kingdom—yet studies like this ensure that debates about its origins are far from settled. As Donini himself notes, further measurements and independent verification will be essential before such extraordinary claims can be meaningfully assessed.

Donini, A. (2026). Preliminary report on the absolute dating of the Khufu Pyramid using the Relative Erosion Method (REM). University of Bologna. [DOI:10.5281/zenodo.18315238](https://doi.org/10.5281/zenodo.18315238)

Egypt's Karnak Temple May Have Risen From Water Like a Creation Myth, New Study Suggests

<https://arkeonews.net/egypts-karnak-temple-may-have-risen-from-water-like-a-creation-myth-new-study-suggests/>



View of the first pylon of the temple of Amun-Re at Karnak.

[Karnak](#) Temple, one of ancient Egypt's most iconic sacred sites, may have been deliberately built on land that literally emerged from water—transforming a powerful creation myth into monumental architecture, according to groundbreaking new research.

An international team of researchers led by [Uppsala University](#) has completed the most comprehensive geoarchaeological study ever conducted at the Karnak Temple complex in Luxor, Egypt. Their findings, published in the journal *Antiquity*, reveal that the temple was constructed on a rare island of high ground formed by shifting Nile River channels—an environment that strikingly mirrors ancient Egyptian creation beliefs.

Karnak, part of a UNESCO World Heritage Site, is among the largest temple complexes ever built. For over 3,000 years, it served as a religious heart of ancient Egypt. Now, scientists suggest that its very location may have been chosen not only for practical reasons, but for its profound symbolic and cosmological significance.

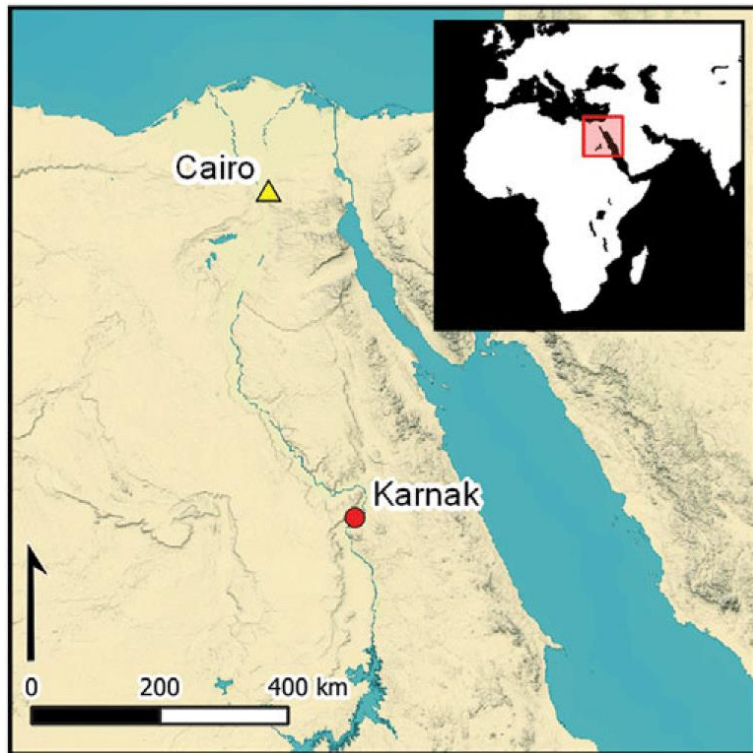
A Temple Born From a Changing River Landscape

Today, Karnak Temple lies about 500 meters east of the Nile River, within the modern city of Luxor—ancient Thebes, once Egypt’s religious capital. Thousands of years ago, however, the surrounding landscape was vastly different.

To reconstruct this ancient environment, researchers analyzed 61 sediment cores drilled from inside and around the temple precinct, along with tens of thousands of ceramic fragments. This extensive dataset allowed the team to trace long-term changes in land formation, river channels, and human activity.

“Our research presents the clearest understanding yet of the landscape upon which the ancient Egyptians founded their temple at Karnak approximately 4,000 years ago,” said Dr. Angus Graham of Uppsala University, who led the study.

The results show that before around 2520 BCE, the Karnak area was regularly inundated by fast-moving Nile floodwaters. These conditions would have made permanent settlement impossible. The earliest signs of human activity date to the [Old Kingdom period](#), supported by pottery fragments from approximately 2305 to 1980 BCE.



How Land Literally Emerged From Water

The study reveals that Karnak was built on a naturally elevated terrace that formed when Nile river channels carved paths on both its eastern and western sides. This process created a rare island of stable, high ground surrounded by water—an anomaly in an otherwise flood-prone region.

This elevated “island” provided a secure foundation for early settlement and the initial phases of temple construction. As centuries passed, the river channels gradually shifted, exposing more land and enabling Karnak to expand into the vast architectural complex visible today.

One of the most surprising discoveries involved the eastern river channel, which had previously received little scholarly attention.

“What surprised us most was the clarity and longevity of this eastern channel,” Dr. Graham explained. “It remained active until the Roman period, and we found evidence that ancient Egyptians deliberately filled parts of it with desert sand—likely to speed up temple expansion.”

Echoes of an Ancient Creation Myth

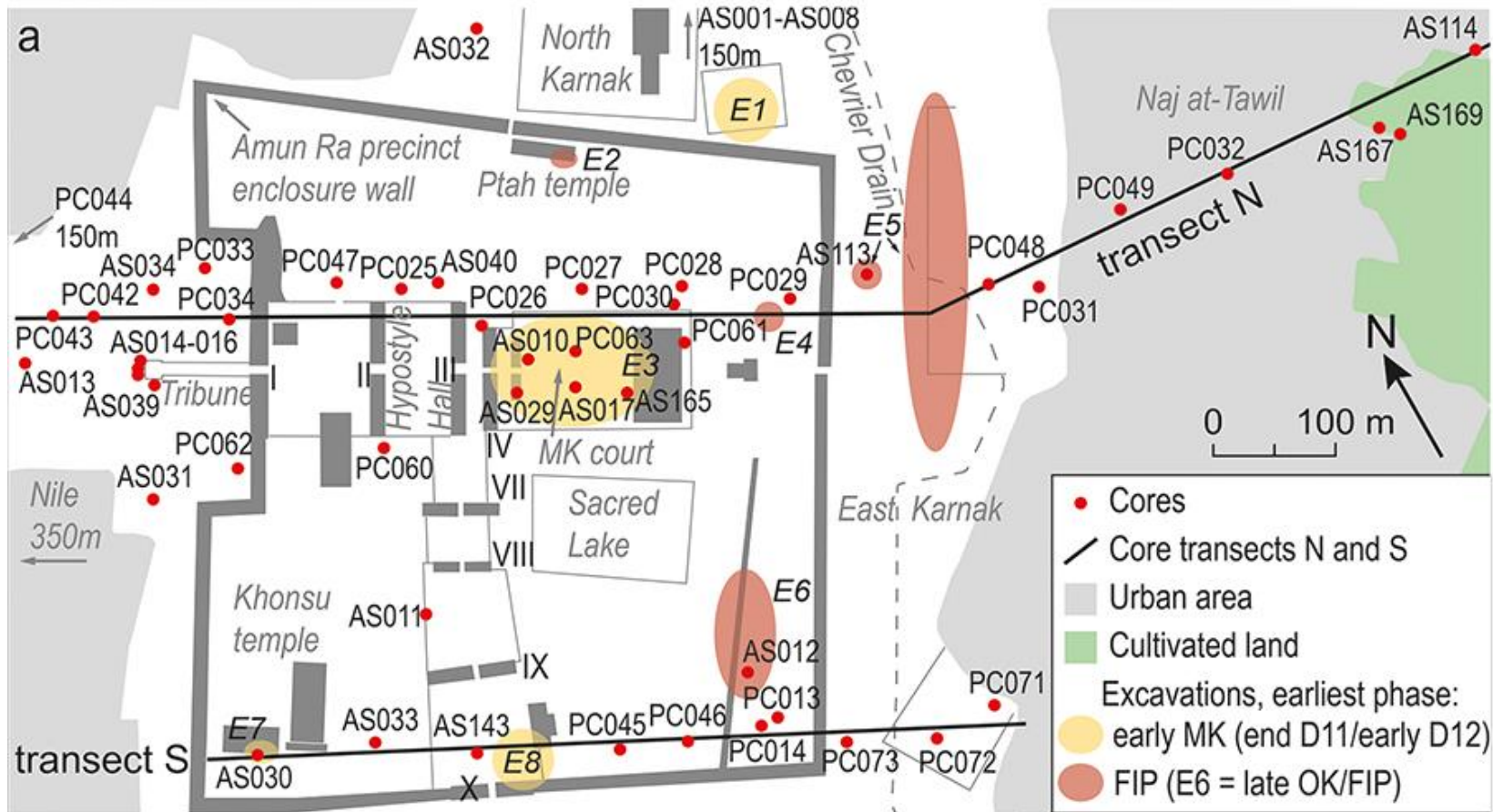
Perhaps the most compelling aspect of the research lies in its connection to ancient Egyptian cosmology.

According to Egyptian creation myths, the world began when a primeval mound of land rose from chaotic waters, known as Nun. Early texts describe the creator god emerging from this watery abyss, standing upon the first solid ground.

The reconstructed landscape beneath Karnak closely matches these descriptions. The island identified by researchers is the only known example in the Theban region of naturally high ground completely encircled by water.

“It’s tempting to suggest that Theban elites deliberately chose Karnak as the dwelling place of a new form of the creator god, Ra-Amun, precisely because the landscape embodied the cosmogonical scene of land rising from water,” said Dr. Ben Pennington, lead author of the study and Visiting Fellow in Geoarchaeology at the University of Southampton.

Later Middle Kingdom texts (c. 1980–1760 BCE) reinforce this symbolism, describing the primeval mound rising from the “Waters of Chaos.” Each year, as Nile floodwaters receded, the elevated ground at Karnak would have appeared to grow—visually reenacting the creation myth before worshippers’ eyes.



Climate Change and Human Engineering

The study also connects Karnak's history to broader environmental changes in the Nile Valley. It builds on earlier research published in [Nature Geoscience in 2024](#), which documented how climate shifts over the last 11,500 years reshaped Egypt's river systems and landscapes.

Together, these findings show that ancient Egyptians were not passive observers of nature. Instead, they actively engineered their environment, adapting religious architecture to a dynamic riversystem while embedding powerful symbolic meanings into the landscape itself.

The research was conducted under the auspices of the Egypt Exploration Society with permission from Egypt's Ministry of Tourism and Antiquities, highlighting ongoing international collaboration in uncovering Egypt's deep past.

A Monument Where Myth Meets Earth

The new findings suggest that Karnak Temple is more than a masterpiece of stone—it is a material expression of belief, where geology, climate, and mythology converge.

In choosing a site where land literally rose from water, ancient Egyptians may have turned one of their most sacred creation stories into enduring reality—one that still stands on the banks of the Nile today.

Benjamin Thomas Pennington, Angus Graham, Aurélia Masson-Berghoff, Marie Millet, Jan Peeters, Willem H.J. Toonen, Timotheus G. Winkels, Luke H. Sollars, Virginia L. Emery, Kristian David Strutt, Dominic Simon Barker. Conceptual origins and geomorphic evolution of the temple of Amun-Ra at Karnak (Luxor, Egypt). *Antiquity*, 2025; 99 (408): 1535 [DOI: 10.15184/aqy.2025.10185](https://doi.org/10.15184/aqy.2025.10185)

Note

En breton, *Carnac* (golfe du Morbihan) s'écrit *Karnak* et, en arabe, *Karnak* s'écrit aussi comme ça se prononce: الكرنك

The Basilica cistern, which is said to have the sarcophagus of Medusa or the Mysterious Snake Woman, was restored

<https://arkeonews.net/the-basilica-cistern-which-is-said-to-have-the-sarcophagus-of-medusa-or-the-mysterious-snake-woman-was-restored/>



The Basilica Cistern, one of the magnificent ancient structures of Istanbul, was restored. Besides being the greatest work of the Roman period, the cistern is the focus of interesting narrations.

The two Medusa heads, used as supports under the two columns at the northwest end of the cistern, are considered the reason why the cistern is mentioned in strange rumors, except that it is a great work of the Roman period.

The Basilica Cistern is located southwest of [Hagia Sophia](#). This large subterranean water reservoir was built for Justinianus I, the Byzantium Emperor (527-565), and is known as the “Yerebatan Cistern” among the public due to the buried marble columns. It is also known as Basilica Cistern since there used to be a basilica at the location of the cistern.

In 2017, Istanbul Municipality started restoration work on the Basilica Cistern. Istanbul Municipality President Ekrem İmamoğlu announced on his Twitter account that the restoration work, which lasted for 4 years, has ended and the visits to the Basilica Cistern will begin at the weekend.

The entrance and exit sections of the Basilica Cistern, which have not undergone extensive restoration work for 1,500 years, were arranged.

Due to the large number of people who wanted to visit the cistern and the narrowness of the entrance area, the visitors were forming long queues at the gate. The restoration covered the entrance area with glass eaves and a waiting area was made. Necessary plan changes were made in the exit section of the cistern, and a suitable and useful area was created for the building.

The Basilica Cistern is located in a rectangular area 140 meters long and 70 meters wide. The building, which has a water storage capacity of approximately 100,000 tons in an area of 9,800 m², is accessible by a **52-step stone staircase**.

There are 336 columns, each 9 meters high, inside the cistern. The columns are 4.80 meters long, forming **12 rows of 28 columns** each.

Note 1

L'escalier comporte exactement 52 marches. Une semaine dure 7 jours. Si on multiplie 52 par 7 on trouve $52 \times 7 = 364$ jours, ce qui est proche de la durée d'une année solaire de 365,25 jours (calendrier solaire Julien).

Note 2

12 mois de 28 jours (= 4 semaines de 7 jours) font 336 jours. Si on rajoute un mois supplémentaire de 28 jours, on obtient $13 \times 28 = 364$ jours, durée très proche d'une année solaire de 365,25 jours (calendrier solaire Julien). La durée d'un mois lunaire est comprise entre 27,2 jours et 29,5 jours, suivant la définition retenue. Une durée de 28 jours peut alors être considéré comme valeur moyenne et il suffira d'appliquer une correction pour retrouver la durée d'un mois solaire. La question est donc de savoir si le comptage des colonnes aurait pu servir comme base d'un calendrier luni-solaire pour pouvoir déterminer à l'avance le niveau d'eau dans la citerne en cours d'année. Les anciens calculaient en nombres entiers et apportaient des petites corrections entières, si nécessaire.

Il est donc raisonnable de penser que la disposition et le nombre des éléments de la citerne n'avaient pas été choisis au hasard. Il resterait encore à faire l'analyse des directions principales du bâtiment par rapport aux solstices, équinoxes et étoiles à l'époque de la construction...

The majority of the columns, most of which is understood to have been compiled from the ancient structures and sculpted of various kinds of marbles, is composed of a single part and one of it is composed of two parts. The head of these columns bear different features in parts. 98 of them reflect the Corinthian style and part of them reflect the Dorian style.



The restoration work of the Basilica Cistern took 4 years.

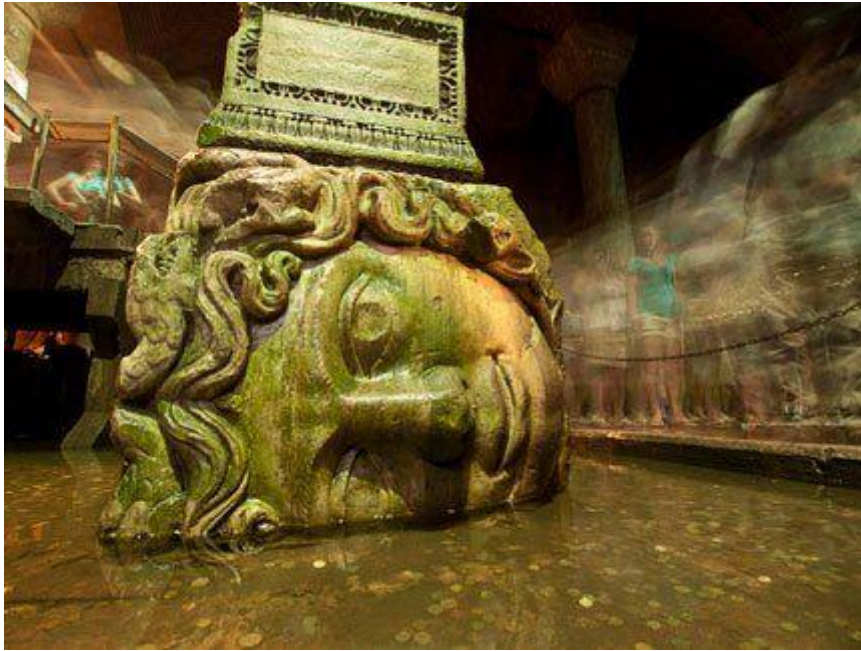
The two Medusa heads, used as supports under the two columns at the northwest end of the cistern, are considered the reason why the cistern is mentioned in strange rumors, except that it is a great work of the Roman period.

The fact that the structure from which the Medusa heads were taken is not known is a very remarkable detail.

The researchers often consider that it has been brought for being used as supports to the column at the time of construction of the cistern. However, this has not prevented myths for the heads of Medusa.

During the research on the Medusa heads in the Basilica cistern, some documents mentioned in Kara Kaplı, a diary kept by Sultan Abdülhamit II, were found. These documents in Kara Kaplı have carried the Medusa narrative to a very different dimension.

In 1456, a delegation of Italian origin came from Venice to meet with Fatih Sultan Mehmet. They demand to meet with the Sultan, but the Sultan assigns the grand vizier to meet with the delegation. The delegation tells the vizier about the treasure in the Basilica Cistern, but they say that they can only tell the Sultan the location of the treasure.



Medusa heads, Basilica Cistern

The subject attracts Sultan's attention and he agrees to meet with a member of the delegation. The chosen representative tells the Sultan that the treasure in the Basilica Cistern is not a material thing, but a corpse. The committee, which offered a lot in return for this corpse and the sarcophagus (coffin) in which it was found, could not get what it wanted. According to what is mentioned in Kara Kaplı, this delegation is a member of a paganist sect.

After Fatih Sultan Mehmet, Abdulhamit Han took a close interest in the Medusa sarcophagus. When a delegation was sent to Abdülhamit Han to discuss this issue several times, the Sultan's interest in Medusa increased and he asked for research on this subject. Abdülhamit Han, who decided to take out the sarcophagus in line with the information learned from the research and the delegations, and the people he assigned in this regard, find the sarcophagus in one of the corridors of the Basilica Cistern.

Inside the sarcophagus is the deteriorated mummy of a terrifying creature. The head of this creature resembles a human head, but with its entire body curves, it resembles a giant snake. This sarcophagus is taken under protection by the order of the Sultan. It is decided that the sarcophagus, which is wanted to be hidden from the public first, will be brought to light later on the condition that its cover is not removed.



The news of the sarcophagus of Medusa published in Resimli Gazeta.

One day, a child entered one of the corridors and saw the corpse inside and said to the people of Istanbul, "I saw Şahmeran!" event is heard. This sarcophagus weighing tons is brought to light with great difficulty and taken to the courtyard of Fatih Mosque and shown to the public for a short time.

By order of Abdülhamit Han, the photograph of the corpse was taken and published in the newspapers of that period. Today, there is no trace of the newspapers in which the photographs of this sarcophagus were published.

Although it is known that many foreigners are after the Medusa sarcophagus, it is also said that the delegations that came to the Sultan held rituals around this sarcophagus for years. It is a matter of curiosity whether these delegations have anything to do with the confiscation of the newspapers and the cover-up of the event.



The news is titled “Our Sultan has found Medusa”.

The legend of Şahmeran: The legend tells about the great love of Şahmeran, a half-snake half-human woman, with Tahmasp. He mentions that Şahmeran is hidden in a cave, that he knows the secret of the world and that the one who eats his flesh will be healed. Those who seek Şahmeran for the health of the sick sultan find him thanks to Tahmasp and at the end of the legend, the vizier kills Şahmeran. Although it is not known what happened to Şahmeran’s body after he died, Tahmasp may have hidden Şahmeran’s body in a sarcophagus.

Perhaps we will never find out if Şahmeran and Medusa are the same woman. However, these legends, which have been going on for centuries, will continue to circulate centuries later.

Le plus vieil alphabet du monde a-t-il été découvert ?

<https://www.nationalgeographic.fr/histoire/archeologie-le-plus-vieil-alphabet-du-monde-a-t-il-ete-decouvert>



En Syrie, des archéologues ont découvert un ancien système d'écriture sur des cylindres en argile. Une découverte qui pousse les experts à revoir la généalogie de l'alphabet.

Elaine Sullivan a découvert des cylindres d'argile sur lesquels étaient gravés des symboles. On la voit ici dans la tombe 4 du complexe mortuaire d'Umm el-Marra, en Syrie. Ce site archéologique contenait également des poteries ainsi qu'une collection de bijoux précieux.

Un nom, gravé il y a 4 400 ans sur une « étiquette », pourrait bien réécrire l'histoire de l'alphabet. Au complexe mortuaire d'Umm el-Marra, dans le nord de la Syrie, une équipe d'archéologues conjointement menée par l'université Johns Hopkins et l'université d'Amsterdam a découvert une collection de cylindres d'argile gravés de symboles. Les experts ont récemment confirmé qu'il pourrait s'agir d'écritures respectant un alphabet, plaçant la première trace d'un tel système un demi-millénaire plus tôt que ce que l'on pensait jusqu'à présent.

UNE DÉCOUVERTE RARE

Umm el-Marra était l'une des plus vieilles cités du Proche-Orient antique. Bâtie à l'intersection de routes commerciales majeures entre la Mésopotamie et Alep, la position de la ville était stratégique. Glenn Schwartz, un archéologue et un consultant en patrimoine, Hans H. Curvers, ont commencé les travaux de fouille sur le site en 1994. Ils cherchaient à mieux comprendre le développement des sociétés syriennes de l'ouest du pays, un domaine de recherche peu étudié.

Au début des années 2000, les deux scientifiques ont découvert une nécropole où étaient inhumés des nobles. Elle remontait au début de l'âge du Bronze, et était érigée au-dessus de la cité. Ce cimetière était constitué de dix tombes de nobles, bâties en brique d'argile. D'autres tombes ont été découvertes, abritant des restes équins. Il s'agissait d'une trouvaille exceptionnelle dans la région : « Il n'y a aucun autre exemple d'un ensemble complet de tombes qui abritaient les élites ayant résisté au passage des siècles », explique Glenn Schwartz. « D'habitude, les tombes de nobles ne sont pas bien préservées. Elles sont souvent victimes des pillards. »

En mettant au jour une tombe mieux préservée, en 2004, l'équipe a découvert six squelettes, ainsi qu'une collection d'objets qui témoignaient d'un haut statut économique. En plus de la découverte d'une importante cachette contenant des récipients en céramique, en argent et en bronze, Elaine Sullivan, alors étudiante-assistante et aujourd'hui égyptologue, est tombée sur des objets inattendus : quatre cylindres en argile, chacun de la taille d'un doigt.

Au début, Elaine Sullivan pensait que ce n'était que des amas de terre. Elle s'apprêtait à les ignorer lorsqu'elle a réalisé qu'elle avait affaire à des artefacts. En y regardant de plus près, l'égyptologue et Glenn Schwartz ont remarqué que des symboles étaient inscrits sur les cylindres. « C'est à ce moment-là que nous nous sommes dit qu'il devait s'agir d'une forme d'écriture », se rappelle l'archéologue.

Les inscriptions ne ressemblaient en rien à ce qui avait été découvert en Syrie par le passé. L'écriture de la région à cette époque était cunéiforme, un fait bien connu des experts. Les Mésopotamiens ont inventé ce système que les Syriens ont copié et adapté à leurs propres langues. Espérant obtenir l'avis d'experts afin de mieux comprendre ces mystérieux symboles, Glenn Schwartz a décidé de publier des croquis tirés du rapport préliminaire en 2006.



Gauche: deux des quatre cylindres découverts à Umm el-Marra, en Syrie. **Droite:** clay cylinder from Umm el-Marra, Syria.

DES SYMBOLES SUR UN CYLINDRE

Quatre cylindres de la taille d'un doigt, en argile légèrement cuite, ont été découverts dans les niveaux supérieurs de la tombe 4. Ted Lewis, sémitiste et historien de l'université Johns Hopkins, a identifié le mot « silanu », gravé sur l'un d'eux. Il pense que c'était un nom. Ces artefacts auraient pu servir d'étiquettes cadeaux. « Les cylindres sont perforés, alors j'imagine qu'un fil les attachait à un autre objet, comme une étiquette. Sans moyen de traduire les inscriptions, on ne peut que spéculer », a déclaré l'archéologue Glenn Schwartz à la presse. Selon les analyses au carbone 14, les cylindres d'argile dateraient de 2 400 av. J.-C., au début de l'âge du Bronze. Ces inscriptions précèdent les premières écritures alphabétiques connues de 500 ans.

LE GRAND SAUT

Le rapport, paru dans la revue scientifique *American Journal of Archaeology*, n'a suscité, en premier lieu, aucune réaction. « Selon moi, personne ne savait quoi penser [des cylindres] », explique Glenn Schwartz. Il a décidé d'analyser les symboles lui-même et les a comparés aux symboles alphabétiques des siècles qui ont suivi et qui provenaient de différentes régions du Moyen-Orient. Il a découvert des similitudes : « À ce moment-là, j'ai commencé à croire qu'il s'agissait d'écritures alphabétiques. »

En 2010, Glenn Schwartz a publié un article dans lequel il suggérait que les symboles seraient une forme d'écriture. Il a mentionné plusieurs possibilités, dont celle que ce système respecterait un alphabet. Ses suggestions n'ont reçu que peu d'attention. En 2019, l'archéologue a été invité à une conférence à Milan sur les premières écritures, et il a décidé de faire le grand saut.

Avec hésitation, il a présenté les symboles, envoyant des copies de ses articles de conférence à des experts. Parmi eux, il s'est notamment adressé à Christopher Rollston, chaire du département d'études classiques et du Proche-Orient de l'université George Washington, ainsi qu'à Madadh Richey, professeure-assistante d'études judaïques et du Proche-Orient à l'université Brandeis, dans le Massachusetts. Tous deux ont soutenu sa théorie.



Les archéologues ont mis au jour des tombes de nobles dans une nécropole d'Umm el-Marra. Le cimetière aurait été construit entre 2600 et 2150 av. J.-C. Il est situé sur une acropole qui domine la cité marchande de l'âge du Bronze.

UN CHANGEMENT LENT

Au 19^e siècle, les experts pensaient que les Phéniciens avaient inventé l'alphabet vers 1050 av. J.-C. Ensuite, en 1905, l'égyptologue britannique William Flinders Petrie a mis au jour des inscriptions protosinaïtiques à Sarabit el-Khadim, une localité située dans le sud-ouest de la péninsule du Sinaï, en Égypte.

Les chercheurs qui l'ont suivi, comme l'expert américain de la Bible William F. Albright, dans les années 1950, ont réalisé que les symboles étaient sémitiques et alphabétiques. Quand les écritures du Sinaï ont été datées de 1800 av. J.-C., les experts ont eu la preuve qu'un système d'alphabet précédait celui des Phéniciens.

La découverte d'Umm el-Marra suggère à présent qu'un alphabet aurait émergé non seulement 500 ans avant celui du Sinaï, mais qu'il serait, de plus, apparu dans une autre région.

« Les découvertes qui bouleversent les paradigmes mettent du temps à être acceptées », déclare Christopher Rollston. Selon lui, si plus d'inscriptions sont découvertes, préférablement des textes plus longs, un consensus solide sur la nouvelle écriture se développera.



Une paire d'yeux de pierres, découverte dans le niveau inférieur de la tombe 4. Ces yeux auraient pu être incrustés dans de petites statuettes de bois qui auraient, depuis, pourri. Environ 2400 av. J.-C.



Restes désarticulés d'une femme adulte découverte au niveau inférieur de la tombe 4. Environ 2400 av. J.-C.



Perle en lapis-lazuli, en forme de chèvre sauvage, découverte au cou d'une femme. Environ 2300 av. J.-C.

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<https://tv.epistemea.fr/>

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Liens Internet (3)

Le site de Yvon Georgelin (Astronomie + Archéoastronomie)

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Randall Carlson

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<https://www.youtube.com/channel/UCAPciy143ZBXBrFpCVPnWDg>

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Graham Hancock Official Chanel

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