

What we don't know in the history of Mathematics

Hypatia

- Commentaries
- Astronomy
- Conics
- Diophantus

6¹. To find two numbers having a given difference and such that the difference of their squares exceeds their difference by a given number.

Necessary condition. The square of their difference must be less than the sum of the said difference and the given excess of the difference of the squares over the difference of the numbers.

Difference of numbers 2, the other given number 20.
Lesser number x . Therefore $x + 2$ is the greater, and

$$4x + 4 = 22.$$

Therefore $x = 4\frac{1}{2}$, and
the numbers are $4\frac{1}{2}$, $6\frac{1}{2}$.

7¹. To find two numbers such that the difference of their squares is greater by a given number than a given ratio of their difference². [*Difference assumed.*]

Necessary condition. The given ratio being 3 : 1, the square of the difference of the numbers must be less than the sum of three times that difference and the given number.

Given number 10, difference of required numbers 2.
Lesser number x . Therefore the greater is $x + 2$, and

$$4x + 4 = 3 \cdot 2 + 10.$$

Therefore $x = 3$, and
the numbers are 3, 5.

Mathematicians who made no record

Women and Tradesmen

Women

- Mathematics of the home
 - household finances
 - cooking
 - textiles

Quilting



- Arithmetic
- How big do you make your blocks for a 5' x 6' quilt with 1/4 inch seam allowance?

Quilting



- Geometry
- Rotation
- Translation
- Congruence
- Symmetry

Quilting



- Tessellation

Quilting



Tradesmen

- Scholars and merchants keep records
- Tradesmen have trade secrets
 - Master Apprentice
 - Roman Surveyors

Mathematicians whose records were destroyed

Chinese and Mayan mathematics

Qin Shi Huang Di



- First Emperor
- Unified China
- Built the Great Wall
- Killed lots and lots of scholars (213 BC)

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丞相李斯曰：「臣請史官非秦記皆燒之。非博士官所職，天下敢有藏詩、書、百家語者，悉詣守、尉雜燒之。有敢偶語詩書者棄市。以古非今者族。吏見知不舉者與同罪。令下三十日不燒，黥為城旦。所不去者，醫藥卜筮種樹之書。若欲有學法令，以吏為師。」

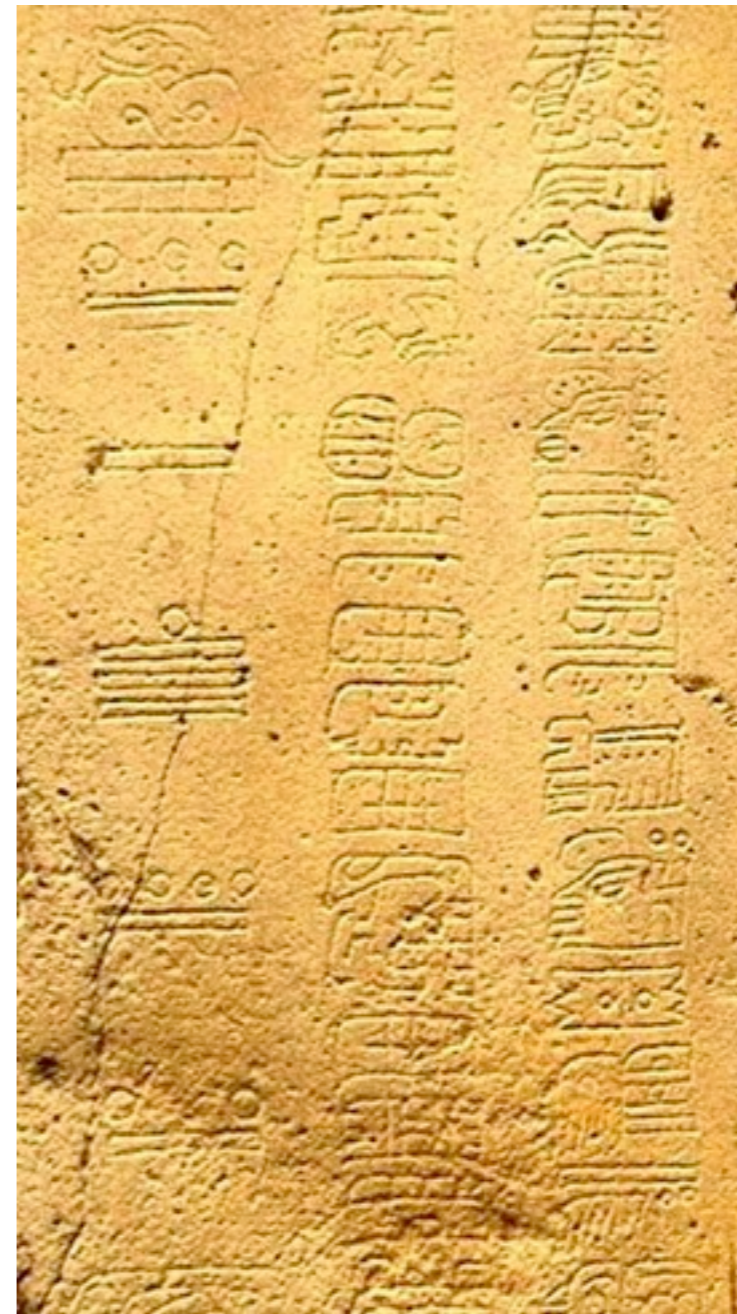
Chancellor Li Si Said: "I, your servant, propose that all historian's records other than those of Qin's be burned. With the exception of the academics whose duty includes possessing books, if anyone are under balls has copies of the Shi Jing, the Classic of History, or the writings of the hundred schools of philosophy, they shall deliver them (the books) to the governor or the commandant for burning. Anyone who dares to discuss the Shi Jing or the Classic of History shall be publicly executed. Anyone who uses history to criticize the present shall have his family executed. Any official who sees the violations but fails to report them is equally guilty. Anyone who has failed to burn the books after thirty days of this announcement shall be subjected to tattooing and be sent to build the Great Wall. The books that have exemption are those on medicine, divination, agriculture and forestry. Those who have interest in laws shall instead study from officials."

於是使御史悉案問諸生，諸生傳相告引，乃自除。犯禁者四百六十餘人，皆阬之咸陽，使天下知之，以懲後。益發謫徙邊。始皇長子扶蘇諫曰：「天下初定，遠方黔首未集，諸生皆誦法孔子，今上皆重法繩之，臣恐天下不安。唯上察之。」

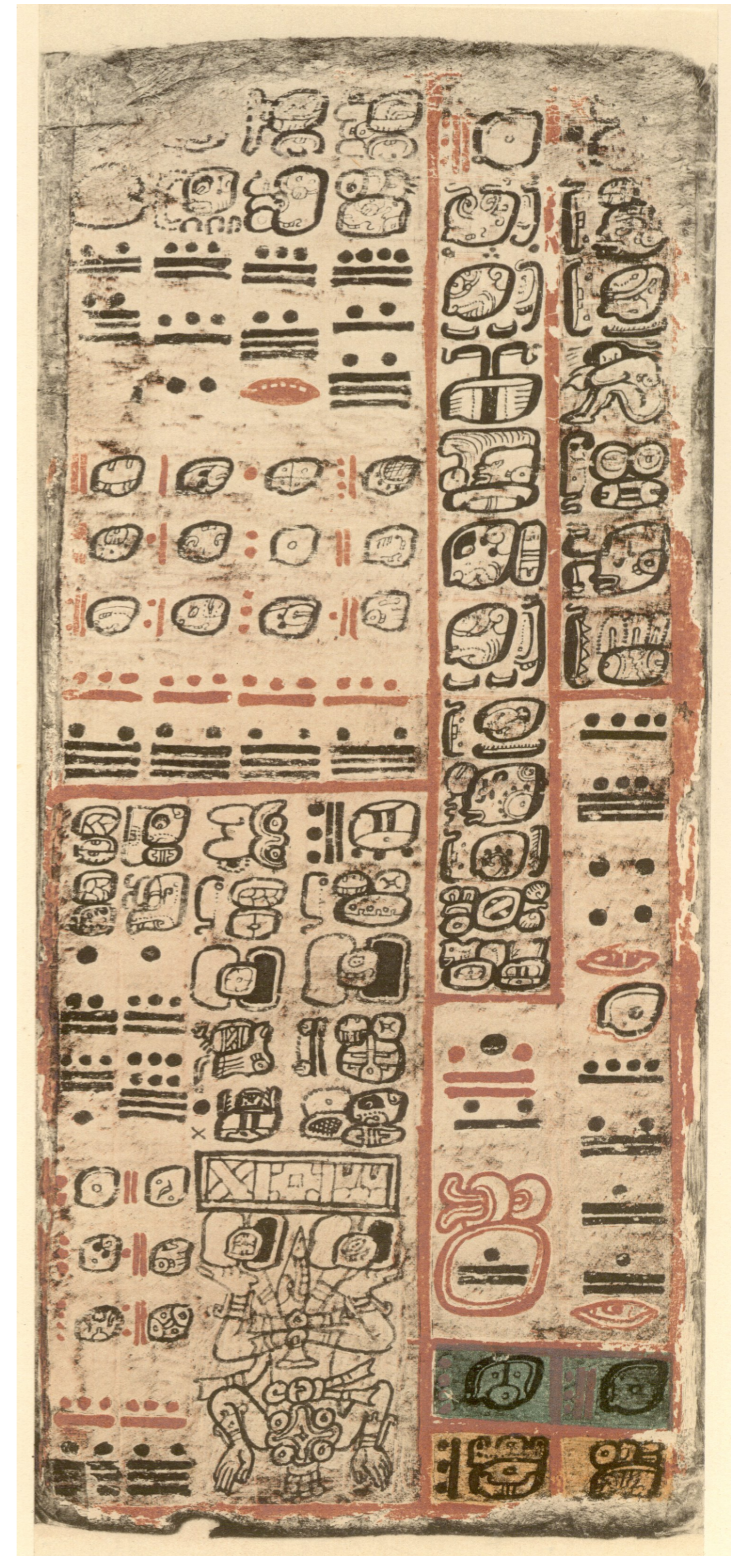
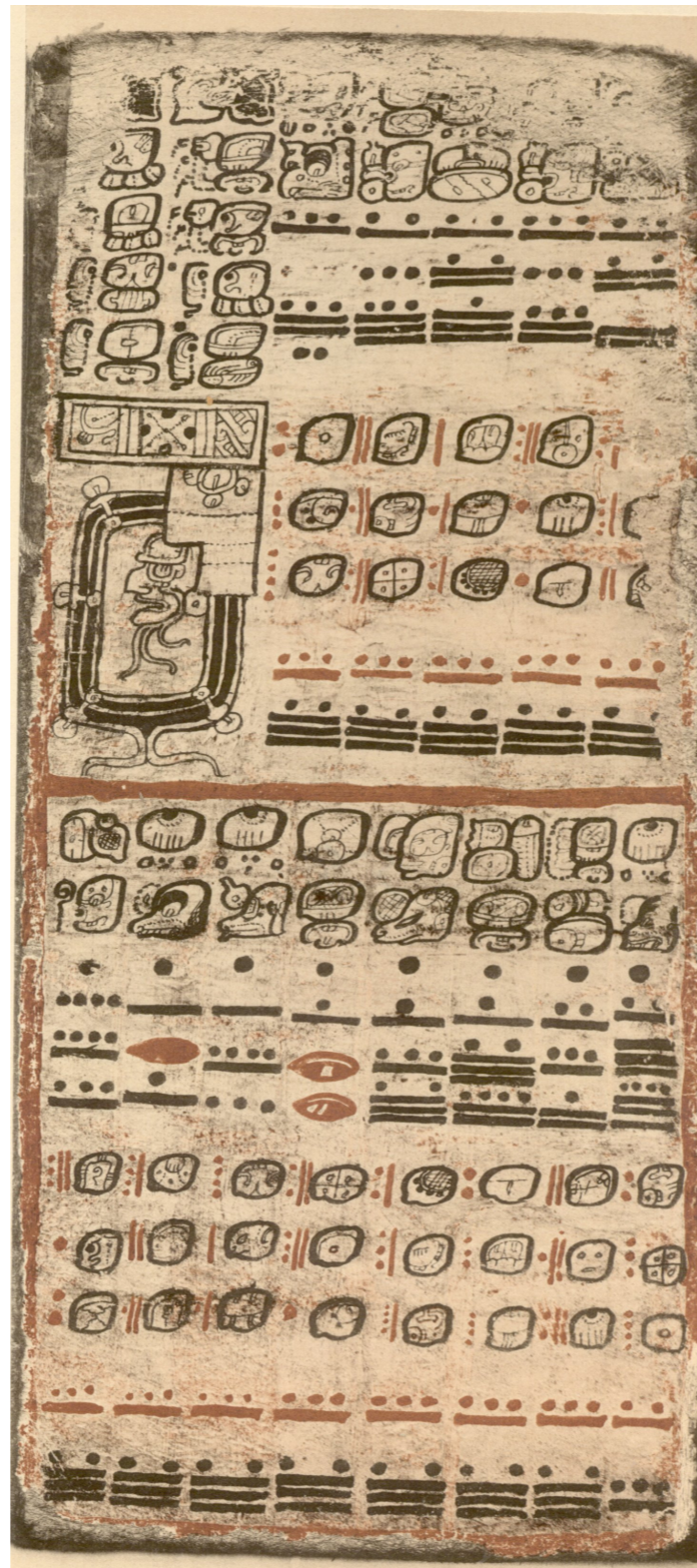
The first emperor therefore directed the imperial censor to investigate the scholars one by one. The scholars accused each other, and so the emperor personally determined their fate. More than 460 of them were buried alive at Xianyang, and the event is announced to all under heaven for warning followers. More people were internally exiled to border regions. Fusu, the eldest son of the emperor, counseled: "The empire just achieved peace, and the barbarians in distant areas have not surrendered. The scholars all venerate Confucius and take him as a role model. Your servant fears if Your Majesty punish them so severely, it may cause unrest in the empire. Please observe this, Your Majesty."

Maya

0	1	2	3	4
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5	6	7	8	9
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10	11	12	13	14
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15	16	17	18	19
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Dresden Codex



Grolier Codex

