

Gunnar Heinsohn: **PAPERMAKING'S MYSTERIOUS 700 YEARS OF SECRECY** (February 2017)

HAN-HORSE OF ANTIQUITY, AND TANG-HORSE OF THE EARLY MIDDLE AGES.

The countless cultural similarities between Han and Tang — separated by some 700 years — are well known (M OU Fa-song 2004). Much less understood is why Tang settlements are nowhere found super-imposed on Han settlements though the former had occupied prime space locations. [Michael Sinclair Sanders {<http://ancientcultures.net/IncenseRoad.htm>} greatly helped to confirm this.] In actual fact, Han and Tang share the same stratigraphic plane, i.e. are historically parallel.

Han-Dynasty bronze horse (2nd/1st c. BCE; replica)

[http://www.petpeoplesplace.com/petstore/pet-image-large/franklin-mint-1987-imperial-bronze-horse-han-dynasty_400195680296.jpg].

Tang-Dynasty bronze horse (7th c. CE at the earliest; replica)

[<https://www.daniellaurence.co.uk/shop/images/horse.jpg>]



*“I'm enjoying the schadenfreude where the **physical medium** becomes the **real history** instead of the **fake history** written upon it...” (Timothy Cullen).*

If China of Antiquity (the Han Dynasty is usually dated 202 BC to 220 AD) and China of the Early Middle Ages (the Tang Dynasty is conventionally dated 618-907) do not follow one after the other but are chronologically parallel, we, e.g., can avoid the stubborn problem of why identical-looking bronze horses from the two dynasties are dated over 700 years apart.

This would also mean that Chinese antiquity - just like the Rome's antiquity – is followed directly by the High Middle Ages or, stratigraphically, ends in the 10th century AD. It runs parallel with the European Early Middle Ages, which in turn are at the same stratigraphic depth as European Antiquity/Late Antiquity (conventionally ending 3rd/6th century). One of the greatest riddles in the history of culture can thus be brought to a solution.

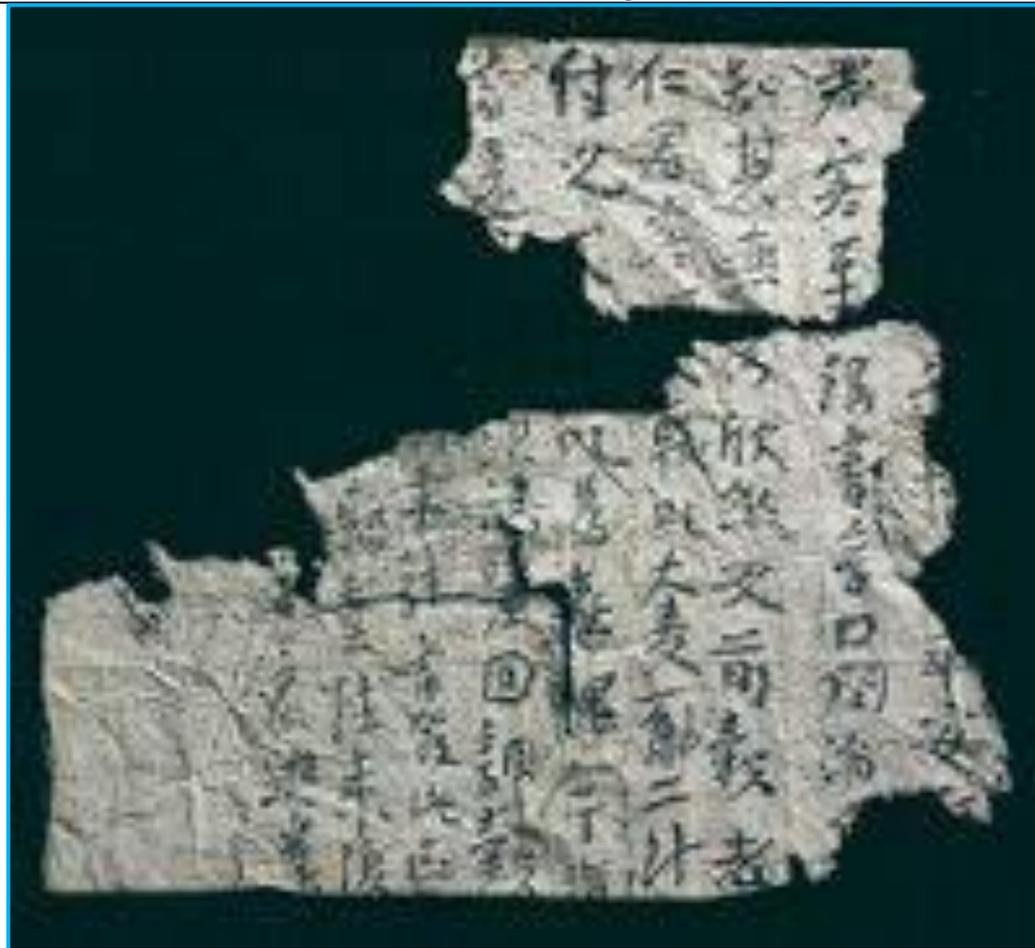
The question is why the invention of hand-made paper takes about 700 years to spread from China to east and west. In the earliest published archaeological finds, paper is dated to the 2nd c. BCE (Cotterell 2004, 11). Only about 105 AD, however, is there written information about paper making from a minister named Tsai'Lun (Cai Lun, 121 AD): “From the fibers of the mulberry, hemp waste, old fishing ponds and strings, the stamping of paper is done in stone mortars, with the addition of water. The mash is then scooped up with a sieve, pressed, dried in the sun and finally smoothed with stones”¹ (Freyer 2008).

The curious fact that it took some 700 years until paper, developed by the Han, was used for issuing Chinese banknotes by the Early Medieval Tang, is settled by the actual simultaneity of the two epochs. After their common Early Medieval era, paper money does not disappear mysteriously again, and continues without interruption into the High Middle Ages of the Song Dynasty (960-1127) (Headrick 2009, 85). The enigmatic absence of paper in Japan, so close to China, up to the 8th century AD, when it was suddenly produced in 40 provinces, can be explained, too, by taking into account that the Han stratigraphically are some 700 years younger than in textbook chronology.

¹ “Aus den Fasern des Maulbeerbasts, Hanfabfällen, alten Fischernetzen und Hadern wird durch Stampfen in Steinmörsern und unter Zugabe von Wasser ein Brei erzeugt der dann mit einem Sieb geschöpft, gepresst, an der Sonne getrocknet und schließlich mit Steinen geglättet wird“.

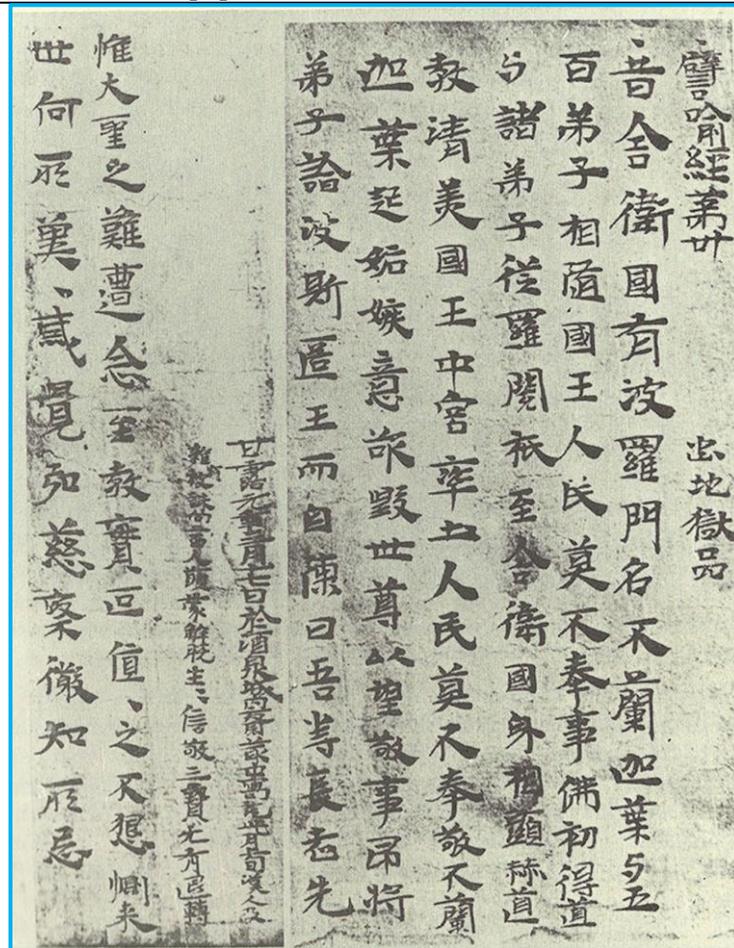
**Earliest archaeological evidence of Chinese paper
(1st c. BCE)**

[<http://culturesciences.chimie.ens.fr/content/le-collage-un-moyen-ancestral-moderne-et-durable-dassemblage-article-741>]



Page from earliest preserved Chinese book hand-written on paper (3rd c. AD)

[<http://www.northcoastjournal.com/humboldt/pixels-or-paper/Content?oid=2421589>]



Chinese paper reached the Arabian area not earlier than Japan. Only around 750 or 751 AD is it attested for in Arab sources (Meggs 1998, 58 ff.). This delay in the movement of paper from East to West is explained by the fact that, for around 700 years, the Chinese

might have kept the technique of papermaking secret, although the ‘secret’ was already written about in the 2nd century AD. Obviously it passed — in an immense country — from Han to Tang territories without difficulty. There could have been attempts at secrecy. But they do not explain a delay of 700 years in the spread of paper to the west.

PAPER PRODUCTION: STRATIGRAPHY <i>VERSUS</i> TEXTBOOK-CHRONOLOGY IN THE 1st MILLENNIUM AD			
All periods in the lower line are contingent with the HIGH MIDDLE AGES beginning in the 10th c. AD. After the extinction of Egyptian papyrus in the 10th c. catastrophe, paper slowly begins to oust parchment (pergament)			
Han-China (1st-3rd c.)	Tang-China (7th-10th c.)	Japan (7th to 10th c.)	Arab area (8th to 10th c.)
Paper was invented already in the 2 nd /1 st c. BCE. Han of ANTIQUITY are stratigraphically contemporary with Tang, Japan, and Arab area of the EARLY MIDDLE AGES .	Paper money invented some 700 years later. Tang are stratigraphically contemporary with Han of ANTIQUITY as well as with Japan, and Arab areas.	Paper arrived in Japan some 700 years later. Japan is stratigraphically contemporary with Han of ANTIQUITY as well as Tang, and Arab areas.	Paper arrive in the west some 700 years later. Arab areas are stratigraphically contemporary with Han of ANTIQUITY as well as with Tang, and Japan.

With its arrival in Arabia, paper is finally within Europe's reach. However, paper gradually enters into use in Europe only after the end of the Early Middle Ages, in the 10th/11th century AD. Roman civilization in Antiquity (1st-3rd c.), as well as in its stratigraphic contemporary, Late Antiquity, used a competing product, papyrus, from its imperial province of Egypt. The fact that papyrus was also used in the European Early Middle Ages (8th to 10th c.) is always a source of perplexity, but should not be surprising because the two epochs were chronologically parallel. Papyrus remained so inexpensive that it could not be displaced by paper, even in the Early Middle Ages. In the Roman sphere of influence, paper had no chance against the cheaper papyrus. Even in Early Medieval Arab territories paper had to compete with papyrus but could not oust it.

Therefore, the sudden end of papyrus production, which is dated to the 10th or 11th centuries, is incomprehensible. Something powerful had dried up the swamps. It cannot have been Arab agriculture because the ancient Egyptians have been experts of irrigation

long before them: "We do not know for what reasons the decline and finally the end of papyrus production took place" (Kramer 2010, 16²).

This cultural break can be explained by the reconstruction of the Roman Empire presented by the author since 2013, which is the result of a devastating collapse which has been distributed over the 3rd, 6th and 10th centuries (Heinsohn 2013 ff.; 2017a). This unique and supposedly triple end of Roman culture actually takes place only once, in the 10th century, which is why traces of three catastrophes (3rd, 6th and 10th century) are never found super-imposed on each other but at the same stratigraphic level of the 10th century AD (in detail see Heinsohn 2017b). After the collapse of the western Roman Empire in the 10th c., papyrus cultivation vanished: "Today it has become extinct in Egypt, apart from modern new plantings" (Kramer 2010, 16³).

"All in all, we can say that after the 11th century no writing materials were produced from the papyrus plant"⁴ (Kramer 2010, 16). Correspondingly, there are no papyrus texts from the High Middle Ages (after the 10th c.), even in the Arab areas surrounding Egypt. Thus, the competitive triumph of paper was not based on cost or quality advantages, but was due to the catastrophic devastation of the land where the superior product of papyrus came from.

Because Europe had to get along without papyrus after the 10th century, there was an undisputed although extremely slow transition to paper. Since paper was only available as an enormously expensive import product from the Arab world, including Spain since at least 1056 AD (Hills 1988, 2), the more stable parchment (also *pergament*) was preferred for centuries. This involves scraped, but not tanned animal skins, whose particularly valued qualities produced in Greek Pergamon (Asia Minor) since Antiquity had given this writing material its name. Because in still papyrus-rich Antiquity parchment was more expensive than papyrus, it had to be content with a secondary role behind the Egyptian product. From the High Middle Ages onwards, however, when the papyrus plant had vanished from Egypt, parchment becomes the only competitor of paper and is qualitatively superior to it for a long time.

² "Aus welchen Gründen der Rückgang und schließlich das Ende der Papyrusproduktion erfolgte, wissen wir nicht".

³ "Heute ist sie – von modernen Neuanpflanzungen abgesehen – in Ägypten ausgestorben".

⁴ "Alles in allem können wir sagen, dass nach dem 11. Jh. keine Schriftträger aus der Papyruspflanze mehr hergestellt wurden".

As late as the 13th century, "Emperor Frederick II [1220 - 1250] issued a prohibition against drawing up notarial deeds and decrees on paper and, in the statutes of Padua City of 1236, it was stated that documents on paper were without legal force"⁵ (Freyer, 2008). Relatively cheap paper only arrives after 1276, when the paper mill at Fabriano/Italy, a water-powered mashing plant for the raw material turned in to paper, was put into operation (Rauchenberger 1999, 6).

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⁵ "Kaiser Friedrich II. [1220 - 1250] erließ ein Verbot, notarielle Urkunden und Erlässe auf Papier auszufertigen, und in den Statuten der Stadt Padua von 1236 wurde festgehalten, dass Urkunden auf Papier ohne Rechtskraft seien".