

Gunnar Heinsohn (February 2017)

TENTH CENTURY COLLAPSE

Widespread destructions from **SCANDINAVIA** to **EASTERN EUROPE** and the Black Sea are dated to the end of the Early Middle Ages (930s CE). The disaster struck in territories where no devastations appear to have occurred during the “Crisis of the Third Century”¹, or the “Crisis of the Sixth Century”². Even more intriguing is the very absence of 6th c. building strata within, e.g., the Slavic realm that could be checked for traces of the 6th c. cataclysm³.

Mostly within the last fifteen years, many North and East European regions – stretching from Norway via the Baltic to the Black Sea – have been researched for traces of the vast wipeout of the 930s (give or take a decade). The depopulations have been as severe as in areas tied to the 3rd or the 6th c. plagues. Yet, written sources pointing to the causes or consequences of the 10th c. mass deaths appear to be missing entirely. That is surprising because the events are much closer in time to us than the 3rd and 6th c. disasters for which written sources are available. However, there appears to be evidence for a major outbreak of *y.pestis*-plague peaking at the end of the “733–960 AD”⁴ time span.

We will begin with the annihilation of **SCANDINAVIA**'s sites at the end of the Early Middle Ages. This huge stretch of land, too, has no genuine urbanism before that period:

“The earliest **VIKING AGE** (ca 700 CE) is the period when urbanism first gained a foothold in the Scandinavian lands. At this time urban communities had for several centuries been abundant further south and west in the Roman Empire. / There is

¹ G. Alföldy, *Die Krise des Römischen Reiches. Geschichte, Geschichtsschreibung und Geschichtsbetrachtung*, Stuttgart: Steiner 1989.

² Y. Hirschfeld, “The Crisis of the Sixth Century: Climatic Change, Natural Disasters, and the Plague“, in *Mediterranean Archaeology and Archaeometry*, 2006, Vol. 6, Iss. 1, pp. 19-32; A. Laoupi, *Pushing the Limits: Disaster, Archaeology, Archaeodisasters & Humans*, Princeton/NJ: Metron, 2016, pp. 263-265.

³ See G. Heinsohn, “Polskie Korzenie“, in *Nasz Gdańsk*, 07-2015; 08-2015; <http://www.nasz.gdansk.pl/wp-content/uploads/2015/07/NG-07-2015.pdf>; <http://www.nasz.gdansk.pl/wp-content/uploads/2015/08/NG-8-2015-do-internetu.pdf>

⁴ Kl. Bos, P. Stevens, K. Nieselt, H.N. Poinar, S.N DeWitte, J. Krause, “*Yersinia pestis*: New Evidence for an Old Infection”, in *PLoS ONE*, 7(11), 2012, *PLoS ONE* 7(11).

another type of **discontinuity** in the late Viking Age: the **old rural places of power, commonly called central places, all met their end**. In some cases, most pronounced in Lejre-Roskilde and Uppakra-Lund, a town with central royal and ecclesiastical

Viking town of Truso (*Janow Pomorski*/POLAND; 8th-10th c.) before and after it disappeared under soil around the 10th c. CE [LEFT: Foto J. Sidorczak-Heinsohn at *Muzeum Archeologiczno-Historyczne w Elblągu*; RIGHT⁵].



functions was established in the vicinity around the time when the central place was abandoned. It is the new and strong connection between king and Church which might hold a key to understanding the discontinuity both in towns and in central places around the turn of the millennium. A general conversion to Christianity took place at this time”⁶ (bold; GH).

Excavators of Viking sites may not be happy with a vague date such as “around the turn of the millennium”. Due to catalogue dates for coins or dendrochronological results they may arrive at slightly different years for the discontinuity of their specific sites. Dates

⁵ M. F. Jagodziński, *Truso: MiedzyWeonodlandema Witlandem/ BetweenWeonodlandandWitland*, Elblag: MuzeumArcheologiczno-Historycnew Elblagu, 2010, 87.

⁶ D. Skre, “The Development of Urbanism in Scandinavia”, in Brink. S., Price, N., eds., *The Viking World*, London & New York: Routledge, 2012, pp. 83-93 / 83, 86.

Light Brown: **WESTERN PART OF THE ROMAN EMPIRE** hit in the *Crisis of the Third Century*.

Purple: **EASTERN PART OF THE EMPIRE** hit in the *Crisis of the Sixth Century*.

Both destructions are not noticed in the periphery from Scandinavia to Mesopotamia hit in the *Collapse of the 10th Century*



may also differ if the location of the town disappeared under soil or was heavily built over as, e.g., at Ribe in Denmark. None of the archaeologists, however, claims a happy ending for his “rural place of power”. At Birka, e.g., “a sea level drop estimated up to 5 m has separated the lake from the nearby Baltic Sea of which it was once an inlet, and resulted in the harbour structures being located considerably inland as compared to their original situation”⁷. Viking Truso had undergone “isostatic adjustments (vertical crustal movements) [and] eustatic movements (fluctuations in the sea level due to climatic changes). / [The] in-fill consisted of a layer of black/brown sand with a high content of charcoal and ash”⁸.

Turning to the realm of the Western Slavs we witness similar devastations with the fall of Great Moravia in the early 10th century. **SLOVAKIA** suffered major “destructions” at the “beginning of the 10th century.”⁹ None of the available sources names any enemies or other causes that may have inflicted that disaster. At the same time, in the **CZECH REPUBLIC**, “castles of regional chieftains were destroyed. [...] That phenomenon is not at all mentioned in the written sources¹⁰.” In **GREAT MORAVIA** some 30 major fortresses, at least nine of them with stone churches, are utterly devastated: “The most recent burnt horizons give evidence for a gigantic annihilation that is roughly datable to the time of 900 CE”¹¹. More recently, the demise of the Great Moravia Empire is dated into the early part of the 10th century”¹².

⁷ Cf. N. Bani-Sadr, *A Study of the Evidence for the Viking Age Harbour at Ribe, Denmark*, University of Southern Denmark: Master’s Thesis, 2016, 51.

⁸ M. F. Jagodziński, *Truso: MiedzyWeonodlandema Witlandem/ BetweenWeonodlandandWitland*, Elblag: MuzeumArcheologiczno-Historycnew Elblagu, 2010, 74/80.

⁹ H. Chorvátová, “Untergang und Neuanfang: Zur Christianisierung im Einflussbereich des frühmittelalterlichen mährischen Fürstentums auf dem Gebiet der heutigen Slowakei anhand archäologischer Quellen“, in Heinrich-Tamáška, O., Krohn, N., Ristow, S., ed., *Christianisierung Europas: Entstehung, Entwicklung und Konsolidierung im archäologischen Befund / Christianisation of Europe: Archaeological Evidence for it’s creation, development and consolidation. Internationale Tagung im Dezember 2010 in Bergisch Gladbach*, Regensburg: Schell & Steiner, 2012, pp.239-260 / p. 249; see also p. 259.

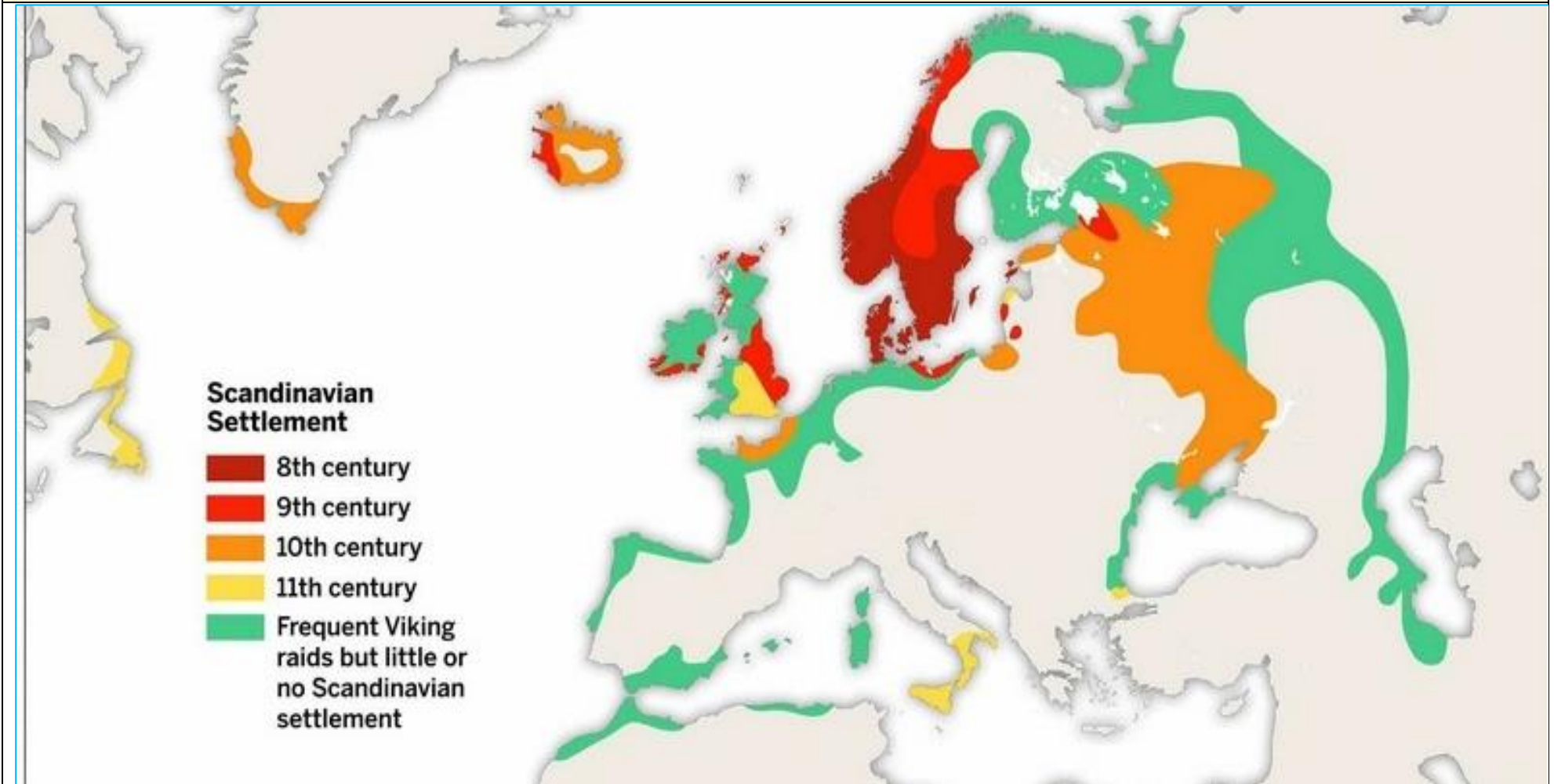
¹⁰ P. Sommer, “Der frühe böhmische Staat und die Christianisierung seiner Gesellschaft“, in Heinrich-Tamáška, O., Krohn, N., Ristow, S., Hg., *Christianisierung Europas: Entstehung, Entwicklung und Konsolidierung im archäologischen Befund / Christianisation of Europe: Archaeological Evidence for it’s creation, development and consolidation. Internationale Tagung im Dezember 2010 in Bergisch Gladbach*, Regensburg: Schell & Steiner, 261-273/266; 273: “Wurden die Burgen der regionalen Häuptlinge zerstört. / Dieses Phänomen wird nicht in einer einzigen Quelle erwähnt“.

¹¹ L. Poláček, “Großmährisches Reich“, in *Reallexikon der germanischen Altertumskunde*, Berlin & New York: Walter de Gruyter, 1999, vol. 13, 82 (“Die jüngsten Brandschichten zeugen jedoch von einer gewaltigen Vernichtung, die ungefähr in die Zeit um 900 datiert wird“).

¹² N. Berend, ed., *Christianization and the Rise of Christian Monarchy: Scandinavia, Central Europe and Rus' c.900–1200*, Cambridge: Cambridge University Press, 2007, 216, 321.

Territories on the **PERIPHERY OF THE ROMAN EMPIRE** hit in the collapse of 10th century CE (ca. 930s)

[<http://www.heraldnet.com/article/20140823/LIVING/140829645>].



Although the catastrophic circumstances of the 3rd century crisis are repeated in the 6th century demise of Late Antiquity, as well as in the 10th century destructions from Scandinavia to Mesopotamia, there are no sites where traces of three such destructions are found super-imposed on each other. [Buko 2011 cf. footnote 10 below; Strzelczyk 2001 cf. footnote 19 below; for Liebeschuetz (1992) cf. “The End of the Ancient City“, in J. Rich, ed., *The City in Late Antiquity*, London & New York: Routledge, 1-48.]

The **TENTH CENTURY CE** is “significantly different from its predecessor. The **ninth century** saw the imposing and successful attempt (the first after the collapse of the **order of Antiquity**) at the political organisation and considerable integration of the more important Latin-speaking Europe. [...] The **tenth century** was the ‘**age of Iron**’ (*saeculum ferreum*), the **Dark Age** (*saeculum obscurum*). [...] The development of Latin **Europe became retarded**. A symptom of this **regression** may be the situation that in the period from about 920-960 as far as we know, **nothing of any great interest in the fields of intellectual development** or literature appeared in Latin Europe” (Strzelczyk 2001, 42 f.; bold GH).

<p>Crisis of the 3rd CENTURY (with <i>fimbulwinter</i> of 235/236)</p>	<p>Crisis of the 6th CENTURY (with <i>fimbulwinter</i> of 535/536)</p>	<p>Collapse of the 10th CENTURY [930s] (with <i>fimbulwinter</i> of 927/928)</p>
<p>“The climax of the physical development of the classical city was reached [...] in the first two decades of the third century. After that the great flood of private munificence displayed in public buildings, banquets, distribution of money for food, games statues and inscribed monuments subsided everywhere, and never recovered” (Liebeschuetz 1992, 3f.)</p>	<p>“During the sixth century the cities of the Greek East were hit by a series of severe blows; earthquakes, Persian invasions, and, perhaps most serious of all successive waves of bubonic plague, the first in 541. [...]. The effect was like the crisis of the third century“ Liebeschuetz 1992, 34).</p>	<p>“There was a rapid, sometimes catastrophic, collapse of many of the pre-existing tribal centers. These events were accompanied by the permanent or temporary depopulation of former areas of settlement. Within a short time, new centers representative of the Piast state arose on new sites, thus beginning [in 966] the thousand-year history of the Polish nation and state” (Buko 2011, 464).</p>

Salzburg, **AUSTRIA's** most important Early Medieval center, becomes “multiple times smaller”¹³ after a devastation in the 10th century when it resorts to primitive wooden houses for the few survivors.¹⁴

POLAND, too, was hit in the early 10th century: “There was a rapid, sometimes catastrophic, collapse of many of the pre-existing tribal centers. These events were accompanied by the permanent or temporary depopulation of former areas of settlement. Within a short time new centers representative of the Piast state arose on new sites, thus beginning [in 966] the thousand-year history of the Polish nation and state.”¹⁵ In the future Piast realm “the local traditional territorial structure was undergoing deep and dramatic changes. Actions which resulted in the abandonment of some of the old strongholds and the building in their place of new ones were associated irrevocably with mass population movement, [...] the emergence of new forms and zones of settlement”¹⁶. Previously unsettled areas “became densely settled and strongholds appeared; in the second quarter of the tenth century, these were built on a unified model in Bnin, Giecz, Gniezno, Grzybowo, Ostrów Lednicki, Poznan and Smarzewo”¹⁷.

Like the conflagrations in Slovak and Czech territories have left no traces in the written sources so the texts pertaining to Poland and the Baltic coast remain completely silent about the forces that had the power to cover such huge territories. Yet, archaeology confirms that **SOUTHERN BALTIC PORTS** mysteriously “undergo discontinuity”¹⁸ in the 10th c. CE. The indigenous names for some of the deserted ports are not known to this very day.

In **HUNGARY**, the Early Medieval town of Mosaburg with its strikingly Roman style stone Basilica of Zalavár-Récéskút (9th/10th c.) “had become ruinous by the Arpadian age. / Dateable finds from the multilayer cemetery could all be dated to the years from the

¹³ “Ein Vielfaches kleiner“ (W. Kovacsovics, Salzburg’s city aracheologist; 03-03-16; Email).

¹⁴ Cf. Landeshauptstadt Salzburg, Landesinnung der Baugewerbe Salzburg, eds., *Historischer Atlas der Stadt Salzburg*, Salzburg: Schriftenreihe des Archivs der Stadt Salzburg, Bd. 11

¹⁵ A. Buko, *Archeologia Polski. Wczesnosredniowiecznej: Odkrycia – hipotezy – interpretacje*, Warszawa: Wydawnictwo TRIO, 2011, p. 464.

¹⁶ A. Buko, “Ośrodki centralne a problem najstarszego *Patrymonium* dynastii Piastów“, *Archeologia Polski*, vol. LVII, 2012, no. 1–2, 133-159 / 157 ff.

¹⁷ N. Berend, P. Urbanczyk, P. Wiszewski, *Central Europe in the High Middle Ages: Bohemia, Hungary and Poland c. 900-c.1300*, Cambridge: Cambridge University Press, 2013, p. 118.

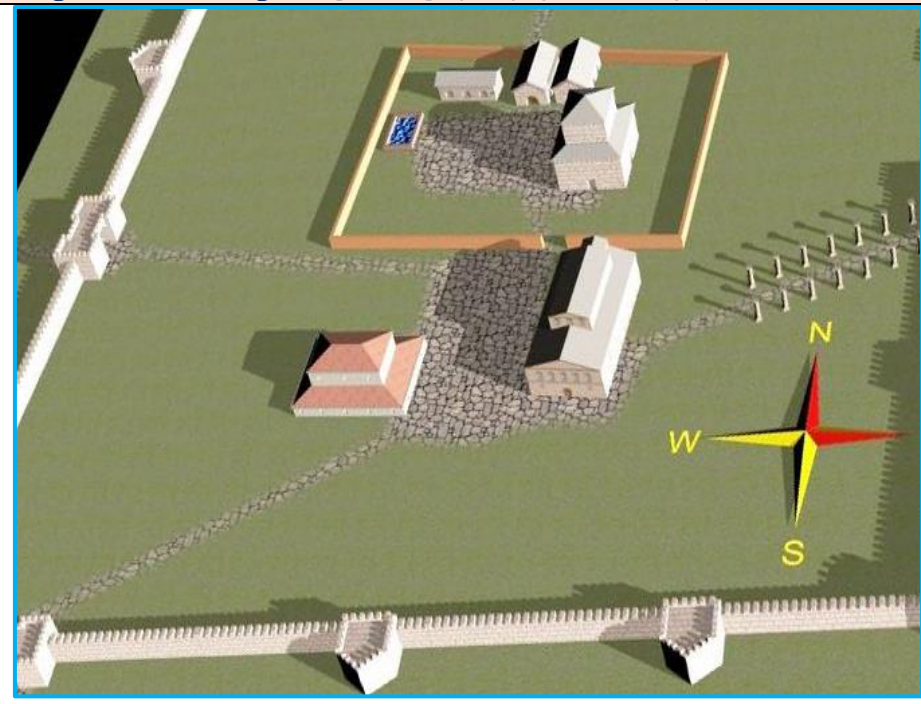
¹⁸ S. Kleingärtner, *Die frühe Phase der Urbanisierung an der südlichen Ostseeküste im ersten nachchristlichen Jahrtausend*, Neumünster: Wachholtz (Studien zur Siedlungsgeschichte und Archäologie der Ostseegebiete, Band 13), 2014, p. 249. (“dass die frühe Phase der Urbanisierung an der südlichen Ostsee Küste durch einen diskontinuierlichen Verlauf gekennzeichnet ist.)

Roman 2nd c. city versus Early Medieval 9th c. Slavic city in BULGARIA

2nd c. CE *Ulpia Serdica* (SOFIA; walls 10-12 m, gates 13-15 m high)
[<https://www.youtube.com/watch?v=f5B-Qu9PqL>]



9th c. CE Pliska in 2nd c. outline and materials (walls ca. 10 m, gates 14-15 m high) [<http://www.pmgsh.bg/bg/articles/category3/article55.html>].



second third or middle of the 9th century to the early 10th century, namely to its first few decades. // Not just Mosaburg/Zalavár became depopulated, but also its surrounding area“¹⁹.

BULGARIA had the most splendid 9th/10th c. Slavic cities that – to the excavators’ surprise – had been built in the 700 year earlier style of Rome’s 2nd/3rd c. CE period. Notwithstanding all their stone and brick massiveness, its metropolis, Pliska, comes to a terrible end: “A dark grey (most probably erosion) layer“²⁰ (Henning 2007, 219; bold GH) had strangled that urban jewel for good:

¹⁹ B. Miklós Szöke, *The Carolingian Age in the Carpathian Basin*, Budapest: Hungarian National Museum, 2014, p. 70 // 122.

²⁰ J. Henning, “The Metropolis of Pliska or, how large does an early medieval settlement have to be in order to be called a city?“, in J. Henning, ed., *Post-Roman Towns, Trade and Settlement in Europe and Byzantium*, Berlin: Walter de Gruyter, vol. 2, 2007, 209-40 / 218,219; <https://www.academia.edu/846387/>

“After the production activities had stopped, for whatever reason, the **whole production area was covered by considerable amounts of erosion material (colluvium)**. Coming from higher parts of the area near to the Inner Town’s fortification it traveled downhill and spread over the former craft-working zone. The question as to why these erosion processes took place and exactly how long they lasted is difficult to answer. / Approximately at the end of these soil creep events cottage dwellings of the grubenhause type were constructed in great numbers by digging them either into the erosion layer directly or into the older garbage layers of the abandoned craft-working quarter“²¹ (bold; GH).

“Between the 11th and 15th c. CE, [Bulgaria’s; GH] Pliska basin was turned into a desert landscape“²². All that remained of its early 10th c. splendour “was a memory of a ‘once great’ city. Hardly anything of its magnificent urban substance was left by the end of the 12th century. / Strata for the 11th c. are hardly recognizable in the area of the interior city“. On the contrary, burial grounds are all that was found dug into the soil layer burying the city: “At the end of the 11th c., at the latest, individual cemeteries began to develop. Yet, slowly the excavators began to understand that they all belonged to one huge burial ground, to a genuine city of the dead that, between the 11th and the 13th c., had covered the lion’s share of the ancient interior city“²³.

The enormously wide-ranging devastations of the 930s CE and the ensuing interruption of scholarly activity was experienced as a bewildering age of iron in which a civilization that surprisingly still looked Roman had collapsed for good:

“The tenth century appears on the surface to be significantly different from its predecessor. The ninth century saw the imposing and successful attempt (the first after the collapse of the order of Antiquity) at the political organisation and considerable

The Metropolis of Pliska or how large does an early medieval settlement have to be in order to be called a city in Joachim Henning ed. Post-Roman Towns Trade and Settlement in Europe and Byzantium vol. 2 Byzantium Pliska and the Balkans Berlin New York De Gruyter 2007 pp. 209-240

²¹ J. Henning, “The Metropolis of Pliska or, how large does an early medieval settlement have to be in order to be called a city?“, in J. Henning, ed., *Post-Roman Towns, Trade and Settlement in Europe and Byzantium*, Berlin: Walter de Gruyter, vol. 2, 2007, 209-40 / 218; https://www.academia.edu/846387/_The_Metropolis_of_Pliska_or_how_large_does_an_early_medieval_settlement_have_to_be_in_order_to_be_called_a_city_in_Joachim_Henning_ed._Post-Roman_Towns_Trade_and_Settlement_in_Europe_and_Byzantium_vol._2_Byzantium_Pliska_and_the_Balkans_Berlin_New_York_De_Gruyter_2007_pp._209-240.

²² T. Kirilov, *Die Stadt des Frühmittelalters in Ost und West: Archäologische Befunde Mitteleuropas im Vergleich zur östlichen Balkanhalbinsel*, Bonn: Habelt Verlag, 2006, p. 134.

²³ T. Kirilov, *Die Stadt des Frühmittelalters in Ost und West: Archäologische Befunde Mitteleuropas im Vergleich zur östlichen Balkanhalbinsel*, Bonn: Habelt Verlag, 2006, pp. 140-143.

integration of the more important Latin-speaking Europe by the Carolingians, and the splendour of the ‘Carolingian Renaissance’ – literature, art and science. The tenth century was the ‘age of Iron’ (*saeculum ferreum*), the Dark Age (*saeculum obscurum*) – dark not merely in the sense of the cognitive possibilities available to historians, but also in the sense of more primitive relationships and the ‘lack of enlightenment’ of our tenth century ancestors. When the Carolingian unity began to crumble and then collapse, when a period of renewed and universal anarchy in social relationships came [...], when the light of the splendid but chronologically and geographically limited Carolingian Renaissance was extinguished, it would seem that the development of Latin Europe became retarded. A symptom of this regression maybe the situation that in the period from about 920-960 as far as we know, nothing of any great interest in the fields of intellectual development or literature appeared in Latin Europe. But it is precisely in these areas that, by various means, the tenth century saw the sowing of the seeds of the new. The ninth century was in many ways still looking back to traditions which were still Roman. In the tenth century, precisely on the foundations of the disintegrating Carolingian Empire, a new order of Early Medieval Europe developed, and this is our third element forming a caesura²⁴.

The area devastated between **NORWAY** and the **BLACK SEA** – other than the **CLASSIC MAYA** culture of the **YUCATAN** that collapsed around the same time²⁵ (or **TIWANAKU/BOLIVIA** dated to ca. 1000 CE²⁶) – was neither hampered by a lack of water nor by an overly complex social structure. Thus, ecological and sociological theories are of limited help to comprehend the evidence of the tenth century cataclysm in Scandinavia and Eastern Europe both rich in water and low in societal complexity.

²⁴ J. Strzelczyk, “The Church and Christianity about the Year 1000 (the Missionary Aspect)“, in P. Urbanczyk, ed., *Europe around the Year 1000*, Warszawa: Wydawnictwo DIG, 2001, 41-68 / 42 f.; <http://www.mgh-bibliothek.de/dokumente/a/a134805.pdf>.)

²⁵ G. Iannone, ed., *The Great Maya Droughts in Cultural Context: Case Studies in Resilience and Vulnerability*, Bolder: University Press of Colorado, 2014; A. Laoupi, *Pushing the Limits: Disaster, Archaeology, Archaeodisasters & Humans*, Princeton/NJ: Metron, 2016, pp. 265-267. An earlier crisis afflicting Maya cities, e.g., at Ceibal/Guatemala (tentatively C14-dated to the 2nd c. CE²⁵), may stand — if actually stratigraphically super-imposed by settlements hit in the 9th crisis — for the Bronze-Age-Iron-Age-divide that has different dates in different regions due to different chronologies. Cf. “Archaeologists uncover new clues to Maya collapse”, *Science Daily*, 23 January, 2017; https://www.sciencedaily.com/releases/2017/01/170123162301.htm?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+sciencedaily%2Ffossils_ruins%2Ffossils+%28Fossils+News+---+ScienceDaily%29.

²⁶ A.L. Kolata, *The Tiwanaku: Portrait of an Andean Civilization*, New York: Wiley, 1993.

The **EARLY ABBASIDS**, and the **CLASSICAL MAYA** fall shortly after 900 CE, too: “The classic Maya collapse is one of the greatest unsolved mysteries in archaeology“ [https://en.wikipedia.org/wiki/Classic_Maya_collapse].

Tikal (of the Classical Maya) to Samarra (of the Abbasids): 12,491 km.



ABBASID MESOPOTAMIA/IRAQ appears to have been struck by disaster around that time, too: “In Baghdad, the first half of the tenth century had a greater frequency of significant climate events and more intense cold than today, and probably also than the ninth century and the second half of the tenth century”²⁷. If these devastations actually occurred simultaneously something extremely massive must have been at work in the 10th century. To better comprehend this mega-event it may, therefore, be productive to study all areas together.

A no less fatal fall at such an incredibly late date is confirmed for **ROME**, too. Though one would expect traces of the fall-out of the Crisis of the Third Century or of the fall of Eastern Rome in the 6th century, there is hard evidence only for a devastating cataclysm in the 10th century:

"The **eleventh century** marked another turning-point in Rome's urban history. Excavations have revealed that this period [of the beginning of the High Middle Ages; GH] is characterized, in all strata, by a **significant rise in paving levels**, and the consequent **obliteration of many structures and ancient ruins**. [...]

It is mostly the **building types that change radically**. For **the first time [i.e., not already in the 3rd or 6th c.; GH]** we find a typical medieval urban fabric: houses of brick or masonry, and often with two storeys, bilt side-by-side along the thoroughfares.

Even **more radical is the change in the type of building** occupied by the wealthier classes: the increasing conflict within the nobility led to the militarization of the urban landscape, most evident in the spread of fortified complexes dominated by towers, in which the nobles resided. [...]

An English pilgrim, Magister Gregorius, who visited Rome at the end of the twelfth or at the beginning of the thirteenth century, when first setting eyes on the city from the surrounding hills, compared the towers to ears of wheat, 'so many that no one can count them'.²⁸

²⁷ F. Domínguez-Castro, J.M. Vaquero, M. Marin, M. Cruz Gallego, R. Garcia-Herrera, "How useful could Arabic documentary sources be for reconstructing past climate?", 27 February 2012, <http://onlinelibrary.wiley.com/doi/10.1002/wea.835/full>

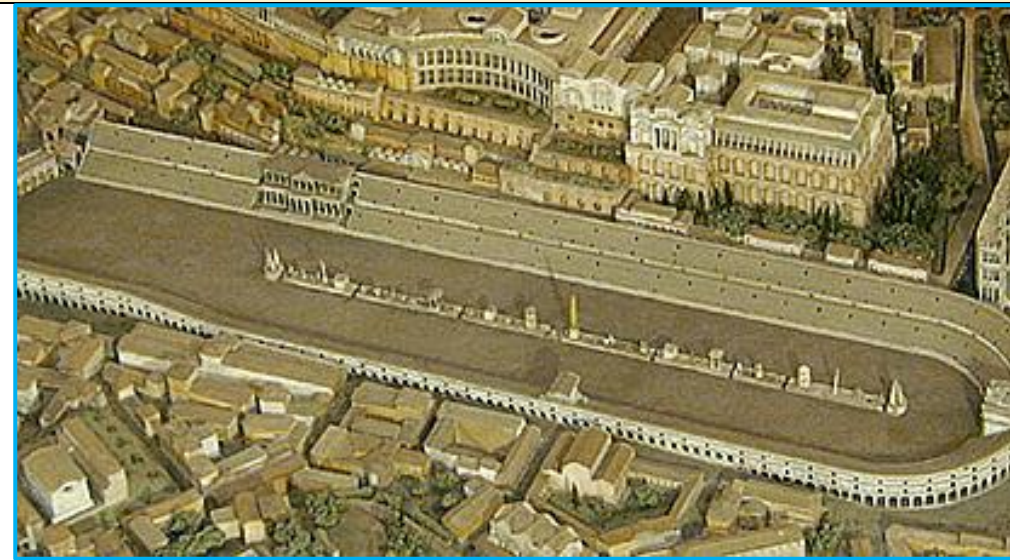
²⁸ R. Santangeli Valenzani, "Box 4.2 Rome"; in James Graham-Campbell, M. Valor, *The Archaeology of Medieval Europe. Vol. 1: The Eighth to Twelfth Centuries AD*, Aarhus: Aarhus University Press, 2013; 130-133/133; bold letters, GH.

ROME's Circus Maximus in the 3rd c. [stratigraphically: 10th c.], and in 1575.

[<http://www.vroma.org/~bmcmanus/circus.html> / E. Dupérac [ca. 1525-1604; <https://upload.wikimedia.org/wikipedia/commons/e/e6/Peracvestigi157512.jpg>]

Michel de Montaigne (1581) when Circus Maximus still looked like Hiroshima):

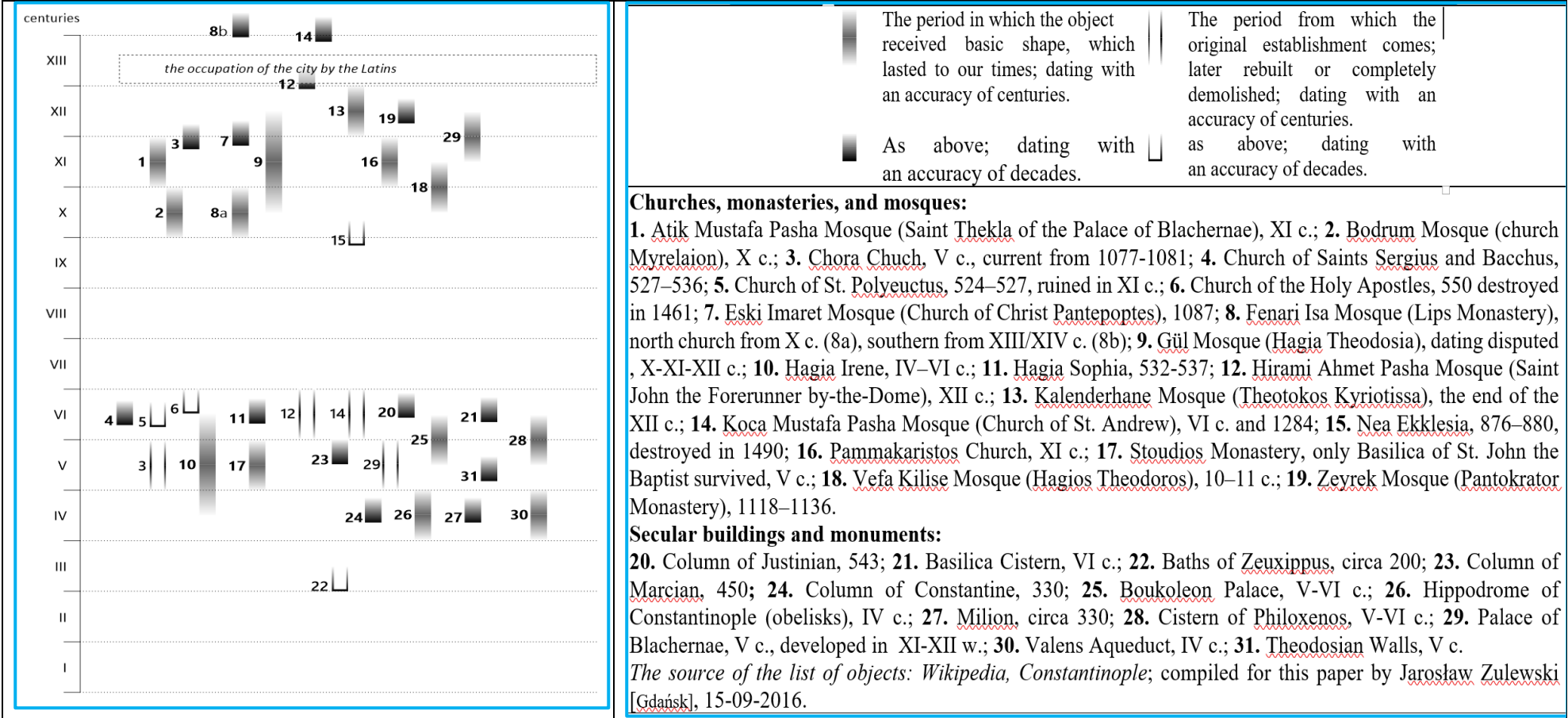
“This was nothing but Rome’s sepulcher. The world, hostile to its long domination, had first broken and shattered all the parts of this wonderful body; and because, even though quite dead, overthrown, and disfigured, it still terrified the world, the world had buried its very ruin. [...] It was likely that these disfigured limbs that remained were the least worthy, and that the fury of the enemies of that immortal glory had impelled them to destroy first of all what was most beautiful and most worthy; and the buildings of this bastard Rome which they are now attaching to these ancient ruins [...] reminded him precisely of the nests which sparrows and crows in France suspend from the arches and walls of the churches”.



But what about **CONSTANTINOPLE**, some **1,400 KM EAST OF ROME**? Didn't this metropolis collapse already in the 6th century when a piece of Halley's comet slammed into Earth in 536 CE, filling the atmosphere with dust?²⁹ Yet, something serious must have happened in the 10th century, too, because the mud-covered Port of Theodosius, discovered in November 2005, had buried ships da-

²⁹ M. Wall, “Why Halley's Comet May Be Linked to Famine 1,500 Years Ago”, in *LiveScience*, 18 December 2013, <http://www.livescience.com/42048-halleys-comet-linked-to-ancient-famine.html>

Buildings of **CONSTANTINOPLE from the 1st millennium CE to the 13th century CE according to archaeological evidence (conventional dates). Imperial Antiquity (1st-3rd c.), and the Early Middle Ages exhibit enigmatic gaps. The end of Late Antiquity is dated to the 6th century. Yet, it is contingent with the High Middle Ages of the 10th century when rebuilding begins. Stratigraphically, therefore, Late Antiquity sits in the 8th-10th c. time-span³⁰.**



³⁰ Compiled by J. Zulewski, 15 September 2016.

ting from the 7th to the 10th/11th century³¹. That date causes problems because there is no material evidence of any building activity in Constantinople during the Early Middle Ages (7th/8th-10th c. CE):

“In the Byzantine lands archaeologists discovered an unbroken line of development from the [4th century; GH] foundation of Constantinople through the fifth and sixth centuries. But then, about forty years after the death of Justinian the Great, from the

LEFT: Reconstruction of the Port of Theodosius in **CONSTANTINOPLE (4th-6th c. CE)³².
RIGHT: Location of the port discovered considerably inland under downtown Istanbul in 2005³³.**



³¹ <http://www.thepolisblog.org/2009/09/hyper-extensions-marmaray-project.html>

³² http://www.byzantium1200.com/images/tile_03L.jpg

³³ <http://www.istockphoto.com/pl/obrazy/yenikapi-port?excludenudity=true&sort=best&mediatype=photography&phrase=yenikapi%20port>

first quarter of the seventh century, there is a total and absolute break. Hardly a church, or artifact of any kind has been recovered from the next three centuries. Cities were abandoned and urban life came to an end. There is no sign of revival until the middle of the tenth century”³⁴.

If Constantinople perished in the 6th century, we do not know the whereabouts of the survivors rebuilding it in the 10th century. Neither do we know who could have run the Port of Theodosius for some 300 years. It gets even more complicated because written sources indicate a healthy increase of Constantinople’s population through the Early Middle Ages (8th-10th c.) after it had been “sorely depleted”³⁵ from the 6th century to 700 CE. Still, there are no 8th-10th c. urban traces that could have accommodated that repopulation. Moreover, the — supposedly — Early Medieval buildings (8th-10th c.) described in the textual sources match Constantinople’s undisputed buildings of Late Antiquity (4th-6th c.). Thus, the textual evidence fits Late Antiquity but not the Early Middle Ages. The extinction of the port, however, occurred at the end of the Early Middle Ages. How can one solve that confusion stratigraphically? The city’s Early Medieval period is identical with Constantinople of Late Antiquity. The destruction, now dated to the sixth century, must have taken place in the early 10th century when the Port of Theodosius was covered by mud.

Thus, if stratigraphy — with its formula *Late Antiquity*=*Early Middle Ages* — is permitted to settle the matter, the history of Constantinople and its Byzantine environment loses its bizarre aspects. When the cataclysm did not strike in the 6th but in the early 10th century, survivors can be expected to start rebuilding within a few decades. That is exactly what happened:

“Starting in the mid-tenth century / Towns half-abandoned were repopulated: Patras and Sardis returned to life; in Corinth the central agora was built over by shops and housing; in Nicaea the population had regained its previous level and around 1015 the city walls were repaired and a large church, H. Sophia, was built; in Athens the town expanded to the ancient walls, if

³⁴ J.J. O’Neill (2009), *Holy Warriors: Islam and the Demise of Classical Civilization*, Felibri.com / Ingram Books, 231.

³⁵ R. Krautheimer (1986), *Early Christian and Byzantine Architecture*, New Haven & London: Yale University Press & Pelican History of Art, 334.

LEFT: CONSTANTINOPLE before devastation in the 6th c. CE³⁶. **RIGHT: Centre of Constantinople around 1550³⁷** with small buildings set into mud still standing some 12 m high at the substructure for the circus.



loosely settled, and some forty churches rose from the tenth to the 12th century; at the same time in the small town of Kastoria a dozen or so churches were built out of thirty-two surviving. In the countryside, based on their landholdings, large monasteries flourished; Hosios Lukas, Daphni, Hosios Meletios, Sagmata; the first to rise on Mount Athos”³⁸.

³⁶ <https://www.travelmoodz.com/en/travel-professional/gokhan-topuz/information>

³⁷ Etching by Onofrio Panvinio [1530-1568], *De Ludis Circensibus*, ca. 1600 [<http://www.smithsonianmag.com/history/blue-versus-green-rocking-the-byzantine-empire-113325928/>].

³⁸ R. Krautheimer (1986), *Early Christian and Byzantine Architecture*, New Haven & London: Yale University Press & Pelican History of Art, 334/333.

Moving across the Mediterranean to **EGYPT**, the devastation is at least as massive as in Rome or Constantinople. **MEMPHIS**, seen as one of the largest urban spaces of Antiquity, was seen by Abd al-Latif al-Baghdadi (1162-1231) in the 12th or 13th century:

"Enormous as are the extent and antiquity of this city, in spite of the frequent change of governments whose yoke it has borne, and the great pains more than one nation has been at to destroy it, to sweep its last trace from the face of the earth, to carry away the stones and materials of which it was constructed, to mutilate the statues which adorned it; in spite, finally, of all that more than four thousand years have done in addition to man, these ruins still offer to the eye of the beholder a mass of marvels which bewilder the senses and which the most skillful pens must fail to describe. The more deeply we contemplate this city the more our admiration rises, and every fresh glance at the ruins is a fresh source of delight". [...] The ruins of Memphis hold a half-day's journey in every direction"³⁹.

Europeans first gained knowledge of the location of Memphis (Mn-nfr) through Jean de Thévenot (1633-1667) who explored Egypt in 1652. A constant flow of research set in during Napoléon's brief conquest of Egypt in 1798. He was accompanied by a team of 167 scholars whose *Description de l'Égypte* was completed in 1829. Yet, they could not clarify why or when the Nile-metropolis had perished.

After Octavian/Augustus (31 BCE – 14 CE) had, in 30 BCE, turned Egypt into an imperial province of the Roman Empire, Memphis continued to thrive. Suetonius (69-122) writes about the city in his *Life of Titus* (part XI of *The Twelve Caesars*). The country, divided into six dioceses, continued to provide grain and scholarship to the Roman Empire during Christian Late Antiquity, too. Traces of any new urban construction from the 4th to 6th century, however, remain elusive to this very day. Memphis itself had disappeared from the sources already in the 4th century. It was not mentioned again until the 13th century by Abd al-Latif al-Baghdadi. Something massive must have happened in Memphis and all of Ancient Egypt at some time after the 6th and before the 13th century CE.

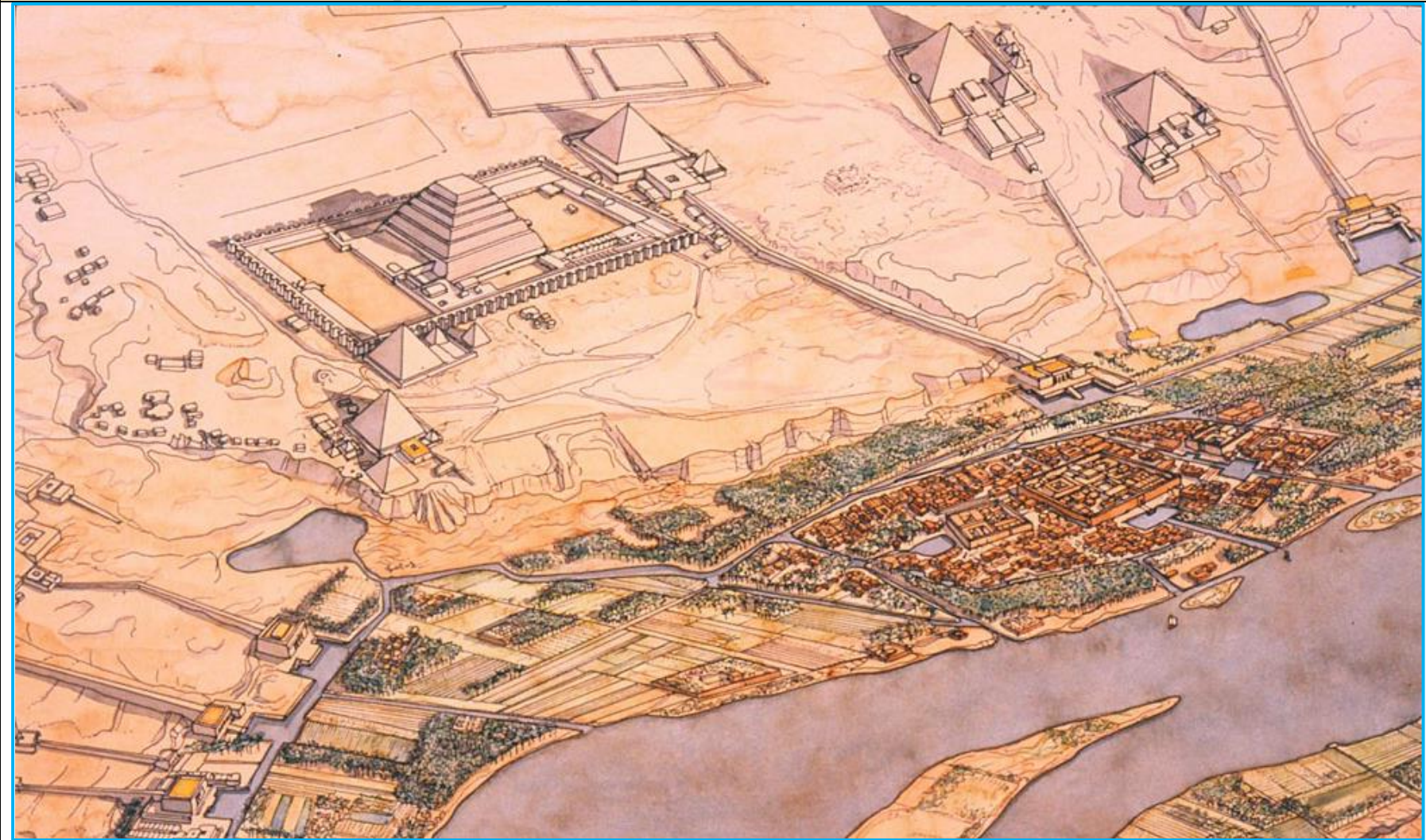
³⁹ A.L. Joanne, É. Isambert, Émile, *Itinéraire descriptif, historique et archéologique de l'Orient*, Paris: Hachette, 1861, itinéraire 132, 1009; <https://archive.org/details/itinrairedescri00joangoog>

Partial reconstruction of ancient **MEMPHIS/EGYPT** (Jean Claude Golvin). Temple of Ptah (right); palace (left)⁴⁰.



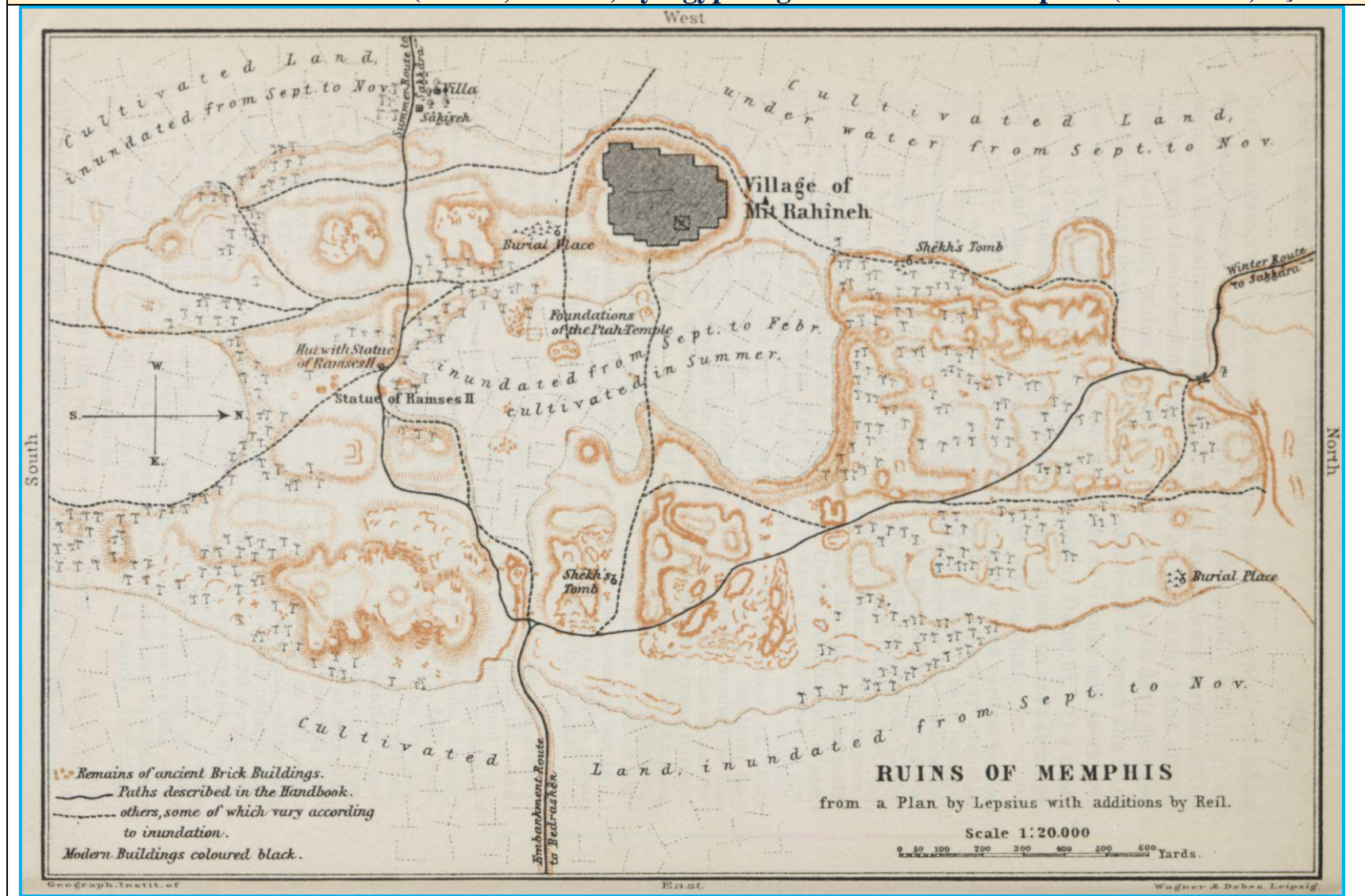
⁴⁰ <http://jeanclaudegolvin.com/wp-content/uploads/2015/03/egypte-mephis-temple-Ptah-palais.jpg>

Aerial view of a partial reconstruction of the city of MEMPHIS with the Pyramids on the plain above the Nile
[Jean Claude Golvin; temple of Ptah {right}; palace {left}]⁴¹. The city is less detailed than in previous view].



⁴¹ <http://jeanclaudegolvin.com/wp-content/uploads/2015/03/egypte-carte-pyramide-memphis-saqqarah.jpg>

Wasteland of **MEMPHIS** (drawn, in 1843, by Egyptologist Karl Richard Lepsius (1810-1884)⁴².)



42 <https://scholarship.rice.edu/bitstream/handle/1911/9353/BaeEg6140b.jpg?sequence=1&isAllowed=y>

An indirect approach may help to narrow down the critical time-span. Egypt's most famous export item, writing material made of sheets of papyrus (*Cyperus papyrus* or Nile grass) ceased to be cultivated around the 10th c. CE⁴³: "All in all, we can say that after the 11th century no writing materials were produced from the papyrus plant"⁴⁴. The plant had been virtually wiped out: "Today it has become extinct in Egypt, apart from modern new plantings. / We do not know for what reasons the decline and finally the end of papyrus production took place" (Kramer 2010, 16⁴⁵).

As "reasons" we propose the cataclysm that wiped out Roman culture in the 10th, not the 6th or 3rd, century. It is the same disaster that is known as the Crisis of the Third Century or as the Crisis of the Sixth Century. Because all three events are one and the same, traces of three catastrophes (3rd, 6th and 10th century) can nowhere be found super-imposed on each other.

The collapse of the **BALHAE-EMPIRE** (Chinese: Bohei), stretching from **NORTH KOREA VIA CHINA TO MANCHURIA**, is conventionally dated to 926 CE. It should have been noticed in **JAPAN**. Yet, a chronicle from a Japanese temple that reports "white ash falling like snow" is currently dated to 946. A recent survey tries to tie the explosion of Changbaishan volcano (also called Mount Paektu) — located in Southern China close to North Korea, i.e., within the borders of the Balhae Empire — to the chronicle's observation:

"The Millennium eruption has fascinated scientists and historians for decades because of its size, potential worldwide impacts. [...] Its eruption in 946 was one of the most violent of the last two thousand years and is thought to have discharged around 100 cubic kilometers of ash and pumice into the atmosphere — enough to bury the entire UK knee deep"⁴⁶

⁴³ Cf. G. Heinsohn, "Papermaking's 700 Years of Secrecy", 2017, in *q-mag.org*

⁴⁴ L. Kramer, "Von der Papyrologie zur Romanistik", *Archiv für Papyrusforschung und verwandte Gebiete*, Beiheft 30, 2010, 16 (*Alles in allem können wir sagen, dass nach dem 11. Jh. keine Schrifträger aus der Papyruspflanze mehr hergestellt wurden*).

⁴⁵ L. Kramer, "Von der Papyrologie zur Romanistik", *Archiv für Papyrusforschung und verwandte Gebiete*, Beiheft 30, 2010, 16 (*Heute ist sie – von modernen Neuanpflanzungen abgesehen – in Ägypten ausgestorben / Aus welchen Gründen der Rückgang und schließlich das Ende der Papyrusproduktion erfolgte, wissen wir nicht*).

⁴⁶ Cf. C. Oppenheimer, L. Wacker, J. Xu, J. Galván, M. Stoffel, S. Guillet, C. Corona, M. Sigl, N. Di Cosmo, I. Hajdas, B. Pan, R. Breuker, L. Schneider, J. Esper, J. Fei, J.O.S. Hammond, U. Büntgen, "Multi-proxy dating the 'Millennium Eruption' of Changbaishan to late 946 CE", *Quaternary Science Reviews*, 2017; 158: 164.

Assumed extension of the **BALHAE-EMPIRE** (Chin.: **BOHAI-EMPIRE**) between **NORTH KOREA** and **MANCHURIA** in the 9th c. CE [https://en.wikipedia.org/wiki/Balhae#/media/File:Balhae-Territory_in_830.JPG]. Its **SUDDEN COLLAPSE** is currently dated to **926 CE**.



Traces of possibly an even larger volcanic explosion, occurring in the 930s, have been found in **ICELAND**. One of the mountains involved, Eldgjá, has created the largest volcanic canyon in the world. It is some 40 km long, 270 m deep and 600 m wide. The eruption (dated to 934 or 939 CE) resulted in the most massive formation of flood basalt in historical time. 219 million tons of sulfur dioxide were blown into the atmosphere where they reacted with water and oxygen and became 450 million tons of sulfuric acid. These corrosive aerosols must have covered a large part of the Northern Hemisphere⁴⁷.

Around the same time an extended winter freezes the northern hemisphere as far south as **CONSTANTINOPLE**: “The terrible winter of 927-928, which brought four months of frost. Many died of the cold”⁴⁸.

The 10th century collapse is not only confirmed by destructions of human habitats. Extreme natural phenomena are recorded, too. The earth’s history of **ALLUVIATION** is divided in two main periods of deposition. The first belongs to the shift from the late Pleistocene to the early Holocene. The second one is global, too. In territories that once belonged to the Roman Empire it directly buried artifacts of Roman culture:

“Throughout the Mediterranean Basin, the Levant, Iran, and southeast Arabia, many valleys display two alluvial fills of which the older dates from about 30,000-10,000 yr BP and the younger from about A.D. 400-1850. [...] The younger fill is well sorted and stratified and, as in Mexico, displays silt-clay depletion as well as iron loss when compared with the older fill deposits from which it is often derived. [...]. The **YOUNGER FILL** is seen in many widely separated areas to cover structures of Roman age as the period of deposition extended into Byzantine and even medieval times. [...] The sections in W. Libya are typical in showing the younger fill deposits in channels eroded into the earlier fill. In most areas, the surface of the older fill

⁴⁷ T. Thordarsson, A. Hoskuldsson, *Iceland: Classic Geology in Europe 3* [2002], Edinburgh: Dunedin Academic Press, 2012, 106-112.

⁴⁸ W. Treadgold, *A History of Byzantine State and Society*, Redwood City/CA: Stanford University Press, 1997, 480; cf. also A. Laoupi, *Pushing the Limits: Disaster, Archaeology, Archaeodisasters & Humans*, Princeton/NJ: Metron, 2016, 118.

was the usable land in Roman times. Greek, Roman, Byzantine, and medieval sherds are found in the younger fill, which also covers entire cities, notably, Olympia in Greece.⁴⁹”.

The impression that territories once occupied by the Roman Empire were struck by three consecutive alluviations — the first drowning Imperial Antiquity (after the 3rd c.), the next one inundating **BYZANTINE EAST ROMAN** areas (in the 6th c.), and the final one flooding the Early Middle Ages (in the 10th c.) — is not borne out by stratigraphy. There are no 1st millennium sites with three episodes of **YOUNGER FILL ALLUVIATIONS** super-imposed on each other. The second fill deposits impacting Roman civilization are found in separate regions of the former Empire. Since the chronologies preferred in the respective regions are responsible for dating the alluvial deposit, three different dates are chosen for that colossal event in the early 10th century CE.

The Tenth Century Collapse ran its lethal course closer to the present than any other world-shaking event in human history. However, it is the least researched, too. A most valuable anthology⁵⁰ of 2013, devoted to the archaeology of destruction, does not even mention it. We do not yet know what could have been powerful enough to bring about such a mind-boggling transformation of our planet. Though it must have been enormous we still do cannot reconstruct the cosmic scenario. Yet, contemporaries “who had the feeling of living through a revolution attributed it to the advent of the Anti-Christ, and presumed that they were witnessing, not the end of the ‘Dark Ages’, as the modern historian assumes, but the first signs of the end of the world”⁵¹.

⁴⁹ L.B. Leopold, C. Vita-Finzi, “Valley Changes in the Mediterranean and America and Their Effects on Humans”, in *Proceedings of the American Philosophical Society*, vol. 142, no- 1 (March), 1-17/11;

[http://eps.berkeley.edu/people/lunaleopold/\(169\)%20Valley%20Changes%20in%20the%20Mediterranean%20and%20Americas%20and%20Their%20Effects%20on%20Humans.pdf](http://eps.berkeley.edu/people/lunaleopold/(169)%20Valley%20Changes%20in%20the%20Mediterranean%20and%20Americas%20and%20Their%20Effects%20on%20Humans.pdf)

⁵⁰ J. Driessen, ed., *Destruction: Archaeological, Philological, and Historical Perspectives*, Louvain: UCL Presse Universitaires de Louvain

⁵¹ C. Brooke, *Europe in the Central Middle Ages, 962-1154*, London: Langmans, 1964, 1f.

Thanks for editorial assistance go to Clark WHELTON (New York), Zsolt NÉMETH (Budapest), Roland RAMBAU (Munich), and Frank WALLACE (Toronto).

Prof. Dres. Gunnar Heinsohn (Beim Steinernen Kreuz 7, D-28203 Bremen, Germany)

ul. Piwna 66 / 6

PL-80-831 GDANSK

POLAND

48 58 3298112 / Mobile: 0048 506362 103

Email: danzigheinsohn@gmail.com