



## Περίληψη :

Given the fact that Byzantium lay on a region with intense seismic activity, earthquakes very often occurred. Although in the sources numerous earthquakes are reported, it is logical to assume that their number was even bigger. The Byzantines were afraid of the earthquakes for their devastating consequences, which besides the human victims caused significant material damages, as well as for fear of the wrath of God as a result of the human sins against which the earthquakes were forewarning. In the history of Constantinople (4<sup>th</sup> – 15<sup>th</sup> century) more than seventy earthquakes were recorded. On the other hand, it was calculated that within the region of Constantinople five hundred forty-eight earthquakes stroke during a long period of time from 50 B.C. until 1890.

## Χρονολόγηση

4th - 15th century

## Γεωγραφικός Εντοπισμός

Constantinople

### 1. Η στάση των Βυζαντινών απέναντι στους σεισμούς

The earthquakes are causing fear to humans from the beginning to our days. Starting from the pagan period, it was believed that earthquakes, as well as some other natural phenomena (solar or lunar eclipse, appearance of a comet and others) announced forthcoming disasters. Preserving such beliefs, the Christians believed that the earthquake constitute a heavenly portent of the divine anger and a doubtless warning that the humans are trying to do something against the will of God. Thus, for example, the emperor [Leo III](#) (726-741), founder of the [Isaurian dynasty](#) and [iconoclast](#), within the spirit of his time, interpreted a mighty earthquake as an indication of the big displeasure of God, which the veneration of the icons had caused to him. In order to propitiate the Most High, to buy off in a certain way their earthly sins and to atone from his wrath, expressed through the earthquakes, the Byzantines expanded to a degree various liturgies, carried out litanies and very often petitioned for the intercession of local holy men. Sometimes they used saints' relics as talisman in order to protect them from earthquakes. Aiming to avoid forgetting ever after the power of divine anger, special commemoration mass was established, as a kind of constant warning and threat, on the anniversary of the disastrous quakes at Constantinople as well as at Alexandria. As if they never wanted the thought over the possibilities of an earthquake that might occur, to be wiped out from the conscience of the Empire's subjects.

We have to point out the fact that at Byzantium, besides some rare efforts from the ranks of the scientists, there wasn't any big interest in scientifically explaining the shakings of the earth's crust. And those intellectuals, who were trying to give an explanation to the cause of the quakes without mentioning God, revolved into the magic circle of the ancient theory whose creator was Aristotle. According to the ideas of Aristotle, which prevailed during a long period of time, earthquakes were occurred as a consequence of the movement of winds inside deep subterranean caverns. However, we can not say that all of these not numerous Byzantine intellectuals, who studied the shakings of the quakes, were subjected to Aristotle's authority. Thus, for example, the Byzantine historian of the 11<sup>th</sup> century Michael Attaleiates, thought as purposeful to cast doubts upon his theory. The well-known [patriarch of Constantinople](#) Photios (858-867, 877-886) insisted on traditional beliefs that earthquakes were the punishment for human sins, whereas there was an unusual opinion as well that the shaking of the ground was caused by the large amount of waters.

### 2. Earthquakes at the capital

Given the fact that the Byzantine Empire occupied a wide area with intense seismic activity, earthquakes did occur quite often, almost every year. In the sources the best evidence are those for the earthquakes that broke out at Constantinople. According to an older research, the region of Constantinople, within a long period of time from 500 B.C. until 1890, was hit by five hundred and forty-eight earthquakes.<sup>1</sup> In reference to the Byzantine era, the first earthquake at Constantinople to be recorded, took place in 324, whereas strong earthquakes stroke into the capital of the Empire in the years 365, 438, 447, 525, 557, 740, 866, 869, 989, 1064, 1296 and 1346.<sup>2</sup> During the period of Byzantium, the capital on Bosphoros was struck by more than seventy earthquakes, the first of which in



342 and the last one in 1454.<sup>3</sup> Naturally, their epicenter was not always at Constantinople and the surrounding area, but the inhabitants of the capital felt for good the strong shakings of the ground that had as a consequence the cause of damages over a large area of dwelling-places, churches and [city-walls](#). If we project these earthquakes century after century we will realize that most of them, 15 earthquakes, occurred in the 6<sup>th</sup> century, 13 earthquakes both in the 5<sup>th</sup> and the 11<sup>th</sup> century, 8 earthquakes in the 14<sup>th</sup> century, 5 earthquakes in the 6<sup>th</sup> century, 4 earthquakes in each of the 8<sup>th</sup>, the 9<sup>th</sup> and the 15<sup>th</sup> century, 3 earthquakes both in the 10<sup>th</sup> and the 13<sup>th</sup> century and 1 earthquake both in the 7<sup>th</sup> and the 12<sup>th</sup> century. If we count them according to each emperor's period of reign, it appears that most earthquakes broke out during the reign of [Justinian I the Great](#) (527-565) – ten in total.

Only few of them are recorded, although for some of them more evidences have been preserved. Thus, for example, it is known that the earthquake of 526 was very strong and that it caused the collapse of many buildings and churches. During this earthquake the [columns](#) of the emperors [Theodosios I](#) (379-395) and Arkadios (395-408) were crumbled. Particularly strong earthquake hit Constantinople on January 9, 869, whereas the earth's surface continued to be shaken for the next forty days and nights. Significant damages were occurred upon the church of [Hagia Sophia](#), as well as upon the church of Panagia on the square of Sigma, whereas damages were inflicted upon the church of [Holy Apostles](#) as well. The Byzantine Emperor [Basil I](#) (867-886) restored the churches upon which damages were occurred. In addition, particularly strong one was the earthquake that hit on the day of Saint Demetrios, on the 26<sup>th</sup> of October in 989, for which there are evidence in many sources. It stroke at Constantinople, at [Nicomedia](#), in Thrace, in [Bithynia](#) and in Lakonia, whereas it became perceptible on the Apennines peninsula as well. A lot of churches were destroyed, even the dome of Hagia Sophia collapsed. Its rebuilding, whose restoration undertook [Basil II](#) (976-1025) lasted six years.

Quite interesting are the evidences concerning the earthquake at Constantinople recorded by the historians John Kinnamos and [Niketas Choniates](#). It took place in 1161, during the visit of the [sultan of Iconium](#) Kiliç Arslan (1155-1192) to the [Byzantine capital](#). Then an unusual incident happened. The emperor [Manuel I Komnenos](#) (1143-1180) magnificently welcomed his Muslim visitor, trying to make an unforgettable impression to him about the splendor and the supremacy of the Byzantine Empire. He had as well the intension to organize an official promenade from the citadel to the church of Hagia Sophia, inside which would be present as well the sovereign of Rum, but this idea was never materialized. Against this imperial intension stood the Ecumenical Patriarch Loukas Chrysoberges (1157-1170), who pointed out that the position of a man of another religion, was not among priests and divine objects. John Kinnamos, who was always eager to extol Manuel I Komnenos, at this point showed a complete understanding for the Patriarch's action. One more event, continued the Byzantine historian, averted the emperor's plans: late at night, a tremendous earthquake occurred who shook the ground, and the Romioi realized out of this event that Loukas Chrysoberges was right and that it was about a heavenly portent that the will of the emperor had displeased God. Niketas Choneiates laconically observed that God that day postponed the celebration. Afterwards he added that an earthquake occurred because of which many buildings were destroyed in the Byzantine capital, and that the wind was as well particularly unnatural and unusual.

With a particularly interesting tone, one more time with a clear lesson, Niketas Choneiates described also the earthquake of the 17<sup>th</sup> of February in 1201. The emperor [Alexios III Angelos](#) (1195-1203) spent a certain period of time in the East, and during his return he and his escort were nearly sank into the sea waves. They managed in a way to reach Prince's Islands and later cross to [Chalcedon](#), across Constantinople. They quickly forgot the big misfortune that was inflicted on them and gave themselves up to the passion of horse games. By taking into consideration the astrologers who advised them to commence the short journey from Chalcedon to Constantinople on the sixth day, a fact for which Choniates spoke with a touch of raillery, Alexios III and his escort from very early in the morning started their preparations for the transfer. The ship in the harbor of the palace was ready, and the relatives of the emperor, with torches lit up – it was not yet dawning – gathered around the emperor, preparing for the journey. However, God wanted then to show that he is the only master of the moments and of the time and that only on Him the good fortune or the misfortune of their routs is depended. Big ill occurred, because an earthquake hit and the compartments of the emperor were so shaken that beneath theme a huge hole was opened into which some men fall. All of them suffered many injuries and one eunuch was killed.<sup>4</sup>

During the earthquake of the 19<sup>th</sup> of May in 1346 the dome of Hagia Sophia collapsed, which had as a consequence the ordinary religious ceremonies not to be performed inside the renowned church. Thus, a year later, on May 1347, John VI Kantakouzenos,



victor of the civil war (1341-1347), was not crowned in Hagia Sophia but in the small church of [Panagia of Blachernai](#). The money that afterwards the great prince of Moscow Symeon Ivanovič Gordi (1341-1353) had sent for the restoration of the famous church, the Byzantines spent them to pay the foreign mercenaries of the new civil war.

During the night between the 1<sup>st</sup> and the 2<sup>nd</sup> of March 1354, a strong earthquake caused great damages at Kallipolis, which the Turks occupied at once, and spread a horrible fear among the Byzantines who were settled in the region of Thrace. For its strength testifies in the best way the fact that some small fortresses were disappeared from the face of the earth. In order the ill to become even bigger, the earthquake was accompanied by a wind storm and rain which was immediately frozen, and as a consequence many of them who had survived from the collapse of the walls, among whom many women and children, were frozen to death while searching for a shelter. Nevertheless, a number of inhabitants of Kallipolis, of the most important city on the European side of Hellespont that was severely destroyed, had the luck within their misfortune to be picked up by a ship sailing towards Morea, and which, still, changed his course and carried them to [Constantinople](#). Though the Byzantine capital was far enough from the epicenter of the earthquake, not only was seriously shaken but also the walls of Constantinople were partially collapsed, the inhabitants of which were vividly retaining in their memory the earthquake that had hit the city eight years before.

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1. Maas, G. Das Erdbeben von Konstantinopel 1894, *Himmel und Erde* 7 (1895) pp. 409-426 and pp. 458-467.
  2. A full account of the earthquakes gives Grumel, V., *La Chronologie*, Traité d'études byzantines I (Paris 1958) pp. 476-481. Такође в. Downey, G., Earthquakes at Constantinople and Vicinity, A. D. 342-1454, *Speculum* 30 (1955) pp. 596-600 и Wirth, P., Zur "byzantinischen" Erdbebenliste, *Byzantinische Forschungen* 1 (1966) /= Polychordia. Festschrift Franz Dölger zum 75. Geburtstag/ pp. 393-399.
  3. They are listed in the Chronological table.
  4. Nicetae Choniatae Historia, I-II, ed. J. A. van Dieten (Berolini 1975), p. 530.
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## Χρονολόγιο

342: Earthquake (perceptible at Constantinople as well).

24 August 358: Earthquake in Macedonia, in Asia Minor, in Pontos, at Nikomedeia (perceptible at Constantinople as well)

21 July 365: Earthquake whose epicenter was the region of Alexandria. (perceptible at Constantinople as well)

368: Earthquake at Nicaea and in Bithynia.

396: Earthquake widely perceptible.

402: Earthquake at Constantinople.

403: Earthquake at Constantinople.

April 407: Earthquake at Constantinople.

412: Earthquake at Constantinople.

April 417: Earthquake at Constantinople.

6 April 423: Earthquake at Constantinople.

25 September 437: Earthquake widely perceptible.

17 April 442: Earthquake at Constantinople.

6 November 447: Earthquake at Constantinople.

26 January 450: Earthquake at Constantinople.



- 467/468: Earthquake at Constantinople and in Bithynia.
- 25 September 477: Earthquake at Constantinople.
- 480: Earthquake at Constantinople.
- 26 September 487: Earthquake at Constantinople.
- 4 October 525: Earthquake at Constantinople and in Syria.
- 526: Earthquake at Constantinople.
- November 533: Earthquake at Constantinople.
- 16 August 542: Earthquake at Constantinople.
- 6 September 543: World-wide earthquake which was mostly inflected upon Kyzikos.
- 546: Earthquake at Constantinople.
- February 548: Earthquake at Constantinople.
- 15 August 554: Earthquake at Constantinople, at Nikomedeia, at Alexandria.
- 11 July 555: Earthquake at Constantinople.
- 16 April 557: Earthquake at Constantinople.
- 19 October 557: Earthquake at Constantinople and at Antioch.
- 14 December 557: Earthquake at Constantinople.
- 14 January 568: Earthquake at Constantinople.
- 580/581: Earthquake at Antioch (maybe at Constantinople as well?)
- 10 May 583: Earthquake at Constantinople.
- 20 April 611: Earthquake at Constantinople.
- 26 October 740: Earthquake at Constantinople.
- 742: Earthquake at Constantinople.
- 9 February 790: Earthquake at Constantinople.
- 4 May 796: Earthquake at Constantinople.
- 862: Earthquake at Constantinople.
- 864: Earthquake at Constantinople.



866: Earthquake at Constantinople.

9 January 869: Earthquake at Constantinople (the ground was shaking for 40 days).

948: Earthquake at Constantinople.

October 986: Earthquake at Constantinople.

25 October 989: Earthquake at Constantinople.

January – March 1010: Earthquake at Constantinople.

13 August 1032: Possible earthquake at Constantinople.

6 March 1033: Possible earthquake at Constantinople.

18 December 1036: Possible earthquake at Constantinople.

2 November 1037: Earthquake in Thrace, in Macedonia, in Thessaly (maybe perceptible at Constantinople as well)

1038/1039: Possible earthquake at Constantinople.

2 February 1040: Earthquake at Smyrna (perceptible at Constantinople)

10 June 1041: Earthquake at Constantinople.

23 September 1063: Earthquake in Thrace, at Kyzikos, at Nicaea (maybe perceptible at Constantinople as well)

1064/1065: Two earthquakes on different places (maybe at Constantinople as well?)

1081: Possible earthquake at Constantinople.

6 December 1090: Earthquake at Constantinople.

1161: Earthquake at Constantinople.

17 February 1201: Earthquake at Constantinople.

16 September 1237: Earthquake at Constantinople.

1 June 1296: Earthquake at Constantinople.

1323 or beginnings of 1324: Earthquake at Constantinople.

17 January 1332: Earthquake at Constantinople.

11 February 1332: Earthquake at Constantinople.

1341: Earthquake in Thrace (maybe perceptible at Constantinople as well)



11 October 1343: Earthquake at Constantinople (12 days).

19 May 1346: Earthquake at Constantinople.

2 March 1354: Earthquake at Kallipolis (perceptible at Constantinople as well)

Early spring of 1355: Earthquake on the shores of Thrace (maybe perceptible at Constantinople as well)

15 August 1391: Earthquake at Constantinople.

28 July 1402: Earthquake at Constantinople.

September 1437: Earthquake at Constantinople (?).

24 November 1437: Earthquake at Constantinople (?).

1454: Earthquake over the dominion of former Byzantium.