

## The earthquake of 1580 - Phokida

This earthquake is listed in the historical earthquake catalogues of Papazachos & Papazachou 1989 & 1997, with the following parameters:

<i>Or</i>	<i>Rn</i>	<i>Ye</i>	<i>Ax</i>	<i>Ref</i>	<i>RC</i>	<i>Ix</i>	<i>Lat</i>	<i>Lon</i>	<i>H</i>	<i>Mm</i>
PAP89	141	1580	PHOKIDA-Mynia	118	2B	100	38.400	22.300	n	67
PAP97	175	1580	PHOKIDA-St.Euthymia	186	2B	90	38.450	22.310	n	68

Their root is Sathas 1865 (reference numbers 118 and 186, respectively), which is based on cronicles and contemporary documents. The relevant parts of the text are as follows:

*“[p. 93] In the year 1580 when the destructive earthquake occurred, Salona [m.Amfissa], together with Loidorikion, Galaxeidion, Naupaktos, Zakynthos [Ionian island] and other places suffered a lot...*

*[p. 219-220] In this year [1580] a great and terrible earthquake destroyed many houses in Galaxeidi, Salona, Loidoriki and Epachto, and the all cells of the Monastery of Sotiras collapsed and three monks were killed, but the church was not damaged at all ... the nearby village Mygia [Myonia] was destroyed and its inhabitants stayed outdoors ... Saint Euthymios appeared to them and advised them to rebuild their village, which they called Ayia [Saint] Euthymia ... The earthquake also damaged the villages Kalopetritza, Vounochora and Pente-Ornia and other villages of Salona”.*

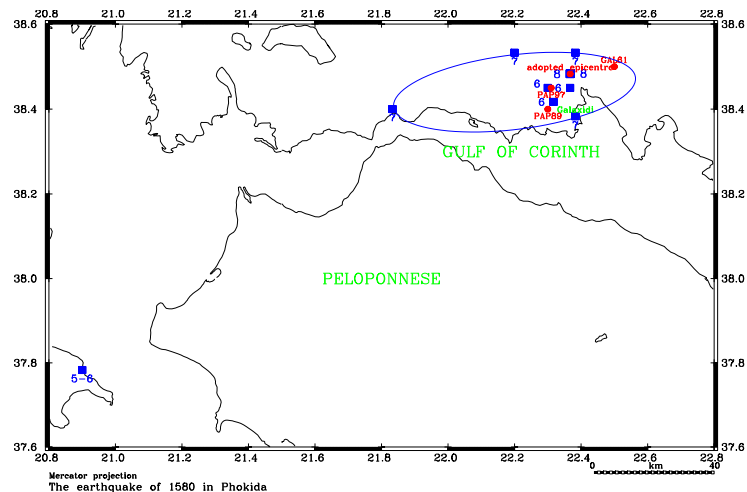
In another part of his book, Sathas says that *“[p.160]...it is reported that the earthquake was destructive also in the Ionian islands and the Peloponnese...”*, but this information was not substantiated.

The sources of Sathas’ first two descriptions are reliable (two chronicles based on contemporary sources), and therefore the root classification of this entry is 2B.

The earthquake was also located in Galanopoulos (1961), who, based on Sieberg (1932a), gave parameters for this earthquake. Schmidt (1879), Galanopoulos (1936), Montandon (1953) and Ambraseys (1988a) also include this event, all relying on Sathas (1865).

As a result of the above first two texts of Sathas, the effects of the earthquake are summarized in the following table and the assessed macroseismic intensity distribution as well as intensity 7 isoseismal are presented in the map below:

Locality	I <sub>1</sub>	I <sub>2</sub>
Galaxidi (Galaxidhion)	7	7
Amfissa (Salona)	7	7
Lidhorikion	7	7
Epakhtos (Navpaktos)	7	7
Kalopetinitsa (Tritaia)	6	6
Pendeoria	6	6
Vounikhora	6	6
Moni Sotiros	8	8
Ayia Evthimia (Myonia)	8	8
Zakynthos	5	6



In all parametric catalogues, the epicentre of the earthquake is placed in Phokida (northern part of the eastern Gulf of Corinth) and the macroseismic magnitudes given are considered overestimated. The adopted epicentre is located at the site of the maximum observed intensity, i.e. in Ayia Euthymia.

## Conclusions

The earthquake is sufficiently documented, with a good quality root classification and a number of intensity data was assessed, which allow the drawing of intensity 7 isoseismal and the better location of the macroseismic epicentre. Therefore the proposed entry for this earthquake is the following:

!	1580PHOKIDA	2B	80	80	38.483	22.367	n	
---	-------------	----	----	----	--------	--------	---	--

## Intensity data

1580 Ayia Evthimia (Mygia)	8	8	PPL	38.483	22.367	GR00	FH16	NJ34-07
1580 Lidhorikion	7	7	PPL	38.533	22.200	GR00	FH06	NJ34-07
1580 Galaxidi: see Galaxidhion	7	7	PPL	38.383	22.383	GR00	FH24	NJ34-07
1580 Amfissa (Salona)	7	7	PPL	38.533	22.383	GR00	FH26	NJ34-07
1580 Kalopetinitisa: see Tritaia	6	6	PPL	38.450	22.367	GR00	FH15	NJ34-07
1580 Pendeoria	6	6	PPL	38.417	22.317	GR00	FH15	NJ34-07
1580 Vounikhora	6	6	PPL	38.450	22.300	GR00	FH15	NJ34-07
1580 Epakhtos: see Navpaktos	7	7	PPL	38.400	21.833	GR00	EH75	NJ34-07
1580 Moni Sotiros	8	8	MON	38.483	22.367			
1580 Zante: see Zakynthos	5	6	PPL	37.783	20.900	GR00	DG98	NJ34-10

## References

1. Ambraseys, N.N., 1988a. *Data for investigation of the long-term seismicity of Central Greece*. Proc. European School on the Seismic Hazard Assessment, Athens 9-16 May 1988, 7pp.
2. Galanopoulos, A.G., 1961. *A catalogue of shocks with  $I_0=VI$  for the years prior to 1800*. Athens, 1-19 (GAL61), p.10.
3. Montandon, F., 1953. F. *Les tremblements de terre destructeurs en Europe*. 195 pp., Geneve, p.162.
4. Papazachos, B.C. & Papazachou, C.B., 1989. *The earthquakes of Greece*. Ziti Publ., Thessaloniki 356 pp., (in Greek), p. 246 (PAP89).
5. Papazachos, B.C. & Papazachou, C.B. 1997. *The earthquakes of Greece*. Ziti Publ., Thessaloniki 304 pp., p. 200 (PAP97).
6. Sathas, K.N., 1865. *Unpublished cronicle of Galaxeidion*. 221 pp., Athens, p.93, 160, 219-220.
7. Schmidt, J.F., 1879. *Studien uber erdbeben*. 1-136, 316-360, Leipzig, p.158.
8. Sieberg, A., 1932a. *Erdbebengeographie. Handbuch der Geophysik*. Bd. 4, 687-1005, Berlin, p.763.

Vicki Kouskouna  
1998