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Fossil shorelines at Corfu and surrounding islands deduced from erosional notches

Niki Evelpidou,[1] Anna Karkani[2] and Paolo A Pirazzoli[3]

Abstract

New geomorphological investigations along the coasts of Corfu, Othonoi, Paxoi, and Antipaxoi Islands allowed the identification of recent fossil shorelines. Former sea-level positions were deduced from sea-level indicators. A 'modern' tidal notch, submerged *c.* −20 cm, was observed in all studied islands. This notch is regarded to have been submerged by the global sea-level rise that occurred during the 19th and 20th centuries at a rate exceeding the possibilities of intertidal bioerosion. Its presence provides evidence that no vertical tectonic movements occurred since its formation. On Corfu, impacts of ancient earthquakes have left some marks of emergence at about ≥+130 ± 11, +110 ± 11, +65 ± 11, +40 ± 11, and +25 ± 11 cm, as well as marks of submergence at about −40 to −50, −85 ± 11, −120 ± 11, and −180 ± 11 cm. The emergence of +130 ± 11 cm, previously dated at about 790–400 cal. BC, was detected through erosion notches at various sites in the western part of Corfu and appears to continue even more west, at Othonoi Island. Tidal notches submerged at depths exceeding 0.4 m were observed in the northeastern part of the island and suggest the local occurrence of a sequence of four coseismic subsidences, with average vertical displacements of 40 cm, during at least the last few millennia. At Paxoi and Antipaxoi, Holocene vertical movements seem to have been mainly of subsidence. At Paxoi, the 'modern' notch was found at about −20 to −30 cm, while four more submerged tidal notches were distinguished at about −40 ± 11, −60 ± 11, −75 ± 11, and −90 ± 11 cm, while in Antipaxoi, three submerged tidal notches were distinguished at about −60 ± 11, −75 ± 11, and −120 ± 11 cm.

Keywords

ancient earthquakes, Corfu, erosion notches, fossil shorelines, Ionian Sea, late Holocene, tidal notches

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Introduction

The research of relative sea-level (RSL) changes has attracted many researchers in the last few decades. Fossil shorelines that provide evidence for RSL changes may be identified through various types of sea-level indicators, for example, tidal notches, benches, beachrocks, biological evidence, archaeological structures related to sea level, and so on. Geomorphological investigation can be particularly useful in the identification of coastal subsidence/uplift and RSL changes (e.g. Benac et al., 2004, 2008; Palyvos et al., 2008; Rust and Kershaw, 2000; Stiros et al., 2000). Tidal notches, in particular, have an important 'role' in the study of RSL changes, as they are well known as precise sea-level indicators (Pirazzoli, 1986, 1996, 2005). In areas sheltered from wave action, elevated or submerged notches can be used to indicate former sea-level positions, with up to a decimeter confidence. Furthermore, the profile of a tidal notch can provide information for the way of subsidence or emergence (gradual or coseismic; Evelpidou et al., 2011).

The study area (Corfu, Othonoi, Paxoi, and Antipaxoi Islands) lies in the northeastern Ionian Sea. Although Greece has been the focus of many RSL studies (e.g. Desruelles et al., 2009; Evelpidou et al., 2012a, 2012c; Kershaw and Guo, 2001; Nixon et al., 2009; Vött, 2007), the investigated area has not received particular attention, with a few exceptions (Marinos and Sakellariou-Mane, 1964; Pirazzoli et al., 1994).

Specifically, in Corfu Island, coseismic vertical movements have been reported by Pirazzoli et al. (1994), who identified two fossil shorelines at +1.6 and +0.8 m. According to Pirazzoli et al. (1994), the 1.6 m shoreline was uplifted at about 790–400 cal. BC, while the uplift age of the +0.8 m shoreline is more recent, but remains undated. In addition, it is worth mentioning that Marinos and Sakellariou-Mane (1964) state that the last subsidence of the NW coasts of Corfu Island occurred during the Neolithic era, based on Neolithic tools they have found in a coastal layer of this area. Radiocarbon dating of these tools gave an age of 7820 ± 340 yr BP (Marinos and Sakellariou-Mane, 1964). Lithology in Corfu Island is very variable even over short distances as clearly shown in Figure 1d. The lithology of both Paxoi and Antipaxoi (Martelli, 1901) consists of Cretaceous, and mainly of Eocene limestones, while in northernmost Paxoi, there are also some Miocene deposits.

This paper brings to light new data of uplifted and submerged fossil shorelines through the investigation of marine notches in the north Ionian coastal zone (Corfu, Othonoi, Paxoi, and Antipaxoi) in an attempt to understand and interpret the RSL changes.

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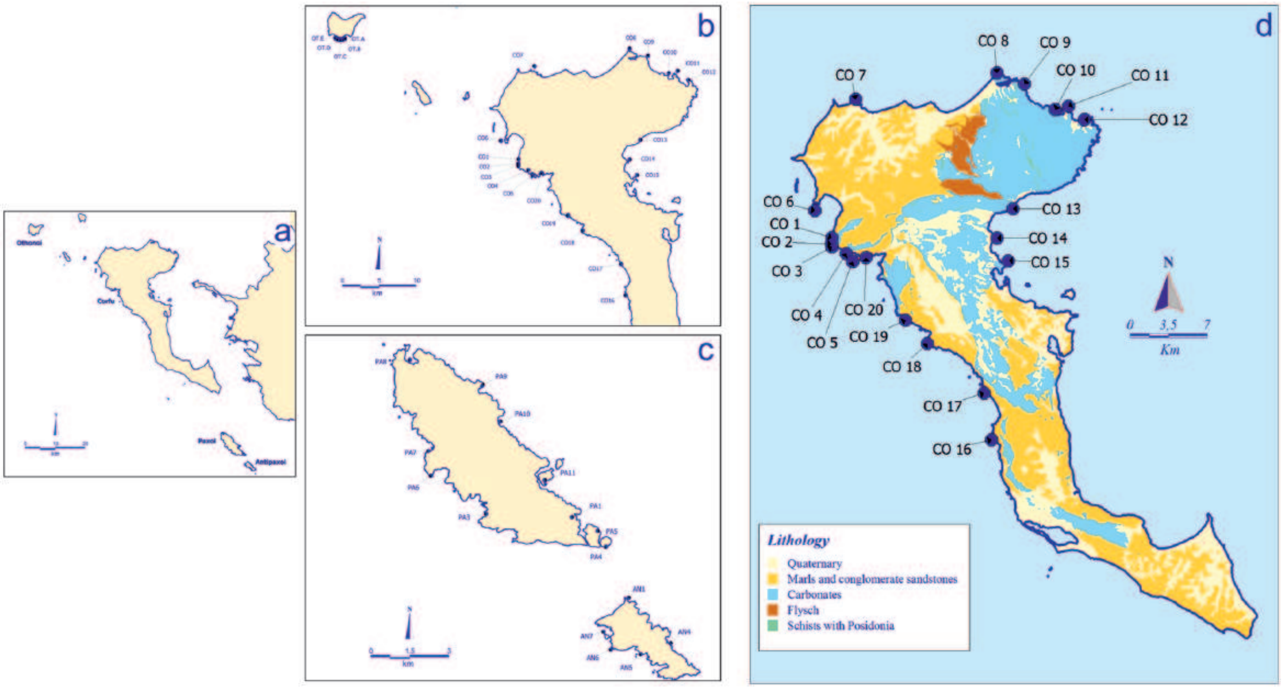

Figure 1. Studied area and sites discussed in the paper: (a) studied area; (b) sites studied in Corfu and Othonoi Islands, discussed in the manuscript; (c) sites studied in Paxoi and Antipaxoi Islands, discussed in the manuscript; and (d) lithological formations of Corfu Island, which makes clear that lithology is variable, even over short distances. Lithology is based on the geological map of Institute for Geology and Subsurface Research (IGSR, 1970a, 1970b).

Materials and methods

Detailed survey along the coastal zone of Corfu, Paxoi, and Antipaxoi Islands took place during July 2012 and along Othonoi Island during August 2012. All coasts (Figure 1) were systematically surveyed in detail, by a boat in order to access all sites and to establish the continuity of observations. No observations were made in Ereikoussa and Mathraki Islands.

Former sea-level positions were deduced from sea-level indicators, such as emerged and submerged notches. In the case of tidal notches in carbonate rocks, owing their presence to intertidal bioerosion, observed geometries of their profile (e.g. height, inward depth and vertex depth from sea level) were measured according to Pirazzoli (1986) and Evelpidou et al. (2012c). For other erosion features, where interpretation of their genesis should be different (e.g. in abrasion notches, the mechanical action of sand and pebbles thrown by waves can be easily recognized by the smooth and polished surface of their profile), or other erosion notches that could be suspected to result from wave action in the upper part of the midlittoral zone rather than from intertidal bioerosion (e.g. in Corfu marls and conglomerate sandstones), interpretation of the former MSL position was more uncertain and the possible duration of notch development could not be estimated.

Several measurements were performed at each location to improve their accuracy. Because of the absence of tidal records at the closest tide-gauge station during the period of fieldwork, we assumed that the tidal amplitude is ±10 cm (spring tidal range 20 cm). We have also taken into consideration the possible influence of meteorological effects on sea level, which were, however, minor during the survey, because air pressure at sea level at Kerkyra airport, according to the Russia's Weather Service (http://meteo.infospace.ru/wcarch/html/index.sht) remained between 1009 and 1013.8 millibars during field observations at Corfu, Paxoi and Antipaxoi, and around 1014–1016 millibars during observations at Othonoi, implying sea-level corrections of maximum 4 cm.

The studied sites are localized in Figure 1 and Table 1. In Tables 2 and 3, vertices elevations or depths are indicated in relation to sea level and correspond to field measurements corrected for air-pressure changes (according, for example, to Istituto Idrografico della Marina, 1982: XI).

The wave's accuracy during fieldwork can be limited to ±5 cm; therefore, an approximate uncertainty of ±11 cm in depth measurements was taken into consideration for the possible influence of tide and waves effects on our measurements (square root of $5^2 + 10^2 = \pm 11$ cm). The limited height of waves during field measurements was estimated directly by the authors and subsequently confirmed by 6-h wind records at Kerkyra airport collected by the Russia's Weather Service.

Results and discussion

On Corfu Island, where the modern notch was identified at sites CO13, CO14 and CO20, impacts of ancient earthquakes have left some marks of emergence at about +25, +40, +65, +110, and ≥+130 cm (with an accuracy of ±11 cm), as well as marks of submergence at about −40 to −50, −85, −120, and −180 cm with the same accuracy (Table 2). These different elevations do not necessarily correspond to different shorelines having affected the islands, but may include the effects of local tectonic ground movements.

We assume that the emergence of shoreline A (≥+130 ± 11 cm) corresponds to the shoreline of +160 ± 10 cm, near Pelekas and Gordios beaches, which was dated at about 790–400 cal. BC (Pirazzoli et al., 1994). This shoreline was detected through continuous abrasion notches at the western part of Corfu (e.g. CO18; Figure 2) and seems to continue even western, at Othonoi Island (Tables 1 and 2). Shoreline A has been developed on alterations of sandy marls and sandstones with breccias at the base. The shape of this erosion notch on such rocks, which was also influenced by wave abrasion effects, increases the uncertainty in the estimation of the former MSL position in relation to the vertex of the notch profile, because wave abrasion was probably active in the upper part of the midlittoral zone. In addition, the possible duration of notch development cannot be deduced from bioerosion rates in these cases and therefore remains undetermined.

Table 1. Geographical coordinates of studied sites.

Island	Site (Figure 1)	Long. E	Lat. N
Corfu	CO5	19°41′41.5798″	39°40′6.78″
	CO8	19°50′52.26″	39°49′20.46″
	CO9	19°52′35.94″	39°48′48.42″
	CO10	19°54′34.0812″	39°47′33.54″
	CO11	19°55′23.8296″	39°47′43.0728″
	CO12	19°56′24.4752″	39°47′4.1856″
	CO13	19°51′52.4988″	39°42′41.58″
	CO14	19°50′52.5588″	39°41′16.26″
	CO15	19°51′35.0388″	39°40′8.3388″
	CO16	19°50′30.3468″	39°31′24.2364″
	CO17	19°50′3.3612″	39°33′40.5″
	CO18	19°46′26.2812″	39°36′6.7788″
	CO19	19°45′3.5388″	39°37′14.7612″
	CO20	19°42′33.0012″	39°40′18.7788″
Paxoi	PA1	20°12′11.16″	39°11′10.68″
	PA4	20°12′38.2212″	39°10′51.1212″
	PA5	20°12′52.1388″	39°10′53.4864″
	PA7	20°8′30.7788″	39°12′28.26″
	PA8	20°7′51.5388″	39°14′26.0988″
	PA10	39°13′9.5412″	39°13′9.5412″
	PA11	20°11′27.4812″	39°11′56.6988″
Antipaxoi	AN1	20°13′42.0564″,	39°9′30.3012″
	AN4	20°14′49.0812″	39°8′33.9612″
	AN5	20°14′7.0188″	39°8′31.8012″
	AN7	20°13′1.8588″	39°8′48.4188″
Othonoi	OTA	19°23′57.53″	39°50′12.62″
	OTB	19°23′48.88″	39°50′9.41″
	OTC	19°23′39.37″	39°50′9.39″
	OTD	19°23′25.95″	39°50′8.48″
	OTE	19°23′10.50″	39°50′13.17″

Shoreline B, at site CO17, was developed by wave abrasion, and is nowadays emerged at +110 ± 11 cm. It has to be noted that shoreline B was found only in this site (CO17). This abrasion notch corresponds to the upper level of local Holocene marine erosion (Figure 3), so it may be contemporary to shoreline A.

Shoreline C at about +65 ± 11 cm was found at site CO18. In fact, at site CO18, marks of two superimposed abrasion notches have been observed, with the lower vertex measured at +67 ± 11 cm (Figure 4). This lower notch could only have formed after the uplift movement dated at about 790–400 cal. BC.

In the Hellenic Arc, there are examples such as western Crete and Rhodes (Laborel et al., 1979; Pirazzoli et al., 1982, 1989; Thommeret et al., 1981), where reversed vertical tectonic displacements could be documented with the help of several radiocarbon dates for raised shorelines. Unfortunately, for raised shorelines of Corfu, only one date (obtained two decades ago by Pirazzoli et al., 1994) is available, and this may leave some uncertainty on the possible details of vertical movements.

Shoreline D at about +40 ± 11 cm has been recognized by tidal notches at sites CO8, CO16 and CO19 (Figure 5). For CO8.3 in particular, the emergence was deduced from traces of sea urchins at about 47 cm above present sea level. Since sea urchins cannot live above the low tide level, the observed fossil sea-urchin scar must correspond to a sea-level elevation at about 50–60 cm above present sea level that had preceded the development of the short lived notch at about +25 ± 11 cm (shoreline E). Shoreline E has left some traces also in the northern part of Corfu Island and specifically at CO8.1, CO9.1, and CO10.1.

Shoreline F at about −20 ± 11 cm was found at sites CO13, CO14, and CO20, and it could possibly be considered as 'modern', owing at least part of its submergence to the recent rapid sea-level rise. Such a name is usually given to tidal notches that have been submerged by 20–30 cm because of the global sea-level rise during the 19th and 20th centuries at a rate exceeding the possibilities of intertidal bioerosion (Evelpidou et al., 2012b; Pirazzoli and Evelpidou, 2013). The average inward depth of the modern notch in Corfu suggests that the MSL remained almost stable during a period lasting between 3 and 10 centuries before the 19th century.

Unfortunately, tidal notches cannot be dated directly, and information about the duration of various sea-level positions can only be deduced from assumptions about the rates of intertidal undercutting. The rate of maximum undercutting (near MSL) varies with rock type and local climate. It has been roughly estimated of the order of 1 mm/yr (Laborel et al., 1999); however, this is only a first-order value, while lower rates are generally observed in hard limestones, especially in non-tropical areas. Other estimates range from 0.2 to 5 mm/yr, depending on lithology, location and duration of bioerosion (for references, see Evelpidou et al., 2011; Laborel et al., 1999, Table 1; Pirazzoli, 1986, Table 1).

Micro-erosion measurements have shown that the deepening rate of a tidal notch profile may be very variable depending on seasonal changes in the environment (temperature, salinity, air pressure) that influence not only the intertidal vegetation and grazing organisms but also the sea-level changes over seasonal or inter-annual scales. In spite of this variability, the inward depth of fossil notches may be used as an approximate method to roughly assess a range of duration for a period of RSL stability. In Corfu, four submerged shorelines have been found. Shoreline G at −40 to −50 ± 11 cm was found at CO5.1 (Figure 6), CO10.2, CO13.2, and CO15.1, while shoreline H at about −85 ± 11 cm was located at sites CO11.1, CO12.1, and CO13.3 (Figure 7).

Shoreline I at −120 ± 11 cm was found only at one site (CO8.2), similar to shoreline J at −180 ± 11 cm that was located only at CO10.3 (Figure 8).

The development of the notches CO10.2 and CO10.3 took in total between 6.5 and 30 centuries. If the time of development of the modern notch is also taken into account, the total period of tidal notch formation with an almost stable MSL becomes between 9.5 and 40 centuries. The total RSL rise at site CO10 can therefore be estimated at 178 ± 11 cm during 9.5–40 centuries, that is, at an average rate between 0.55 ± 0.3 and 1.87 ± 0.03 mm/yr.

The Holocene subsidence on the NE part of Corfu contrasts with the uplift observed on the western coast of the island. The profiles of the submerged tidal notches suggest that the subsidence was not gradual, but took part probably at the time of coseismic vertical displacements interspaced with periods of almost stable RSL.

It may be observed from Table 2 that in addition to shorelines F and G, occurring on both sides of Corfu, submerged tidal notches have been observed only on the eastern coast of the island, where they testify that a sequence of coseismic subsidences has occurred. It may be interesting to attempt an estimate of the number and the average amount of these subsidence movements and their possible return time.

According to Tables 2 and 4, the modern notch of shoreline F, that is considered to have developed prior to the 19th century (Evelpidou et al., 2012b), has been observed three times. Its average inward depth is 17.7 cm. Assuming that the intertidal bioerosion could vary between maximum and minimum rates of 1 and 0.2 mm/yr, respectively, such an inward depth corresponds to a period with almost stable sea level lasting between 2 and 9 centuries.

A similar calculation (Table 4) for shoreline G (observed at four sites) provides a duration of almost stable sea level during 3–13.5 centuries at the level of the vertex of this notch. In the same manner, calculations for shorelines H (observed 3 times)

Table 2. Significant sizes of marine notches in Corfu and Othonoi islands.

Notch name	Notch genesis	Measured vertex elevation of emerged notches from apparent SL (cm, ±5 cm)	Corrected Vertex elevation of emerged notches from MSL (cm, ±11 cm)	Measured vertex depth of submerged notches from apparent SL (cm, ±5 cm)	Corrected vertex depth of submerged notches from MSL (cm, ±11 cm)	Height (cm)	Inward depth (cm)	Rock lithology	Shoreline	Possible duration of development (centuries)	Figure
CO5.1	Bioerosion			−33	−31	60	36	C	G −40 to −50 ± 11 cm	3.6–18	Figure 6
CO8.1	Bioerosion	+19	+21			39	19	C	E +25 ± 11 cm	1.9–9.5	
CO8.2	Bioerosion			−123	−121	35	10	C	I −120 ± 11 cm	1–5	
CO8.3	Bioerosion	+45	+47						D +40 ± 11 cm		Figure 5
CO9.1	Bioerosion	+22	+24			49	22	C	E +25 ± 11 cm	2.2–11	
CO10.1	Bioerosion	+15	+17			nm	17	C	E +25 ± 11 cm	1.7–8.5	
CO10.2	Bioerosion			−46	−44	55	22	C	G −40 to −50 ± 11 cm	2.2–11	
CO10.3	Bioerosion			−180	−178	61	27	C	J −180 ± 11 cm	2.7–13.5	Figure 8
CO11.1	Bioerosion			−75	−73	35	13	C	H −85 ± 11 cm	1.3–6.5	
CO12.1	Bioerosion			−101	−99	70	48	C	H −85 ± 11 cm	4.8–24	
CO13.1	Bioerosion			−29	−27	26	14	C	F Modern	1.4–7	
CO13.2	Bioerosion			−35	−33	67	22	C	G −40 to −50 ± 11 cm	2.2–11	
CO13.3	Bioerosion			−77	−75	108	44	C	H −85 ± 11 cm	4.4–22	Figure 7
CO14.1	Bioerosion			−19	−17	32	15	M	F Modern	1.5–7.5	
CO15.1	Bioerosion			−53	−51	41	29	C	G −40 to −50 ± 11 cm	2.9–14.5	
CO16.1	Wave abrasion	+47	+49			76	80	M	D +40 ± 11 cm		
CO17.1	Wave abrasion	+110	+112			160	180	M	B +110 ± 11 cm		Figure 3
CO18.1	Bioerosion	+65	+67			nm	nm	M	C +65 ± 11 cm		Figure 4
CO18.2	Bioerosion	+140	+142			125	220	M	A ≥130 ± 11 cm	Undetermined	Figure 2
CO19.1	Bioerosion	+31	+33			65	81	M	D +40 ± 11 cm	Undetermined	
CO20.1	Bioerosion			−13	−11	33	24	M	F Modern	2.4–12	
OTA	Wave abrasion	+134	+132			130	85	C	A ≥130 ± 11 cm	Undetermined	
OTB	Wave abrasion	+150	+148			146	126	C	A ≥130 ± 11 cm	Undetermined	
OTC	Wave abrasion	+169	+167			159	73	C	A ≥130 ± 11 cm	Undetermined	
OTD	Wave abrasion	+130	+128			129	56	C	A ≥130 ± 11 cm	Undetermined	
OTE	Wave abrasion	+135	+133			132	100	C	A ≥130 ± 11 cm	Undetermined	

nm: not measured; M: marls and conglomerate sandstones; C: carbonates.

Table 3. Location and significant sizes of marine notches in Paxoi and Antipaxoi islands. All sites studied in Paxoi and Antipaxoi are made of carbonate rocks.

Notch name	Measured vertex elevation of emerged notches from apparent SL (cm, ±5 cm)	Corrected vertex elevation of emerged notches from SL (cm, ±11 cm)	Measured vertex depth of submerged notches from apparent SL (cm, ±5 cm)	Corrected vertex depth of submerged notches from SL (cm, ±11 cm)	Height (cm)	Inward depth (cm)	Shoreline	Possible duration of development (centuries)	Figure
PA1.1			−43	−41	30	10	G −40 ± 11	1–5	
PA4.1			−41	−39	44	12	G −40 ± 11	≥12	
PA5.1			−85	−83	105	49	H′ −90 ± 11	5–24	
PA7.1	+25? (nm)	+27					Short lived		
PA7.2			−45	−43	42	21	G −40 ± 11	2–11	
PA8.1	+25? (nm)	+27					Short lived		Figure 9
PA8.2			−18	−16	30	14	F −20 ± 11 (modern)	1.5–7	Figure 10
PA8.3			−49	−47	24	17	G −40 ± 11	1.5–8	Figure 10
PA10.1	+25? (nm)	+27					Short lived		
PA10.2			−31	−29	30	11	F (modern), or G	1–5	
PA11.1			−26	−24	28	27	F −20 ± 11 (modern)	3–13	
PA11.2			−58	−56	46	19	G′ −60 ± 11	2–9.5	
AN1.1			−20? (nm)	−18			F −20 ± 11 (modern)		
AN1.2			−65	−63	55	14	G′ −60 ± 11	1.5–7	
AN1.3			−77	−75	120	20	G″ −75 ± 11	2–10	
AN4.1			−20? (nm)	−18			F −20 ± 11 (modern)		
AN4.2			−119	−117	80	23	I −120 ± 11	2.5–11.5	
AN5.1			−75	−73	85	53	G″ −75 ± 11	5.5–26.5	
AN7.1			−80	−78	138	42	G″ −75 ± 11	4–21	

nm: not measured.

Figure 2. Shoreline A is emerged at ≥+130 ± 11 cm and has been detected through continuous abrasion notches.

Figure 3. Shoreline B, emerged at +110 ± 11 cm, is detected through an abrasion notch.

and for shorelines I and J (observed only one time each) provide duration ranges of 3.5–17.5, 1–5, and 3–13.5 centuries, respectively.

In short, it can be deduced that a total subsidence of 180 ± 11 cm below the present MSL has been reached because of four coseismic subsidences, with an average amount of 39 ± 11 cm for each movement, and this during a range of 10.5–49.5 centuries since the present time (during which the modern notch was already submerged by the recent gradual sea-level rise). This late Quaternary tectonic movement seems to have affected mainly the northeastern coast of Corfu Island.

At Paxoi, where emergence traces are very light (Figure 9), and at Antipaxoi, where no evidence of emergence was found, Holocene vertical movements seem to have been mainly of subsidence. At Paxoi, only traces of a short lived notch at about +27 ± 11 cm were identified. The modern notch (F) was identified at sites PA8, PA10, and PA11, and three more submerged tidal notches have been distinguished at about −40 ± 11 (G), at −60 ± 11 (G′) and −90 ± 11 cm (H′; Table 2 and Figure 10).

In Antipaxoi, three submerged tidal notches have been distinguished at about −60 ± 11, at −75 ± 11 and −120 ± 11 cm

Figure 4. At site CO18, marks of two superimposed abrasion notches have been detected. The lower vertex shown in this figure corresponds to shoreline C at +65 ± 11 cm.

Figure 5. Shoreline D at about +40 ± 11 developed on carbonate rocks at site CO8.

Figure 6. Shoreline G (the upper notch of the figure) at −40 to −50 ± 11 as fossilized in site CO5.

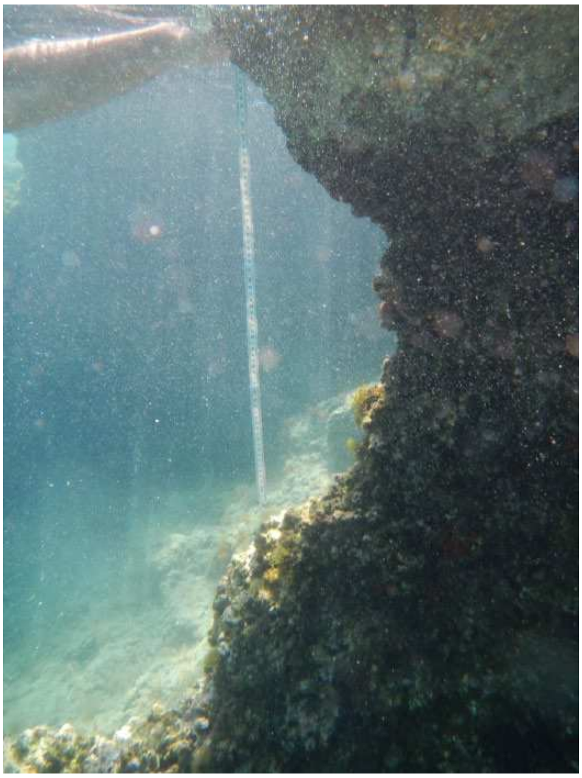

Figure 7. Marks of shoreline H at about −85 ± 11 cm at site CO13.

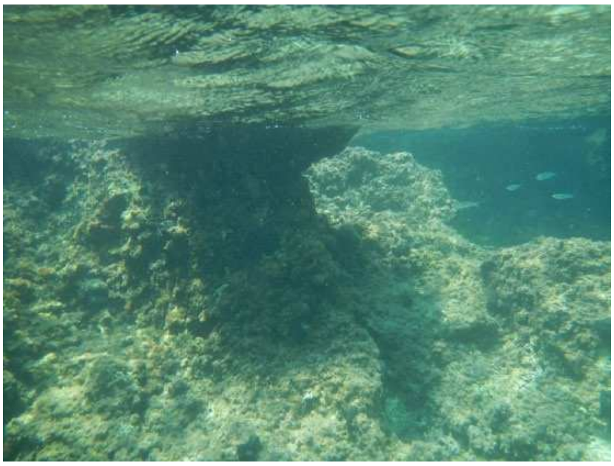

Figure 8. CO10 site depicts marks of shoreline J at −180 ± 11 cm.

(comparable with shorelines G and H in Corfu). It can be estimated that the modern notch at Paxoi and Antipaxoi corresponds to an almost stable MSL during 1.8–16.3 centuries before the 19th century.

Conclusion

If the occurrence of a modern notch at −20 to −30 cm at Corfu, Paxoi and Antipaxoi testifies to the absence of vertical movements during the last few centuries, various other marks provide evidence of late Holocene repetitive tectonic movements. Emergence of erosion notches attest to at least two coseismic uplifts in Corfu, the first of which has been dated from *c*. 790 to 400 cal. BC.

Impacts of ancient earthquakes have left some marks of emergence at about ≥+130 ± 11, +110 ± 11, +65 ± 11, +40 ± 11, and +25 ± 11 cm, as well as marks of submergence at about −40 to −50, −85 ± 11, −120, and −180 ± 11 cm. Some of these marks may correspond to local tilting effects.

Table 4. Number, depth below MSL, average inward depth, amount of coseismic subsidence and possible average duration of development of the submerged shorelines observed on the northeastern coast of Corfu Island.

Shoreline (see Table 2)	Number of tidal notches measured	Average inward depth (cm)	Average depth below the present MSL (cm)	Average amount of coseismic subsidence (cm)	Possible average duration of development consistent with certain bioerosion rates (centuries)		
					1.0 mm/yr	0.2 mm/yr	0.6 mm/yr
F	3	17.7	−18	–	1.8	9	3
G	4	27.25	−40	22	3	13.6	4.5
H	3	35	−82	42	3.5	17.5	5.8
I	1	10	−121	39	1	5	1.7
J	1	27	−178	57	2.7	13.5	4.5
Total	12	21	−178	40	12	58.6	19.5

Bioerosion rates have been based on the following references: Pirazzoli (1986, Table 1), Laborel et al. (1999, Table 1) and Evelpidou et al. (2011).

Figure 9. Very light traces of emergence at Paxoi Island at site PA8.

Figure 10. Shorelines F and G at Paxoi Island at site PA8.

The uplift movements appear to particularly affect the western part of Corfu and seem to continue even more west, at Othonoi Island. At Paxoi, evidence of emergence is very light, and below the modern submerged tidal notches, marks have been distinguished at about −40 ± 11, −60 ± 11, and −90 ± 11 cm. At Antipaxoi, marks of emergence are absent, and submerged notches below the modern one have been identified at −60 ± 11, −75 ± 11, and −120 ± 11 cm.

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