Time's Up!
Dating the Minoan eruption of Santorini

Acts of the Minoan Eruption Chronology Workshop,
Sandbjerg November 2007
initiated by
Jan Heinemeier & Walter L. Friedrich

Edited by

David A. Warburton

Monographs of the Danish Institute at Athens
Volume 10

Time's Up! Dating the Minoan Eruption of Santorini

Monographs of the Danish Institute at Athens
Volume 10

General Editor: Erik Hallager
Graphic design: Erik Hallager
Printed at Naryana

Printed in Denmark on permanent paper
conforming to ANSI Z 39.48-1992

The publication was sponsored by:
The Faculty of Science, University of Aarhus
Aarhus University Research Foundation

ISBN: 978-87-7934-024-4

Distributed by:
AARHUS UNIVERSITY PRESS
Langelandsgade 177
DK-8200 Århus N
www.unipress.dk

Gazelle Book Services Ltd.
White Cross Mills, Hightown
Lancaster LA1 4XS, England
www.gazellebooks.co

The David Brown Book Company (DBBC)
P.O. Box 511
Oakville, CT. 06779, USA
www.davidbrownbookco.uk

Cover illustration: drawing vulcanic eruption, © Walter Friedrich
Front cover:
Stone vase NM 592, © National Museum, Athens
Olive branch from Thera eruption, © Walter Friedrich

Contents

The Minoan eruption of Santorini radiocarbon dated by an olive tree buried by the eruption

Jan Heinemeier, Walter L. Friedrich, Bernd Kromer & Christopher Bronk Ramsey

Abstract

In 2006 we published a radiocarbon dating, 1613 BC, for the Minoan eruption on Santorini with an unparalleled precision of ±13 calendar years.[1] It was based on the unique find in the caldera wall of Santorini of a branch of an olive tree that had been buried and preserved in an upright, life, position by the pumice of the eruption. 72 tree rings were identified by X-ray tomography, and the high precision was achieved by wiggle matching the ^{14}C results of the time series of four contiguous sections of tree rings to the radiocarbon calibration curve. Since the trees were growing at an altitude of 150 m above sea level and at a distance of more than 2.5 km from the active volcanic zone on Santorini, it is unlikely that the radiocarbon values published in 2006 could have been affected by old CO_2. Because of the clear association of the tree and its outermost growth ring with the geological/archaeological event of the eruption, the date represents the best combination of directness and precision in any attempt so far of a science based chronology of the Minoan eruption.

While in broad agreement with other science dating attempts, there are some who claim that it is completely irreconcilable with the traditional archaeological dates of the late 16th century BC, or later, based on cultural linkage (pottery typology) and Egyptian Chronology. To resolve the conflict, we need to take a careful look at the implicit and explicit underlying assumptions in the two methods. As we do not possess the expertise to evaluate the results of the archaeological approach, this paper will deal with the details of the find of the olive branch and its radiocarbon dating by wiggle matching as well as a balanced assessment of the possible sources of error.

Introduction

Thirty years ago, all the radiocarbon age determinations of material from Akrotiri were single measurements of short-lived material such as seeds. For example, the radiocarbon laboratory in Copenhagen dated seeds of 'faba' beans (*Lathyrus clymenum*) and lentils (*Lens culinaris* Medik.) that were found in jars in the excavations at Akrotiri. However, when they were calibrated using the calibration curve of that time,[2] the original precision of the measurement was lost owing to a flat section in the radiocarbon calibration curve.[3] The calibrated results were around 1645 BC, which at that time corresponded to the acid signal found in the DYE3 ice core in Greenland.[4]

Since then, things have changed. Today we use the IntCal04 calibration curve that has many improvements. However, people have objected that the curve has been smoothed. Radiocarbon measurements on recent trees performed in different laboratories contributed to the new calibration curve (Fig. 1). They give a fairly good agreement among the measured samples. IntCal04 shows that errors of individual calibration measurements range from ±12-15 years on samples averaging 10 tree rings. No difference can be detected between the regions whence the trees come, even at high-precision error levels. Furthermore, there is no evidence of anomalous atmospheric ^{14}C levels in the Aegean.

Manning and his co-workers have dated samples which consist almost exclusively of short-lived or-

[1] Friedrich *et al.* 2006.
[2] Pearson & Stuiver, 1986.
[3] Friedrich *et al.* 1990.
[4] Hammer *et al.* 1987.

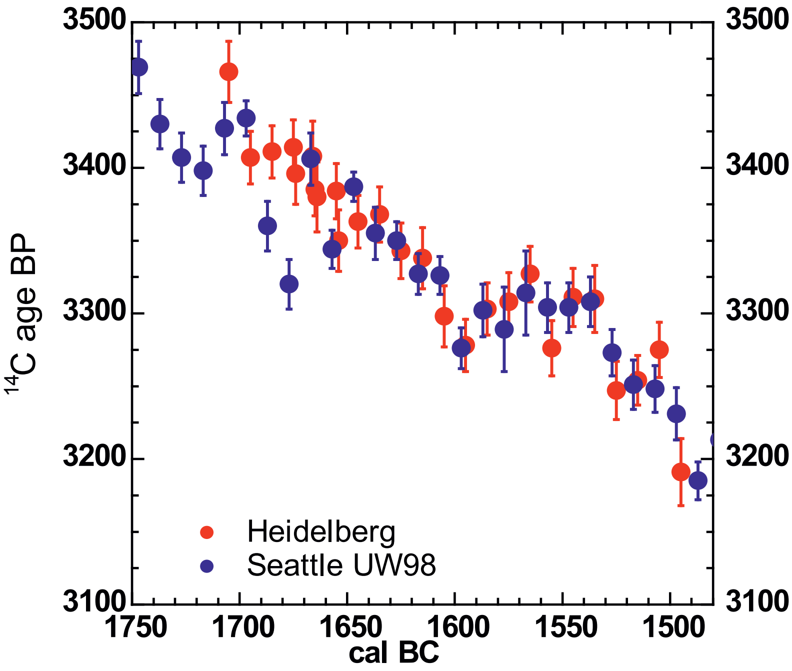


Fig. 1. Relevant part of the calibration curve, ranging from 1500–1750 BC. It is based on German oak measured at Heidelberg (red) and Seattle (blue).

ganic materials from the Akrotiri excavations and other localities in the Aegean.[5] Their samples were measured in radiocarbon laboratories at Vienna, Oxford, and Heidelberg. When the samples were calibrated in combination with stratigraphic information, the Minoan eruption was placed in the range 1660–1613 BC with 95.4% probability.
However, the most precise and direct date was derived from a branch which is part of the remains of an olive tree that was buried alive, in life position, in the pumice of the Minoan eruption on Santorini as shown in Figs 2–4 and discussed in Friedrich & Heinemeier, this volume.

Radiocarbon measurements of the olive branch

Using 3D X-ray tomography it was possible to count 72 year rings (*cf.* Frontispiece facing title

[5] Manning *et al.* 2006.

Fig. 2. The photo shows the locality in June 2007 where the remaining branches of the two trees were found. Part of a wall from the Bronze Age is visible in the upper left corner. In the centre, the mould where the first olive branch was excavated from its life position in the pumice of the Minoan eruption is seen, more than a metre above the pre-eruption soil surface (red layer). The hole is visible above the head of Tom Pfeiffer, where a branch of the second olive tree was dug out.

Fig. 3. The first look at the branch of the first tree, while still embedded in the pumice of the Minoan eruption.

Fig. 4. A polished section of the branch. Growth rings are barely traceable.

page). They were sampled in four groups, and the mean radiocarbon age of each group of rings could be fitted to the IntCal04 calibration curve. A few test samples were run at the AMS ^{14}C Dating Centre in Aarhus (Fig. 5), showing that the dates lay within the range of those proposed for the Minoan eruption. The final, high-precision radiocarbon measurements were performed at the conventional radiocarbon laboratory in Heidelberg (Fig. 6) that had earlier measured the relevant section of the calibration curve (Fig. 1). The radiocarbon ages of the four year-ring groups were wiggle matched to the calibration curve IntCal04. The high precision of the calibrated date of the Minoan eruption was obtained due to the fact that we knew the number of tree rings in each group and thus the time gap between the central ring in each group. The option, 'defined sequence' of the Oxcal 3.0 programme was used with these known gaps, resulting in the final calibrated age range 1627-1600 BC (1613 ±13 BC) with a probability of 95%.[6] Several tests were run in order to demonstrate the robustness of the measurements with regard to uncertainties in ring counting or growth irregularities of olive trees. Thus, even when we use the option, 'variable sequence' to take an uncertainty of 50% in the ring count into account, these limits are increased by only a decade (cf. Frontispiece, facing title page, bottom).[7]

[6] Friedrich *et al*. 2006.

[7] See Frontispiece and figs 7–8 and online material, table S2 in Friedrich *et al*. 2006.

Fig. 5. AMS accelerator at the Department of Physics, Aarhus University, Denmark, where the first samples were measured.

Fig. 6. Bernd Kromer and his Radiocarbon Laboratory in Heidelberg, where the final measurements were made.

To test the accuracy of the conventionally measured radiocarbon age of the last tree ring section, we have compared this to earlier measurements. Thus all of the other measurements for the eruption[8] and the last tree ring of this sample agree (they pass a Ward and Wilson chi squared test: df=27 T=32.6 cf. 5% 39.9). The relevant input dataset is:

```
R_Combine()
{
R_Date( "OxA-11817", 3348, 31);
R_Date( "OxA-11818", 3367, 33);
R_Date( "OxA-11820", 3400, 31);
R_Date( "OxA-11869", 3336, 34);
R_Date( "OxA-12170", 3336, 28);
R_Date( "OxA-12171", 3372, 28);
R_Date( "OxA-12175", 3318, 28);
R_Date( "OxA-12172", 3321, 32);
R_Date( "OxA-1552", 3390, 65);
R_Date( "OxA-1555", 3245, 65);
R_Date( "OxA-1548", 3335, 60);
R_Date( "OxA-1549", 3460, 80);
R_Date( "OxA-1550", 3395, 65);
R_Date( "OxA-1553", 3340, 65);
R_Date( "OxA-1554", 3280, 65);
R_Date( "OxA-1556", 3415, 70);
R_Date("Hd-5048/5519", 3490, 80);
R_Date("Hd-6059/7967", 3140, 70);
R_Date("K-5352", 3310, 65);
R_Date("K-5353", 3430, 90);
R_Date("K-3228", 3340, 55);
R_Date("K-4255", 3380, 60);
R_Date("VERA-2756", 3317, 28);
R_Date("VERA-2757", 3315, 31);
R_Date("VERA-2758", 3339, 28);
R_Date("VERA-2757R", 3390, 32);
R_Date("VERA-2758R", 3322, 33);
// Friedrich et al
R_Date("Hd-23588/24402", 3331, 10 );
};
```

This suggests that all of the measurements for the time of the eruption (presumably in different areas of the island) give the same results within the measurement precision.

If there is a local environmental effect that "explains" the radiocarbon results for a *c.* 1520 BC eruption, it is clear that it cannot really be a local vent or something which varies rapidly in the time leading up to the eruption – this is partly shown by good agreement above and also by the fact that there are no obvious anomalies in the sequence from the olive sample (Fig. 7).

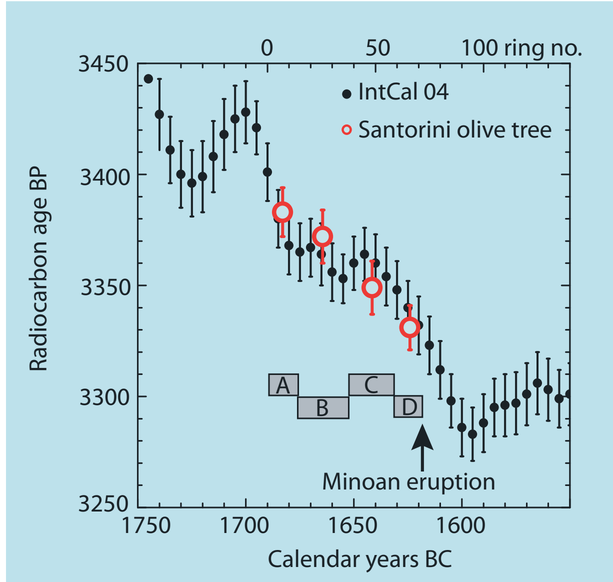


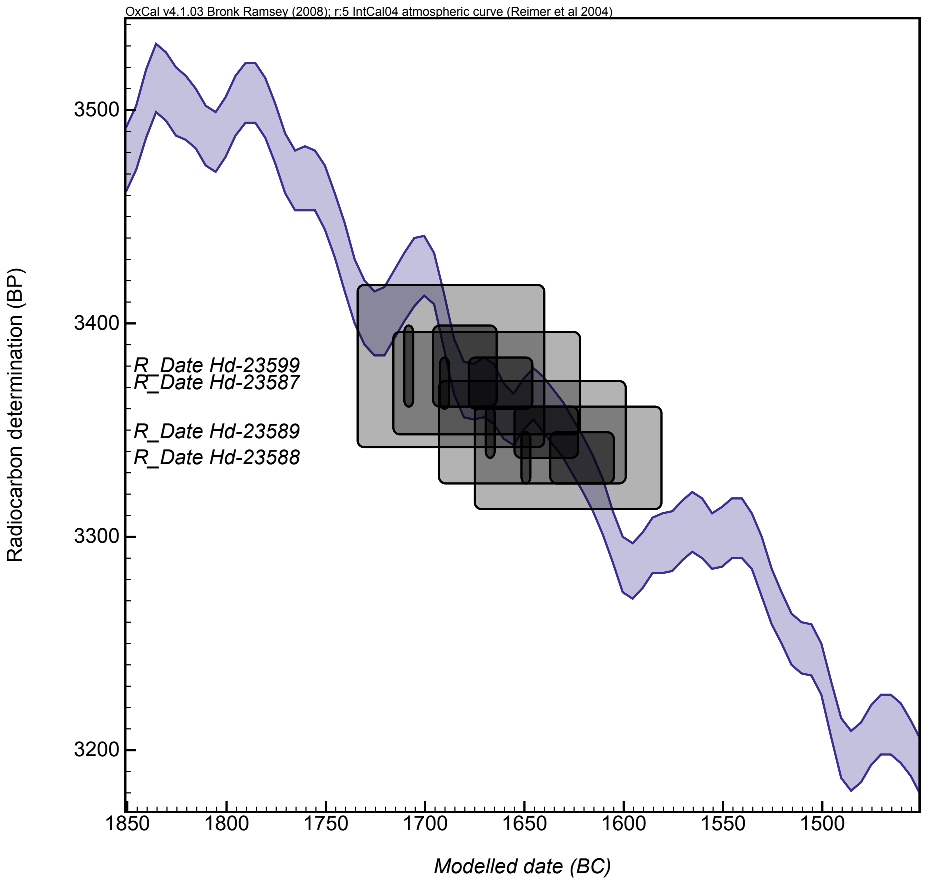
Fig. 7. Radiocarbon dating of four groups of growth rings (A-D). The groups contain 13 to 23 rings, here calibrated ("wiggle-matched") to the latest calibration curve IntCal04.

One could consider whether there might be a much more widespread local reservoir offset, fairly consistent over the life of the wood measured. However, given the consistency of the measurements with the calibration curve this would indeed have to be very constant, and there is no particular reason why there should be such an effect in this region, solely for this period.

We have considered the effect of allowing some variation in the local CO_2 reservoir by using a Delta-R correction with a mean of zero in the calibration. No appreciable effect is seen for an uncertainty of 20 years (see Fig. 8). Essentially, one has to make the uncertainty on any long term local reservoir average as large as 40 years before one sees any significant probability of an eruption date near 1500 BC, and then only because this allows (at

[8] Short lived material from Manning *et al.* 2006a.

Fig. 8. Calibration curve with calibrated ages (95% probability) indicated in light grey, assuming an uncertainty of 20 years in a hypothetical local CO_2 reservoir offset around Santorini. No significant probability of an eruption date later than 1580 BC is seen.



close to 2 standard deviations) a consistent offset of 70–80 years.

Finally there is the question of the validity of the calibration curve in this period. Again, the results from Santorini presented here as well as sequences from Miletos and Gordion[9] show that wood growing in this period mirrors what is shown in the IntCal curve for this period – so there is no really good evidence that the calibration curve itself is wrong. Further, in many ways, the dating of the olive branch is less sensitive to deviations in the calibration curve than the measurements on the short-lived material from Santorini since the latter could be influenced by a hypothetical very short unperceived anomaly in the curve – something which would not apply to the olive branch.

The leaves

In the fine dust of the exposed precursor layer of the Minoan eruption, a high concentration of olive leaves was found under each tree, but none in the area between the trees (Friedrich and Heinemeier, this volume), indicating that both trees were alive when buried by the eruption. For the purpose of supplementary radiocarbon dating, we have made several attempts to collect some of these leaves, but while their structure seems perfectly preserved *in situ*, the material turns into dust when handled, and no organic material remains for dating. The same effect is seen in the roots found under both trees.

However, even if it had been possible to make a high-precision radiocarbon dating of the leaves, the results would not contribute to increase the precision of the determination of the eruption date, since they are single samples limited to a single year of life. It is widely assumed that material which can de dated to a single year (grain, leaves, pits or stones) is more reliable for giving an indication of the date of the deposit. However, in contrast to the

[9] Manning *et a*l. 2001; Galimberti *et al.* 2004; Bronk Ramsey *et al.* 2004a; Kromer *et al.* 2001.

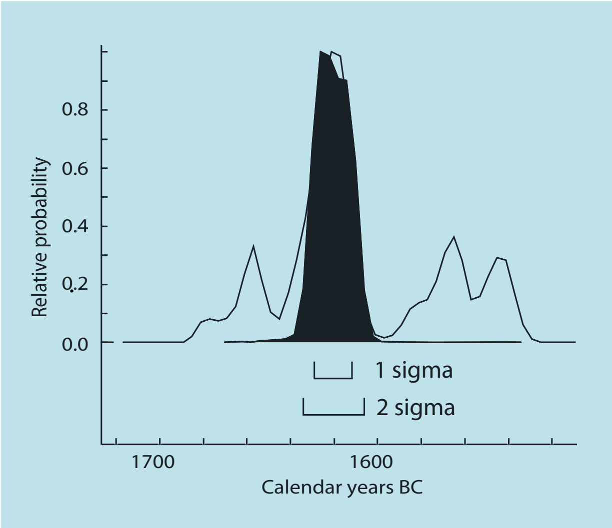


Fig. 9. The diagram shows the benefit of wiggle matching. The probability plot of the last group of growth rings has been calculated using the programme OxCal03. The black "column" is a result of calibrations of the last group of rings against the calibration curve IntCal04. As this column shows a narrow, approximately Gaussian distribution, the result is rather exact. Without wiggle matching (the thin line), however, the final result after calibration would be rather inexact.

sequences of tree-rings sampled from the branch, organic materials with a life span of a single year cannot offer the necessary data to arrive at a precisely calibrated date, since the calibration curve has wiggles and is thus not a straight line. Thus – were we to achieve what has hitherto proved impossible – we know in advance that any potential future leaf samples would show the same ambiguous calibrated dates, with peaks separated by troughs decades apart, exactly as do the many similarly short-lived samples previously dated from the Akrotiri excavation (see also the example of no wiggle matching in Fig. 9).

Discussions and questions

The radiocarbon age of the olive branch from Santorini has inspired lively discussions among scholars. Two main issues were debated: 1) was the tree alive when it was buried by the ashes of the Minoan Eruption? 2) Is it likely that old volcanic CO_2 might have influenced the result of the radiocarbon dating? Concerning the first issue, we are sure that the tree was alive, as olive leaves were found on the ground at the growth place of the trees, embedded in a 4 cm thick layer of fine volcanic dust. The leaves are found within the layer – not under it, which means that a hot cloud of volcanic dust surrounded the olive trees and caused the leaves to desiccate and fall. We found the leaves only in the immediate vicinity under each tree indicating that the trees cannot have been dead.

Were the olive trees affected by old CO_2?

Since the olive trees grew on a volcanic island, it is also relevant to consider the question of whether the radiocarbon dates might have been influenced by old CO_2 from the magma chamber. By studying the geological situation of that time, the morphology and the distance of the localities from which the radiocarbon samples were taken in comparison to the emanation points of old CO_2, one can answer this question. Concerning the shape and morphology of the ring island in the Bronze Age we have detailed knowledge from fieldwork through the past three decades and the reconstructions presented by various geologists are quite similar.[10] According to these reconstructions, the sites of the Akrotiri and the nearby Potamos excavations as well as the growth place of the olive trees lie at a safe distance from any potential influence of old CO_2 (Friedrich & Heinemeier this volume, 57 Fig. 3). Furthermore, the same sites show direct evidence of a long period of volcanic inactivity. At Akrotiri and Potamos, the Minoan pumice was deposited directly on top of the Cape-Riva ignimbrite – from the last major eruption prior to the Minoan – which has been dated at 21,000 calendar years BP.[11] (See also Fig. 10).

Studies in Germany (Laacher See) and on Santorini (Palea Kameni) have shown that plants grow-

[10] Friedrich *et al.* 1988; Eriksen *et al.* 1990; Druitt *et al.* 1999; Heiken & McCoy 2000.
[11] Pichler & Friedrich 1976.

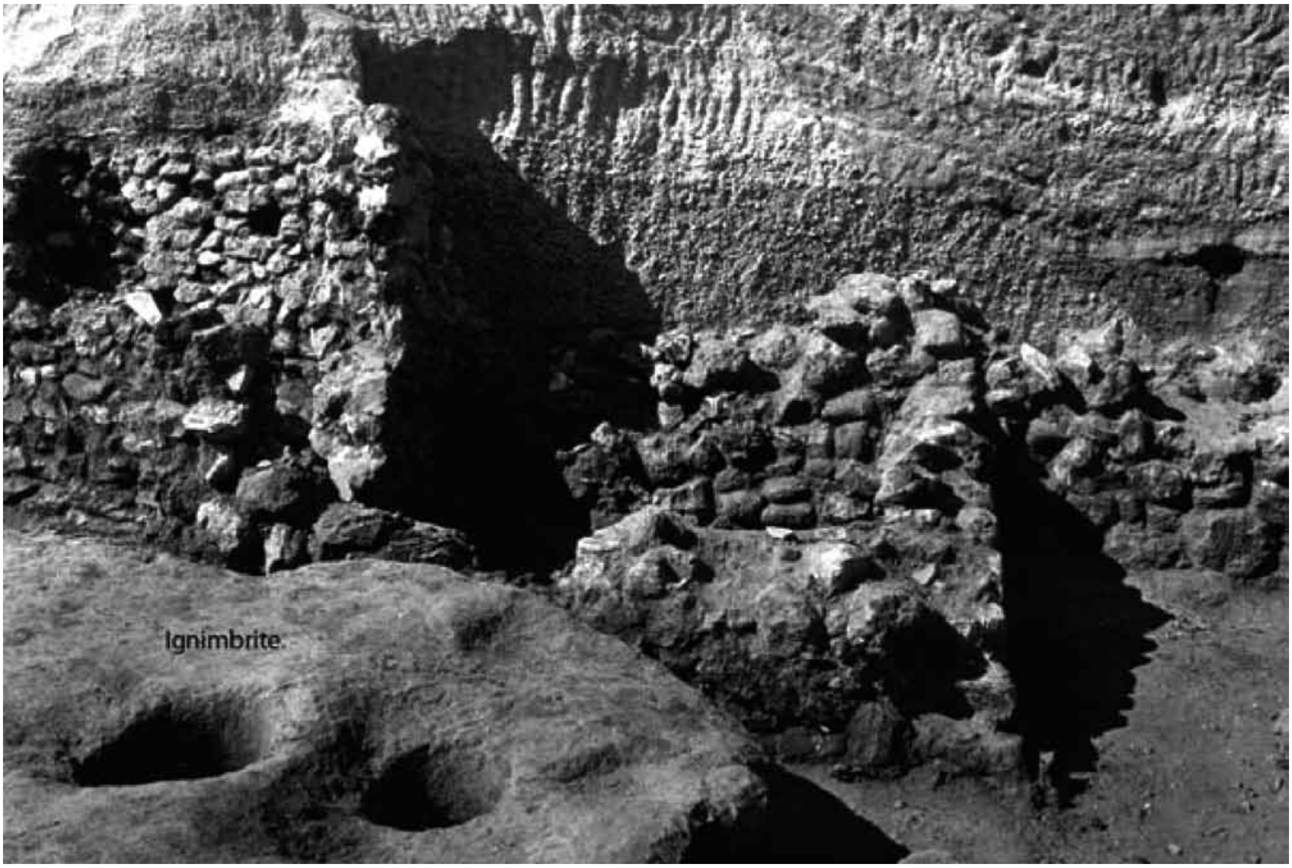


Fig. 10. The photo shows the excavation by Robert Zahn in the Potamos valley at Akrotiri around 1900. To the left, wall remains directly on the Cape Riva ignimbrite, and in the middle of the picture walls that were built below the ignimbrite. To the left the Cape Riva ignimbrite (with two manmade holes) has a radiocarbon age of about 21,000 calendar years BC. The fact that the eruption products of the Minoan eruption are deposited directly on the ignimbrite testifies the existence of a period of quiescence that lasted about 17,000 calendar years. The walls were partly eroded away by the winter rain. Now and then, rainwater formed a creek (Potamos) that left younger sediments, covering the walls. (Photo: German Archaeological Institute, Athens).

ing close to an emanation source of old CO_2, falsely give old radiocarbon ages.[12] However, these studies also show that the effect is locally restricted, in agreement with theoretical calculations of atmospheric mixing. Since (a) the distance between the growth-site of the olive tree and the nearest point in the active volcanic zone is about 3.5 kilometres; (b) the site is about 5 kilometres away from the crater of the Minoan eruption; and (c) the tree was found on top of the pre-eruption caldera rim and thus in an area with excellent air circulation – ensuring both horizontal and vertical atmospheric mixing – it is unlikely that contamination with old CO_2 could have affected the olive tree. Last but not least, neither faults nor old fumarolic fields nor sites with iron oxide deposits were observed in the neighbourhood of the tree. Thus the tree rings must be considered a reliable record of atmospheric CO_2 in its seven decades of life prior to the eruption.

The Minoan eruption was one of the most violent in human history. Its unusual strength was the result of a long period of inactivity prior to the eruption. During the past twenty thousand years, all volcanic activity on Santorini, including emanation of CO_2, has been confined to a structurally weak tectonic zone running northeast-southwest from the volcanoes of the Christiana Islands in the

[12] Bruns *et al.* 1980.

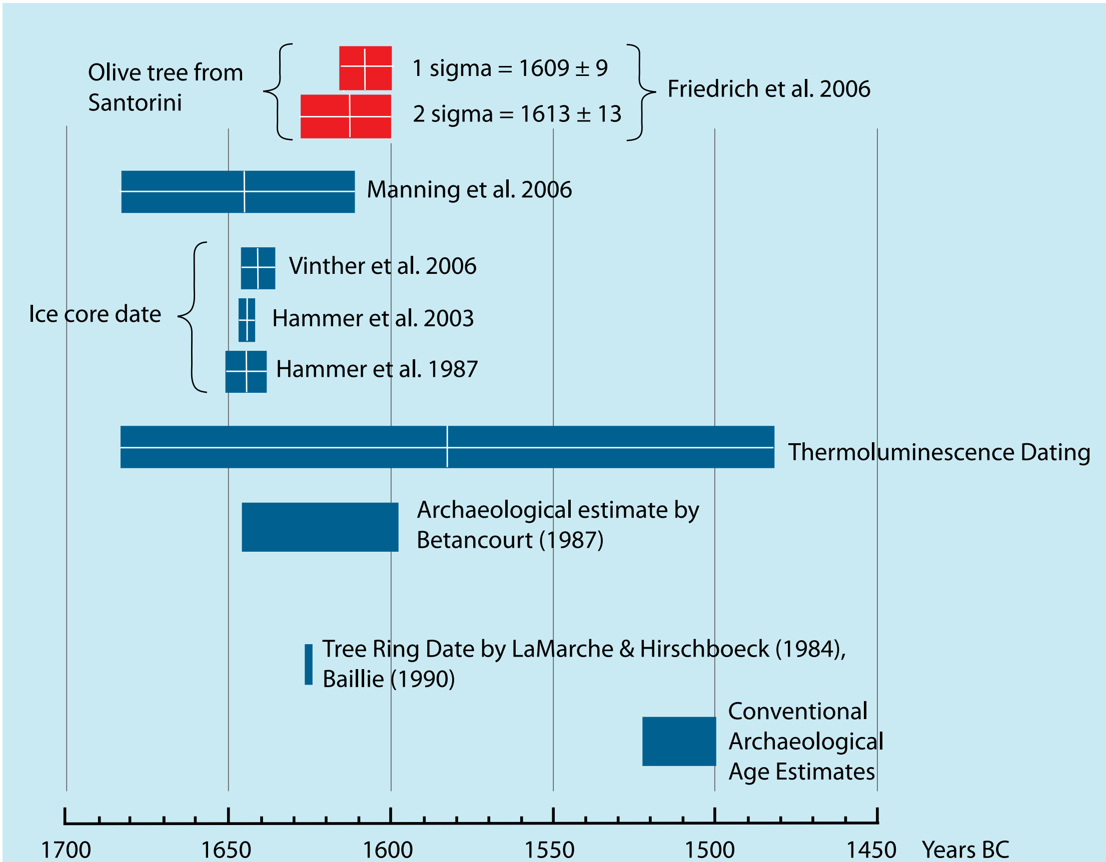


Fig. 11. The diagram shows the discrepancy between archaeological estimates and geochronological dating of the Minoan eruption. Our date for the Minoan eruption gives 1613 ± 13 cal BC, which is the most direct and precise result to date.

southwest, over the volcanic Kameni Islands to the Kolumbos volcano. Both the crater of the Minoan eruption and the CO_2 sources on the Kolumbos and Kameni fault lines are located within this zone (Friedrich & Heinemeier this volume, p. 57, Fig. 3).

The above mentioned long period of inactivity can be demonstrated directly at the growth-site of the olive tree and in the Akrotiri excavation and the site in Potamos vally (Fig. 10). The Akrotiri radiocarbon samples studied were obtained from this excavation.

The location where the radiocarbon dated olive-tree was buried alive by the pumice of the eruption is on a steep caldera wall, 150 metres above sea level. It was found *in situ* with roots and branches, and with leaves lying at the foot of the tree. The thick soil, consisting of deeply weathered volcanic tuff, in which it grew, testifies to a long period, probably several millennia, of volcanic inactivity prior to the eruption. Since the form of Santorini in the Bronze Age was similar to that of today, with a water-filled caldera and a small island in the middle, the olive tree grew on an elevated site at least 3.5 km away from the active zone (Friedrich & Heinemeier this volume, 57 Fig. 3), thus out of range of old CO_2, which is heavier than air and therefore tends to accumulate in low-lying areas. Strong evidence that our tree sample was not affected by volcanic CO_2 is that it would then have been impossible to match the measured ^{14}C sequence to any part of the calibration curve. We observe a downward slope in our dating sequence, whereas one would expect an upward slope if the eruption took place around 1500 BC and had been contaminated with volcanic CO_2. The ageing effect should, if anything, increase due to increased emission in the period up to the eruption.

The pre-eruption quiescence is a crucial observation, and, together with the elevated growth-site of the trees and their distance from the active volcanic zone, it makes any significant volcanic effect on the radiocarbon dates highly unlikely.

It is curious that the radiocarbon dates proposed for organic materials from the Austrian excavations at Tell el-Dab^ca seem to show an offset of more than a century (according to Walter Kutschera)[13] or even two (according to Hendrik Bruins)[14] in comparison with the dates proposed by the excavators, based on their interpretation of the archaeological material. This is roughly in line with the alleged discrepancy between our proposed date for the Minoan eruption of Santorini and the lower dates proposed for that same event based on archaeological material. Yet in the Nile Delta the possible effect of old volcanic CO_2 can be ruled out and another explanation sought. This has hitherto not been found. Instead, controlled radiocarbon datings by the laboratories at Oxford and Vienna of reliably dated archaeological material from Egyptian sources of the second millennium BC seem to correspond to dates proposed based on historical methods.[15]

Conclusion

The new radiocarbon date has the advantage over the results of other scientific dating methods (Fig. 11) that it is directly connected to the Minoan eruption, whereas *e.g.* the ice core date[16] or the frost damage in tree ring anomalies[17] are not necessarily connected to the event. It is certainly noteworthy, however, that as early as 1984 when essentially no one was arguing for a date for the Minoan eruption of Santorini in the 17th century BC, that on the basis of their frost ring evidence, LaMarche and Hirschboeck proposed that Thera may have erupted in 1627 BC or one or two years earlier, *i.e.* within the 2σ range of the present radiocarbon date.[18] Inherently, a dendrochronological date is more precise – *i.e.* confined to a tighter time interval – than even a wiggle-match radiocarbon date because of the high replication of trees covering a given period and also the fact that absolute radiocarbon dating depends on dendrochronology for calibration. However, frost damage on tree rings is the result of a climatic anomaly that can be triggered by many processes. It is not necessarily connected to a volcanic eruption. The large error margins of the thermoluminescence method mean that it is not really relevant. Furthermore, the precision achieved by relying on a time sequence of four sequences of tree-rings far outweighs the value of a date derived from short-lived material. We therefore consider our radiocarbon date based on the 72 growth rings of an olive branch buried alive in the pumice on Thera to be the most reliable and accurate date of the Minoan eruption.

[13] Bietak & Höflmayer 2003, fig. 1.
[14] Bruins *et al.* 2008.
[15] Marcus *et al.* n.d., Walter Kutschera (pers. comm. to the editor).
[16] Vinther *et al.* 2008.
[17] Baillie 1990.
[18] LaMarche & Hirschboeck 1984.

Bibliography

Aitken, M.J. 1990
Science-based dating in archaeology, London.

Akkermans, P.M.M.G. & G. M. Schwartz 2003
The archaeology of Syria: from complex hunter-gatherers to early urban societies, Cambridge.

Albarede, F., B. Luais, G. Fitton, M. Semet, E. Kaminski, B.G.J. Upton, P. Bachelery, & J.-L. Cheminée 1997
'The geochemical regimes of Pito de la Fournaise Volcano (Réunion) during the last 530 years', *Journal of Petrology* 38, 171–201.

Alberti, L. 2004
'The LM II-IIIA1 Warrior Graves at Knossos: the burial assemblages', in Cadogan, Hatzaki & Vasilikis 2004, 126–36.

Alexiou, S. 1967
Υστερομινωικοί τάφοι λιμένος Κνωσού (Κατσαμπά), Athens.

Allen, J.P. 2002a
'The Speos Artemidos inscription of Hatshepsut', *Bulletin of the Egyptian Seminar* 16, 1–17.

Allen, J.P. 2002b
The Heqanakht Papyri, New York

Allen, P., S. Feiner, A. Troccoli, H. Benko, E. Ishak, B. Smith, 2004
'Seeing into the past: creating a 3D modeling pipeline for archaeological visualization', *3D data processing, visualization and transmission, 2004. 3DPVT 2004:* 751-8, 6-9 Sept. 2004.

Al-Maqdissi, M. 2008
'Ras Shamra au Bronze Moyen. Travaux 1929-1974 (Ire-XXXVe campagnes de fouilles)', in *Ras Shamra-Ougarit au Bronze Moyen et au Bronze Récent* (Travaux de la Maison de l'Orient 47), Lyon, 51–71.

Al-Maqdissi, M. & D.M. Bonacossi 2005
The Metropolis of the Orontes, Damascus.

Anastaskis, G. 2007
'The anatomy and provenance of thick volcaniclastic flows in the Cretan basin, south Aegean Sea,' *Marine Geology* 240, 113–35.

Andreadaki-Vlasaki, M. 1997
'La necropole du Minoen Recent III de la ville de La Canée', in Driessen & Farnoux 1997, 487–509.

Andreadaki-Vlasaki, M. 2000
The county of Chania through its monuments (2), Athens.

Angelier, J., N. Lyberis, X. Le Pichon, E. Barrier & P. Huchon 1982
'The tectonic development of the Hellenic arc and the sea of Crete', *Tectonophysics* 86,159–96.

Arteca, R.N., B.W. Poovaia & O.E. Smith 1979
'Changes in carbon fixation, tuberization, and growth induced by CO2 applications to the root zone of potato plants', *Science* 205, 1279–80.

Ascough, P.L., G.T. Cook, A.J. Dugmore, & E.M. Scott 2007
'The North Atlantic marine reservoir effect in the early Holocene: implications for defining and understanding MRE values', *Nuclear Instruments and Methods* B259, 438–47.

Assmann, J. 1970
Der König als Sonnenpriester (Abhandlungen des Deutschen Archäologischen Instituts Kairo: Ägyptologische Reihe 7), Glückstadt.

Aston, B.G. 1994
Ancient Egyptian stone vessels. Materials and forms (Studien zur Archäologie und Geschichte Altägyptens, 5), Heidelberg.

Aston, D.A. 2003
'New Kingdom pottery phases as revealed through well-dated tomb contexts', in Bietak 2003a, 135–62.

Aston, D.A. 2004
Tell el-Dab^ca XII. A corpus of Late Middle Kingdom and Second Intermediate Period pottery, Vienna.

Aston, D.A. 2007
'Kom Rabi^ca, Ezbet Helmi, and Saqqara NK 3507. A study in cross-dating', in Bietak & Czerny 2007, 207–48.

Åström, P. 1961-1962
'Remarks on Middle Minoan chronology', *Πεπραγμένα του Α' Διεθνους Κρητηλογικό Συνεδριού Diethnous Kritoloyikou Sinedriou 1. Κρητικά Χρονικά* ΙΕ' – ΙΣΤ' Τευχός *I 15–16,* 137–50.

Åström, P. 1971
'Three Tell el Yahudiyeh juglets in the Thera Museum', in *Acta of the 1st international scientific congress on the volcano of Thera held in Greece, 15th – 23rd September 1969*, Athens, 415–21.

Åström, P. 1972a
The Swedish Cyprus Expedition. Vol. IV. Part 1B, Lund

Åström, P. 1972b
The Swedish Cyprus Expedition Vol. IV. Parts IC, ID, Lund.

Åström, P. 1979
'The find contexts of some Minoan objects in Cyprus', in Karageorghis 1979, 56–62.

Åström, P. (ed.) 1987a
High, middle or low? Acts of an international colloquium on absolute chronology held at the University of Gothenburg 20th-22nd August 1987 (Studies In Mediterranean Archaeology – Paper Back 56), Gothenburg,

Åström, P. 1987b
'The chronology of the Middle Cypriote period', in Åström 1987a, 57–66.

Åström, P. 2000
'Cyprus', in Bietak 2000a, 150–3.

Åström, P. (ed.) 2001a
The chronology of Base-Ring and Bichrome Wheel-made Ware. Proceedings of a colloquium held in the Royal Academy of Letters, History and Antiquities, Stockholm, May 18–19 2000 (KVHAA Konferenser 54), Stockholm.

Åström, P. 2001b
'The relative and absolute chronology of Proto White Slip ware', in Karageorghis 2001, 49–50.

Bagh, T. 2000
The beginning of the Middle Bronze Age in Egypt and the Levant, Ph.D. dissertation, University of Copenhagen, Copenhagen.

Bagh, T. 2002
'Painted pottery at the beginning of the Middle Bronze Age: Levantine Painted ware', in Bietak 2002a, 89–101.

Baillie, M.G.L. 1990
'Irish tree-rings and an event in 1628 BC' in Hardy & Renfrew 1990, 160–6.

Baillie, M.G.L. & M.A.R. Munro 1988
'Irish tree-rings, Santorini and volcanic dust veils', *Nature* 332, 344–6.

Baines, P.G, Morgan, T.J., Sparks, R.S.J. -2008
'The variation for large-magnitude volcanic ash cloud formation with source latitude,' *Journal of Geophysical Research* 113, D21204 doi:10.1029/2007/JD009568.

Balmuth, M.S. & R.H. Tykot (eds.) 1998
Sardinian and Aegean chronology: towards the resolution of relative and absolute dating in the Mediterranean, Oxford, 323–31.

Banou, E.S. 1998
'The pottery, Building AC,' in Betancourt & Davaras 1998a, 13–26, 133–6.

Barber, R.L.N. 1987
The Cyclades in the Bronze Age, London.

Barberi, F. & M.L. Carapezza 1994
'Helium and CO_2 soil gas emission from Santorini (Greece)', *Bulletin of Volcanology* 56, 335–42.

Barnard, K.A & T.M. Brogan 2003
Mochlos IB Period III. Neopalatial settlement on the coast: The Artisan's Quarter and the farmhouse at Chalinomouri. The Neopalatial pottery (Prehistory Monographs 8), Philadelphia.

Barnard, K.A. & T.M. Brogan forth.
'The Late Minoan IB pottery from Mochlos', Brogan & Hallager forthcoming

Bass, G.F., C. Pulak, D. Collon & J. Weinstein 1989
'The Bronze Age shipwreck at Ulu Burun: 1986 campaign', *American Journal of Archaeology* 93, 1–29.

Baumgartner, S., J. Beer, G. Wagner, P.W. Kubik, M. Suter, G.M. Raisbeck, & F. Yiou 1997
'^{10}Be and dust', *Nuclear Instruments and Methods* B123**,** 296–301.

Baxter, P.J. 2000
'Impacts of eruptions on human health', in Sigurdsson 2000, 1035–43.

Baxter, P.J. 2001
'Human impacts of volcanoes', in *Volcanoes and the environment*, J. Marti & C.G. Ernst (eds.), Cambridge, 273–303.

Baxter, P.J. & M. Kapila 1989
'Acute health impact of the gas release at Lake Nyos, Cameroon, 1986, *Journal of Volcanology and Geothermal Research* 39, 265–75.

Beckerath, J. von 1997
Chronologie des Pharaonischen Ägypten. Die Zeitbestimmung der ägyptischen Geschichte von der Vorzeit bis 332 v. Chr. (Münchner Ägyptologische Studien 46), Mainz.

Beckman, G. B. 2005
'The limits of credulity', *Journal of the American Oriental Society* 125, 343–52.

Beer, J., A. Blinov, G. Bonani, R.C. Finkel, H. J. Hofmann, B.Lehmann, H.Oeschger, A. Sigg, J. Schwander, T. Staffelbach, B. Stauffer, M. Suter & W. Wölfli 1990
'Use of ^{10}Be in polar ice to trace the 11-year cycle of solar activity', *Nature* 347, 164–6.

Beget, J. 2000
'Volcanic tsunamis', in Sigurdsson 2000, 1005–13.

Bennett, Ch. 2006
'Genealogy and the chronology of the Second Intermediate Period', *Ägypten & Levante* 16, 231–43.

Bennett, C. 2008
Review of Hornung *et al.* 2006, *Bibliotheca Orientalis* 65, 114–22.

Bent, J.T. 1965 (1885)
The Cyclades, or life among the insular Greeks, Chicago, London.

Ben-Tor, A. 1982
'The relations between Egypt and the Land of Canaan during the third millennium B.C', *Journal of Jewish Studies* 33 (1–2), 3–18.

Ben-Tor, A. 2008
'Hazor and chronology,' *Ägypten & Levante* XV, 45–67.

Ben-Tor, D. 2004
'Second Intermediate Period Scarabs from Egypt and Palestine: historical and chronological implications', in *Scarabs of the Second Millennium BC from Egypt, Nubia, Crete and the Levant: chronological and historical implications*, M. Bietak & E. Czerny (eds.), Vienna, 27–42.

Bergoffen, C.J. 1990
A comparative study of the regional distribution of Cypriote pottery in Canaan and Egypt in the Late Bronze Age, Ph.D. thesis, New York University.

Bergoffen, C. 2001
'The Proto White Slip and White Slip I pottery from Tell el-Ajjul', in Karageorghis 2001, 145–55.

Betancourt, P.P. 1985
The history of Minoan pottery, Princeton.

Betancourt, P.P. 1987
'Dating the Aegean Late Bronze Age with radiocarbon', *Archaeometry* 29, 45–9.

Betancourt, P.P. 1998
'The chronology of the Aegean Late Bronze Age: unanswered questions', in Balmuth & Tykot 1998, 291–6.

Betancourt, P.P. 2007
Introduction to Aegean art, Philadelphia.

Betancourt, P.P. & C. Davaras (eds.) 1995
Pseira I: The Minoan buildings on the west side of area A (University Museum Monograph 90), Philadelphia.

Betancourt, P.P. & C. Davaras, (eds.) 1998a
Pseira II: Building AC (the 'Shrine') and other buildings in area A (University Museum Monograph 94), Philadelphia.

Betancourt, P.P. & C. Davaras (eds.) 1998b
Pseira III: The plateia building (University Museum Monograph 102), by Cheryl R. Floyd, Philadelphia.

Betancourt, P.P. & C. Davaras, (eds.) 1999
Pseira IV: Minoan buildings in areas B, C, D, and F (University Museum Monograph 105), Philadelphia.

Betancourt, P.P. & C. Davaras, (eds.) 2001
Pseira V: The architecture of Pseira (University Museum Monograph 109), Philadelphia.

Betancourt, P.P. & C. Davaras, (eds.) 2002
Pseira VI: The Pseira cemetery 1: the cemetery survey (Prehistory Monographs 5), Philadelphia.

Betancourt, P.P. & C. Davaras, (eds.) 2003
Pseira VII: The Pseira cemetery 2: excavation of the tombs (Prehistory Monographs 6), Philadelphia.

Betancourt, P.P., C. Davaras & R. Hope Simpson, (eds.) 2004
Pseira VIII: The archaeological survey of Pseira island part 1 (Prehistory Monographs 11), Philadelphia.

Betancourt, P.P. C. Davaras & R. Hope Simpson, (eds.) 2005
Pseira IX: The archaeological survey of Pseira island part 2 (Prehistory Monographs 12), Philadelphia.

Betancourt, P.P., P. Goldberg, R. Hope Simpson & C.J. Vitaliano 1990
'Excavations at Pseira: The evidence for the Theran eruption', in Hardy & Renfrew 1990, London, 96–9.

Betancourt, P.P., V. Karageorghis, R. Laffineur & W.-D. Niemeier (eds.) 1999
Meletemata: studies in Aegean archaeology presented to Malcolm H. Wiener as he enters his 65th year, (Aegaeum 20), Liège.

Betancourt, P.P. & G.A. Weinstein 1976
'Carbon 14 and the beginning of the Late Bronze Age in the Aegean', *American Journal of Archaeology* 80, 329–48.

Bevan, A. 2007
Stone vessels and values in the Bronze Age Mediterranean, Cambridge.
Bichler, M., K. Breitenecker, G. Steinhauser & J. Sterba 2006
'Zur Identifikation von Bimssteinfunden aus Grabungen in Tel Megadim und Aegina Kolonna,' in Czerny *et al*. 2006, 253–9.

Bichler, M., H. Egger, A. Preisinger, D. Ritter & P. Stastny 1997
'NAA of the "Minoan Pumice" at Thera and comparison of alluvial pumice deposits in the Eastern Mediterranean region', *Journal of Radioanalytical and Nuclear Chemistry* 224, 7–14.

Bichler, M., M. Exler, C. Peltz & S. Saminger 2003
'Thera ashes', in Bietak 2003a, 11–21.

Bichler, M., H. Huber & P. Warren 2007
'Project Thera ashes – pumice sample from Knossos', in Bietak & Czerny 2007, 1–6.

Bichler, M., C. Peltz, S. Samminger & M. Exler 2002
'Aegean tephra – an analytical approach to a controversy about chronology', *Ägypten & Levante* 12, 55–70.

Bietak, M. 1987
'The Middle Bronze Age of the Levant – a new approach to relative and absolute chronology', in Åström 1987a, 78–120.

Bietak, M. 1994
'Die Wandmalereien aus Tell el-Dab^c^a/Ezbet Helmi Erste Eindrücke', *Ägypten & Levante* 4, 44–80.

Bietak, M. 1996a
Avaris, the capital of the Hyksos, London.

Bietak, M. 1996b
'Le Début de la XVIIIe Dynastie et les Minoens à Avaris', *Bulletin de la Société Française d'Egyptologie* 135, 5–29.

Bietak, M. 1998
'The Late Cypriot White Slip I-ware as an obstacle to the high Aegean chronology' in Balmuth & Tykot 1998, 321–2.

Bietak, M. (ed.) 2000a
The synchronisation of civilizations in the Eastern Mediterranean in the second millennium B.C. Proceedings of an international symposium at Schloß Haindorf, 15th – 17th of November 1996 and at the Austrian Academy, Vienna, 11th – 12th of May 1998, Vienna.

Bietak, M. 2000b
'"Rich beyond the dreams of Avaris: Tell el-Dab'a and the Aegean World: a guide for the perplexed." A response to Eric H. Cline', *Annual of the British School at Athens* 95,185–205.

Bietak, M. 2001
'Towards a chronology of Bichrome Ware? Some material from 'Ezbet Helmi and Tell el-Dab^c^a', in Åström 2001a, 175–201.

Bietak, M. (ed.) 2002a
The Middle Bronze Age in the Levant. Proceedings of an international conference on MB IIA ceramic material, Vienna, 24th- 26th of January 2001, Vienna, 29–42.

Bietak, M. 2002b
'Relative and absolute chronology of the Middle Bronze Age: comments on the present state of research', in Bietak 2002a, 29–42.

Bietak, M. (ed.) 2003a
The synchronisation of civilisations in the Eastern Mediterranean in the Second Millennium B.C. II. *Proceedings of the SCIEM 2000-EuroConference, Haindorf, 2-7 May 2001* (Contributions to the chronology of the Eastern Mediterranean 4), Vienna.

Bietak, M. 2003b
'Science versus archaeology: problems and consequences of high Aegean chronology', in Bietak 2003a, 23–33.

Bietak, M. 2004
Review of *A test of time* (= Manning 1999), *Bibliotheca Orientalis* 61, 199–222.

Bietak, M. 2005a
'Egypt and the Aegean. Cultural convergence in a Thutmoside palace at Avaris', in Roehrig *et al.* 2005, 75–81.

Bietak, M. 2005b
'The setting of the Minoan wall paintings at Avaris', in Morgan 2005, 83–90.

Bietak, M. 2007
'Bronze Age paintings in the Levant: chronological and cultural considerations', in Bietak & Czerny 2007, 269–300.

Bietak, M. & E. Czerny (eds.) 2007
The synchronization of civilisations in the Eastern Mediterranean in the Second Millennium B.C. III. *Proceedings of the SCIEM 2000-2nd EuroConference, Vienna, 28th of May-1st of June 2003* (Contributions to the chronology of the Eastern Mediterranean 9), Vienna.

Bietak, M., J. Dorner & P. Jánosi 2001
'Ausgrabungen in dem Palastbezirk von Avaris. Vorbericht Tell el-Dab^c^a/^c^Ezbet Helmi 1993-2000 mit einem Beitrag von Angela von den Driesch und Joris Peters', *Ägypten & Levante* 11, 27–119.

Bietak, M. & I. Hein 2001
'The context of White Slip wares in the stratigraphy of Tell el-Dab^ca and some conclusions on Aegean chronology', in Karageorghis 2001, 171–94.

Bietak, M. & F. Höflmayer 2007
'Introduction: high and low chronology', in Bietak & Czerny 2007, 13–23.

Bietak, M. & N. Marinatos 1995
'The Minoan wall paintings from Avaris', *Ägypten & Levante* 5, 49–62.

Bietak, M. & N. Marinatos 2000
'Avaris (Tell el-Dab^ca) and the Minoan World', in *Κρήτη-Αίγυπτος Πολιτισμικοί δέσμοι τρίων χιλιετιών*, Athens, 40–4.

Bietak M., N. Marinatos & C. Palivou 2007
Taureador scenes in Tell el-Dab^ca (Avaris) and Knossos (Untersuchungen der Zweigstelle Kairo des Österreichischen Archäologischen Institutes 27), Vienna.

Bietak, M., K. Kopetzky, L.E. Stager & R. Voss 2009
'Synchronisation of stratigraphies: Ashkelon and Tell el-Dab^ca', *Ägypten & Levante* 18, 49–60.

Birot, M. 1985
'Les chroniques "Assyriennes" de Mari', *MARI* 4, 219–42.

Blackwell P.G., C.E. Buck & P.J. Reimer 2006
'Important features of the new radiocarbon calibration curves', *Quaternary Science Reviews* 25, 408–13.

Bleiberg, E. 1996
The official gift in ancient Egypt, Norman.

Blitzer, H. 2004
'Agriculture and subsistence in the late Ottoman and post-Ottoman Mesara', in *The plain of Phaistos: cycles of social complexity in the Mesara region of Crete*, L.V. Watrous, D. Hadzi-Vallianou & H. Blitzer (eds.), Los Angeles, 111–21.

Blitzer, H. forth.
'Olive domestication and cultivation in the Aegean', *Hesperia,* forthcoming.

Blong, R.J. 1982
The time of darkness: local legends and volcanic reality in Papua New Guinea, Canberra.

Boese, J. 2008
',,Harbašipak", ,,Tiptakzi" und die Chronologie der älteren Kassitenzeit,' *Zeitschrift für Assyriologie* 98, 201–10.

Bonacossi, D.M., M. Al-Maqdissi, P. Pfälzner & M. Luciani 2006
'Qatna. Storia di una Metropoli', *Archeo*, No. 256 (giugno 2006), 44–57.

Bond, A. & R.S.J. Sparks 1976
'The Minoan eruption of Santorini, Greece', *Journal of the Geological Society of London* 132, 1–16.

Bottema, S. & A. Sarpaki 2003
'Environmental change in Crete: a 9000-year record of Holocene vegetation history and the effect of the Santorini eruption', *The Holocene* 13, 733–49.

Bourriau, J. 1981a
Umm el-Ga'ab: pottery from the Nile Valley before the Arab conquest, Cambridge.

Bourriau, J. 1981b
'Nubians in Egypt during the Second Intermediate Period: an interpretation based on the Egyptian ceramic evidence', in *Studien zur Altägyptischen Keramik*, Do. Arnold (ed.), Mainz, 25–41.

Bourriau, J. 1991
'Relations between Egypt and Kerma during the Middle and New Kingdoms', in *Egypt and Africa: Nubia from Prehistory to Islam*, W.V. Davies (ed.), London, 129–44.

Bourriau, J. 2000
'The Second Intermediate Period (c. 1650–1550 BC)', in *The Oxford History of Ancient Egypt*, I. Shaw (ed.), Oxford, 185–217.

Bourriau, J. & A. Millard 1971
'The excavation of Sawâma in 1914 by G.A. Wainwright and T. Whittemore', *Journal of Egyptian Archaeology* 57, 28–57.

Bourriau, J. & K.O. Eriksson 1997
'A Late Minoan sherd from an early 18th Dynasty context at Kom Rabi^ca, Memphis', in *Ancient Egypt, the Aegean, and the Near East. Studies in honour of Martha Rhoads Bell*, J. Phillips, L. Bell, B.B. William, J. Hoch & R.J. Leprohon (eds.), San Antonio TX, 95–120.

Bradfer-Burdet, I., B. Detournay, & R. Laffineur (eds.) 2005
KRHS TEXNITHS. *L'artisan crétois* (Aegaeum 26), Liège.

Branigan, K. 1968
Copper and bronze working in Early Bronze Age Crete (Studies in Mediterranean Archaeology 19), Lund.

Breasted, J. H. [1906] 1962
Ancient records of Egypt. Historical documents, Vol. 2*, The Eighteenth Dynasty,* Chicago.

Briggs, M.J., C.E. Synolakis, G.S. Harkin & D.R. Green 1995
'Laboratory experiments of

tsunami runup on a circular island', *Pure and Applied Geophysics* 144, 569–93.

Brinkman, J. A. 1968
A political history of Post-Kassite Babylonia, Rome.

Brinkman, J. A . 1976²
'Mesopotamian chronology of the historical period', in *Ancient Mesopotamia* by A.L. Oppenheim, Chicago, 335–48.

Brogan, T.M. & E. Hallager (eds.) forth.
LMIB pottery: relative chronology and regional differences, Athens (forthcoming)

Bronk Ramsey, C. 1995
'Radiocarbon calibration and analysis of stratigraphy: The OxCal program', *Radiocarbon* 37, 425–30.

Bronk Ramsey, C. 2001
'Development of the radiocarbon calibration program OxCal', *Radiocarbon* 43, 355–63.

Bronk Ramsey, C. 2008a
'Deposition models for chronological records', *Quaternary Science Reviews* 27, 42–60.

Bronk Ramsey, C. 2008b
'Radiocarbon dating: revolutions in understanding', *Archaeometry* 50, 249–75.

Bronk Ramsey, C. 2009
'Bayesian analysis of radiocarbon dates', *Radiocarbon* (in press).

Bronk Ramsey, C., C.E. Buck, S.W. Manning, P. Reimer & H. van der Plicht 2006
'Developments in radiocarbon calibration for archaeology', *Antiquity* 80, 783–98.

Bronk Ramsey, C., T. Higham & P. Leach 2004b
'Towards high-precision AMS: progress and limitations', *Radiocarbon*, 46, 17–24

Bronk Ramsey, C., S.W. Manning & M. Galimberti 2004a
'Dating the volcanic eruption at Thera', *Radiocarbon* 46, 325–44.

Bronk Ramsey C., van der Plicht, J. and Weninger, B. 2001
'Wiggle matching' radiocarbon dates', *Radiocarbon* 43, 381–9.

Brook, M., C.B. Moore, & T. Sigurdsson 1974
'Lightning in volcanic clouds', *Journal of Geophysical Research* 79, 472–5.

Bruins, H.J., J.A. MacGillivray, C.E. Synolakis, C. Benjamini, J. Keller, H.J. Kisch, A. Klügel & J. van der Pflicht 2008
'Geoarchaeological tsunami deposits at Palaikastro (Crete) and the Late Minoan IA eruption of Santorini', *Journal of Archaeological Science* 35, 191–212.

Bruns, M., I. Levin, K.O. Münnich, H.W. Hubberten & S. Fillipakis 1980
'Regional sources of volcanic carbon dioxide and their influence on ^{14}C content of present-day plant material', *Radiocarbon* 22, 532–6.

Brunton, G. & R. Engelbach 1927
Gurob (British School of Archaeology in Egypt and Egyptian research account twenty-fourth year, 1918), London.

Brunton, G. & W.M.F. Petrie 1924
Sedment, London.

Bruyere, B. 1937
Rapport sur les fouilles de Deir el Médineh (1934-1935). Deuxième partie: la nécropole de l'est (Fouilles de l'Institut Français d'Archéologie Orientale 15), Cairo.

Bryan, B. 2006
'Administration in the reign of Thutmose III', in Cline & O'Connor 2006, 69–122.

Bryan, S.E., A. Cook, J.P. Evans, P.W.Colls, M.G. Wells, M.G. Lawrence, J.S. Jell, A. Greig & R.Leslie 2004
'Pumice rafting and faunal dispersion during 2001-2002 in the southwest Pacific: record of a dacitic submarine eruption from Tonga', *Earth and Planetary Science Letters* 227, 135–54.

Buchholz, H.-G. 1974
'Ägäische Funde und Kultur-einflüsse in den Randgebieten des Mittelmeeres. Forschungsbericht über Ausgrabungen und Neufunde, 1960–1970', *Archäologische Anzeiger* 1974, 325–462.

Buchholz, H.-G. 1999
Ugarit, Zypern und Ägäis: Kulturbeziehungen im zweiten Jahrtausend v.Chr. (Alter Orient und Altes Testament 261), Münster.

Buck, C.E., W.G. Cavanagh & C.D. Litton 1996
Bayesian approach to interpreting archaeological data, Chichester.

Buck C.E. & P.G. Blackwell 2004
'Formal statistical models for estimating radiocarbon calibration curves', *Radiocarbon* 46, 1093–102.

Buck, C., T. Higham & D. Lowe 2003
'Bayesian tools for tephrochronology', *The Holocene* 13, 639–47.

Bull, I.D., P.P. Betancourt & R. Evershed 1999
'Chemical evidence for a structured manuring regime on the island of Pseira, Crete during the Minoan period,' in Betancourt *et al.* 1999, 69–73.

Cadogan, G. 1978
'Dating the Aegean Bronze Age without radiocarbon', *Archaeometry* 20, 209–14.

Cadogan, G. 1979
'Cyprus and Crete c. 2000–1400 B.C.', in Karageorghis 1979, 63–8.

Cadogan, G. 1983
'Early Minoan and Middle Minoan Chronology', *American Journal of Archaeology* 87, 507–18.

Cadogan, G., R.K. Harrison & G. E. Strong 1972
'Volcanic glass shards in Late Minoan I Crete', *Antiquity* 46, 110 –5.

Cadogan, G. & R. K. Harrison 1978
'Evidence of tephra in soil samples from Pyrgos, Crete', in Doumas 1978, 225–55.

Cadaogan, G., E. Hatzaki & A. Vasilakis (eds.) 2004.
Knossos: palace, city, state (British School at Athens Studies 12), London.

Cadogan, G., E. Herscher, P. Russell & S.W. Manning 2001
'Maroni-Vournes: a long White Slip sequence and its chronology', in Karageorghis 2001, 75–88.

Calder, E.S., S.R.Young, R.S.J.Sparks, J. Barclay, B. Voight, R.A. Herd, R. Luckett, G.E. Norton, L. Pollard, L. Ritchie, E.A. Robertson & MVO Staff 1998
'The boxing day collapse', *Montserrat Volcano Observatory Special Report 06.*

Carapezza M.L., B. Badalamenti, L. Cavarra, & A. Scalzo 2003
'Gas hazard assessment in a densely populated area of Colli Albani volcano (Cava dei Selci, Roma),' *Journal of Volcanology and Geothermal Research* 123:,81–94.

Cardellini, C., G. Chiodini, F. Frondini, S. Giaquinto, S. Caliro & F. Parello 2003
'Input of deeply derived carbon dioxide in southern Apennine regional aquifers (Italy)', *Geophysical Research Abstracts* 5 (http://www.cosis.net/abstracts/EAE03/09927/EAE03–J–09927.pdf).

Carey, S., D. Morelli, H. Sigurdsson & S.Bronto 2001
'Tsunami deposits from major explosive eruptions: an example from the 1883 eruption of Krakatau', *Geology* 29, 347–50.

Carey, S., H. Sigurdsson, C. Mandeville & S. Bronto 1996
'Pyroclastic flows and surges over water: an example from the 1883 Krakatau eruption', *Bulletin of Volcanology* 57, 493 –511.

Carey, S., H. Sigurdsson, C. Mandeville & S.Bronto 2000
'Volcanic hazards from pyroclastic flow discharge into the sea: examples from the 1883 eruption of Krakatau, Indonesia', in McCoy & Heiken 2000b, 1–14.

Carnarvon, Earl & H. Carter 1912
Five years' explorations at Thebes. A record of work done 1907–1911. Oxford.

Carter, H. 1916
'Report on the tomb of Zeser-Ka-Ra Amenhetep I, discovered by the earl of Carnarvon in 1914', *Journal of Egyptian Archaeology* 3, 147–54.

Catling, H.W. & V. Karageorghis 1960
'Minoika in Cyprus', *Annual of the British School at Athens 55,* 109–27.

Castro, J.M., & J.E. Gardner 2008
'Did magma ascent rate control the explosive-effusive transition at the Inyo volcanic chain, California?,' *Geology* 36, 279–82.

Catling, H.W. & J.A. MacGillivray 1983
'An early Cypriot III vase from the palace of Knossos', *Annual of the British School at Athens* 78, 1–8.

Chapin, A.P. & M.C. Shaw 2006
'The frescoes from the House of the Frescoes at Knossos: a reconsideration of their architectural context and a new reconstruction of the crocus panel', *Annual of the British School at Athens* 101, 57–88.

Charpin, D. & N. Ziegler 2003
Mari et le Proche-Orient à l'époque amorrite, Paris.

Chiodini, G., C. Cardellini, A. Amato, E. Boschi, S. Caliro, F. Frondini & G. Ventura 2004
'Carbon dioxide earth degassing and seismogenesis in central and southern Italy', *Journal of Geophysical Research* 31, L07615.

Chiodini, G., F. Frondini, D.M. Kerrick, J. Rogie, F. Parello, L. Peruzzi & A.R. Zanzari 1999
'Quantification of deep CO2 fluxes from central Italy. Examples of carbon balance for regional aquifers and of soil diffuse degassing', *Chemical Geology* 159, 205–22.

Christen, J.A. 1994
'Summarizing a set of radiocarbon determinations: a robust approach', *Applied Statistics* 43, 489–503.

Christen, J.A. & C.E. Buck 1998
'Sample selection in radiocarbon dating', *Applied Statistics* 47, 543–57.

Cioni, R., L. Gurioli, A. Sbrana & G. Vougioukalakis 2000
'Precursory phenomena and destructive events related to the Late Bronze Age Minoan (Thera, Greece) and AD 79 (Vesuvius, Italy) Plinian eruptions;

inferences from the stratigraphy in the archaeological sites,' in *The archaeology of geological catastrophes*, McGuire, W.G. Griffiths, D.R. Hancock, P.L. Stewart, I.S. (eds.), (Geological Society London Special Publication 171), 123–41.

Cita, M.B., A. Camerlenghi, K. A. Kastens & F. W. McCoy 1984
'New findings of Bronze Age homogenites in the Ionian Sea: geodynamic implications for the Mediterranean', *Marine Geology* 55, 47–62.

Clark, J.A. 2004
'Soils and land use at Pseira', in Betancourt, Davaras & Simpson 2004, 27–53.

Clausen, H.B., C.U. Hammer C.S. Hvidberg, D. Dahl-Jensen, J.P. Steffensen, J. Kipfstuhl, & M. Legrand 1997
A comparison of the volcanic records over the past 4000 years from the Greenland Ice Core Project and Dye 3 Greenland ice cores. *Journal of Geophysical Research* 102(C12), 26,707–26,723.

Cline, E. 1991
'Contact and trade or colonization? Egypt and the Aegean in the 14th-13th centuries BC', *Minos* 25–6, 7–36.

Cline, E.H. 1994
Sailing the wine-dark sea. International trade and the Late Bronze Age Aegean (British Archaeological Reports International Series 591), Oxford.

Cline, E.H. & D. Harris-Cline (eds.) 1998
The Aegean and the Orient in the Second Millennium (Aegaeum 18), Liège.

Cline, E.H. & D. O'Connor (eds.) 2006
Thutmose III. A new biography, Ann Arbor.

Coldstream, J.N. & G.L. Huxley (eds.) 1972
Kythera. Excavations and studies conducted by the University of Pennsylvania Museum and the British School at Athens, London

Coldstream, J.N. & G.N. Huxley 1984
'The Minoans of Kythera', in *The Minoan Thalassocracy: myth and reality: Proceedings of the 3rd international symposium at the Swedish Institute in Athens 31 May-5 June 1982* (Skrifter utgivna av Svenska Institutet i Athen 4°), R. Hägg & N. Marinatos (eds.), Stockholm, 89–92.

Cole, D.P. 1984
Shechem I. The Middle Bronze Age IIB pottery, Winona Lake.

Coleman, J. 1992
'Greece, the Aegean, and Cyprus Part 2', in *Chronologies in Old World Archaeology*, R.W. Ehrich (ed.) Third Edition, Chicago, 222–9.

Collon, D. 2000
'Implications of introducing a low Mesopotamian Chronology', *British Society for Middle Eastern Archaeology Newsletter* 13, 6–9.

Connor, C.B., A.R. McBirney & C.A. Furlan 2006
'What is the probability of explosive eruptions at a long-dormant volcano?', in *Statistics in volcanology,* H.M. Mader, S.G. Coles, C.B. Connor & L.J. Connor (eds.), London, 39–46.

Cook, R.J., J.C. Barron, R.I. Papendick & G.J. Williams III 1981
'Impact on agriculture of the Mount St. Helens eruptions', *Science* 211, 16–8.

Courtois, J.-C. 1979
'Vestiges minoens á Enkomi', in Karageorghis 1979, 158–77.

Courtois, J.C & L. 1978
'Corpus Céramique de Ras-Shamra-Ugarit, niveaux historique. Deuxième partie', *Ugaritica* 7, 191–370.

Cramer, M.D. 2002
'Inorganic carbon utilization by root systems', in *Plant roots: the hidden half*, Y. Waisel, A. Eshel & U. Kafkafi (eds.), New York, 699–714.

Cramer, M.D. & M.B. Richards 1999
'The effect of rhizospere dissolved inorganic carbon on gas exchange characteristics and growth rates of tomato seedlings', *Journal of Experimental Botany* 50, 79–87.

Crewe, L. 2004
Social complexity and ceramic technology on Late Bronze Age Cyprus: new evidence from Enkomi Ph.D. dissertation, University of Edinburgh, Edinburgh.

Crowley, J.L. 1989
The Aegean and the East, Jonsered.

Czerny, E., I. Hein, H. Hunger, D. Melman & A. Schwab (eds.) 2006
Timelines: studies in honour of Manfred Bietak, 3 vols. (Orientalia Lovaniensa Analecta 149), Leuven.

Dale, R.L. 1994
Kings of the Hyksos. Tell el-[c]*Ajjul in the Bichrome Ware period: A comparative stratigraphic analysis*, Ph.D. thesis, University of Utah.

Dale, V.H., J. Delgado-Acevedo & J. MacMahon 2005
'Effects of modern volcanic eruptions on vegetation', in

Volcanoes and the environment, J. Marti & C.G. Ernst (eds.), Cambridge, 227–49.

Damon, P.E., & C.P. Sonett 1991
'Solar and terrestrial components of the atmospheric C-14 variation spectrum'. in *The sun in time*, C P. Sonett, M.S., Giampapa, & M.S. Matthews (eds.), Tucson, 360–88.

Dansgaard, W., S. J. Johnsen, H. B. Clausen, D. Dahl-Jensen, N.S. Gundestrup, C.U. Hammer, C.S. Hvidberg, J.P. Steffensen, A.E. Sveinbjörnsdottir, J. Jouzel & G. Bond 1993
'Evidence for general instability of past climate from a 250-kyr ice-core record', *Nature* 364, 218–20.

Daressy, M.G. 1902
Catalogue général des antiquités égyptiennes du musée du Caire. Nos 24001–24990. Fouilles de la vallée des rois (1898–1899), Cairo.

Darnell, J.C. 2004
The enigmatic Netherworld Books of the Solar-Osirian unity: cryptographic compositions in the tombs of Tutankhamun, Ramesses VI and Ramesses IX, Freibourg.

Davies, B.G. 1995
Egyptian historical records of the later Eighteenth Dynasty, fascicle VI, Warminster.

Davis, E.N. 1977
The Vapheio Cups and Aegean gold and silver ware, New York.

Davis, T.M. 1904 (2002)
The Tomb of Thoutmosis IV, London.

Day, P.M., L. Joyner & M. Relaki 2003
'A petrographic analysis of the Neopalatial pottery', in Barnard & Brogan 2003, 13–31.

Decker, R. 1990
'How often does a Minoan eruption occur?', in Hardy *et al.* 1990b, 444–52.

Delworth, T., S. Manabe & R.J. Stouffer 1993
'Interdecadal variations of the thermohaline circulation in a coupled ocean-atmosphere model', *Journal of Climate* 6, 1993–2011.

Denton, J.S. & N.J.G. Pearce 2008
'Comment on "A synchronized dating of three Greenland ice cores throughout the Holocene" by B. M. Vinther *et al.*: No Minoan tephra in the 1642 B.C. layer of the GRIP ice core', *Journal of Geophysical Research-Atmospheres* 113, D04303.

Der Manuelian P. 2006
'The end of the reign and the accession of Amenhotep II', in Cline & O'Connor 2006, 413–29.

deSilva, S., J. Alzueta & G. Salas 2000
'The socioeconomic consequences of the A.D. 1600 eruption of Huaynaputina, southern Peru', in McCoy & Heiken 2000b, 15–24.

Dever, W.G. 1992
'The chronology of Syria – Palestine in the Second Millennium B.C.E.: a review of current issues', *Bulletin of the American Schools of Oriental Research* 288, 1–25.

Devetzi, A. 2000
'The imported stone vessels at Akrotiri, Thera: a new approach to the material', *Annual of the British School at Athens* 95, 121–39.

Dickenson, O.T.P.K. 1994
The Aegean Bronze Age, Cambridge.

Dietz, S. 1991
The Argolid at the transition to the Mycenaean Age. Studies in the chronology and cultural development in the Shaft Grave period, Copenhagen.

Dikaios, P. 1940
'The excavations at Vounous-Bellapais in Cyprus, 1931–32', *Archaeologia* 88, 1–174.

Dikaios, P. 1969–71.
Enkomi. Excavations I-III, Mainz.

Dingwell, D.B. 1996
'Volcanic dilemma: flow or blow', *Science* 273, 1054–5.

Doerr, M., D.Plexousakis, K. Kopaka & C.Bekiari 2004
'Supporting chronological reasoning in archaeology', *Proceedings of Computer Applications and Quantitative Methods in Archaeology 2004.*

Dominey-Howes, D.T.M. 2004,
'A re-analysis of the Late Bronze Age eruption and tsunami of Santorini, Greece, and the implications for the volcano-tsunami hazard,' *Journal of Volcanology and Geothermal Research* 130, 107–32.

Dorman, P.F. 1991
The Tombs of Senenmut. The architecture and decoration of tombs 71 and 353, New York.

Dorman, P. F. 2006
'The early reign of Thutmose III: an unorthodox mantle of coregency', in Cline & O'Connor 2006, 39–68.

Dornemann, R.H. 1981
'The Late Bronze Age pottery tradition at Tell Hadidi, Syria', *Bulletin of the American Schools of Oriental Research* 241, 29–47.

Dothan, T., S. Zuckerman & Y. Goren 2000
'Kamares ware at Hazor", *Israel Exploration Journal* 50, 1–15.

Doumas, C.G. 1974
'The Minoan eruption of the Santorini volcano', *Antiquity* 48, 110–5.

Doumas, C.G. (ed.) 1978.
Thera and the Aegean World I, London.

Doumas, C.G. (ed.) 1980
Thera and the Aegean World II, London.

Doumas, C.G. 1983
Thera. Pompeii of the ancient Aegean, London.

Doumas, C.G. 1990
'Archaeological observations at Akrotiri relating to the volcanic destruction,' in *Thera and the Aegean World* II, 3 *Chronology*, Doumas, C. (ed.), London, 48–50.

Doumas, C.G. 1998
'Aegeans in the Levant: myth and reality', in *Mediterranean Peoples in Transition. Thirteenth to Early Tenth Centuries BCE*, S. Gitin, A. Mazar & E. Stern (eds.), Jerusalem, 129–37.

Doumas, Ch. 2003
Ξεθάβοντας μια νεκρή πολιτεία στο Ακρωτήρι Θήρας, «ΑΛΣ», Τεύχος 1, Athens, 21–41.

Doumet-Serhal, C. 2003
'Sidon – British Museum Excavations 1998–2003', *Archaeology and history in Lebanon* 18, 2–19.

Doumet-Serhal, C. 2004
'Sidon British Museum Excavations 1998–2003', in Doumet-Serhal, Rabate & Resek 2004, 102–23

Doumet-Serhal, C. 2008
'The British Museum Excavation at Sidon: markers for the chronology of the Early and Middle Bronze Age in Lebanon', in *The Bronze Age in the Lebanon*, M. Bietak & E. Czerny (eds.), Wien, 11–44.

Doumet-Serhal, C., A. Rabate & A. Resek (eds.) 2004
Decade: a decade of archaeology and history in the Lebanon, Beirut.

Downey, W. S. & D. H. Tarling 1984
'Archaeomagnetic dating of Santorini volcanic eruptions and fired destruction levels of Late Minoan civilization' *Nature* 309, 519–23.

Dreyer, G. 1998
Umm el-Qaab I. Das Prädynastische Königsgrab U-j und seine frühen Schriftzeugnisse (Deutsches Archäologisches Institut Archäologische Veröffentlichungen 86), Mainz.

Driessen, J. M. & A. Farnoux (eds.) 1997
La Crète Mycénienne (*Bulletin de la Correspondence Hellenique Supplement* 30), Paris.

Driessen, J. & C. Langohr 2007[2]
'Rallying 'around a "Minoan Past": the legitimation of power at Knossos during the late Bronze Age', in *Rethinking Mycenaean palaces II*, M.L. Galaty & W.A. Parkinson (eds.), Los Angeles, 178–89.

Driessen, J. & C. Macdonald 1997
The troubled island: Minoan Crete before and after the Santorini eruption (Aegaeum 17), Liège.

Driessen J. M. & J. A. MacGillivray forth.
'Swept away in LM IA? Explaining debris deposition in coastal Neopalatial Crete' in *Proceedings of the tenth international Cretological congress*, Khania 2006, forthcoming.

Druitt, T.H., L. Edwards, R.M. Mellors, D.M Pyle, R.S.J. Sparks, M. Lanphere, M. Davies & B. Barriero 1999
Santorini volcano (Geological Society Memoirs 19), London.

Druitt, T.H. & V. Francaviglia 1990
'An ancient caldera cliff line at Phira, and its significance for the topography and geology of Pre-Minoan Santorini' in Hardy *et al.* 1990b, 362–9.

Druitt, T.H., R.A. Mellors, D.M. Pyle, & R.S.J. Sparks 1989
'Explosive volcanism on Santorini, Greece', *Geological Magazine* 126, 95–126.

Dufek, J. & G.W. Bergantz 2007
'Dynamics and deposits generated by the Kos Plateau Tuff eruption: controls on basal particle loss on pyroclastic flow transport', *Geochemistry Geophysics Geosystems* 8(12).

Duhoux, Y. 2003
Des Minoens en Égypte? 'Keftiou' et 'les îles au milieu du Grand Vert' (Publications de l'Institut Orientaliste de Louvain 52), Louvain.

Dunand, M. 1927
'La Cinquième Campagne des Fouilles de Byblos', *Syria* 8, 93–104.

Dunand, M. 1937-1939
Fouilles de Byblos 1926-1932, I, Texte – Atlas, Paris.

Dunand, M. 1939b
'Chronique', *Bulletin du Musée de Beyrouth* 3, 77–85.

Dunand, M. 1950-1958
Fouilles de Byblos 1933-1938, II, Texte – Atlas, Paris.

Dunn, S. 2002
The chronology of the Aegean Late

Bronze Age with special reference to the 'Minoan' eruption of Thera. PhD thesis, University of Durham, Durham.

Eastwood, W.J., N.J.G. Pearce & W.T. Perkins 1998
'Recognition of Santorini (Minoan) tephra in lake sediments from Gölhsar Gölü in southwest Turkey by laser ablation ICP-MS', *Journal of Archaeological Science* 25, 677–87.

Eastwood, W. J., N.J. Pearce, J.A. Westgate, S.G. Preece & W.T. Perkins 2004
'Tephra geochronology confirms the caldera-forming eruption of Aniakchak, not Santorini, at 1645 BC', *PAGES News* 12(3), 12–4.

Eddy, J.A. 1977
'Climate and the changing sun', *Climatic Change* 1, 173–90.

Edwards, J.S. 2005
'Animals and volcanoes: survival and revival', in *Volcanoes and the environment*, J. Marti & C.G. Ernst (eds.), Cambridge, 250–72.

El-Khouli, A. A. H. 1993
'Stone vessels', in *Stone vessels, pottery and sealings from the Tomb of Tutcankhamun*, J. Baines (ed.), Oxford, 1–35.

Enoch, H.Z. & J.M. Olesen 1993
'Tansley review no. 54, plant response to irrigation with water enriched with carbon dioxide', *New Phytologist* 125, 249–58.

Eriksen, U., W.L. Friedrich, H. Tauber, B. Buchardt & M.S. Thomsen 1990
'The Stronghyle caldera: geological, palaeontological and stable isotope evidence from radiocarbon dated stromatolites from Santorini, in Hardy *et al.* 1990b, 139–50.

Eriksson, K.O. 1991
'Red Lustrous Wheelmade Ware: a product of Late Bronze Age Cyprus', in *Cypriot ceramics: reading the Prehistoric record*, J.A. Barlow, D.L. Bolger & B. Kling (eds.), Philadelphia, 8–96.

Eriksson, K.O. 1992
'Late Cypriot I and Thera: relative chronology in the Eastern Mediterranean' in *Acta Cypria. Acts of an international congress on Cypriote archaeology held in Göteborg on 22-24 August 1991.* Part 3, Paul Åström (ed.) (*Studies in Mediterranean Archaeology and Literature. Pocketbook* 120), 152–223.

Eriksson, K.O. 1993
Red Lustrous Wheel-Made Ware (Studies in Mediterranean Archaeology 103), Jonsered.

Eriksson, K.O. 2001a
'Cypriot ceramics in Egypt during the reign of Thutmosis III: the evidence of trade for synchronizing the Late Cypriot cultural sequence with Egypt at the beginning of the Late Bronze Age', in Åström 2001a, 51–68.

Eriksson, K.O. 2001b
'Cypriote Proto White Slip and White Slip I: chronological beacons on relations between Late Cypriote I Cyprus and contemporary societies of the Eastern Mediterranean', in Karageorghis 2001, 51–64.

Eriksson, K.O. 2003
'A preliminary synthesis of recent chronological observations on the relations between Cyprus and other Eastern Mediterranean societies during the Late Middle Bronze – Late Bronze II periods', in Bietak 2003a, 411–29.

Eriksson, K.O. 2007a
'Using Cypriot Red Lustrous Wheel-made Ware to establish cultural and chronological synchronisms during the Late Bronze Age', in Hein 2007, 51–60.

Eriksson, K.O. 2007b
The creative independence of Late Bronze Age Cyprus. An account of the archaeological importance of White Slip ware (Contributions to the chronology of the Eastern Mediterranean 10), Vienna.

Evans, A. 1906
The prehistoric tombs of Knossos, London.

Evans, A.J. 1928
The Palace of Minos at Knossos, II, Oxford.

Evans, A.J. 1935
The Palace of Minos at Knossos, IV, London.

Farrand, W.R., & C.H. Stearns 2004
'The bedrock geology of Pseira,' in Betancourt, Davaras & Hope Simpson 2004, 13–25.

Fimmen, D. 1924
Die Kretisch-Mykenische Kultur, Leipzig.

Firth, C.M. & B. Gunn 1926
Excavations at Saqqara. Teti Pyramid Cemeteries I–II, Cairo.

Fischer, P.M. 2001
'Cypriote Bichrome Wheel-made Ware and Base-Ring Ware from the new excavations at Tell el-ᶜAjjul: synchronism and dating', in Åström 2001a, 221–30.

Fischer, P. M. 2003
'The preliminary chronology in Tell el-ᶜAjjul: results of the renewed excavations in 1999 and 2000', in Bietak 2003a, 263–94.

Fischer, P.M. 2004
'Coast contra inland: Tell el-ᶜAjjul

and Tell Abu al-Kharaz during the late Middle and Late Bronze Ages', *Levant* 14, 249–63.

Fischer, P.M. 2006a
Tell Abu al-Kharaz in the Jordan Valley. Volume II: The Middle and Late Bronze Ages, Vienna.

Fischer, P.M. (ed.) 2006b
The chronology of the Jordan Valley during the Middle and Late Bronze Ages: Pella, Tell Abu al-Kharaz and Tell Deir ᶜAlla, Vienna.

Fischer, P.M. 2007
'A note on the Lustrous Wheel-made Wares from Tell el-ᶜAjjul', *in* Hein 2007, *71–8*.

Fischer, P.M. & M. Sadeq 2000
'Tell el-ᶜAjjul 1999. A joint Palestinian-Swedish field project: First season preliminary report', *Ägypten & Levante* 10, 211–26.

Fischer, P.M. & M. Sadeq 2002
'Tell el-ᶜAjjul 2000. Second season preliminary report', *Ägypten & Levante* 12, 109–53.

Fischer, P.M. & M.J. Whitehouse 2004
'Quantitative SIMS (IMS1270) of particles from the GRIP Greenland ice core and Thera', paper presented at '*Ashes & Ice: SCIEM 2000 workshop on tephra analyses and ice core dating*, Vienna, 8–10 July 2004'.

Flemming, N.C. & C.O. Webb 1986
'Tectonic and eustatic coastal changes during the last 10,000 years derived from archaeological data,' *Zeitschrift für Geomorphologie* 62, 1–29.

Ford, C.R., N. Wurzburger, R.L. Hendrick & R.O. Teskey 2007
'Soil DIC uptake and fixation in *Pinus taeda* seedlings and its C contribution to plant tissues and ectomycorrhizal fungi', *Tree Physiology* 27, 375–83.

Foster, K. P. 2005
'Volcanic echoes in ancient Near Eastern texts', in *Cultural responses to the volcanic landscape: the Mediterranean and beyond*, M. S. Balmuth, D. K. Chester, & P. A. Johnson, (eds.), Boston, 279–96.

Foster, K. P. & M. Bichler 2003
'Theran pumice from Egyptian graves?', in Foster & Laffineur 2003, 431–9.

Foster, K.P. & R. Laffineur (eds.) 2003
Metron: measuring the Aegean Bronze Age. Proceedings of the 9th international Aegean conference/9e Rencontre égéenne internationale. New Haven, Yale University, 18-21 April 2002 (Aegaeum 24), Liège.

Foster, K. P. & R.K. Ritner 1996
'Texts, storms, and the Thera eruption', *Journal of Near Eastern Studies* 55, 1–14.

Fouqué, F. 1879
Santorin et ses Éruptions, Paris.

Fouqué, F.A. 1998
Santorini and its eruptions (= Fouqué 1879, translation by A. McBirney), Baltimore.

Francalanci, L., G. E. Vougioukalakis & M. Fytikas 2007
'Petrology and volcanology of Kimolos and Polyegos volcanoes within the context of the south Aegean arc, Greece', in *Cenozoic Volcanism in the Mediterranean Area* (Geological Society of America Special Paper 418), L. Beccaluva, G. Bianchini & M. Wilson (eds.), 33–65.

Francaviglia, V. 1990
'Sea-borne pumice deposits of archaeological interest on Aegean and Eastern Mediterranean beaches', in Hardy & Renfrew 1990, 127–34.

French E. 2002
Mycenae. Agamemnon's capital, Stroud.

Friedrich, W.L. 2000
Fire in the sea. The Santorini volcano: natural history and the legend of Atlantis, Cambridge.

Friedrich, W.L., U. Eriksen, H.Tauber, J.Heinemeier, N. Rud, M.S.Thomsen & B. Buchardt, 1988
'Existence of a water-filled caldera prior to The Minoan eruption of Santorini, Greece', *Naturwissenschaften* 75, 567–9.

Friedrich, W.L. & J. Heinemeier 2006
'New research in science: date of the largest volcanic eruption in the Bronze Age finally pinpointed', Aarhus University media release (http://www.nat.au.dk/default.asp?id=11296&la=UK).

Friedrich, W.L., B. Kromer, M. Friedrich, J. Heinemeier, T. Pfeiffer & S. Talamo 2006
'Santorini eruption radiocarbon dated to 1627-1600 BC', *Science* 312, 548.

Friedrich, W.L., B. Kromer, M. Friedrich, J. Heinemeier, T. Pfeiffer & S. Talamo 2009
'Santorini eruption radiocarbon dated to 1627-1600 BC: further discussion', in Manning & Bruce 2009 (in press).

Friedrich, M., Remmele, S., Kromer, B., Hofmann, J. Spurk, M., Kaiser, K. F., Orcel, C., & Küpper, M. 2004
'The 12,460-Year Hohenheim oak and pine tree-ring chronology from central Europe – a unique annual record for radiocarbon calibration and paleoenvironment

reconstructions'. *Radiocarbon* 46, 1111–22.

Friedrich, W.L., P. Wagner & H. Tauber 1990
'Radiocarbon dated plant remains from the Akrotiri excavation on Santorini, Greece', in Hardy & Renfrew 1990, 188–96.

Frisia, S., S. Badertscher, A. Borsato, J. Susini, O.M. Göktürk, H. Cheng, R.L. Edwards, J. Kramers, O.Tüysüz and D. Fleitmann 2008
'The use of stalagmite geochemistry to detect past volcanic eruptions and their environmental impacts', *PAGES News* 16(3), 25–6.

Frost, H. 2004
'Byblos and the sea', in Doumet-Serhal *et al*. 2004, 316–47.

Furumark, A. 1941
The chronology of Mycenaean pottery, Stockholm.

Furumark, A. 1950
'The settlement at Ialysos and Aegean history, c. 1550–1400 B.C.', *Opuscula Atheniensia* 6, 150–271.

Fuscaldo, P. 2000
The palace district of Avaris. The pottery of the Hyksos period and New Kingdom. Part I: Locus 66 (Untersuchungen der Zweigstelle Kairo des Österreichischen Archäologischen Institutes 16 = Tell el-Daba'a 10), Vienna.

Fytkias, M. O. Guliani, F. Innocenti, G. Marinelli & R. Mazzuoli 1976
'Geochronological data on recent magmatism of the Aegean Sea,' *Tectonophysics* 31, 29–34.

Fytikas, M., N. Kolios, & G. Vougioukalis 1990
'Post-Minoan volcanic activity of the Santorini volcano. Volcanic hazard and risk, forecasting possibilities', in Hardy & Renfrew 1990, 183–98.

Galimberti, M., C. Bronk Ramsey & S.W. Manning 2004
'Wiggle-match dating of tree-ring sequences', *Radiocarbon* 46 (2), 917–24.

Gabolde L. 1998.
Le « Grand Château d'Amon » de Sésostris Ier à Karnak (Mémoires de l'Académie des Inscriptions et Belles Lettres, N. S. 17), Paris.

Galanaki, I., H. Tomas, Y. Galanakis & L. Laffineur 2007
Between the Aegean and Baltic Seas. Prehistory across borders (Aegaeum 27), Liège.

Gambardella, B., C. Cardellini, G. Chiodini, F. Frondini, L. Marini, G. Ottonello & M.V. Zuccolini 2004
'Fluxes of deep CO_2 in volcanic areas of central-southern Italy', *Journal of Volcanology and Geothermal Research* 136, 31–52.

Gardiner, A. H. 1906
'Four papyri of the 18th Dynasty from Kahun', *Zeitschrift für ägyptische Sprache* 43, 27–47.

Gardiner, A. H. 1946
'Davies's copy of the Great Speos Artemidos inscription,' *Journal of Egyptian Archaeology* 32, 43–56.

Gardiner, A. H. 1948
Ramesside Administrative documents, Oxford.

Gardiner A. H. 1961
Egypt of the Pharaohs, Oxford.

Gasche, H. 2003
'La fin de la première dynastie de Babylone: une chute difficile', *Akkadica* 124, 205–20.

Gasche, H., J.A. Armstrong, S.W. Cole & V.G. Gurzadyan 1998
Dating the fall of Babylon: A reappraisal of Second-Millennium chronology (Mesopotamian History and Environment II: IV), Ghent.

Gates, M.-H. 2000
'Kinet Höyük (Hatay, Turkey) and MB Levantine chronology', *Akkadica* 119–20, 77–101.

Gestermann, L. 2008
'Die Datierung der Nomarchen von Hermopolis', *Zeitschrift für Ägyptische Sprache* 135, 1–15.

Giddy, L.L. 1999
*The survey of Memphis II. Kom Rabi*ᶜ*a. The New Kingdom and Post New Kingdom objects* (EES Excavation Memoirs 64), London.

Gilbert, J.S. & S.J. Lane 2008
'The consequences of fluid motion in volcanic conduits,' in *Fluid motions in volcanic conduits: a source fo seismic and acoustic signals*, Lane, S.J. Gilbert, J.S. (eds.),)(London Geological Society Special Publication 307), 1–10.

Girella, L. 2007
'Towards a definition of the MM III ceramic sequence in south-central Crete: returning to the traditional MM IIIA and MM IIIB division?' in *Middle Helladic pottery and synchronisms*, F. Felten, W. Gauss and R. Smetana (eds.), (Agina-Kolonna Forschungen und Ergebnisse I), Vienna, 233–55.

Goedicke, H. 1988
'The northeastern Delta and the Mediterranean', in *The archaeology of the Nile Delta: problems and priorities*, E.C.M. van den Brink (ed.), Amsterdam, 165–75.

Goedicke, H. 1992
'The chronology of the Thera/ Santorin explosion', *Ägypten & Levante* 3, 57–62.

Goedicke, H. 1995
Studies about Kamose and Ahmose, Baltimore.

Goedicke, H. 2004
The Speos Artemidos inscription of Hatshepsut and related discussions, Oakville, CT.

Goldberg, P. 2005
'Micromorphology report on site G 2,' in Betancourt, Davaras & Hope Simpson 2005, 252–3.

Goodchild, M.F. 2008
'What does Google Earth mean for the social sciences?', in *Geographic visualization: concepts, tools and applications*, M. Dodge, M. McDerby & M. Turner (eds), Chichester.

Grace, V.R. 1940
'A Cypriote tomb and Minoan evidence for its date', *American Journal of Archaeology* 44, 10–52.

Grattan, J.P. & Gilbertson, D.D. 2000
'Prehistoric "settlement crisis," environmental changes in the British Isles, and volcanic eruptions in Iceland: an exploration of plausible linkages', in McCoy & Heiken 2000b, 33–42.

Grayson, A. K. 1983
'Königslisten und Chroniken B. Akkadisch', *Reallexikon der Assyriologie und vorderasiatischen Archäologie* 6, 86–135.

Grayson, A. K. 1975
Assyrian and Babylonian chronicles, Locust Valley, NY.

Grove, A.T. & O. Rackham 2003
The nature of Mediterranean Europe: an ecological history, New Haven.

Guidi, A., V. Whitehouse & R. Whitehouse 1996
'A radiocarbon chronology for the Bronze Age: the Italian situation', *Acta Archaeologica* 67, 271–82.

Guidoboni, E., 1994
Catalogue of ancient earthquakes in the Mediterranean area up to the 10th century, Rome.

Guidoboni, E. & A. Comastri 2005
Catalogue of earthquakes and tsunamis in the Mediterranean area from the 11th to the 15th century, Rome.

Gurioli, L., E. Zanella, M.T. Pareschi, & R. Lanza 2007
'Influences of urban fabric on pyroclastic density currents at Pompeii (Italy): 1. Flow direction and deposition', *Journal of Geophysical Research* 112 (B05213)

Gurrieri, S., M. Liuzzo, & G., Giudice 2008
'Continuous monitoring of soil CO_2 flux at Mt. Etna: The 2004-2005 eruption and the role of regional tectonics and volcano tectonics,' *Journal of Geophysical Research* 113, B09206, doi: 10.1029/2007JB005003.

Gurzadyan, V. 2000
'On the astronomical records and Babylonian chronology', *Akkadica* 119–20, 177–86.

Gurzadyan, V. 2003
'The Venus Tablet and refraction', *Akkadica* 124, 13–7.

Hall, H.R. 1928a
'Minoan fayence in Mesopotamia', *Journal of Hellenic Studies* 48, 64–74.

Hall, H.R. 1928b
The civilization of Greece in the Bronze Age, London.

Hallager, E. 1977
The Mycenaean Palace at Knossos (The Museum of Mediterranean and Near Eastern Antiquities Memoir 1), Stockholm.

Hallager, E. 1988
'Final palatial Crete. An essay in Minoan chronology', in *Studies in ancient history and numismatics presented to Rudi Thomsen*, A. Damsgaard-Madsen, E. Christiansen & E. Hallager (eds.), Aarhus, 11–21.

Hammer, C.U. 2000
'What can Greenland ice core data say about the Thera eruption in the 2nd millennium BC?', in Bietak 2000a, 35–7.

Hammer, C., H.B. Clausen, & W. Dansgaard 1980
Greenland ice sheet evidence of post-glacial volcanism and its climate impact. *Nature* 288, 230–35.

Hammer, C.U., G. Kurat, P. Hoppe & H.B. Clausen 2001
'Recent ice core analysis strengthen[s] the argument for a mid 17th century BC eruption of Thera', extended abstract presented at 'SCIEM 2000-EuroConference, Haindorf, 2–7 May 2001'.

Hammer, C.U., G. Kurat, P. Hoppe, W. Grum & H.B. Clausen 2003
'Thera eruption date 1645 BC confirmed by new ice core data?', in Bietak 2003a, 87–94.

Hammer, C.U., H.B. Clausen, W.L. Friedrich & H. Tauber 1987
'The Minoan eruption of Santorini in Greece dated to 1645 BC?', *Nature* 328, 517–9.

Hankey, V. 1967
'Mycenaean pottery in the Middle East: notes on finds since 1951', *Annual of the British School at Athens* 62, 107–47.

Hankey, V. 1973
'Late Minoan finds in the south-Eastern Mediterranean', Πεπραγμένα του Γ' διεθνους

Κρητολογικό Συνέδριου, Τόμος Α, 104–10.

Hankey, V. 1981
'Imported vessels of the Late Bronze Age at high places', in *Temples and high places in Biblical Times*, A. Biran (ed.), Jerusalem, 108–17.

Hankey, V. 1987
'The chronology of the Aegean Late Bronze Age', in Åström 1987a, 39–59.

Hankey, V. 1993
'Pottery as evidence for trade: The Levant from the mouth of the river Orontes to the Egyptian border', in *Wace and Blegen: Pottery as evidence for trade in the Aegean Bronze Age*, C. Zerner, P. Zerner & J. Winder (eds.), Amsterdam, 101–8.

Hankey, V. & O. Tufnell 1973
'The tomb of Maket and its Mycenaean import', *Annual of the British School at Athens* 68, 103–11.

Hankey, V. & P. Warren 1974
'The absolute chronology of the Aegean Late Bronze Age', *Bulletin of the Institute of Classical Studies* 21, 142–52.

Hankey, V. & A. Leonard 1992
'Ägypten und die Levante: Ägäische Importe des 2. Jahrtausends v. Chr.' (*Tübinger Atlas des Vorderen Orients*, B III, map 4/5), Wiesbaden.

Hankey, V. & A. Leonard 1998
'Aegean LB I-II pottery in the East: who is the potter, pray, and who the pot?', in Cline & Harris-Cline 1998, 29–37.

Hardy, D.A., C.G. Doumas, J.A. Sakellarakis & P.M. Warren (eds.) 1990a
Thera and the Aegean World III. Vol. 1: *Archaeology*, London.

Hardy, D.A., J. Keller, V.P. Galanopoulos, N.C. Flemming & T.H. Druitt (eds.) 1990b
Thera and the Aegean World III. Vol. 2: *Earth sciences*, London.

Hardy, D.A. & C. Renfrew (eds.) 1990
Thera and the Aegean World III. Vol. 3: *Chronology*, London.

Harris, J. 1968
'How long was the reign of Horemheb?', *Journal of Egyptian Archaeology* 54, 95–106.

Hassan, F.A. & S.W. Robinson 1987
'High-precision radiocarbon chronometry of ancient Egypt, and comparisons with Nubia, Palestine and Mesopotamia', *Antiquity* 61, 119–35.

Hassler, A. & F. Höflmayer 2008
'Motagedda 1874 and Gurob 23: some notes on recent radiocarbon dates', *Ägypten & Levante* 18, 145–55.

Hatzaki, Eleni M. 2005
Knossos. The Little Palace (British School at Athens Supplement 38), Oxford.

Hatzaki, Eleni M. 2007
'Neopalatial (MMIIIB-LM IB)', in *Knossos pottery handbook. Neolithic and Bronze Age*, N. Momigliano (ed.) (*British School at Athens Studies* 14), London, 151–96.

Hawes, H.B., E. Williams, R.B. Seager & E.H. Hall 1908
Gournia, Vasiliki, and other sites on the isthmus of Ierapetra, Crete, Philadelphia.

Hayes, W.C. 1970
'Egypt – to the end of the twentieth dynasty', *Cambridge Ancient History*3 1/1, 173–93.

Hédervári, P. 1978
'Geonomic notes on the Bronze Age eruption of Santorini', in Doumas 1978, 153–61.

Hédervári, P. 1990
'Geonomic notes on the Bronze Age eruption of Santorini', in *Thera and the Aegean World* I, C. Doumas, (ed.), London, 153–161.

Hedges, R.E.M., R.A. Housley, C. Bronk Ramsey & G.J. van Klinken 1990
'Radiocarbon dates from the Oxford AMS system: archaeometry datelist 11', *Archaeometry* 32, 211–37.

Heiken, G. & F. McCoy 1984
'Caldera development during the Minoan eruption, Thera, Cyclades, Greece', *Journal of Geophysical Research* 89, 8441–62.

Heiken, G. & F. McCoy 1990
'Precursory activity to the Minoan eruption, Thira, Greece', in Hardy *et al.* 1990b, 79–88.

Heiken, G., F. McCoy & M. Sheridan 1990
'Palaeotopographic and palaeogeologic reconstruction of Minoan Thera', Hardy *et al.* 1990b 370–6.

Hein, I. 1994
'Erste Beobachtungen zur Keramik aus ᶜEzbet Helmi', *Ägypten & Levante* 4, 39–43.

Hein, I. 1998
'ᶜEzbet Helmi – Tell el Dabᶜa: chronological aspects of pottery', in *Proceedings of the seventh international congress of egyptologists*, C. Eyre (ed.) (Orientalia Lovaniensia Analecta 82), Leiden, 547–54.

Hein, I. 2001a
'Untersuchungen und vorläufige Bilanz zur Keramik aus ᶜEzbet

Helmi, speziell Areal H/V', *Ägypten & Levante* 11, 121–47.

Hein, I. 2001b
'On Bichrome and Base Ring Ware from several excavation areas at ʿEzbet Helmi', in Åström 2001a, 231–47.

Hein, I. (ed.) 2007
The Lustrous Wares of Late Bronze Age Cyprus and the Eastern Mediterranean, Vienna.

Heinz, M. 1992
Tell Atchana / Alalakh. Die Schichten VII-XVII (Alter Orient und Altes Testament 41), Neukirchen-Vluyn.

Helck, W. 1987
'Was kann die Ägyptologie wirklich zum Problem der absoluten Chronologie in der Bronzezeit beitragen? Chronologische Annäherungswerte in der 18. Dynastie', in Åström 1987a, 18–26.

Helck, W. 1992
'Zur Chronologiediskussion über das Neue Reich', *Ägypten & Levante* 3, 63–7.

Heltzer, M. 1989
'The trade of Crete and Cyprus with Syria and Mesopotamia and their eastern Tin-sources in the XVIII-XVII century B.C.', *Minos* 24, 7–27.

Herbert, D. & F. Bardossi 1968
Kilauea: case history of a volcano, New York.

Hieke, W. 2000
'Transparent layers in seismic reflection records from the central Ionian sea (Mediterranean)- evidence from repeated catastrophic turbidite sedimentation during Quaternary', *Sedimentary Geology* 135, 89–98.

Hill, L.L. 2006
Georeferencing: The geographic associations of information. Cambridge, MA: MIT Press.

Höckmann, O. 1974
'Die Katastrophe von Thera: Archäologische Gesichtspunkte', *Jahrbuch des Römisch- Germanischen Zentralmuseums* 21, 46–92.

Höflmayer, F. 2007
'Ägyptische Skarabäen auf Kreta und ihre Bedeutung für die absolute Chronologie der minoischen Altpalastzeit (MM IB-MM IIB)', *Ägypten & Levante* 17, 107–25.

Hohneck, H. 2006
'Hatte Thutmosis I. wirklich einen Sohn Namens Amenmose?', *Göttinger Miszellen* 210, 59–68.

Hood, M.S.F. 1956
'Another warrior-grave at Ayios Ioannis near Knossos', *Annual of the British School at Athens* 51, 81–99.

Hood, M.S.F. 1962a
'Stratigraphic excavations at Knossos, 1957-61', *Proceedings of the first international Cretological congress*, 92–8.

Hood, M.S.F. 1962b
'Sir Arthur Evans vindicated: a remarkable discovery of Late Minoan IB vases from beside the Royal Road at Knossos', *Illustrated London News* Feb.17, 259–61.

Hood, M.S.F. 1971
The Minoans. Crete in the Bronze Age, London.

Hood, M.S.F. 1978
The arts in Prehistoric Greece, Harmondsworth.

Hood, M.S.F. 1990
'Traces of the eruption outside Thera', in Hardy *et al.* 1990a, 681–90.

Hood, M.S.F. 1985
'Warlike destruction in Crete c. 1450 B.C.' *Proceedings of the fifth international Cretological congress*, 170–8.

Hood, M.S.F. 1996
'Back to basics with Middle Minoan IIIB', in *Minotaur and centaur. Studies in the archaeology of Crete and Euboea presented to Mervyn Popham* (*BAR International Series* 638), D. Evely, I.S. Lemos & S. Sherratt (eds.), Oxford, 10–6.

Hood, M.S.F. 2000
'Cretan fresco dates' in *The wall paintings of Thera: proceedings of the first international symposium, Petros M. Nomikos Conference Centre, Thera, Hellas, 30 August-4 September 1997*, S. Sherratt (ed.), Athens, 191–207.

Hood, M.S.F. 2005
'Dating the Knossos frescoes' in Morgan 2005, 45–81.

Hope Simpson, R. 2005
'The excavation of Site G 2,' and 'The excavation of Site Q 21,' in Betancourt, Davaras & Hope Simpson 2005, 251–2, 254–5.

Hornung, E. 1971
Das Grab des Haremhab im Tal der Könige. Bern.

Hornung, E. 1987
'Lang oder kurz? – das Mittlere und Neue Reich Ägyptens als Prüfstein', in Åström 1987a, 27–36.

Hornung, E., R. Krauss & D.A. Warburton (eds.) 2006
Ancient Egyptian chronology. (Handbook of Oriental Studies I: 83), Leiden.

Horwell, C.J., I. Fenoglio, K. Vala Ragnarsdottir, R.S.J. Sparks & B. Fubini 2003
'Surface reactivity of volcanic ash

from the eruption of Soufriere Hills volcano, Montserrat, West Indies with implications for health hazards', *Environmental Research* 93, 202–15.

Horwell, C.J., R.S.J. Sparks, T.S.Brewer, E.W. Llewellin & B.J. Williamson 2003
'Characterization of respirable volcanic ash from the Soufriere Hills volcano, Montserrat, with implications for human health hazards', *Bulletin of Volcanology* 65, 346–62.

Housley, R.A., R.E.M. Hedges, I.A. Law & C. Bronk Ramsey 1990
'Radiocarbon dating by AMS of the destruction of Akrotiri', in Hardy & Renfrew 1990, 207–15.

Housley, R.A., S.W. Manning, G. Cadogan, R.E. Jones & R.E.M. Hedges 1999
'Radiocarbon, calibration, and the chronology of the Late Minoan IB Phase', *Journal of Archaeological Science* 26, 159–71.

Huber, H., M. Bichler & A. Musilek 2003
'Identification of pumice and volcanic ash from archaeological sites in the Eastern Mediterranean region using chemical fingerprinting', *Ägypten & Levante* 13, 83–105.

Huber, P. 2000a
'Astronomical dating of Ur III and Akkad', *Archiv für Orientforschung* 46/47, 50–79.

Huber, P. 2000b
Review of Gasche *et al*. 1998, *Archiv für Orientforschung* 46/47, 287–90.

Huguen, C., N. Chamot-Rooke, B. Loubrieu, & J. Mascle 2006
'Morphology of a pre-collisional, salt-bearing, accretionary complex: The Mediterranean ridge (Eastern Mediterranean),' *Marine Geophysical Researches* 27:61–75.

Hunger, H. 2000
'Uses of Enūma Anu Enlil for chronology', *Akkadica* 119–20, 155–8.

Hunger, H. 2006
Lunar and planetary texts. Astronomical diaries and related texts from Babylonia vol. V, (Österreichische Akademie der Wissenschaften Philosophisch-Historische Klasse Denkschriften, vol. 299), Vienna.

Hutchinson, R.W. 1954
'Minoan chronology reviewed', *Antiquity* 28, 155–64.

Hutchinson, R.W. 1962
Prehistoric Crete, Harmondsworth.

Imamura, F., E. Gica, T. Takahashi, & N. Shuto 1995
'Numerical simulation of the 1992 flores tsunami: interpretation of tsunami phenomena in northeastern Flores island and damage at Babi island,' *Pure and Applied Physics* 144, 555–68.

Imamura, M., H. Ozaki, T. Mitsutani, E. Niu & S. Itoh 2007
'Radiocarbon wiggle-matching of Japanese historical materials with a possible systematic age offset', *Radiocarbon* 49, 331–7.

Jánosi, P. 1994
'Tell el-Dab^{c}a – 'Ezbet Helmi: Vorbericht über den Grabungsplatz H/I (1989–92)', *Ägypten & Levante* 4, 20–38.

Janssen, J.J. 1984
'A curious error', *Bulletin de l'Institut Français d'Archéologie Orientale* 84, 303–6.

Jeffreys, D.G. 1985
Survey of Memphis. Part one: the archaeological report (Egypt Exploration Society Occasional Publications 3), London.

Jeffreys, D.G. 2003
'All in the family? Heirlooms in Ancient Egypt', in Tait 2003, 197–211.

Jeffreys, D.G. 2006
Survey of Memphis V. Kom Rabi^{c}a: The New Kingdom settlement (Levels II–V) (Egypt Exploration Society Excavation Memoir 79), London.

Jidejian, N. 1977
Byblos through the ages, Beirut.

Jolivet, L. & M. Patriat 1999
'Ductile extension and the formation of the Aegean Sea', in *The Mediterranean Basins: Tertiary extension within the Alpine Orogen* (Geological Society Special Publication 15), B. Durand, L. Jolivet, F. Horvath & M. Seranne (eds.), London, 427–56.

Kampp, F. 1996
Die Thebanische Nekropole. Zum Wandel des Grabgedankens von der XVIII. bis zur XX. Dynastie, (Theben 13), Mainz.

Kanta, A. 1998
'Introduction 16th-11th cent. B.C.', in *Eastern Mediterranean – Cyprus – Dodecanese – Crete 16th – 6th cent. B.C.*, N. Chr. Stampolidis, A. Karetsou & A. Kanta (eds.), Heraklion, 29–66.

Kantor, H. 1947
'The Aegean and the Orient in the Second Millennium B.C.', *American Journal of Archaeology* 51, 1–103.

Kaplan, M.F. 1980
The origin and distribution of Tell el Yahudiyeh Ware (Studies in Mediterranean Archaeology 42) Gothenburg.

Karageorghis, V. (ed.) 1979
Acts of the international archaeological symposium «The relations between Cyprus and Crete, ca. 2000–500 B.C.», Nicosia.

Karageorghis, V. 1990
Tombs at Palaepaphos, 1. Teratsoudhia 2. Eliomylia, Nicosia.

Karageorghis, V. 1991
Les anciens chypriotes. Entre Orient et Occident, Paris.

Karageorghis, V. (ed.) 2001
The White Slip ware of Late Bronze Age Cyprus. Proceedings of an international conference organized by the Anastasios G. Leventis Foundation, Nicosia in honour of Malcolm Wiener, Nicosia 29th–30th October 1998, (Contributions to the chronology of the Eastern Mediterranean 2), Vienna.

Karageorghis, V. 2006
Aspects of everyday life in ancient Cyprus. Nicosia.

Karo, G. 1930-33
Die Schachtgräber von Mykenai I-II, Munich.

Kastens, K.A. & M.B. Cita 1981
'Tsunamis-induced sediment transport in the Abyssal Mediterranean Sea', *Geological Society of America Bulletin* 92, 845–57.

Keel, O. 1997
Corpus der Stempelsiegel-Amulette aus Palästina/Israel. Katalog, Band I (Orbis Biblicus et Orientalis, Series Archaeologica 13), Freiburg.

Keenan, D.J. 2002
'Why early-historical radiocarbon dates downwind from the Mediterranean are too early', *Radiocarbon* 44, 225–37.

Keenan, D.J. 2003
'Volcanic ash retrieved from the GRIP ice core is not from Thera', *Geochemistry, Geophysics, Geosystems* 4.11, 1097, doi: 10.1029/2003G000608. http://www.informath.org/pubs/G%5E303a.pdf.

Keenan, D.J. 2004
'Radiocarbon dates from Iron Age Gordion are confounded', *Ancient West and East* 3, 100–3.

Kemp, B.J. & R.S. Merrillees 1980
Minoan pottery in Second Millennium Egypt, Mainz.

Kempinski, A. 1974
'Tell el-ᶜAjjul – Beth-Aglayim or Sharuhen?', *Israel Exploration Journal* 24, 145–51.

Kempinski, A. 1993
'The Middle Bronze Age in northern Israel, local and external synchronisms', *Ägypten & Levante* 3, 69–73.

Kempinski, A. 1997
'The Hyksos: a view from the northern Canaan and Syria', in Oren 1997, 327–30.

Kempinski, A. (ed.) 2002
Tel Kabri: The 1986-1993 excavations seasons, N. Scheftelowitz & R. Oren (eds.), Tel Aviv.

Kempinski, A., L. Gershuny & N. Scheftelowitz 2002
'Pottery. III. Middle Bronze Age', in Kempinski 2002, 109–75.

Kempinski, A. & W.-D. Niemeier 1991
'Tel Kabri 1989–90', *Israel Exploration Journal* 41, 188–94.

Keswani, P.F.S. 2005
'Death, prestige, and copper in Bronze Age Cyprus', *American Journal of Archaeology* 109, 341–401.

King, R. J., S. S. Özcan, T. Carter, E. Kalfoglu, S. Atasoy, C. Triantaphyllidis, A. Kouvatsi, A. A. Lin, C-E. T. Chow, L. A. Zhivotovsky, M. Michalodimitrakis, P. A. Underhill, 2008
'Differential Y-chromosome Anatolian influences on the Greek and Cretan neolithic', *Annals of Human Genetics* 72, 205–14.

Kirk, G. S. 1985
The Iliad: a commentary, Volume I: books 1–4, Cambridge.

Kitchen, K.A. 1987
'The basics of Egyptian chronology in relation to the Bronze Age', in Åström 1987a, 37–55.

Kitchen K. A. 1996
'The historical chronology of ancient Egypt: a current assessment', *Acta Archaeologica* 67, 1–13.

Kitchen, K.A. 2000
'Regnal and genealogical data of ancient Egypt (Absolute chronology I): The historical chronology of ancient Egypt, a current assessment', in Bietak 2000a, 39–52.

Kitchen K. A. 2002
'Ancient Egyptian chronology for Aegeanists', *Mediterranean Archaeology and Archaeometry* 2, 5–12.

Kitchen, K. A. 2007
'Egyptian and related chronologies – look, no sciences, no pots!', in Bietak & Czerny 2007, 163–71.

Klengel, H.1992
Syria 3000-300 BC, Berlin.

Klug, A. 2002
Königliche Stelen in der Zeit von Ahmose bis Amenophis III (Monumenta aegyptiaca 8), Brussels.

Knappett, C. & T. F. Cunningham 2003
'Three Neopalatial deposits from Palaikastro, east Crete', *Annual of the British School at Athens* 98, 107–87.

Koch, J. 1998
'Neues von den Ur III-Mondeklipsen,' *Nouvelles Assyriologiques Brèves et Utilitaires* (=*NABU*) 1998(4,132), 126–9.

Koehl, R. 2000
'Minoan rhyta in Egypt', in *Κρήτη-Αίγυπτος, Πολιτισμικοί δεσμοί τριών χιλιετιών*, A. Karetsou (ed.), Athens, 94–100.

Koehl, R. B. 2006
Aegean Bronze Age rhyta (Prehistory Monographs 19), Philadelphia.

Kopetzky, K. 2002
'The dipper juglets of Tell el-Dab[c]a. A typological and chronological approach', in Bietak 2002a, 227–44.

Kooij, van der G. 2006
'Tell Deir [c]Alla. The Middle and Late Bronze Age chronology', in Fischer 2006a, 199–226.

Krauss, R. 1985
Sothis- und Monddaten (Hildesheimer Ägyptologische Beiträge 20), Hildesheim.

Krauss, R. 2007
'An Egyptian chronology for Dynasties XIII to XXV', in Bietak & Czerny 2007, 173–89.

Krauss, R. & H.G. Wiedemann 1998
'Das Schwarze in Nofretetes Auge', *Jahrbuch Stiftung Preussischer Kulturbesitz* 34, 211–22.

Kromer, B., M. Rhein, M. Bruns, H. Schochfischer, K.O. Münnich, M. Stuiver & B. Becker 1986
'Radiocarbon calibration data for the 6th to the 8th millennia BC', *Radiocarbon* 28(2B), 954–60.

Kromer, B., S.W. Manning, P.I. Kuniholm, M.W. Newton, M. Spurk & I. Levin 2001
'Regional $^{14}CO_2$ offsets in the troposphere: magnitude, mechanisms, and consequences', *Science* 294, 2529–32.

Kugler, F.X. 1910
'Die ältesten Venus-Tafeln und das Alter der I. Dynastie von Babel', in *Sternkunde und Sterndienst in Babel*, Münster, II: 257–306.

Kuniholm, P.I. 1990
'Overview and assessment of the evidence for the date of the eruption of Thera', in Hardy & Renfrew 1990, 13–8.

Kuniholm, P.I., B. Kromer, S.W. Manning, M. Newton, C.E. Latini & M.J. Bruce 1996
'Anatolian tree rings and the absolute chronology of the Eastern Mediterranean, 2220–718 BC', *Nature* 381, 780–3.

Laboury, D. 2006
'Royal portrait and ideology: evolution and significance of the statuary of Thutmose III', in Cline & O'Connor 2006, 260–91.

Laffineur, R. L. & L. Basch (eds.) 1991
THALASSA. L'Egée Préhistorique et la Mer (Aegaeum 7), Liège.

Laffineur, R. & P.P. Betancourt (eds.) 1997
TEXNH. Craftsmen, craftswomen and craftsmanship in the Aegean Bronze Age. Proceedings of the sixth international Aegean conference/60 Rencontre égéenne internationale, Philadelphia, Temple University, 18–21 April 1996 (Aegaeum 16), Liège.

Laffineur, R. & E. Greco (eds.) 2005
EMPORIA. Aegeans in the central and Eastern Mediterranean (Aegaeum 25), Liège.

Lal, D. & B. Peters 1967
'Cosmic Ray Produced Radioactivity on the earth', in *Handbuch für Physik*, S. Flügge, (ed.), Berlin, 551–612.

Lamarchand, N. & J.-R. Grasso 2007
'Interactions between earthquakes and volcano activity', *Geophysical Research Letters* 34 (L24303).

LaMarche, V.C. & K.K. Hirschboeck 1984
'Frost rings in trees as records of major volcanic eruptions', *Nature* 307, 121–6.

Lambrou-Phillipson, C. 1990
Hellenorientalia plus Orientalia. A catalogue of Egyptian, Mesopotamian, Mitannian, Syro-Palestinian, Cypriot and Asia Minor objects from the Bronze Age Aegean (Studies in Mediterranean Archaeology Pocketbook 95), Gothenburg.

Landsberger, B. 1954
'Assyrische Königsliste und "dunkles Zeitalter"', *Journal of Cuneiform Studies* 8, 31–73, 106–33.

Lapp, P. W. 1967
'The 1966 Excavations at Tell Ta'annek', *Bulletin of the American Schools of Oriental Research* 185, 2–39.

Larsen, M.T. 1976
The Old Assyrian city-state and its colonies, Copenhagen.

Larsen, L.B., B.M. Vinther, K.R. Briffa, T.M. Melvin, H.B. Clausen, P.D. Jones, M.-L. Siggaard-Andersen, C.U. Hammer, M. Eronen, H. Grudd, B.E.

Gunnarson, R.M. Hantemirov, M.M. Naurzbaev & K. Nicolussi 2008
'New ice core evidence for a volcanic cause of the A.D. 536 dust veil', *Geophysical Research Letters* 35 (L04708).

Lassey, K.R., M.R. Manning & B.J. O'Brien 1990
'An overview of oceanic radiocarbon', *Reviews in Aquatic Sciences* 3, 117–46.

Latter, J. H. 1981
'Tsunamis of volcanic origin: summary of cases, with particular reference to Krakatoa, 1883', *Bulletin Volcanologique* 44, 467–90.

Le Pichon, X. & J. Angelier 1979
'The Hellenic arc and trench system: a key to the neotectonic evolution of the Eastern Mediterranean Sea', *Tectonphysics* 60, 1–42.

Leatham, J. & S. Hood 1958/1959
'Sub-marine exploration in Crete, 1955', *Annual of the British School at Athens* 53–54, 263–80.

Leonard, A. 1994
An index to the Late Bronze Age Aegean pottery from Syria-Palestine (Studies in Mediterranean Archaeology 114), Jonsered.

Lepsius, C.R. 1849-1859
Denkmäler aus Ägypten und Äthiopien, Leipzig.

Lilyquist, C. 1988
'The gold bowl naming general Djehuty: a study of objects and early egyptology', *Metropolitan Museum Journal* 23, 5–62.

Lilyquist, C. 1994
'Objects attributable to Kamid el-Loz and comments on the date of some objects in the '*Schatzhaus*'', in *Das 'Schatzhaus' im Palastbereich: Die Befunde des Königsgrabes*, W. Adler (Saarbrücker Beiträge zur Altertumskunde 47 = Kamid el-Loz 11), Bonn, 207–20.

Lilyquist, C. 1995
Egyptian stone vessels. Khian through Tuthmosis IV, New York.

Lilyquist, C. 1996
'Stone vessels at Kāmid el-Lōz, Lebanon: Egyptian, egyptianizing, or non-Egyptian? A question at sites from the Sudan to Iraq to the Greek Mainland', in*'Schatzhaus'-Studien*, R. Hachmann (ed.) (Saarbrücker Beiträge zur Altertumskunde 59 = Kāmid el-Lōz 16), Bonn, 133–73.

Lilyquist, C. 1997
'Egyptian stone vases? Comments on Peter Warren's paper', in *TEXNH: Craftsmen, craftswomen and craftsmanship in the Aegean Bronze Age. Proceedings of the 6th international Aegean conference, Philadelphia, Temple University, 18-21 April 1996*, R. Laffineur & P.P. Betancourt (eds.) (AEGAEUM 16), Liège, 225–8

Lilyquist, C. 2003
The tomb of Three Foreign Wives of Tuthmosis III, New York.

Limburg, E.M. & J.C. Varekamp 1991
'Young pumice deposits on Nisyros, Greece', *Bulletin of Volcanology* 54, 68–77.

Lipinska, J. 2001
'Tuthmosis III', in Redford 2001, 401–3.

Liverani, M. 1973
'Memorandum on the approach to historiographic texts', *Orientalia* 42, 178–94.

Lolos, Y. G. 1990
'On the Late Helladic I of Akrotiri, Thera', in Hardy & Renfrew 1990, 51–6.

Luce, J.V 1976
'Thera and the devastation of Minoan Crete: a new interpretation of the evidence,' *American Journal of Archaeology* 80, 9–18.

Macdonald, C. F. 2001
'Chronologies of the Thera eruption' (= Review of Manning 1999), *American Journal of Archaeology* 105, 527–32.

Macdonald, C.F. 1990
'Destruction and construction in the palace at Knossos: LM IA-B', in Hardy & Renfrew 1990, 82–8.

Macdonald, C.F. 1996
'Notes on some Late Minoan IA contexts from the Palace of Minos and its immediate vicinity', in *Minotaur and centaur. Studies in the archaeology of Crete and Euboea presented to Mervyn Popham* (British Archaeological Reports International Series 638), D. Evely, I. S. Lemos & S. Sherratt (eds.), Oxford, 17–26.

Macdonald, C.F. 2005
Knossos, London.

Macedonio, G., M. T. Pareschi & R. Santacroce 1990
'Renewal of activity at Vesuvius: models for the expected tephra fallout', *Journal of Volcanology and Geothermal Research* 40, 327–42.

MacGillivray, J.A. 1984
'Cycladic jars from Middle Minoan III contexts at Knossos', in *The Minoan Thalassocracy: Myth or reality*, R. Hägg & N. Marinatos (eds.), Stockholm, 152–8.

MacGillivray, J.A. 1995
'A Minoan cup at Tell el-Dab^{c}a', *Ägypten & Levante* 5, 81–4.

MacGillivray, J.A. 1997
'The re-occupation of eastern Crete in the Late Minoan II-

IIIA1/2 periods', in Driessen & Farnoux 1997, 275–9.

MacGillivray, J.A. 1998
Knossos: pottery groups of the Old Palace Period (British School at Athens Studies 5), London.

MacGillivray, J.A. 2003
'Return to the Labyrinth: a clew to the function of the Minoan palaces', *Athena Review* 3, 63–6.

MacGillivray, J.A. 2004
'A Middle Minoan cup from Sidon', in Doumet-Serhal, Rabate & Resek 2004, 124–38.

MacGillivray, J.A. 2008
'The Minoan Sidon cup', in *The Bronze Age in the Lebanon*, M. Bietak & E. Czerny (eds.), Wien, 45–50.

MacGillivray, J.A. forth.
'Absolute MM III – the bigger picture. Early Neopalatial Crete's relations with the ancient Orient in the mid-second millennium BC', in *Intermezzo. intermediacy and regeneration in Middle Minoan III Crete*, C. Macdonald, C. Knappett & E. Banou, (eds.), forthcoming.

MacGillivray, J.A., J.M. Driessen & L.H. Sackett (eds.) 2000
The Palaikastro Kouros (British School at Athens Studies 6), London.

MacGillivray J.A., L.H. Sackett & J.M. Driessen 1998
'Excavations at Palaikastro, 1994 and 1996', *Annual of the British School at Athens* 93, 221–68.

MacGillivray J.A. & L.H. Sackett forth.
Palaikastro: Building 1. Sacred space in transition (British School at Athens Supplementary Volume), forthcoming.

Mackay, E.J.H. & M.A. Murray 1952
Ancient Gaza, Vol. 5 (British School of Egyptian Archaeology 64), London.

Mackenzie, D. 1978
'Active tectonics of the Alpine-Himalayan belt: the Aegean Sea and surrounding regions', *Geophysical Journal of the Royal Astronomical Society*, 55, 217–54.

Macqueen, J. G. 1986
The Hittites and their contemporaries in Asia Minor, New York.

Maeir, A.M. 2007
'The Middle Bronze Age II pottery', in *Excavations at Beth-Shean 1989-1996, Vol II, The Middle and Late Bronze Age strata in Area R*, A. Mazar & R.A. Mullins (eds.), Jerusalem, 242–390.

Maguire, L.C. 1995
'Tell el Dab^{c}a: The Cypriot connexion', in *Egypt, the Aegean and the Levant: Interconnections in the Second Millennium BC*, W.V. Davies & L. Schofield (eds.), London, 54–65.

Mallet, J. 2002
'Ras Shamra-Ougarit (Syrie), 62e campagne, 2002. L'exploration des niveaux du Bronze moyen II (1er moitié du IIe millénaire av. J.-C.) sous le Palais Nord', *Ugarit Forschungen* 34, 527–50.

Manassa, C. 2003
The Great Karnak Inscription of Merneptah: grand strategy in the 13th century BC. (Yale Egyptological Studies 5), New Haven.

Manning, S.W. 1988
'The Bronze Age eruption of Thera: absolute dating, Aegean chronology and Mediterranean cultural interrelations', *Journal of Mediterranean Archaeology* 1, 17–82.

Manning, S.W. 1992
'Thera, sulphur, and climatic anomalies', *Oxford Journal of Archaeology* 11, 245–53.

Manning, S.W. 1995
The absolute chronology of the Aegean Early Bronze Age, Sheffield.

Manning, S.W. 1996
'Dating the Aegean Bronze Age: without, with, and beyond, radiocarbon', *ActaArch* 67, 15–37.

Manning, S.W. 1999
A test of time: the volcano of Thera and the chronology and history of the Aegean and East Mediterranean in the mid Second Millennium BC, Oxford.

Manning, S.W. 2001
'The chronology and foreign connections of the Late Cypriot I period: times they are a'changin', in Åström 2001a, 68–94.

Manning, S.W. 2005
'Simulation and the Thera eruption: outlining what we do and do not know from radiocarbon', in *Autochthon: papers presented to O.T.P.K. Dickinson on the occasion of his retirement*, A. Dakouri-Hild & S. Sherratt (eds.) (BAR International Series 1432) Oxford, 97–114.

Manning, S.W. 2007
'Clarifying the 'high' *v.* 'low' Aegean/Cypriot chronology for the mid second millennium BC: assessing the evidence, interpretive frameworks, and current state of the debate', in Bietak & Czerny 2007, 101–37.

Manning, S.W., C. Bronk Ramsey, C. Doumas, T. Marketou, G. Cadogan & C.L. Pearson 2002
'New evidence for an early date for the Aegean Late Bronze Age and Thera eruption', *Antiquity* 76, 733–44.

Manning, S.W. & C. Bronk Ramsey 2003
'A Late Minoan I-II absolute chronology for the Aegean – combining archaeology with radiocarbon', in Bietak 2003a, 111–33.

Manning, S. W., C. Bronk Ramsey, W. Kutschera, T. Higham, B. Kromer, P. Steir & E. M. Wild 2006a
'Chronology for the Aegean Late Bronze Age 1700–1400 B.C.', *Science* 312, 565–9.

Manning, S.W., C. Bronk Ramsey, W. Kutschera, T. Higham, B. Kromer, P. Steier & E.M. Wild 2006b
'Supporting online material for chronology for the Aegean Late Bronze Age 1700–1400 B.C.', *Science* 312, 565. www.sciencemag.org/cgi/content/full/312/5773/565/DC1.

Manning, S.W., C. Bronk Ramsey, W. Kutschera, T. Higham, B. Kromer, P. Steier and E. Wild 2009
'Dating the Santorini/Thera eruption by radiocarbon: further discussion (AD 2006-2007)', in Manning & Bruce 2009 (in press).

Manning, S.W. & M.J. Bruce (eds.) 2009 (in press)
Tree-rings, kings, and Old World archaeology and environment: papers presented in honor of Peter Ian Kuniholm, Oxford.

Manning, S.W., L. Crewe & D.A. Sewell 2006c
'Further light on early LCI connections at Maroni', in Czerny *et al.* 2006, 471–88.

Manning, S.W., B. Kromer, P.I. Kuniholm & M.W. Newton 2001
'Anatolian tree-rings and a new chronology for the east Mediterranean Bronze-Iron Ages', *Science* 294, 2532–5.

Manning, S.W., S.J. Monks, G. Nakou, & F.A. De Mita jr. 1994
'The fatal shore, the long years and the geographical unconscious. Considerations of iconography, chronology, and trade in response to Negbi's "The "Libyan landscape" from Thera: a review of Aegean enterprises overseas in the Late Minoan IA period', *Journal of Mediterranean Archaeology* 7, 219–35.

Manning, S.W., Sewell, D.A., & E. Herscher 2002
'Late Cypriot I A maritime trade in action: underwater survey at Maroni *Tsaroukkas* and the contemporary east Mediterranean trading system', *Annual of the British School at Athens* 97, 97–162.

Manning, S.W. & B. Weninger 1992
'A light in the dark: archaeological wiggle matching and the absolute chronology of the close of the Aegean Late Bronze Age', *Antiquity* 66, 636–63.

Marchal, O., Stocker, T.F. & R. Muscheler 2001
'Atmospheric radiocarbon during the Younger Dryas: production, ventilation, or both?', *Earth and Planetary Science Letters* 185, 383–95.

Marcus, E., E.M. Wild, D. Arnold, C. Bronk Ramsey, T. Higham, W. Kutschera, P. Steier & U. Thanheiser forth.
'Radiocarbon confirms historical date of Egyptian Queen/Pharaoh Hatshepsut', n.d..

Marinatos, N. 1984
Art and religion in Thera: reconstructing a Bronze Age society, Athens.

Marinatos, N. 1986
'On the ceremonial function of the Minoan polythyron,' *Opuscula Atheniensia* 16, 57–73.

Marinatos, N. 1998
'The Tell el-Dab'a paintings: a study in pictorial tradition', *Ägypten & Levante* 8, 83–99.

Marinatos, S. 1939
'The volcanic destruction of Minoan Crete', *Antiquity* 13, 425–39.

Marinatos, S. 1967-76
Excavations at Thera I-VII, Athens.

Marketou, T. 1990
'Santorini tephra from Rhodes and Kos: some chronological remarks based on the stratigraphy', in Hardy & Renfrew 1990, 100–13.

Marketou, T., Y. Facorellis & Y. Maniatis 2001
'New Late Bronze Age cxhronology from the Ialysos Region, Rhodes', *Mediterranean Archaeology and Archaeometry* 1, 19–29.

Marsan, D. & O. Lengline 2008
'Extending earthquakes' reach through cascading," *Science* 319,1076–9.

Marthari, M. 1984
'The destruction of the town at Akrotiri, Thera, at the beginning of LC I: definition and chronology' in *The Prehistoric Cyclades. Contributions to a workshop on Cycladic chronology*, J. A. MacGillivray & R.L.N. Barber (eds.), Edinburgh, 119–33.

Marthari, M. 1990
'The chronology of the last phases of occupation at Akrotiri in the light of the evidence from the West House pottery groups', in Hardy & Renfrew 1990, 57–70.

Marthari, M. 1993
'The ceramic evidence for contacts between Thera and the Greek mainland', in *Proceedings of the international conference Wace and Blegen. Pottery as evidence for trade in the Aegean Bronze Age, 1939 – 1989, held at the American School of Classical Studies at Athens, Athens, December 2 – 3, 1989*, C. Zerner (ed.), Amsterdam, 249–56.

Martin, V.M., D.J. Morgan, D.A. Jerram, M.J. Caddick, D.J. Prior &. J.P. Davidson 2008
'Bang! month-scale eruption triggering at Santorini volcano,' *Science* 321, 1178.

Marzocchi, W., E. Casarotti & A. Piersanti 2002
'Modeling the stress variations induced by great earthquakes on the largest volcanic eruptions of the 20th century', *Journal of Geophysical Research* 107(B11), 2320.

Masarik, J. & J. Beer 1999
'Simulation of particle fluxes and cosmogenic nuclide production in the earth's atmosphere', *Journal of Geophysical Research* 104, 12,099–111.

Mascle, J., C. Huguen, J. Benkhelil, N. Chamot-Rooke, N. Chaumillon, J.P. Foucher, R. Griboulard, & A. Kopf, A. 1999
'Images may show start of European-African plate collision,' *Eos Transactions American Geophysical Union* 80, doi:10.1029/99EO00308.

Mason, B.G., D.M. Pyle & C. Oppenheimer 2004
'The size and frequency of the largest explosive eruptions on earth', *Bulletin of Volcanology* 66, 735–48.

Matthäus, H. 1995
'Representations of Keftiu in Egyptian tombs and the absolute chronology of the Aegean Late Bronze Age', *Bulletin of the Institute of Classical Studies* 40, 177–94.

Matthäus, H. 1996
'Die absolute Chronology der Periode SM II/SH II B', in *Atti e memorie del secondo congresso internazionale di micenologia. Roma-Napoli, 14-20 ottobre 1991.* Volume terzo: *Archeologia,* E. DeMiro, L. Godart & A. Sacconi (eds.) (Incunabula Graeca 98), Rome, 1457–70.

Matz, F. 1973
'The zenith of Minoan civilization' *Cambridge Ancient History* (3), II, part I, 557–81.

McClelland, E. & R. Thomas 1990
'A paleomagnetic study of Minoan tephra from Thera', in Hardy *et al.* 1990b, 129–38.

McCoy, F.W. 1980a
'The upper Thera (Minoan) ash in deep-sea sediments: distribution and comparison with other ash layers', in Doumas 1980, 57–72.

McCoy, F.W. 1980b
Climate change in the Eastern Mediterranean area during the past 240,000 Years,' in *Thera and the Aegean World* II, Doumas, C., ed. v. 2; London, 79–100.

McCoy, F.W. 1981
'Areal distribution, redeposition, and mixing of tephra within deep-sea sediments of the Eastern Mediterranean sea," in *Tephra studies*, S. Self, & R.S.J. Sparks, (eds.), Hingham, D. Reidel: 245–54.

McCoy, F.W. 2003
'Blending Archaeology and geology – reconstructing Thera (Santorini, Greece) before the Late Bronze Age eruption', (abstract), *Geological Soc. Am., Abstracts with Programs* 35 (6): 99.

McCoy, F.W. 2005
'Reconstructing a lost island – Thera before the Late Bronze Age eruption,' in *Proceedings of the international conference on the Atlantis Hypothesis: searching for a lost land*, Papamarinopoulos, S.P. (ed.), Athens, 309–26.

McCoy, F.W. & S. Dunn 2002
'Modelling the climatic effects of the LBA eruption of Thera: new calculations of tephra volumes may suggest a significantly larger eruption than previously reported', *Chapman conference on volcanism and the earth's atmosphere, Thera, Greece*: American Geophysical Union.

McCoy, F.W. & S.E. Dunn 2004
'The LBA eruption of Thera: new finds of tephra and calculations of tephra volumes suggest a significantly larger eruption than previously reported', (abstract), *Archaeological Institute of America, 105th Annual Meeting*, San Francisco.

McCoy, F.W. & G. Heiken 2000a
'The Late-Bronze Age explosive eruption of Thera (Santorini), Greece: regional and local effects', in McCoy & Heiken 2000b, 43–70.

McCoy, F.W. & G. Heiken (eds.) 2000b
Volcanic hazards and disasters in human antiquity, Boulder (Geological Society of America Special Paper 345).

McCoy, F.W. & G. Heiken 2000c
'Tsunami generated by the Late Bronze Age eruption of Thera (Santorini), Greece', *Pure and Applied Geophysics* 157, 1227–56.

McCoy, F.W., C. Synolakis & G. Papadopoulos 2000
'Tsunami generated by the LBA eruption of Thera – Evidence from modelling and sedimentary deposits' (abstract), *EOS Transactions, American Geophysical Union* 81(48): F1224.

McDonald, A. & N. C. Wilkie, (eds.) 1992
Excavations at Nichoria in southwest Greece. Vol II: *The Bronze Age occupation*, Minneapolis.

McGee, K.A. & T.M. Gerlach 1998
'Annual cycle of magmatic CO2 in a tree-kill soil at Mammoth Mountain, California: implications for soil acidification," *Geology* 26, 463–6.

McHargue, L. R. & P. E. Damon 1991
'The global beryllium 10 cycle', *Reviews of Geophysics* 29, 141–58.

McKenzie, D.P. 1972
'Active tectonics of the Mediterranean region', *Geophysical Journal of the Royal Astronomical Society* 30, 109–85.

McNutt, S.R. 2000
'Seismic monitoring,' in Sigurdsson 2000, 1095–119.

McNutt, S.R., H. Rymer & J. Stix, 2000
'Synthesis of volcano monitoring," in Sigurdsson 2000, 1165–83.

Meier, T., M. Rische, B. Endrun, A. Vafidis & H.-P. Harjes 2004
'Seismicity of the Hellenic subduction zone in the area of western and central Crete observed by temporary local seismic networks', *Tectonophysics* 383, 149–69.

Merrillees, R.S. 1968
The Cypriote Bronze Age pottery found in Egypt (Studies in Mediterranean Archaeology 18), Lund.

Merrillees, R.S. 1970
'Evidence for the Bichrome Wheel-made Ware in Egypt', *The Australian Journal of Biblical Archaeology* 1, 3–27.

Merrillees, R.S. 1974
'Appendix III. Tell el-ᶜAjjul fine and imported wares', in *Tell el-ᶜAjjul. The Middle Bronze Age remains*, J.R. Stewart (ed.) (Studies in Mediterranean Archaeology 38), Gothenburg, 86–111.

Merrillees, R.S. 1992
'The absolute chronology of the Bronze Age in Cyprus: a revision', *Bulletin of the American Schools of Oriental Research* 288, 47–52.

Merrillees, R.S. 2001
'Some Cypriote White Slip pottery from the Aegean', in Karageorghis 2001, 89–100.

Merrillees, R.S. 2002
'The relative and absolute chronology of the Cypriote White Painted Pendent Line Style', *Bulletin of the American Schools of Oriental Research* 326, 1–9.

Merrillees, R.S. 2003
'The first appearances of Kamares ware in the Levant', *Ägypten & Levante* 13, 127–42.

Merrillees, R.S. 2007
'The ethnic implications of Tell el-Yahudiyeh Ware for the history of the Middle to Late Bronze Age in Cyprus', *Cahier du Centre d'Études Chypriotes* 37, 87–96.

Merrillees, R.S. & J. Winter 1972
'Bronze Age trade between the Aegean and Egypt: Minoan and Mycenaean pottery from Egypt in the Brooklyn Museum', *Miscellania Wilbouriana* 1, 101–33.

Michael, H.N. 1976
'Radiocarbon dates from Akrotiri on Thera', *Temple University Aegean Symposium* 1: 7–9.

Michel, C. & P. Rocher 2000
'La chronologie du IIe millénaire, revue à l'ombre d'une éclipse de soleil', *Jaarbericht Ex Oriente Lux* 35–36, 111–26.

Michel, C. 2002
'Nouvelles données pour la chronologie du IIe millénaire', *Nouvelles Assyriologiques Brèves et Utilitaires* (=NABU) 2002(1,20), 17–8.

Michel, C. 2007
Review of Veenhof 2003, *Archiv für Orientforschung* 51, 321–4.

Millard, A.R. 1994
The eponyms of the Assyrian Empire 910–612 BC, Helsinki.

Miller, J.L. 2007
'Amarna age chronology and the identity of Nibururiya in the light of a newly reconstructed Hittite text', *Altorientalische Forschungen* 34, 252–93.

Minissale, A., G. Magro, O. Vaselli, C. Verrucchi & I. Perticone 1997
'Geochemistry of water and gas discharges from the Mt. Amiata silicic complex and surrounding areas (central Italy)', *Journal of Volcanology and Geothermal Research* 79, 223–51.

Minoura, K., F. Imamura, U. Kuran, T. Nakamura, G. Papadopoulos, T. Takahashi, & A. Yalciner 2000
'Discovery of Minoan tsunami deposits', *Geology* 28, 59–62.

Minoura, K., F. Imamura, T. Takahashi & N. Shuto 1997
'Sequence of sedimentation processes caused by the 1992

Flores tsunami: evidence from Babi island,' *Geology* 25, 523–6.

Miron, R. 1990
Das 'Schatzhaus' im Palastbereich. Die Funde (Saarbrücker Beiträge zur Altertumskunde 46 = Kamid el-Loz. 10), Bonn.

Mitrousis, A. 2008
'The search for Atlantis in the marine region westwards of Santorini island – program Atlantis 2003 – preliminary results,' (Abstract), *Proceedings, Atlantis 2008 The Atlantis Hypothesis*, Athens, 48–9.

Mizrachy, Y. 2002
'Glyptic finds. I. Scarabs and seals' in Kempinski 2002, 319–39.

Mlinar, C. 2002
'Appendix 4: The scarabs from the excavations of 1999 and 2000 at Tell el-ᶜAjjul', *Ägypten & Levante* 12, 143–51.

Monges Soares, A.M. 1993
'^{14}C content of marine shells: evidence for variability in coastal upwelling off Portugal during the Holocene', in *The international symposium on applications of isotope techniques in studying past and current environmental changes in the hydrosphere and the atmosphere, Vienna, Austria, 04/19223/93*, IAEA-SM-329/49, Vienna, 471–85.

Montet, P. 1921-22
'Les Égyptiens à Byblos', *Monuments et mémoires. Fondation E. Piot* XXV, Paris, 237–72.

Montet, P. 1928
Byblos et l'Egypte, Texte, Paris.

Montet, P. 1929
Byblos et l'Egypte, Atlas, Paris.

Moody, J. 2005
'Unravelling the threads: climate changes in the Late Bronze III Aegean', in *Ariadne's threads: Connections between Crete and the Greek Mainland in Late Minoan III (LM IIIA2 to LM IIIC)*, A.-L. D'Agata & J. Moody (eds.) (Tripodes 3, Scuola Archeologica Italiana di Atene), Athens, 443–70.

Moody, J., O. Rackham, & G. Rapp 1996
'Paleoenvironment studies of the prehistoric Akrotiri peninsula, Crete,' *Journal of Field Archaeology* 23, 273–97.

Moore, J. G. 1966
'The 1965 eruption of Taal Volcano', *Science* 151. 955–60.

Moran, W. L. 1992
The Amarna letters, Baltimore.

Morgan, L. (ed.) 2005
Aegean wall paintings: a tribute to Mark Cameron (British School at Athens Studies 13), London.

Morgan, L. 2006
'Art and international relations: the hunt frieze at Tell el-Dabᶜa', in Czerny *et al.* 2006, 249–58.

Mörner, N.-A. & G. Etiope 2002
'Carbon degassing from the lithosphere', *Global and Planetary Change* 33, 185–203.

Mountjoy, P.A. 1983
'The Ephyraean goblet reviewed', *Annual of the British School at Athens* 78, 265–71.

Mountjoy, P.A. 1986
Mycenaean decorated pottery: a guide to identification (Studies in Mediterranean Archaeology 73), Gothenburg.

Mountjoy, P.A. 1999
Regional Mycenaean decorated pottery, Rahden.

Mountjoy, P. A. 2004
'Knossos and the Cyclades in Late Minoan IB', in Cadogan, Hatzaki & Vasilakis 2004, 399–404.

Müller, V. 2007
'Wie gut fixiert ist die Chronologie des Neuen Reiches wirklich?', *Ägypten & Levante* 16, 203–30.

Müller, W. 1997
Kretische Tongefässe mit Meeresdekor. Entwicklung und Stellung innerhalb der Feinen Keramik von Spätminoisch I B auf Kreta (Archäologische Forschungen 19), Berlin.

Murray, J.B.. H. Rymer, & C.A. Locke 2000
'Ground deformation, gravity, and magnetics,' in Sigurdsson 2000, 1121–63.

Muscheler, R., J. Beer, G. Wagner & R.C. Finkel 2000
'Changes in deep-water formation during the Younger Dryas cold period inferred from a comparison of ^{10}Be and ^{14}C records', *Nature* 408, 567–70.

Muscheler, R., J. Beer, G. Wagner, C. Laj, C. Kissel, G.M. Raisbeck, F. Yiou & P. W. Kubik 2004
'Changes in the carbon cycle during the last deglaciation as indicated by the comparison of ^{10}Be and ^{14}C records', *Earth and Planetary Science Letters* 219, 325–40.

Nafplioti, A. 2008
'"Mycenaean" political domination of Knossos following the Late Minoan IB destructions on Crete: negative evidence from strontium isotope ratio analysis (87Sr/86Sr)', *Journal of Archaeological Science* 35: 2307–17.

Newhall, C. G. & S. Self 1982
'The volcanic explosivity index (VEI): an estimate of explosive

magnitude for historical volcanism', *Journal of Geophysical Research* 87, 1231–8.

Newton, M.W., S. Talamo, C. Pulak, B. Kromer & P. Kuniholm 2005
'Die Datierung des Schiffswracks von Uluburun', in Yalçın, Pulak & Slotta 2005, 115–6.

Nicholls, G.K. & M.D. Jones 2001
'Radiocarbon dating with temporal order constraints', *Journal of the Royal Statistical Society: Series C* (Applied Statistics) 50, 503–21.

Niemeier, B. & W.-D. Niemeier 2002
'The frescoes in the Middle Bronze Age palace', in Kempinski 2002, 254–85.

Niemeier, W.-D. 1980
'Die Katastrophe von Thera und die spätminoische Chronologie', *Jahrbuch des Deutschen Archäologischen Instituts* 95, 1–76.

Niemeier, W.-D. 1990a
'New archaeological evidence for a 17th century date of the "Minoan Eruption" from Israel (Tel Kabri western Galilee)', in Hardy & Renfrew 1990, 120–6.

Niemeier, W.-D. 1990b
'Area D: the painted plaster floor in Room 611: technical, stylistic, iconographic and chronological implications', in *Excavations at Kabri, preliminary report of 1989 season,* A. Kempinski & W.-D. Niemeier (eds.), Tel Aviv, XVI–XXI.

Niemeier, W.-D. 1991
'Minoan artisans travelling overseas: the Alalakh frescoes and the painted plaster floor at Tel Kabri (western Galilee)', in Laffineur & Basch 1991, 189–208.

Niemeier, W.-D. 1993
'Tel Kabri: Cretan fresco paintings in a Canaanite Palace', *American Journal of Archaeology* 97, 332–3.

Niemeier, W.-D. 1995a
'Minoans in Canaan', in Πεπραγμένα του Ζ' διεθνους Κρητολογικό Συνέδριου, Τόμος Α2, Rethymnon, 675–9.

Niemeier, W.-D. 1995b
'Tel Kabri: Aegean fresco painting in a Canaanite palace', in *Recent excavations in Israel: A view to the west*, S. Gitin (ed.) (Archaeological Institute of America Colloquia and Conference Papers No. 1), Dubque OH, 1–15.

Niemeier, W.-D. 2005
'Minoans, Mycenaeans, Hittites and Ionians in western Asia Minor: new excavations in Bronze Age Miletus-Millawanda', in *The Greeks in the East*, A. Villing (ed.), London, 1–36.

Niemeier, W.-D. & B. Niemeier 1998
'Minoan frescoes in the Eastern Mediterranean', in Cline & Harris-Cline 1998, 69–100.

Niemeier, W.-D. & B. Niemeier 2000
'Aegean frescoes in Syria-Palestine: Alalakh and Tel Kabri', in *Proceedings of the first international symposium 1997: The wall paintings of Thera*, S. Sherratt (ed.), Athens, II: 763–802.

Ninkovich, D. & B.C. Heezen 1965
'Santorini tephra', in *Submarine geology and geophysics*, W.F. Whittard & R. Bradshaw (eds.) (*Proceedings of the 17th Symposium of the Colston Research Society*), London, 413–53.

Ninkovich, D. & B.C. Heezen 1967
'Physical and chemical properties of volcanic glass shards from pozzuolana ash, Thera island, and from upper and lower ash layers in Eastern Mediterranean deep sea sediments', *Nature* 213, 582–4.

Nixon, I.G. 1985
'The volcanic eruption of Thera and its effect on the Mycenaean and Minoan civilizations', *Journal of Archaeological Science* 12, 9–24.

Novák, M. & P. Pfälzner 2002
'Ausgrabungen in Tall Mišrife-Qatna 2001. Vorbericht der deutschen Komponente des internationalen Kooperationsprojektes', *Mitteilungen der Deutschen Orient-Gesellschaft* 134, 226–31.

Nur, A. & E.H. Cline 2000
'Poseidon's horses: plate tectonics and earthquake storms in the Late Bronze Age Aegean and Eastern Mediterranean,' *Journal of Archaeological Sciences* 27, 43–63.

Nyst, M. & W. Thatcher 2004
'New constraints on the active tectonic deformation of the Aegean', *Journal of Geophysical Research* 109, B11406.

O'Conner, D. 2006
'Thutmose III: an enigmatic pharoah', in Cline & O'Connor 2006, 1–38.

Oppenheimer, C. 2003
'Climatic, environmental and human consequences of the largest known historic eruption: Tambora volcano (Indonesia) 1815', *Progress in Physical Geography* 27, 230–59.

Oren, E.D. (ed.) 1997
The Hyksos: new historical and archaeological perspectives, (University Museum Symposium Series 8), Philadelphia.

Oren, E.D. 2001
'Early White Slip pottery in

Canaan: spatial and chronological perspectives', in Karageorghis 2001, 127–44.

Oskarsson, N. 1980
'The interaction between volcanic gasses and tephra: fluorine adhering to tephra of the 1970 Hekla eruption', *Journal of Volcanology and Geothermal Research* 8, 251–66.

Ozaki, H., M. Imamura, H. Matsuzaki & T. Mitsutani 2007
'Radiocarbon in 9th to 5th century BC tree-ring samples from the Ouban 1 archaeological site, Hiroshima, Japan', *Radiocarbon* 49, 473–9.

Page, D.L. 1970
The Santorini volcano and the desolation of Minoan Crete, London.

Page, D. 1980
'The volcano at Santorini and the devastation of Minoan Crete: an introduction to the historical and archaeological problem," in Doumas 1980 II, 371–6.

Pain, S. 1999
'Vents de Milos', *New Scientist* 2197, 38–41.

Palumbo, A. 1998
'Long- term forecasting of the extreme eruptions of Etna', *Journal of Volcanology and Geothermal Research* 83, 167–71.

Palyvou, C. 2005
Akrotiri Thera: an architecture of affluence 3,500 years old, Philadelphia.

Panagiotaki, M. 2007
'The impact of the eruption of Thera in the central palace sanctuary at Knossos, Crete," *Mediterranean Archaeology and Archaeometry* 7, 3–18.

Panagiotopoulos, D. 2001
'Keftiu in context: Theban tomb-paintings as a historical source' *Oxford Journal of Archaeology* 20, 263–83.

Panagiotopoulos, D. 2006
'Foreigners in Egypt in the time of Hatshepsut and Thutmose III', in Cline & O'Connor 2006, 370–412.

Papadopoulos, G.A. & B. J. Chalkis 1984
'Tsunamis observed in Greece and the surrounding area from antiquity up to the present times', *Marine Geology* 56, 309–17

Papadopoulos, G.A., T. Novikova, F.W. McCoy & A. Fokaefs 2008
'Sources of Sumatra-type tsunamis in the Mediterranean Sea' (abstract), *European Union of geophysics, annual meeting*, Vienna.

Papazachos, B.C. 1990
'Seismicity of the Aegean and surrounding area', *Tectonophysics* 178, 287–308.

Pareshi, M., M. Favalli & E. Boshi 2006
'Impact of the Minoan tsunami of Santorini: simulated scenarios in the Eastern Mediterranean', *Geophysical Research Letters* 33, 1–6.

Payraudeau, F. 2008
'De nouvelles annales sacerdotales de Siamon, Psousennès II et Osorkon Ier', *Bulletin de l'Institut français d'archéologie orientale au Caire* 108, 293–308.

Pearce, N.J.G., J.A. Westgate, S.J. Preece, W.J. Eastwood & W.T. Perkins 2004
'Identification of Aniakchak (Alaska) tephra in Greenland ice core challenges the 1645 BC date for Minoan eruption of Santorini', *Geochemistry, Geophysics, Geosystems* 5.3.

Pearce, N.J.G., J.A. Westgate, S.J. Preece, W.J. Eastwood, W.T. Perkins & J.S. Hart 2007
'Reinterpretation of Greenland ice-core data recognises the presence of the late Holocene Aniakchak tephra (Alaska), not the Minoan (Santorini), at 1645 BC', in Bietak & Czerny 2007, 139–47.

Pearson, G.W. & M. Stuvier 1986
'High-precision calibration of the radiocarbon time scale, 500-2500 BC' *Radiocarbon* 28(2B):839–62.

Pearson, G.W., J.R. Pilcher, M.G. L. Baillie, D.M. Corbett & F. Qua 1986
'High-precision ^{14}C measurement of Irish oaks to show the natural ^{14}C variations from AD 1840 to 5210 BC', *Radiocarbon* 28(2B), 911–34.

Pearson, C.L., Dale, D.S., Brewer, P.W., Kuniholm, P.I., Lipton, J. & Manning, S.W. 2009.
'Dendrochemical analysis of a tree-ring growth anomaly associated with the Late Bronze Age eruption of Thera', *Journal of Archaeological Science* 36, 1206–14.

Peet, T.E. 1927
'The Egyptian writing-board B. M. 5647, bearing Keftiu names', in *Essays in Aegean archaeology*, L.T. Farnell (ed.), Oxford.

Pelinovsky, E., N. Zahibo, P. Dunkley, M. Edmonds, R. Herd, T. Talipova, A. Kozelkov & I. Nikolkina. 2004
'Tsunami generated by the volcano eruption on July 12-13, 2003 at Montserrat, Lesser Antilles', *Science of Tsunami Hazards* 22, 44–57.

Peltz, C., P. Schmid & M. Bichler M. 1999
'INAA of Aegean pumices for

the classification of archaeological findings', *Journal of Radioanalytical and Nuclear Chemistry,* 242/2, 361–77.

Peltz, C., & M. Bichler 2001
'Classification of archaeologically stratified pumice by INAA,' *Journal of Radioanalytical and Nuclear Chemistry*, 248/1, 81–7.

Pendlebury, J.D.S. 1930
Aegyptiaca. A catalogue of Egyptian objects in the Aegean area, Cambridge.

Pendlebury, J.D.S. 1939
The archaeology of Crete, London.

Pe-Piper, G., D.J.W. Piper, & C. Perissoratis 2005
'Neotectonics of the Kos plateau tuff eruption of 161 ka, south Aegean sea," *Journal of Volcanology and Geothermal Research* 139, 315–38.

Pe-Piper, G. & D.J.W. Piper 2007
'Neogene backarc volcanism of the Aegean: new insights into the relationship between magmatism and tectonics', in *Cenozoic Volcanism in the Mediterranean Area,* L. Beccaluva, G. Bianchini and M. Wilson (eds.) (Geological Society of America Special Paper 418), 17–31.

Perrota, A., & C. Scarpati 2002
'Volume partition between the Plinian and co-ignimbrite air fall deposits of the campaniani ignimbrite eruption," *Mineralogy and Petrology* 79, 67–78.

Perrot, G. & C. Chipiez 1894
Histoire de l'art dans l'antiquité. Tome VI. *La Grèce primitive. L'art mycénien*, Paris.

Petrie, W.M.F. 1891
Illahun, Kahun and Gurob 1889–90, London.

Petrie, F. 1931-34
Ancient Gaza: Tell el Ajjul I-IV (Publications of the Egyptian Research Account and British School of Archaeology in Egypt 53–56), London.

Petrie, W.M.F. & G. Brunton 1924
Sedment I–II (British School of Archaeology in Egypt and Egyptian Research Account Twenty-seventh Year 1921), London.

Pfeiffer, T. 2003
Two catastrophic volcanic eruptions in the Mediterranean – Santorini 1645 B.C. and Vesuvius 79 A.D., Ph.D. dissertation, University of Aarhus, Aarhus.

Phillips, J.S. 1991
The impact and implications of the Egyptian and 'egyptianizing' material found on Bronze Age Crete, ca. 3000 – ca. 1100 BC, Ph.D. dissertation, University of Toronto, Toronto.

Phillips, J.S. 2003
'An unconsidered trifle', in Bietak 2003a, 545–50.

Phillips, J.S. 2008
Aegyptiaca on the island of Crete in their chronological context: a critical review. Volume I-II (Contributions to the chronology of the Eastern Mediterranean 18), Vienna

Pichler, H. & S. Kussmaul 1980
'Comments on the geological map of the Santorini islands', in Doumas 1980, 413–27.

Pichler, H. & W. Friedrich 1976
'Radiocarbon dates of Santorini volcanics', *Nature* 262, 373–4.

Pichler, H. & W. Friedrich, 1980
'Mechanism of the Minoan eruption of Santorini', in Doumas 1980, 15–30.

Pichler, H. & W. Schiering 1977
The Thera eruption and Late Minoan-IB destructions on Crete," *Nature* 267, 819–22.

Pichler, H. & W. Schiering 1980
'Der spätbronzezeitliche Ausbruch des Thera-Vulkans und seine Auswirkungen auf Kreta', *Archäologischer Anzeiger* 1980, 1–37.

Pirazzoli, P. 1986
'The Early Byzantine tectonic paroxysm,' *Zeitung fur Geomorphologie*, Neue Folge (Supplement) 62, 31–49.

Platon, L. 1997
'The Minoan "villa" in east Crete. Rizza, Akhladia and Profetes Elias, Praissos: two different specimens of one category?', in Hägg 1997, 187–202.

Popham, M. 1967
'Late Minoan pottery, a summary', *Annual of the British School at Athens* 62, 337–51.

Popham, M. R. 1970
'Late Minoan chronology', *American Journal of Archaeology* 74, 226–8.

Popham, M.R. 1984
The Minoan Unexplored Mansion at Knossos, London.

Popham, M.R. 1990
'Pottery styles and chronology', in Hardy & Renfrew 1990, 27–8.

Popham, M. R., E.A. Catling & H.W. Catling 1974
'Sellopoulo Tombs 3 and 4. Two Late Minoan graves near Knossos', *Annual of the British School at Athens* 69, 195–257.

Portugali, Y. & A.B. Knapp 1985
'Cyprus and the Aegean: a spatial analysis of interaction in the 17th-14th centuries B.C.', in *Prehistoric production and exchange. The Aegean*

and Eastern Mediterranean, A.B. Knapp & T. Stech (eds.), Los Angeles, 44–78.

Posener, G. 1965
'Sur l'orientation et l'ordre des points cardinaux chez les Égyptiens', *Nachrichten der Akademie der Wissenschaften in Göttingen, Philologisch-Historische Klasse*, 69–78.

Pottier, E. 1922
'Observations sur quelques objets trouvés dans le sarcophage de Byblos', *Syria* 3, 298–306.

Preston, L. 1999
'Mortuary practices and the negotiation of social identities at LM II Knossos', *Annual of the British School at Athens* 94, 131–43.

Preston L. 2004a
'A mortuary perspective on elites in Final and Post-palatial Crete', *American Journal of Archaeology* 108, 321–48.

Preston, L. 2004b
'Final Palatial Knossos and Postpalatial Crete: a mortuary perspective on political dynamics', in Cadogan *et al.* 2004, 137–45.

Pruzsinszky, R. 2007
'Šamši-Adads I. "neue" Regierungsdaten und assyrische Distanzangaben', in Bietak & Czerny 2007, 73–9.

Pulak, C. 2005a
'Who were the Mycenaeans aboard the Uluburun ship?', in Laffineur & Greco 2005, 295–310.

Pulak, C. 2005b
'Das Schiffswrack von Uluburun', in Yalçın, Pulak & Slotta 2005, 55–102.

Pyle, D.M. 1997
'The global impact of the Minoan eruption of Santorini, Greece', *Environmental Geology* 30, 59–61.

Pyle, D.M. 2000
'Sizes of volcanic eruptions', in Sigurdsson 2000, 263–9.

Rackham, O. 1965–1966
Transpiration, assimilation and the aerial environment, Ph.D. dissertation, Cambridge University, Cambridge.

Rackham, O. 2002
'Observations on the historical ecology of Laconia,' in *The Laconia survey: continuity and change in a Greek rural landscape*, Vol. 1, *Methodology and interpretation*, W. Cavanagh, J. Crouwel, R.W.V. Catling & G. Shipley (eds.), London, 73–119.

Rackham, O. 2003
The nature of Mediterranean Europe, New Haven.

Rackham, O. 2006
Woodlands, New York.

Rackham, O., & J.A. Clark 2004
'On the historical ecology of Pseira,' in Betancourt *et al.* 2004, 55–60.

Rackham, O. & J. Moody 1997
The making of the Cretan landscape, Manchester.

Raisbeck, G. M., F. Yiou, M. Fruneau, J. M. Loiseaux, M. Lieuvin & J. C. Ravel 1981
'Cosmogenic $^{10}Be/^{7}Be$ as a probe of atmospheric transport processes', *Geophysical. Research Letters* 8, 1015–8.

Rapp, G. Jr., S. R. B. Cooke & E. Henrickson 1973
'Pumice from Thera (Santorini) identified from a Greek mainland archaeological excavation', *Science* 179, 471–3.

Rapp, G.R. & C.L. Hill 2006
Geoarchaeology: the earth-science approach to archaeological interpretation, New Haven.

Raymond, A. 2005a
'Importing culture at Miletus: Minoans and Anatolians at Middle Bronze Age Miletus', in *EMPORIA. Aegeans in the central and Eastern Mediterranean,* R. Laffineur & E. Greco (eds.) (Aegaeum 25),185–91.

Raymond, A. 2005b
Miletus in the Middle Bronze Age and Minoan presence in the eastern Aegean, Ph.D. dissertation, University of Toronto, Toronto.

Reck, H. 1936
Santorini: Der Werdegang eines Inselvulkans und sein Ausbruch 1925-1928 I-III, Berlin.

Redford, D.B. 1967
History and chronology of the Egyptian Eighteenth Dynasty: seven studies, Toronto.

Redford, D.B. 1986
Pharaonic King-Lists, annals and day-books: a contribution to the study of the Egyptian sense of history, Mississauga, ON.

Redford, D.B. 1992
Egypt, Canaan and Israel in ancient times, Princeton.

Redford, D.B. 1997
'Textual sources for the Hyksos period', in Oren 1997, 1–44.

Redford, D.B. (ed.) 2001
The Oxford encyclopedia of ancient Egypt, New York.

Redford, D.B. 2006
'The northern wars of Thutmose III', in Cline & O'Connor 2006, 325–43.

Reeves, C.N. 1990
Valley of the Kings. The decline of a royal necropolis, London.

Rehak, P. 1996
'Aegean breechcloths, kilts, and the Keftiu paintings', *American Journal of Archaeology* 100, 35–51.

Rehak, P. & J.G. Younger 1998
'Review of Aegean prehistory VII: Neopalatial, Final Palatial, and Postpalatial Crete', *American Journal of Archaeology* 102, 91–173.

Reimer, P. J., M.G.L.Baillie, E. Bard, A. Bayliss, J.W. Beck, C.J.H. Bertrand, P.G. Blackwell, C.E. Buck, G.S. Burr, K.B. Cutler, P.E. Damon, R.L. Edwards, R.G. Fairbanks, M. Friedrich, T. Guilderson, A.G. Hogg, K.A. Hughen, B. Kromer, G. McCormac, S.W. Manning, C. Bronk Ramsey, R.W. Reimer, S. Remmele, J. Southon, M. Stuiver, S. Talamo, F.W. Taylor, J. van der Plicht & C. E. Weyhenmeyer 2004
'INTCAL04 terrestrial radiocarbon age calibration, 0–26 CAL KYR BP', *Radiocarbon* 46, 1029–58.

Reimer, P.J. & G. McCormac 2002
'Marine radiocarbon reservoir corrections for the Mediterranean and Aegean Seas', *Radiocarbon* 44, 159–66.

Reiner, E. & D. Pingree 1975
Enuma Anu Enlil Tablet 63: the Venus Tablet of Ammissaduqa, Malibu.

Renan, E. 1862
Catalogue des objects provenant de la mission de Phénicie, Paris.

Renfrew, C. 1973
Before civilization: the radiocarbon revolution and prehistoric Europe, London.

Robertson, B.M. 1999
The chronology of the Middle Bronze age tombs at Tell el-Ajjul, Ph.D. thesis, University of Utah.

Robock, A. & M.P. Free 1995
'Ice cores as an index of global volcanism from 1850 to the present', *Journal of Geophysical Research* 100, 11549–67.

Robock, A. 2000
'Volcanic eruptions and climate', *Reviews of Geophysics* 38, 191–219.

Roehrig, C.H. 2005
'The Tomb of Maiherperi in the Valley of the Kings', in Roehrig *et. al.* 2005, 70–72.

Roehrig, C.H., R. Dreyfus & C.A. Keller (eds.) 2005
Hatshepsut from queen to pharaoh, New Haven-London.

Rogie, J.D. 1996
'Lethal Italian carbon dioxide springs key to atmospheric CO_2 levels', *Penn State Earth and Environmental Systems Institute. News and events: news archives* (http://www.eesi.psu.edu/news_events/archives/Lethal.shtml).

Rogie, J.D., D.M. Kerrick, G. Chiodini & F. Frondini 2000
'Flux measurements of nonvolcanic CO_2 emission from some vents in central Italy', *Journal of Geophysical Research* 105.B4, 8435–45.

Rutter, J.B. 2006
'Neopalatial and later Minoan pottery', in *Kommos* V. *The monumental Minoan buildings at Kommos*. J.W. Shaw & M.C. Shaw (eds.), Princeton, 377–630, 694–710, 1115–87.

Rutter, J.B. forth.
'Late Minoan IB at Kommos: a sequence of at least three distinct stages', in Brogan & Hallager, forthcoming.

Roussakis, G., A.P. Karageorgos, & N. Conispoliatis 2004
'Last glacial-holocene sediment sequences in N. Aegean basins: structure, accumulation rates and clay mineral distribution,' *Geo-Marine Letters* 24, 97–111.

Russell, J.K. & M.V. Stasiuk, M.V. 2000
'Ground penetrating radar mapping of Minoan volcanic deposits and the Late Bronze Age palaeotopography. Thera, Greece," in *The archaeology of geological catastrophes*, W.G. McGuire, D.R. Griffiths, P.L. Hancock, & I.S. Stewart (eds.), (Geological Society London Special Publication 171) London, 105–22.

Ryholt, K.S.B. 1997
The political situation in Egypt during the Second Intermediate Period c. 1800-1550 B.C. (Carsten Niebuhr Institute Publications 20), Copenhagen.

Ryholt, K.S.B. 2004
'The Turin King-List,' *Ägypten & Levante* 14, 135–55.

Sagan, C. 1979
Broca's brain: reflections on the romance of science, New York.

Sakellariou, D., M. Alexandri, G. Roussakis, P. Nomikou, P. Georgiou, D. Ballas, H. Sigurdsson & S. Carey in press
'Active tectonics in the Hellenic volcanic arc: the Kolumbo submarine volcanic zone', *Bulletin Geological Society Greece,* in press.

Saleska, S.R., K. Didan, A.R. Huete & H.R. da Rocha 2007
'Amazon forests green-up during 2005 drought', *Science* 318, 612.

Saltz, D.L. 1977
'The chronology of the Middle Cypriote period', *Report*

Department of Antiquities Cyprus 1977, 51–70.

Salzer, M.W. & M.K. Hughes 2007 'Bristlecone pine tree rings and volcanic eruptions over the last 5000 yr.', *Quaternary Research* 67, 57–68.

Sassmannshausen, L. 2006 'Zur mesopotamischen Chronologie des 2. Jahrtausends', *Baghdader Mitteilungen* 37, 157–77.

Scaillet, B., M. Pichavant & R. Cioni, R. 2008 'Upward migration of Vesuvius magma chamber over the past 20,000 years,' *Nature* 455, 2186–219.

Schaeffer, C.F.A. 1938 'De quelques problemès que soulèvent les découvertes de Tell Atchana', *Syria* 19, 30–7.

Schaeffer, C.F.A. 1939a 'Les fouilles de Ras Shamra – Ugarit', *Syria* 20, 277–92.

Schaeffer, C.F.A. 1939b *Ugaritica* I, Paris.

Schaeffer, C.F.A. 1948 *Stratigraphie comparée*, Oxford.

Schaeffer, C.F.A. 1949 *Ugaritica* II, Paris.

Schaeffer, C.F.A. 1962 *Ugaritica* IV, Paris.

Schneider, Th. 2008 'Das Ende der Kurzen Chronologie: eine kritische Bilanz der Debatte', *Ägypten & Levante* 18, 273–313.

Scott, E.M. 2000 'Bayesian methods: what can we gain and at what cost?', *Radiocarbon* 42, 181.

Seager, R.B. 1909 'Excavations on the island of Mochlos, Crete, in 1908', *American Journal of Archaeology* 13, 273–303.

Seager, R.B. 1910 *Excavations on the island of Pseira*, Philadelphia.

Seal, Th. 2001 Review of Gasche *et al.* 1998, *Bibliotheca Orientalis* 58, 163–73.

Self, S. & M. Rampino 1981 'The 1883 eruption of Krakatau', *Nature* 294, 699–704.

Sewell, D. A. 2001 *Earth, air, fire and water. An elemental analysis of the Minoan eruption of the Santorini volcano in the Late Bronze Age*, Ph.D. dissertation, University of Reading, Reading.

Shaw, J.W. 1986 'Excavations at Kommos (Crete) during 1984–1985', *Hesperia* 55, 219–69.

Shaw, J.W. & M.C. Shaw (eds.) 2006 *Kommos* V. *The monumental Minoan buildings at Kommos*, Princeton.

Shaw, M. 1996 'The bull-leaping fresco from below the Ramp House at Mycenae: a study in iconography and artistic transmission', *Annual of the British School at Athens* 91, 167–90.

Shaw, M.C. 1998 'The painted plaster reliefs from Pseira,' in Betancourt & Davaras 1998a, 55–76.

Shaw, M.C. & J.G. Younger 2009 Review of Bietak *et al.* 2007, *American Journal of Archaeology* 113 (in press).

Siegenthaler, U. 1983 'Uptake of excess CO_2 by an outcrop-diffusion model ocean', *Journal of Geophysical Research* 88, 3599–608.

Sigurdsson, H. (ed.) 2000 *Encyclopedia of volcanoes*, New York.

Sigurdsson, H., S. Carey, M. Alexandri, G. Vougioukalakis, K. Croff, C. Roman, D. Sakellariou, C. Anagnostou, G. Rousakis, C. Ioakim, A. Gogou, D. Ballas, T. Misaridis & P. Nomikou, 2006 'Marine investigations of Greece's Santorini volcanic field,' *Eos: Transactions of the American Geophysical Union* 87(34), 337–48.

Sigurdsson, H., S. Carey & J.D. Devine 1990 'Assessment of mass, dynamics and environmental effects of the Minoan eruption of Santorini volcano', in Hardy *et al.* 1990b, 100–2.

Siklósy, Z., A. Demény, T.W. Vennemann, S. Pilet, J. Kramers, S. Leél-Össy, M. Bondár, C.-C. Chuan-Chou Shen & E. Hegner 2009 'Bronze Age volcanic event recorded in stalagmites by combined isotope and trace element studies', *Rapid Communications in Mass Spectrometry* 23, 801–8.

Simkin, T. & R.S. Fiske 1983 *Krakatau 1883: the volcanic eruption and its effects*, Washington, DC.

Simkin, T. & L. Siebert 2000 'Earth's volcanoes and eruptions: an overview," in Sigurdsson 2000, 249–62.

Simkin, T., L. Siebert, L. McClelland, D. Bridge, C. Newhall & J. H. Latter 1981 *Volcanoes of the world: a regional directory, gazetteer, and chronology of volcanism during the last 10,000 years*, Stroudsburg PA.

Simkin, T. & L. Siebert 1994[2]
Volcanoes of the World, Tuscon.

Simpson, W. K. (ed.) 1972
The literature of ancient Egypt: an anthology of stories, instructions, and poetry, New Haven.

Skok, J., W. Chorney & W.S. Broecker 1962
'Uptake of CO2 by roots of xanthium plants', *Botanical Gazette* 124, 118–20.

Soles, J.S. 1983
'A Bronze Age quarry in eastern Crete', *Journal of Field Archaeology* 10, 33–46.

Soles J.S. 1991
'The Gournia palace', *American Journal of Archaeology* 95, 17–78.

Soles J.S. 2003
Mochlos IA. Period III. Neopalatial settlement on the coast: the Artisans' Quarter and the farmhouse at Chalinomouri, Philadelphia.

Soles, J.S. 2004a
'New construction at Mochlos in the LM IB period' in *Crete beyond the palaces*, L. P. Day, M. S. Mook & J. D. Muhly (eds.) (Prehistory Monographs 10), Philadelphia, 153–62.

Soles, J.S. 2004b
Appendix A. 'Radiocarbon results,' in *Mochlos IC. Period III. Neopalatial settlement on the coast: The Artisans' Quarter and the farmhouse at Chalinomouri: the small finds*, J.S Soles & C. Davaras (eds.) (Prehistory Monographs 9), Philadelphia, 145–9.

Soles J. S. & C. Davaras 1990
'Theran ash in Minoan Crete: new excavations on Mochlos', in Hardy & Renfrew 1990, 89–95.

Soles, J.S. & C. Davaras 1992
'Excavations at Mochlos, 1989', *Hesperia* 61, 413–45.

Soles, J.S. & C. Davaras 1994
'Excavations at Mochlos, 1990–1991', *Hesperia* 63, 391–436.

Soles, J.S. & C. Davaras 1995
'Some stratigraphic observations at Mochlos', *Proceedings of the 7th Cretological Congress*, 1991, 881–6.

Soles, J.S. & C. Davaras 1996
'Excavations at Mochlos, 1992–1993', *Hesperia* 65, 175–230.

Soles, J.S. & C. Davaras 2000
'Mochlos', in *Crete 2000. A Centennial celebration of American archaeological work on Crete* , J.D. Muhly & E. Sikla (eds.), Athens, 22–37.

Soles, J.S., S.R. Taylor & C. Vitaliano 1995
'Tephra samples from Mochlos and their chronological implications for Neopalatial Crete', *Archaeometry* 37, 385–93.

Soles, J.S. *et al.* 2004
Mochlos IC. Period III. Neopalatial settlement on the coast: the Artisans' Quarter and the farmhouse at Chalinomouri, the small finds, Philadelphia.

Sørensen, A.H. 2008
'The Cypriot connection: aspects of Cretan contacts with Cyprus during the MB-LB I periods', in *Island dialogues: Proceedings of the postgraduate Cypriot archaeology conference (POCA), 2006*, A. McCarthy (ed.) (University of Edinburgh Occasional Papers no. 21), Edinburgh, 154–83; http\\ www.shc.ed.ac.uk/archaeology/publications/poca2006/documents/11.Hojen-Sorensen.pdf.

Sørensen, A.H. forth.
'Approaching Levantine shores. Aspects of Cretan contacts with the Levant during the MM-LMI periods', *Proceedings of the Danish Institute at Athens* 6, forthcoming.

Spalinger, A.J. (ed.) 1992
Revolutions in time: studies in Ancient Egyptian calendrics, San Antonio.

Spalinger, A. J. 2006
'Covetous eyes south: the background to Egypt's domination over Nubia by the reign of Thutmose III', in Cline & O'Connor 2006, 344–69.

Sparks, R.S.J. 1978
'The dynamics of bubble formation and growth in magmas: A review and analysis', *Journal of Volcanology and Geothermal Research* 3, 1–37.

Sparks, R.S.J. 1986
'The volcanic eruption of Thera and its effect on the Mycenaean and Minoan civilizations: Comment', *Journal of Archaeological Science* 13, 289–90.

Sparks, R.T. 2007
Stone vessels in the Levant, Leeds.

Sparks, R.S.J. & C.J.N. Wilson, 1990
'The Minoan deposits: a review of their characteristics and interpretation', in Hardy *et al.* 1990b, 89–99.

Splittstoesser, W.E. 1966
'Dark CO_2 fixation and its role in the growth of plant tissue', *Plant Physiology* 41, 755–9.

Stager, L.E. 2002
'The MB IIA ceramic sequence at Tel Ashkelon and its implications for the 'port power' model of trade', in Bietak 2002a, 353–62.

Stager, L.E., J.D. Schloen, D.M. Master 2008
Ashkelon 1. *Introduction and overview (1985–2006)*, Winona Lake.

Stamatopoulos, A. & P. Kotzias 1990
'Volcanic ash in ancient and modern construction', in Hardy *et al*. 1990a, 491–501.

Stampolidis, N. Chr. & V. Karageorghis (eds.) 2003
Sea routes … interconnections in the Mediterranean 16th – 6th c BC. Proceedings of the international symposium held at Rethymnon, Crete in September 29th – October 2nd 2002, Athens.

Stanley, D.J. & H. Sheng 1986
'Volcanic shards from Santorini (Upper Minoan Ash) in the Nile Delta, Egypt', *Nature* 320, 733–5.

Steinhauser, G., J. H.Sterba, M. Bichler, & H. Huber 2006
'Neutron activation analysis of Mediterranean volcanic rocks: an analytical database for archaeological stratigraphy', *Applied Geochemistry* 21, 1362–75.

Sterba, J.H., K.P. Foster, G. Steinhauser & M. Bichler 2009
'New light on old pumice: the origins of Mediterranean volcanic material from ancient Egypt', *Journal of Archaeological Science* 36/8, 1738-44.

Stewart, J. 1962
'The tomb of the Seafarer at Karmi in Cyprus', *Opuscula Atheniensia* 4, 197–204.

Stewart, J. 1974
Tell el-'Ajjul: the Middle Bronze remains (Studies in Mediterranean Archaeology 38), Gothenburg.

Stiros, S.C. 2001
'The AD 365 Crete earthquake and possible seismic clustering during the fourth to sixth centuries AD in the Eastern Mediterranean: a review of historical and archaeological data," *Journal of Structural Geology* 23, 545–62.

Stix, J. & H. Gaonac'h 2000
'Gas, plume, and thermal monitoring," in *Encyclopedia of Volcanoes*, H. Sigurdsson (ed.), New York, 1141–63.

Stolwijk, J.A.J. & K.V. Thimann 1957
'On the uptake of carbon dioxide and bicarbonate by roots and its influence on growth', *Plant Physiology* 32, 513–20.

Stommel, H. & E. Stommel 1983
Volcano weather: the story of 1816, the year without a summer, Newport RI.

Stothers, R. B. 1984
'The great Tambora eruption in 1815 and its aftermath', *Science* 224, 1191–8.

Stothers, R.B. 1996
'The great dry fog of 1783', *Climate Change* 32, 79–89.

Strøm, I. 1982
Grækenlands forhistoriske kulturer II, Copenhagen.

Stubbings, F.H. 1951
Mycenaean pottery from the Levant, Cambridge.

Stuiver, M. & T.F. Braziunas 1993
'Sun, ocean, climate and atmospheric $^{14}CO_2$: an evaluation of causal and spectral relationships', *The Holocene* 3.4, 289–305.

Stuiver, M. & H.A. Polach 1977
'Discussion: reporting of ^{14}C data', *Radiocarbon* 19, 355–63.

Stuiver, M., G.W. Pearson & T.F. Braziunas 1986
'Radiocarbon age calibration of marine samples back to 9000 cal yr BP', *Radiocarbon* 28(2B), 980–1021.

Stuiver, M., P.J. Reimer, E. Bard, J.W. Beck, G.S. Burr, K.A. Hughen, B. Kromer, G. McCormac, J. van der Plicht, J. & M. Spurk 1998
'INTCAL98 radiocarbon age calibration, 24,000-0 cal BP', *Radiocarbon* 40, 1041–83

Switsur, V.R. 1984
'Radiocarbon date calibration using historically dated specimens from Egypt and new radiocarbon determinations for El-Amarna', in *Amarna Reports* I, B.J. Kemp (ed.), London, 178–88.

Tait, J. (ed.) 2003
"Never had the like occurred": Egypt's view of its past, London.

Tartaron, T. F. 2008
'Aegean prehistory as world archaeology: recent trends in the archaeology of Bronze Age Greece', *Journal of Archaeological Research* 16, 83–161.

Taylor, J.H. 1989
Egyptian coffins (Shire Egyptology 11), Aylesbury.

ten Veen, J.H. & K.L. Kleinspehn 2003
'Incipient continental collision and plate-boundary curvature: late Pliocene-Holocene transtensional Hellenic forearc, Crete, Greece', *Journal of the Geological Society* 160, 161–81.

Teskey, R.O. & M.A. McGuire 2007
'Measurement of stem respiration of sycamore (Platanus occidentalis L.) trees involves internal and external fluxes of CO_2 and possible transport of CO_2 from roots', *Plant, Cell and Environment* 30, 570–9.

Thomas, R.J., P.R. Krehbiel, W. Rison, H.E. Edens, G.D. Aulich, W.P. Winn, S.R. McNutt, G. Tygat & E. Clark 2007
'Electrical activity during the 2006 Mount St. Augustine volcanic eruptions', *Science* 315, 1097.

Tinti, S. & C. Vannini 1995
'Tsunami trapping near circular islands,' *Pure and Applied Physics* 144, 595–619.

Trevisanato S.I. 2006
'Treatments for burns in the London Medical Papyrus show the first seven biblical plagues of Egypt are coherent with Santorini's volcanic fallout', *Medical Hypotheses* 66 (1), 193–6.

Tsipopoulou, M. 1991
'Recenti scoperte di epoca minoica nel golfo di Sitia', *Seminari Centro Nazionale delle Ricerche* 1990, Rome, 105–21.

Tsipopoulou, M. 2002
'Petras, Siteia: the palace, the town, the hinterland and the Protopalatial background', in *Monuments of Minos: rethinking the Minoan palaces*, J. Driessen, I. Schoep & R. Laffineur (eds.) (Aegaeum 23), Liège, 133–44.

Tsipopoulou, M. & A. Papacostopoulou 1997
'"Villas" and villages in the hinterland of Petras, Siteia', in Hägg 1997, 203–14.

Tuffen, H., R.Smith & P.R. Sammonds 2008
'Evidence for seismogenic fracture of silicic magma', *Nature* 453(7194), 511–4.

Turfa, J.M. 2006
Review of *Oriente e Occidente: metodi e discipline a confronto. Riflessioni sulla chronologia dell'età del ferro in Italia* by G. Bartolini and F. Delpino, *Bryn Mawr Classical Review* 2006.08.10 (http://ccat.sas.upenn.edu/bmcr/ 2006/2006-08-10.html).

Tyldesley, J. 1996
Hatchepsut. The female pharaoh, London.

Tzachili, I. 1999
'Before sailing: the making of sails in the second millennium B.C.', in Betancourt *et al.* 1999, 857–62.

Van Dijk, J. 2008
'New evidence on the length of the reign of Horemheb', in *Tenth international congress of egyptologists: abstracts of papers*, P. Kousoulis (ed.), Rhodes, 253–4.

Van de Moortel, A. 1997
The transition from the Protopalatial to the Neopalatial society in south-central Crete: A ceramic perspective, Ph.D. dissertation, Bryn Mawr College, Bryn Mawr.

Veenhof, K. R. 2003
The Old Assyrian list of year eponyms from Karum Kanish and its chronological implications, Ankara.

Veenhof, K. R. 2007
'The Old Assyrian list of year eponyms. Corrections, additions and chronology', *Nouvelles Assyriologiques Brèves et Utilitaires* (=NABU) 2007/49.

Velasco, A.A., S. Hernandez, T. Parsons & K. Pankow 2008
'Global ubiquity of dynamic earthquake triggering,' *Nature Geoscience* 1, 375–9.

Vermeule, E. & F. Wolsky 1978
'New Aegean relations with Cyprus: The Minoan and Mycenaean pottery from Toumba Tou Skourou, Morphou', *Proceedings of the American Philosophical Society* 122.5, 294–313.

Vermeule, E. & F. Wolsky 1990
Toumba tou Skourou. A Bronze Age potters quarter, Harvard.

Verosub, K.L. & J. Lippman 2008
'Global impacts of the 1600 eruption of Peru's Huaynaputina volcano', *Eos, Transactions of the American Geophysical Union* 89(15), 141–8.

Vespa, M., J. Keller & R. Gertisser 2006
'Interplinian explosive activity of Santorini volcano (Greece) during the past 150,000 years," *Journal of Volcanology and Geothermal Research* 153, 262–86.

Vinther, B. M., H. B.Clausen, S. J.Johnsen, S. O.Rasmussen, K. K. Andersen, S. L. Buchardt, D. Dahl-Jensen, K. Seierstad, M.-L. Siggaard-Andersen, J. P. Steffensen & A.Svensson 2006
'A synchronized dating of three Greenland ice cores throughout the Holocene', *Journal of Geophysical Research,* 111, D6 D06102.

Vinther, B.M., H.B. Clausen, S.J. Johnsen, S.O. Rasmussen, J.P. Steffensen, K.K. Andersen, S.L. Buchardt, D. Dahl-Jensen, I.K.Seierstad, A.M. Svensson, M.-L. Siggaard-Andersen, J. Olsen & J. Heinemeier 2008
'Reply to comment by J. S. Denton and N. J. G. Pearce on "A synchronized dating of three Greenland ice cores throughout the Holocene"', *Journal of Geophysical Research* 113, D12306.

Virolleaud, C. 1922
'Découverte a Byblos d'un Hypogée de le douzième dynastie Égyptienne', *Syria* 3, 273–90.

Vitaliano, C.J., J.S. Fout, D.B. Vitaliano 1978
'Petrochemical study of the tephra sequence exposed in the Phira

Quarry, Thera', in Doumas 1978, 203–15

Vitaliano, C.J., S.R.Taylor, M.D. Norman, M.T. McCulloch & I.A.Nicholls 1990
'Ash layers of the Thera volcanic series: stratigraphy, petrology and geochemistry', in Hardy *et al.* 1990b, 53–78.

Vitaliano, J., & D.B. Vitaliano 1998
'Volcanic ash and pumice studies', Betancourt & Davaras 1998, 43–6.

Vogel, J.S., W. Cornell, D.E. Nelson & J.R. Southon 1990
'Vesuvius/Avellino, one possible source of seventeenth century B.C. climatic disturbances', *Nature* 344, 534–7.

Voutsaki, S., A.J. Nijboer & C. Zerner 2009
'Middle Helladic Lerna: relative and absolute chronologies,' in Manning & Bruce 2009 (in press).

Vuorinen, A.H. & W.M. Kaiser 1997
'Dark CO_2 fixation by roots of willow and barley in media with a high level of inorganic carbon', *Journal of Plant Physiology* 151, 405–8.

Wace, A.J.B. & C.W. Blegen 1939
'Pottery as evidence for trade and colonisation in the Aegean Bronze Age', *Klio* 32, 131–47.

Wachsmann, S. 1987
Aegeans in the Theban tombs (Orientalia Lovaniensia Analecta 20), Louvain.

Wadge, G., G.P.L. Walker, & J.E. Guest, 1975
'The output of the Etna volcano', *Nature* 255, 385–7.

Walberg, G. 1987
'Middle Minoan chronology: relative and absolute', in Åström 1987a, 67–73.

Walberg, G.1992
'The finds from Tell el-Dab[c]a and Middle Minoan chronology', *Ägypten & Levante* 3, 157–9.

Walter, T.R. & F. Amelung 2007
'Volcanic eruptions following M>9 megathrust earthquakes: Implications for the Sumatra-Andaman volcanoes', *Geology* 35(6), 539–42.

Walter, T.R., R. Wang, B.-G. Luehr, J. Wassermann, Y. Behr, S. Parolai, A. Anggraini, E. Gunther, M. Sobiesiak, H. Grosser, H.-U. Wetzel, C. Milkereit, P.J.K. Sri Brotopuspito, P. Harjadi & J. Zschau, 2008
'The 28 May 2006 magnitude 6.4 Yogyakarta earthquake south of Mt. Merapi volcano: Did lahar deposits amplify ground shaking and thus lead to the disaster?', *Geochemistry Geophysics Geosystems* 9 (Q05006)

Warburton, D.A. 2000a
'Stratigraphy: methodology and terminology', *Proceedings of the first international congress on the archaeology of the Near East*, P. Matthiae *et al.* (eds.), Rome, II: 1731–50.

Warburton, D.A. 2000b
'Synchronizing the chronology of Bronze Age western Asia with Egypt', *Akkadica* 119–120, 33–76.

Warburton, D.A. 2000c
'Dating the fall of Babylon once again', *Akkadica* 116, 1–5.

Warburton, D.A. 2002
'Eclipses, Venus–cycles & chronology', *Akkadica* 123, 108–14.

Warburton, D. 2003
Archaeological stratigraphy: a Near Eastern approach, Neuchatel.

Warburton, D. 2004
'Shamshi-Adad and the eclipses', in *Assyria and beyond. Studies presented to Mogens Trolle Larsen*, J. G. Dercksen (ed.), Leiden, 583–98.

Warburton, D. 2008
'Stratigraphic analysis', in *Encyclopedia of Archaeology*, D. Pearsall (ed.), New York, III: 2101–11.

Ward, G.K. & S.R. Wilson 1978
'Procedures for comparing and combining radiocarbon age determinations: a critique.' *Archaeometry* 20, 19–31.

Ward, W.A. 1971
Egypt and the east Mediterranean world 2200–1900, Beirut.

Warren, P.M. 1969
Minoan stone vases, Cambridge.

Warren, P.M. 1979
'The stone vessels from the Bronze Age settlement at Akrotiri, Thera', *Archaiologiki Ephemeris*, 82 – 113.

Warren, P.M. 1984
'Absolute dating of the Bronze Age eruption of Thera (Santorini)', *Nature* 308, 492–3.

Warren, P.M. 1985
'Minoan Pottery from Egyptian Sites', *Classical Review* 1985, 147–51.

Warren, P. 1987
'Absolute dating of the Aegean Late Bronze Age', *Archaeometry* 29, 205–11.

Warren, P.M. 1991a
'The Minoan civilization of Crete and the volcano of Thera', *Journal of the Ancient Chronology Forum* 4, 29–39.

Warren, P. M. 1991b
'A new Minoan deposit from Knossos, c. 1600 BC and its wider

implications', *Annual of the British School at Athens* 86, 319–40.

Warren, P.M. 1995
'Minoan Crete and Pharaonic Egypt. Interconnections in the second millennium BC', in *Egypt, the Aegean and the Levant: interconnections in the second millennium BC*, W.V. Davies & L. Schofield (eds.), London, 1–18.

Warren, P.M. 1996
'The Aegean and the limits of radiocarbon dating', in *Absolute chronology: archaeological Europe 2500–500 BC*, K. Randsborg (ed.), Copenhagen, 283–90.

Warren, P.M. 1997
'The lapidary art – Minoan adaptations of Egyptian stone vessels', in Laffineur & Betancourt 1997, 209–23.

Warren, P.M. 1998
'Aegean Late Bronze 1—2 Absolute chronology: some new contributions', in Balmuth & Tykot 1998. 323–31.

Warren, P.M. 1999
'LM IA: Knossos, Thera, Gournia', in Betancourt *et al.* 1999, 893–903.

Warren, P.M. 2000
'Crete and Egypt: the transmission of relationships,' in *Κρητη – Αιγυπτος. Πολιτισμικοι δεσμοι τριων χιλιετιων, [Crete – Egypt: Three Millennia of Cultural Connections]*, A. Karetsou (ed.), Athens, 24–8.

Warren, P. 2001
Review of Driessen & Macdonald 1997, *American Journal of Archaeology* 105, 115–8.

Warren, P. M. 2004
'Terra cognita? The territory and boundaries of the early Neopalatial Knossian state', in Cadogan, Hatzaki & Vasilakis 2004.

Warren, P.M. 2006
'The date of the Thera eruption in relation to Aegean-Egyptian interconnections and the Egyptian historical chronology', in Czerny *et al.* 2006, II: 305–21.

Warren, P.M. 2007
'A new pumice analysis from Knossos and the end of Late Minoan I A', in Bietak & Czerny 2007, 495–9.

Warren, P.M. & V. Hankey 1989
Aegean Bronze Age chronology, Bristol.

Watkins, N.D., R.S.J.Sparks, H. Sigurdsson, T.C. Huang, A. Federman, S. Carey & D. Ninkovich 1978
'Volume and extent of the Minoan tephra from Santorini volcano: new evidence from deep-sea sediment cores', *Nature* 271, 122–6.

Weidner, E. F. 1935/36
'Aus den Tagen eines assyrischen Schattenkönigs', *Archiv für Orientforschung* 10, 1–48.

Weinstein, J. 1993
Review of Z. Herzog, G. Rapp, Jr. & O. Negbi, *Excavations at Tel Michal, Israel, Tel Aviv 1989*, *Journal of the American Oriental Society* 113, 109–10.

Weinstein, J. 1992
'The chronology of Palestine in the early second millennium B.C.E.', *Bulletin of the American Schools of Oriental Research* 288, 27–46.

Weinstein, J. 1996
'A wolf in sheep's clothing: how the high chronology became the middle chronology', *Bulletin of the American Schools of Oriental Research* 304, 55–63.

Wells, R.A. 1992
'Re and the calendars', in Spalinger 1992, 1–37.

Wells, R.A. 2002
'The role of astronomical techniques in ancient Egyptian chronology: the use of lunar month lengths in absolute dating', in *Under one sky: astronomy and mathematics in the ancient Near East*, J.M. Steele & A. Imhausen (eds.), Munster, 459–72.

Weninger, B. 1990
'Theoretical radiocarbon discrepancies', in Hardy & Renfrew 1990, 216–31.

Wente, E.F. & C.C Van Siclen III 1976
'A chronology of the New Kingdom', in *Studies in Honor of George R. Hughes*, J.H. Johnson & E.F. Wente (eds.), Chicago, 217–61.

Westervelt, J. 2002
'Geographic information systems and agent-based modeling', in *Integrating geographic information systems and agent-based modeling techniques for simulating social and ecological processes*, H. R. Gimblett (ed.) (Santa Fe Institute Studies in the Sciences of Complexity), Oxford, 83-104.

Whitham, A.G., & R.S.J. Sparks 1986
'Pumice', *Bulletin of Volcanology* 48, 209–23.

Wiener, M.H. 2001
'The White Slip I of Tell el-Dab^{c}a and Thera: critical challenge for the Aegean long chronology', in Karageorghis 2001, 195–202.

Wiener, M.H. 2003a
'Time out: the current impasse in Bronze Age archaeological dating', in Foster & Laffineur 2003, 363–99.

Wiener, M.H. 2003b
'The absolute chronology of Late Helladic III A2 revisited', *Annual*

of the British School at Athens 98, 239–50.

Wiener, M.H. 2006a
'Chronology going forward (with a query about 1525/4 B.C.)', in Czerny *et al.* 2006, 317–28.

Wiener, M.H. 2006b
'Egypt & time', *Ägypten & Levante* 16, 325–39.

Wiener, M.H. 2007
'Times change: the current state of the debate in Old World Chronology', in Bietak & Czerny 2007, 25–47.

Wiener, M.H. 2009.
'Cold fusion: the uneasy alliance of history and science', in Manning & Bruce 2009 (in press).

Wiener, M.H. & J.P. Allen 1998
'Separate lives: the Ahmose Tempest Stela and the Theran eruption', *Journal of Near Eastern Studies* 57, 1–28.

Wijngaarden, G.J. 2003
Use and appreciation of Mycenaean pottery in the Levant, Cyprus and Italy (ca. 1600–1200 BC), Amsterdam.

Wilford, J.N. 1989
'Minoan culture survived ancient volcano', *The New York Times* (11/28/89) C1, C11.

Williams, H. 1942
The geology of Crater Lake National Park, Oregon, with a reconnaissance of the cascade range southward to Mt. Shasta (Carnegie Institute Publication 540), Washington, D.C.

Woolley, L. 1955
Alalakh: an account of the excavations at Tell Atchana in the Hatay, 1937–1949, Oxford.

Xenaki-Sakellariou, A. 1985
Les tombes a chambre de Mycènes. Fouilles de Chr. Tsountas (1887-1898), Paris.

Xenaki-Sakellariou, A. & C. Chatziliou 1989
Peinture en Metal' à L'Époque Mycénienne, Athens.

Yadin, Y. *et al.* 1960
Hazor II, *an account of the second season of Excavations, 1956*, Jerusalem.

Yalçın, Ü., C. Pulak & R. Slotta (eds.) 2005
Das Schiff von Uluburun. Welthandel vor 3000 Jahren. Katalog der Ausstellung des Deutschen Bergbau-Museums Bochum vom 15. Juli 2005 bis 16. Juli 2006, Bochum.

Yasur-Landau, A. & E.H. Cline 2007
'Poetry in motion: Canaanite rulership and Aegean narrative art at Tel Kabri', in *Epos. Reconsidering Greek epic and Aegean Bronze Age archaeology*, S.P. Morris & R. Laffineur (eds.) (Aegaeum 28), Liège, 157–66.

Yasur-Landau, A. & E.H. Cline 2008
'Preliminary report on the results of the 2008 excavation at Tel Kabri', http://digkabri.files.wordpress.com/2008/08/report-on-the-results-of-the-2008-excavation-season-at-tel-kabri.pdf

Yeh, H., P. Liu, M. Briggs & C. Synolakis 2002
'Propagation and amplification of tsunamis at coastal boundaries,' *Nature* 372 (24 Nov.), 353–5.

Yon, M. (ed.) 1991
Arts et industries de la Pierre (Ras Shamra-Ougarit 6), Paris.

Yu, S.-Y., J. Shen & S. Coleman 2007
'Modeling the radiocarbon reservoir effect in lacustrine systems', *Radiocarbon* 49, 1241–54.

Yurgalevitch, C.M. & W.H. Janes 1988
'Carbon dioxide enrichment of the root zone of tomato seedlings', *Journal of Horticultural Science* 63, 265–70.

Zeidler, J.A., C.E. Buck & C.D. Litton 1998
'The integration of archaeological phase information and radiocarbon results from the Jama River Valley, Ecuador: a Bayesian approach', *Latin American Antiquity* 9, 160–79.

Zielinski, G.A. & M.S. Germani 1998
'New ice-core evidence challenges the 1620s BC age for the Santorini (Minoan) eruption', *Journal of Archaeological Science* 25, 279–89.

Zielinski, G.A. 2000
'The calendrical age of the Santorini (Minoan) eruption remains uncertain', in Bietak 2000a, 34.