

## MITTEILUNGEN

### THE THIRD INTERNATIONAL CONGRESS ON SANTORINI (THERA)

The Third International Congress on Santorini (Thera) was held from 3–9 September, 1989, in the new conference hall in Phira town, under the title of Thera and the Aegean World III.

This was the successor of the First International Scientific Congress on the Volcano of Thera held twenty years ago in September, 1969, on the initiative of the late Professor Spiridon Marinatos<sup>1</sup>. On that occasion it was expected that the convocation of archaeologists and scientists, who included many of the world's leading experts on volcanoes, would endorse the views of Marinatos, first published in the 1930s, according to which the fire-destructions in Crete in Late Minoan IB, conventionally dated *c.* 1450 BC, were caused by earthquakes and tsunamis connected with the great Bronze Age eruption. The scientists, however, and especially the volcanologists, became increasingly unhappy about this scenario during the course of the first Congress, and by the end of the Second International Scientific Congress, initiated by the President of the first one, a distinguished citizen of Thera, Mr Peter Nomikos, and held in August, 1978, on the cruise ship Apollo XI, it had clearly become to a large extent unacceptable<sup>2</sup>. The latest Congress, initiated and most generously supported once again by Mr Peter Nomikos, and held under the roving lenses of two separate TV teams, has effectively brought this particular controversy to an end.

There is now virtually a consensus among scientists and archaeologists that the eruption of Thera in the Bronze Age was short, lasting perhaps only a few days, that it took place fairly soon after an earthquake had wrecked the main settlement at Akrotiri in Late Minoan IA, and that the fire-destructions in Crete some fifty years or so later in Late Minoan IB can have had nothing to do with it. Water-borne pumice from the eruption or traces of tephra (volcanic ash) deposited by it have now been found at several sites in Crete and elsewhere in the Aegean in contexts of Late Minoan IA date. At the important Bronze Age settlement at Triandha on Rhodes and on the island of Kos thick deposits of tephra from the eruption have been identified. The

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<sup>1</sup> A. Kaloyeropoulou (editor), *Acta of the 1st International Scientific Congress on the Volcano of Thera, held in Greece, 15th–23rd September 1969, Athens, 1971.*

<sup>2</sup> C. Doumas (editor), *Thera and the Aegean World i, ii, London 1978, 1980.*

eruption was evidently a large one, but the scale of it is debated, and estimates for the volume of magma emitted by it range from about 20 to 30 cubic kilometres.

Recent study of Thera has found evidence for at least twelve major explosive eruptions there, the Bronze Age one being the latest, during the past 200,000 years<sup>3</sup>. Much work has also been done on reconstructing the topography of Thera as it was before the Bronze Age eruption. This has been partly inspired by the remarkable miniature wall-painting from the West House at Akrotiri, known as the Ship Fresco, which, it is widely believed, show a stretch of the south coast of the island with a hill-top sanctuary and various settlements. It is now suggested that at the time of the eruption Thera was not, as once thought, a circular island dominated by a high volcano, but was relatively low-lying with a deep inlet formed by the collapse of the caldera after a previous major eruption about 18,000 years ago, which left it in a shape looking somewhat like the neighbouring island of Melos today.

The settlement at Akrotiri, abandoned in Late Minoan IA and buried deep in tephra from the eruption, has been the source for a large number of radiocarbon dates taken from short-lived samples. The calibrated dates obtained by different laboratories are not in total agreement, but they converge to suggest a date for the eruption well back in the 17th century, somewhere between *c.* 1675 and 1625 BC, over a hundred years earlier than the conventional date of *c.* 1500 BC based upon archaeological correlations with the historical chronology of Egypt. There was much debate between adherents of the conventional date, mostly archaeologists, and those who supported the radiocarbon date, including some archaeologists and most of the scientists. It was generally agreed, however, that the traces of an eruption in the Greenland ice-cores *c.* 1628 BC and the shrunk tree-rings of bristlecone pines and Irish bog oaks *c.* 1640 BC, adduced in support of the radiocarbon date, did not necessarily reflect the Bronze Age eruption of Thera. This debate about the chronology is clearly important and will continue.

Some of the finest of the most recently discovered wall-paintings were on temporary exhibition during the Congress in the as yet unopened new museum in Phira. Their quality rivals, if it does not surpass, that of anything that has yet been found in Crete. Many of the houses at Akrotiri are built with fine ashlar masonry of a kind only seen on major Cretan sites like Knossos. On the first day of the Congress in particular, comparisons with Crete and differences were discussed and variously assessed, as to how far, if at all, they reflected the presence of Cretans, and whether or not Cretans were in control of Thera at the time of the eruption in Late Minoan IA. There was a sharp division of opinion on these issues, which in the absence of decipherable historical records may defy complete resolution. Meanwhile it is clear that the wonderfully

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<sup>3</sup> T. H. Druitt, R. A. Mellors, D. M. Pyle, & R. S. J. Sparks, 'Explosive volcanism on Santorini, Greece', *Geological Magazine* 126 no. 2, March 1989, 95–213.

preserved houses and wall-paintings at Akrotiri, and the mass of pottery and other objects from a single well-dated horizon of abandonment there, are of the highest importance for the light they shed on problems of Minoan Crete at the time.

SINCLAIR HOOD

## SPEECH AND WRITING IN THE EARLY AEGEAN

It is salutary for the epigraphist from time to time to assess the ideas of his colleagues in kindred disciplines, and to consider if they throw any light on his own concerns. Two recent publications which deal with the common ground of prehistory and linguistics<sup>1</sup> have a bearing on three epigraphic problems which are still unresolved, and which will be familiar to readers of *Kadmos*.

### 1. The language of the Aegean Bronze Age scripts

The thesis of Professor Renfrew is that the earliest Indo-European language was spoken in Anatolia by the first farming communities. From the late seventh millennium B.C., as these farmers slowly colonized Western Asia and Europe, they took their language with them. By processes of isolation and evolution, and also through contact with the tongues of earlier Mesolithic inhabitants of the territories which they overran, their original Indo-European speech developed into a number of distinct but related languages. Here and there, especially towards the periphery of the continent, if the Mesolithic communities were sufficiently numerous and well-established, their languages survived, as in the cases of Etruscan and Basque.

According to this theory, the spread of farming, as pressure of population led to the reclamation of fresh land, would be so slow as to be scarcely perceptible: it took three millennia for this economy to spread across Europe from the south-east to the extreme north-west.

However, Greece and the islands of the Aegean were settled by these early farmers, it is alleged, very early, certainly by 6000 B.C., and it follows that the main population of the Aegean spoke an Indo-European language long before the first evidence of writing in this region. In other studies<sup>2</sup>,

<sup>1</sup> Colin Renfrew, *Archaeology and Language: the puzzle of Indo-European origins*. London, Cape, 1987.

Susan Nacev Skomal and Edgar C. Polomé (eds.), *Proto-Indo-European: the archaeology of a linguistic problem*. Studies in honour of Marija Gimbutas, Washington, Inst. for the Study of Man, 1987.

<sup>2</sup> Colin Renfrew, 'Problems in the general correlation of archaeological and linguistic strata in prehistoric Greece: the model of autochthonous origin', in R. A. Crossland and A. Birchall (eds.), *Bronze Age Migrations in the Aegean*, London 1973, 263–276.

Professor Renfrew has developed his 'processual' theory of the internal evolution of the Aegean economy through Neolithic and Bronze Age times. It would follow that not only the Minoan Linear Script A, but also the Cretan Hieroglyphic writing system, were developed locally by an agricultural population of Indo-European speech.

The eventual end of this process of rural colonization and economic evolution will be what Professor Renfrew calls a 'system collapse', when an economy becomes so entrenched and complex that it can no longer withstand a natural calamity. Such, he argues (p. 135), was the fate of Mycenaean Greece after 1110 B.C., when the 'Dark Age' was initiated not by alien invasion but by internal disintegration.

It is only fair to add that this theory of Indo-European origins finds no support in the *Festschrift Gimbutas*, and is indeed implicitly criticized by Christopher Hawkes in his strictures (p. 203) on the 'immobilist' school of modern archaeology. With minor modifications, the several contributors to the *Festschrift* who consider the question accept the viewpoint of Professor Gimbutas herself, that the Indo-European homeland must be sought not in eighth-millennium Anatolia but in the Pontic steppes of the third millennium B.C.

## 2. Early 'writing' in the Balkans

The nature and functions of the many inscribed objects from the early Balkans, and in particular the question of whether or not they may be regarded as the medium of a true script, have been considered several times in the pages of *Kadmos*<sup>3</sup>. In the *Festschrift Gimbutas* (pp. 339–374), Colin Renfrew has contributed a study entitled "Old Europe or Ancient East?: the clay cylinders of Sitagroi", in which he publishes some more examples of these enigmatic inscriptions, and considers the general question of their origins and purpose, with special regard to the cultural context in which they are found.

He makes a clear distinction between the Early Bronze Age inscribed pieces like the Tartaria tablets and the stone cylinders from Troy II and Amorgos (which could, on considerations of chronology, have been inspired by imports from proto-literate Mesopotamia), and the much earlier Copper-Age clay cylinders from Sitagroi, Dikilitash and Tordos which, together with the contemporary stamp seals, he regards as of purely local invention and function. They would have been employed either as play-pieces, or for ornamenting perishable materials.

<sup>3</sup> See *Kadmos* 7, 1968, 176 (report on the Birmingham Symposium): Janos Makkay, A Chalcolithic stamp seal from Karanovo, Bulgaria, *Kadmos* 10, 1971, 1–9: Janos Makkay, Shrine with bucranium, *Kadmos* 12, 1973, 1–5: Emilia Masson, L'écriture dans les civilisations danubiennes néolithiques, *Kadmos* 23, 1984, 89–123: Harald Haarmann, Hieroglyphen- und Linearschriften: Anmerkungen zu alteuropäischen Schriftkonvergenzen, *Kadmos* 28, 1989, 1–6.

## 3. The date of Linear B

In the Festschrift Gimbutas, Professor Calverts Watkins writes (pp. 286—298) on “Linguistic and archaeological light on some Homeric formulas”.

Referring to the passage in the Catalogue of Ships which deals with Crete (Il. II 654—651), he first establishes that the phrase describing Meriones must for linguistic reasons be dated no later than LM III A. The archaic epithet *atalantos* is cited as further proof of the early date of the passage: evidently scales were only used as grave-goods for a brief period in Early Mycenaean times, before 1400 B. C. Scale balances figure of course among the ideograms of both classes of Linear Script.

In the same passage from the Iliad, both Knossos and Gortyn are mentioned as belonging to the fiefdom of Idomeneus. Since the earliest settlement of Gortyn was in LM III B2, the two cities could only have existed simultaneously if Palmer's late date (LM III B, c. 1225 B. C.) for the destruction of Knossos be accepted.

WILLIAM C. BRICE

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Kadmos 28. 1, 1989

Postscriptum to Michel Lejeune, Un abécédaire corinthien du V<sup>e</sup> s. en Dardanie, p. 18:

Situation géographique. La ville de Priština se trouve sur la grand-route de Belgrade à Skoplje, à 75 km NNW de Skoplje; et le petit bourg de Liplyan est à 15 km S de Priština, un peu à l'écart (vers l'ouest) de cette grand-route.

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Corrigenda to Rudolf Wachter, Zur Vorgeschichte des griechischen Alphabets:

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|---------------------|--|
| p. 34, n. 41, l. 4. | For , $\Delta$ · read $\Delta$ ,   |
| p. 46, l. 19.       | For die identische Verwendungsweisen<br>read die identischen Verwendungsweisen   |
| p. 46, n. 62, l. 1. | For die enthalten<br>read die $\Upsilon$ enthalten   |
| p. 47, l. 9.        | For Megapont read Metapont   |
| p. 60, Tabelle 3.   | To be read as at the end of § 6, and preceded by<br>the phrase “Auch diese Entwicklungslinien können wir<br>wieder graphisch aufzeichnen:” |
| p. 67, l. 21.       | For Euböa — Böotien<br>read Euböa → Böötien  |
| p. 70, l. 35.       | For 7 read 7   |

WILLIAM C. BRICE