Notes and News

THE ANCIENT CITY OF ARPI IN APULIA (PLATES VII AND VIII)

This is a brief and preliminary record of a discovery of unique interest in the archaeology of Italy and of Europe. It is only a prelude to a detailed study. In September 1956 I succeeded in mapping, by Air Archaeology, the buried site of the city of Arpi, well-known in pre-Roman and Roman times, but deserted for the past 1000 years. It lies 2½ miles north of Foggia at the centre of the great Apulian plain in South Italy. The site is enclosed by an earthwork which has the enormous diameter of 3¼ miles! Although this earthwork has been much levelled by ploughing, it is clearly visible on the ground. But, until now, no systematic map had been produced.

I have had to examine thousands of air photographs of this region before finding a series which had been taken when conditions were favourable for revealing this 'Buried Landscape' at Arpi. In some seasons air photos show little here. The vertical view on PLATE VIII was taken on 20 September, 1954 for normal mapping and not for archaeology. It is one of many which I was privileged to study in the Ministero Difesa-Aeronautica in Rome,—work which I look forward to continuing in the coming months. It is a duty and pleasure to offer most grateful thanks for these unique facilities for archaeological research, so courteously granted to me by the Italian authorities. Particular gratitude is due to Colonel Pernazza and Lt.-Colonel Cazzaniga of the Stato Maggiore, to Ing. C. M. Lerici, and other friends and colleagues. In return, I was able to make some substantial contributions to the archaeological heritage of Italy. One of my discoveries was on the site of the Greek city-colony at Metapontum. Here, distinct traces of a buried street-plan were found—resembling the buried street-plan which I discovered in 1945 at Paestum from British air photos and which I have often described and exhibited since then. I am publishing details of my work on the important city of Metapontum in the very near future. It must not be imagined that such discoveries are easy to make; they require much hard work and experience. For example, PLATE VIII had the very small scale of 1 : 36,000.

At Arpi, it is only by the interpretation of air photographs that an archaeologist could demonstrate the certain proof of this vast perimeter and dare to affirm it. At present I am busy with research, to map any traces of ancient Italic cities which are comparable. But Arpi will always be outstandingly notable, and no lay-out of this type has ever before been demonstrated so clearly and completely in Italy.

Its foundation was attributed both by Greek and Roman historians to Diomedes of Argos, who is said to have named it 'Argos Hippion'. According to some Classical writers it was known later as 'Argyrippa'. But the coins used by the city's inhabitants are inscribed 'Arpanoi' in Greek. The site is mentioned in more than a dozen Classical sources, including Lycophron, Dionysius, Polybius, Pliny, Livy, Strabo, Vergil, Ovid, Cicero, etc.

Today it is a vast expanse of ploughed fields. But there are remains of an earthwork, round the city, which survives to a height of 7 ft. and measures more than 100 ft. across (PLATE VII). This rampart can also be traced along the edge of the steep slope overlooking the river and marshy ground to the north.

Strabo (VI, 3, 9) in Augustan times records that Arpi was formerly one of the largest Italiote towns, and that this fact was obvious from the great area it covered. White

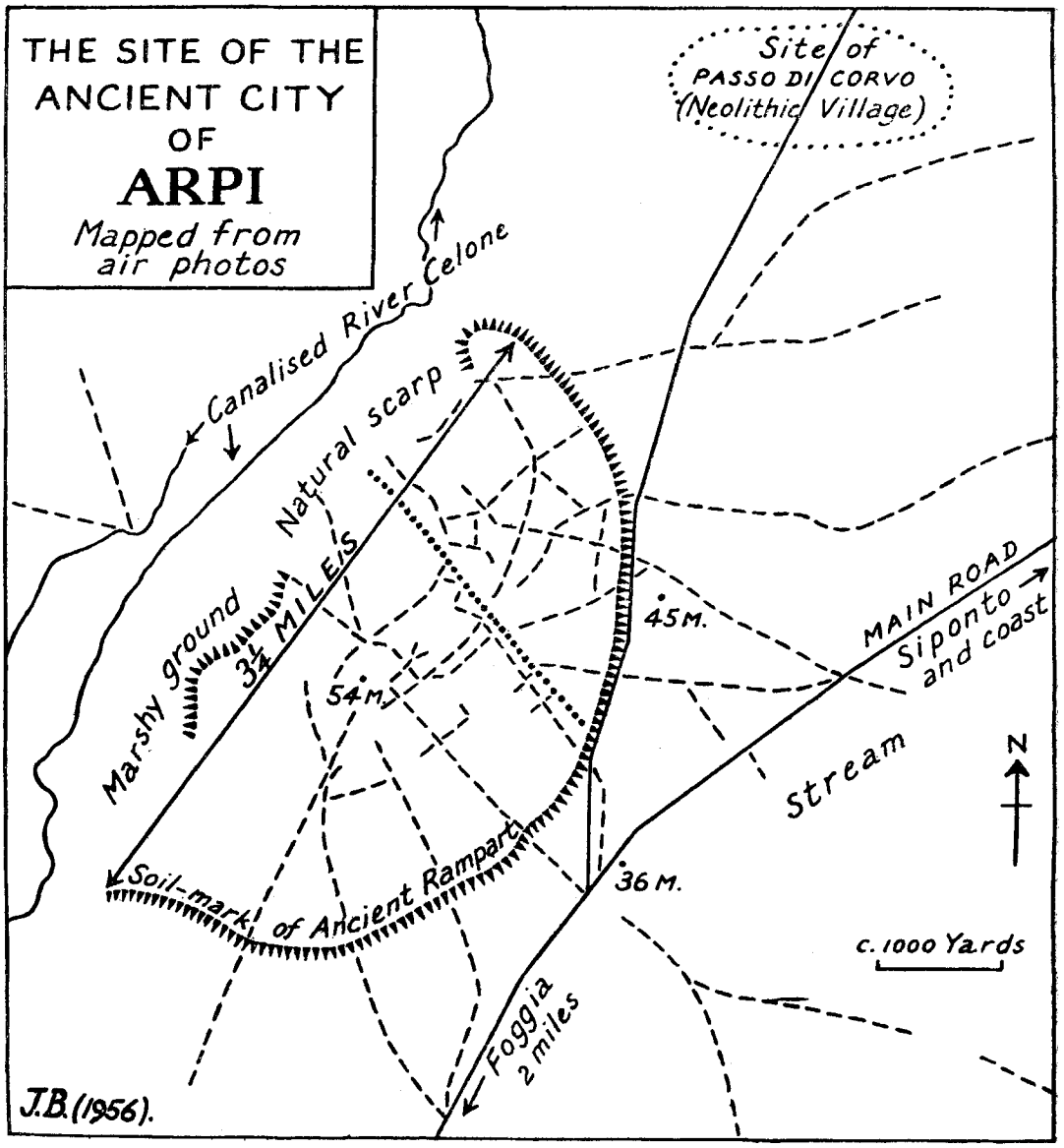

FIG. 1. PLAN OF ARPI. SEE AIR-PHOTO, PLATE VIII. BURIED ROADS SHOWN BY BROKEN LINES.

'soil-marks' today reveal the course of the rampart, being caused by an extra number of small stones in the soil. This is especially clear after September ploughing. Inside the city, a long straight 'soil-mark' (over 50 ft. wide and up to 3 ft. high) crosses the site, and on FIG. 1 is shown by a dotted line.

Radiating for miles from the city are more than twelve buried roads, never previously discovered (FIG. 1). Also, inside the city's area they are continued by numerous marks suggesting streets to the centre, the highest point. It is significant that their lines corre-

spond to the curve of the rampart, and that there is no similar pattern outside it. All these were revealed by ' soil-marks ' and ' weed-marks '. There is an extra depth of soil filling the roads. At ground-level they are difficult to see without air photos as a guide. They form broad shallow depressions; 100 to 150 ft. wide, but only a foot or two deep.

In 1945 my detailed study of this region from British air photos, revealed similar traces of ancient buried roads radiating from the site of Salapia (Salpi), which was the port for Arpi as Strabo tells, and other photos also showed me identical traces of buried roads which radiated from Vulci in Etruria. It is simple to distinguish them from the medieval *tratturi*, sheep-ways, to which I have also given detailed photographic interpretation.

When I saw this air photo of Arpi, I could scarcely believe its evidence of unique size! But experience said ' Yes '. So, my wife and I took the first train, to ground-check the discoveries on foot. The plain was scorched by a burning heat-wave. Even the inhabitants protested it was *caldo per morire.* But we scoured the huge bare site, and found that numerous surface finds of Classical pottery extended *right up to the rampart.* There were sherds datable to the 5th century B.C.: some were a few centuries later, others probably earlier. Many were painted. Some were imported from Greece. Detailed examination is in progress. Arpi has no fine monuments above ground, for the site was pillaged to build Foggia in the early Middle Ages. The centre of this plain requires a major settlement, for example the Neolithic village at Passo di Corvo which I discovered nearby (one of the largest in Europe). Arpi is *so big* that it baffled research. New methods, and ' earthwork ' archaeology were essential!

Arpi received a considerable amount of Greek influence. Before it came to grief in the Second Punic War it was a powerful place and could supply a large contingent of troops. Under Roman rule it declined.[1] With this new information it will be possible to throw light on the vital problem of indigenous Italic towns, equally important to Archaeology and History.

JOHN BRADFORD.

THE 150TH ANNIVERSARY OF THE DANISH NATIONAL MUSEUM

The Danish National Museum at Copenhagen has this year celebrated its 150th anniversary. The official date for the inauguration of this very distinguished Museum is the 22 May, 1807, but as the 22 May this year fell in the middle of the visit of the Queen of England and Prince Philip to Denmark, the birthday celebrations of the Museum were celebrated before and after this date. They were celebrated officially with special ceremonies, a special exhibition of archaeological techniques in the Museum, and the publication of a splendid book on the treasures of the Museum. The official ceremonies included a meeting in the lecture hall of the Museum, at which greetings and good wishes were given personally by representatives of the National Museums of Finland, Sweden, Norway and Iceland, and a gala performance in the Royal Theatre. The King and Queen of Denmark attended both these functions and so recognized the great interest of the Danish state and people in their antiquities and their museum. After the theatre some eight hundred people sat down to an excellent supper in the galleries of the Museum; about midnight we moved out into the Lion courtyard of the Museum, which was gaily lit and

[1] Until now the best account of the site has been the article in the *Dictionary of Greek and Roman Geography* (1878 ed.), edited by (Sir) William Smith. See also *La Nuova Arpi*, Salerno, 1876, by Ferdinando Villani; and J. Bérard, *La Colonisation Grecque de l'Italie méridionale et de la Sicile*, 2nd ed., 1957, 368 *seq.* A Neolithic site at Arpi was excavated by Sig. Argardio Campi.

heated by overhead infra-red lamps. It is difficult to envisage these celebrations transferred to Bloomsbury, to think of hundreds of people milling around the courtyard of the British Museum in the middle of the night while cheerful waitresses served ice-cold beer through the small hours. Nor can one see a new English stamp to celebrate the jubilee of a Museum, or Stonehenge on our new £5 note. The Danes have two new stamps to celebrate the jubilee of their Museum; the 60-øre stamp has an attractive representation of the Trundholm horse and sun-disc, one of the most remarkable treasures in the National Museum. The new Danish 50-kroner note has, on one side, a pleasant engraving of a dolmen, and on the other the Church of the Holy Trinity in Copenhagen, in the loft of which the National Museum began as part of the Copenhagen University Library. The commemorative volume produced by the Museum—it is just entitled *The National Museum of Denmark*, edited by Aage Roussell, and costs £2 10*s*. in England—has a short account of the history and organization of the Museum by Dr Brondsted, and 150 pictures of objects selected from the Museum's collections, each described in about 500 words.

Of course, the Danish National Museum is by no means the oldest archaeological museum in Europe. The Swedish Society for Antiquities was founded in 1666 and was charged, among other things, with establishing ' a sheltering place for the antiquarian objects which might be dug up from the soil '. The Ashmolean Museum was opened by James II when Duke of York; its basis had been Tradescant's ' Closet of Curiosities '. Similarly, the basis of the National Museum in Copenhagen was the Royal Curio Cabinet, which itself contained antiquities originally belonging to Ole Worm's famous curio cabinet. The date, 22 May, 1807, is really the date of the establishment of the Danish Royal Commission for the Preservation of Antiquities, and recently Victor Hermansen has described the political and academic negotiations that went on in Denmark to get this Commission established, and the part played by Professor Nyerup and Bishop Munter in all this.[1] If, to a large extent, Nyerup and Munter were the creators of the Commission and, as a result, the Danish National Museum, it is the brilliance of the first two curators which made this creation a reality. Christian Thomsen succeeded Nyerup as Secretary of the Commission and head of the Museum in 1816, and Worsaae succeeded him in 1865 when ' old Thomsen ' died. Between 1807 and 1885 (the date of Worsaae's death) the foundations of modern prehistory were laid and the Danish National Museum under Thomsen and Worsaae had much to do with this. Thomsen was the first person to order a museum according to the three-age system of Stone, Bronze and Iron,[2] while Worsaae with his excavations and comparative researches and his wide European travels is, as the Danes claim, the first professional archaeologist and one of the major figures in European archaeology.

The directors and staff of the National Museum from 1885 onwards have built on the foundations so well laid by Thomsen and Worsaae. The present extensive buildings designed by Mogens Clemensen were opened in 1938. In its new home the Museum prospered under the direction of Paul Nørlund, famous for his discovery in Greenland of the Norse settlements of the Middle Ages and his excavation of the Viking Camp at Trelleborg. The present Director, Dr Johannes Brøndsted, who succeeded Norlund in 1951, now rules over a Museum consisting of eight principal departments, of which the seventh is the open air museum at Sorgenfri, with its collection of farmhouses, mills, smithies and pottery workshops. It is pleasant and worthwhile at this moment to look

[1] V. Hermansen, ' Baggrunden for Oldsagskommisionen ' in *Aarbøger for Nordisk Oldkyndighed og Historie*, 1953, 157 ff.

[2] On this see Daniel, *The Three Ages* (1943), and *A Hundred Years of Archaeology* (1950); G. Bibby, *The Testimony of the Spade* (1957), ch. I, IV and VII.

back, as the Danes have been doing, and remember the men who founded the Museum in 1807. This year is also the 150th anniversary of the British bombardment of Copenhagen; Christian Thomsen was serving in the Copenhagen City Constabulary during this emergency; he has left us a vivid account of the siege and how he worked all through one night rescuing a large coin collection from a burning house. He carried the collection for safety to the Royal Cabinet of Curiosities and thus met Nyerup and the group of men who were agitating for the Royal Commission and a National Museum. We may thus claim, in a very curious and indirect way, some share in the beginning of Thomsen's career as a prehistoric archaeologist.

GLYN DANIEL.

EXCAVATIONS AT GLASTONBURY ABBEY, 1956.

A further season of four weeks was carried out by the Glastonbury Excavation Committee in August 1956. Trial trenches were cut in the north transept of the Great Church in order to recover this part of the Romanesque plan. It was found that the early 12th-century transept had two eastern apsidal chapels set en echelon. The plan as now recovered bears a very close resemblance to that of the late 11th abbey church at St Albans (A. W. Clapham, *English Romanesque Architecture after the Conquest*, 22). A skeleton was found buried in a wooden coffin directly in front of the altar of the inner chapel. The legs were cut through by the sleeper wall of the later chapel. thus associating the burial with the 12th-century church. The buckles holding the stockings were still in position on the thighs, showing that the man had been buried in his clothing and was therefore an ecclesiastic.

Both in the north transept and in the north-east corner of the cloister masonry was found belonging to a church earlier than that erected by Abbot Herlewin in the first quarter of the 12th century. The character of the walling shows that these remains must belong to the church begun by Thurstin, the first Norman Abbot. The plan of this building is still recovered only in part. It was cruciform with the crossing west of the later crossing and clearly on a much smaller scale than Herlewin's church.

At the lowest level in the transept a ditch about 20 ft. wide and probably 10 ft. deep was found. The ditch could not be fully explored in the restricted area of the 13th chapel. A similar ditch was located in 1935 at the west end of the later quire. The section uncovered in 1956 had silted to a considerable depth before the 11th century and it may be suggested that it belonged to the enclosure of the Celtic monastery of the early period.

Further work was carried out on the glass furnace located in 1955. This was shown to be one of several occupying the area that was later incorporated into the cloister. The furnaces were of comparatively slight build, the domed roof being broken down and reconstructed after each firing. After two or three firings the furnace was apparently disused and a new one constructed. Stratigraphically the remains can hardly be later than the early 11th century. The glass fragments recovered are of Carolingina type and a date in the 9th century is probable.

Work will continue in August 1957, when it is hoped to locate and excavate a section of the early ditch in an area less encumbered with later remains.

C. A. RALEGH RADFORD.

EXCAVATIONS AT BIRSAY, 1956

The excavation of the early Christian site on the tidal islet at Birsay, Orkney, suspended in 1939, was restarted by the Ministry of Works, under the direction of Mr Stewart Cruden and the writer.

ANTIQUITY

The main site, consisting of a small church with three ranges of buildings enclosing a small court on the north side of the nave, was explored in the 19th century and before 1939. A re-examination has shown that the church is to be identified as the 'splendid minster' erected by Earl Thorfinn the Magnificent (ob. *circa* 1065). This later became the first cathedral of Orkney. The building to the north is contemporary with later alterations to the church; it formed the Bishop's Palace and was probably built by William the Old in the second quarter of the 12th century. The church stands within a rectangular graveyard with numerous graves of the Norse period. At a lower level there are remains of a small building, a large series of graves and part of an irregular enclosure wall. These are of the pre-Norse Celtic period. The cemetery has produced the broken fragments of a symbol stone of Pictish type and a cross, both of the 7th or 8th centuries.

East of the churchyard, on the edge of the cliff, a large Viking house was uncovered before 1939. The upper level is of the 12th century. Below this is an earlier building, now in process of excavation. It has walls of well-formed masonry, similar to that of Thorfinn's minster. This older structure can certainly be identified as the Palace of Earl Thorfinn. The most interesting feature yet found is a hall, one side of which has been eroded by the sea. On the three sides are dais with a fire pit in the centre. Under each dais is a stone-lined duct leading back to a second firepit in a service room.

On the slope above the graveyard a number of viking houses of the type more fully explored at Jarlshof, Shetland, were located and partly explored before 1939. Examination of one of these buildings has shown that it had a long history with at least two reconstructions. The plan of the earliest building and the absence of pottery suggests that it goes back to the beginning of the Norse settlement in the 9th century and that it ceased to be occupied before the minster was built in *c.* 1050.

C. A. RALEGH RADFORD.