E0.E1E 357 T 913.031 003 T 722 T

TERMS USED IN ARCHAEOLOGY A Short Dictionary

TERMS USED IN ARCHAEOLOGY

A Short Dictionary

by
CHRISTOPHER TRENT



PHOENIX HOUSE London 1959





© Christopher Trent 1959

Printed in Great Britain
in 8 point Monotype Times Roman by
Purnell and Sons, Ltd, Paulton (Somerset) and London
for Phoenix House Ltd, 38 William IV Street,
Charing Cross, wc2

First published 1959

PREFACE

THOUGH archaeology is one of the more recent additions to the ever-increasing list of 'Sciences', it has developed a technical vocabulary as puzzling to the layman as those of its fellow sciences. To make confusion worse confounded many of the terms invented by Victorian antiquaries have already become obsolete or have subtly changed their meaning.

The aim of this little book is to give as clear a definition as possible of the terms likely to be encountered in reading books about archaeology or in listening to lectures. Intended primarily for the interested layman with no background knowledge of the subject, it may still be of use to the student as a ready reference

to the chief periods, industries and sites of prehistory.

In compiling the list of headwords the chief difficulty was to decide where to begin and where to end, for archaeology itself is more difficult to define in exact terms than many of its technical terms. In practice eoliths make a suitable overture, the absorption of more primitive cultures all over Europe by the Roman conquerors a good curtain. But clearly there is a major epilogue to follow, since more of our knowledge of Roman Britain, for instance, has been derived from the work of archaeologists than from all other sources added together. So the archaeology of Roman Britain and some phases of the early Saxon period are covered. And while the accent throughout is on archaeology in Britain, a large number of entries are concerned with the archaeology of other European countries and with the prehistoric cultures of the Near East, with those of Egypt, Asia Minor, and Mesopotamia, and with the Aztec-Toltec cultures of the New World.

A number of sites of special archaeological interest have been included. In this case it is a matter of 'He who hesitates is lost'. Clearly not all important sites can be included, or even a sensible proportion of them. The selection has been made again with the accent on Britain, in the hope that the sites chosen include a high proportion of those which are either unique or are mentioned most often in archaeological writing, whether popular or specialist, as typical examples of various kinds of prehistoric monument.

The author has been conscious throughout of one other difficulty. It seemed to be of little value to define many of the headwords.

Preface

without explaining them. But once the attempt is made to explain, the problem must be faced that even now archaeologists are by no means agreed on the explanation of many phases of prehistory. A brief explanation cannot enumerate the opinions of different schools of thought; the most recent explanation may be fashionable at the moment, but it is not necessarily the most correct and it may well be superseded before long. The author has made every possible effort to avoid the pitfalls of presenting what is merely possible as a certainty and the even greater pitfall of inaccuracy through compression of facts, but he hopes that readers who detect errors, whether of commission or omission, will be indulgent. His special thanks are due to Frank Higenbottam, B.A., F.L.A., Curator of the Royal Museum, Canterbury, who has kindly read the manuscript and made a number of valuable suggestions for its improvement.

Words in small capitals are cross-references.

Abbevillean, of Abbeville, a term used to describe the PALAEO-LITHIC culture and industry first studied in caves and rock shelters on the banks of the Somme near Abbeville. This culture is identical with that of Chelles (CHELLEAN) and has been regarded recently as the first phase of the St Acheul culture (see ACHEULIAN).

Abu Simbel, a cliff near the course of the river Nile in the Sudan. It is pierced by two temples of Ramses II which are hewn out of the solid rock and flanked by colossal carved figures, in one case

65 feet high. The temples date from c. 1300 B.C.

Abydos, a modern village in Egypt, is on the site of an ancient Egyptian city, which was at the height of its power during the reigns of Seti I and Ramses II (the nineteenth dynasty c. 1300 to 1200 B.C.). It is especially important in the study of Egyptology because excavation of a temple of Seti I revealed a carving of Ramses II and Seti I paying homage to their ancestors, with an inscription of seventy-six of the royal line known to archaeologists as the Royal List of Abydos.

Achaeans, a fair-skinned race originating in central Europe, who migrated southward to the Mediterranean, probably at first as nomads, towards the end of the second millennium B.C. The Achaeans ultimately absorbed the civilizations of Mycenae, and probably of Crete, and laid the foundations on which the Greek city-states of classical Greece were built, though later DORIAN influence was considerable. Homer used the term as synonymous with Greeks. Later Achaea became the general name for that part of Greece south of the Corinthian Gulf, its various states and towns linked together in the Achaean League founded 280 B.C.

Acheulian, a period or industry of the PALAEOLITHIC (Old Stone) Age. It takes its name from St Acheul on the banks of the river Somme, France, where roughly-fashioned FLINT implements typified by HAND-AXES manufactured from flint cores were first studied. The St Acheul industry is above the STRÉPY and CHELLES and below the LE MOUSTIER industry. All four are classed as Lower Palaeolithic, but the St Acheul industry immediately precedes the earliest phase of cave inhabitation. It is dated to a period between 20,000 and 25,000 years R.C. Hand-axes and also scrapers of St Acheul type have been

Acropolis

found in many parts of Europe, including Great Britain, and are associated with remains of the reindeer and in later examples with the mammoth and the woolly rhinoceros.

Acropolis, a word derived from two Greek words meaning 'top', or 'high', and 'city'. It refers to the citadels or forts which were commonly constructed on high ground to defend cities in the ancient world. The most famous acropolis of antiquity was that at Athens, which was of ancient foundation as a fortified site and was adorned in the fifth century B.C., through the influence of Pericles, with a number of buildings of exceptional beauty, including the Erechtheum and the Parthenon. The Acropolis of Mycenae, dating from the second millennium B.C., was discovered and identified by Schliemann in 1876, though its site had never entirely been covered.

Aegean Civilization, a general term which describes the brilliant period of advanced culture in the islands of the Aegean Sea and southern Greece from the middle of the third millenhium B.C. until about 1300 B.C. It includes the civilization of Crete, generally known as Minoan, which spanned the period 2500 to 1000 B.C., and originated probably much earlier, and that of Mycenae, which had its heyday between 1500 and 1000 B.C. The Aegean peoples were seafarers. They migrated probably from Egypt and Asia Minor to Crete, and thence spread out to Mycenae and later to the Aegean islands and the Greek mainland.

Agriculture, Prehistoric. Primitive cultural development can be measured to some extent by the progress made in methods of agriculture. The invention of metal made possible more intensive husbandry, which itself raised the standard of living and made permanent settlements the rule rather than the exception. In all phases of the Old Stone (PALAEOLITHIC) Age agriculture as such was unknown, though there is slight evidence of the keeping of animals for domestic purposes in the latest phases. NEOLITHIC (New Stone Age) man was primarily a herdsman. but his greatest contribution to agriculture was the introduction of ploughing. The development of bronze revolutionized agricultural practice and it is probable that the LYNCHET system of southern England was begun before the beginning of the Early IRON AGE. During the latter period it spread until a high proportion of the chalk and limestone downlands was covered with small rectangular fields. This 'Celtic Field system' continued for some hundreds of years and reached its peak about the time of the Roman occupation. Celtic fields have been noted in many parts of England additional to the downlands, especially in Upper Wharfedale, where the system was begun somewhat later than in the south but was well established in the Early

Iron Age. Cereal crops were extensively cultivated and stockraising was also carried on, the principal stock being sheep,

goats, pigs, and oxen.

Agriculture, Romano-British. During the greater part of the Roman occupation of Britain, the pre-existing Celtic system of agriculture persisted in the open country of the downlands and in other places where Early IRON AGE settlements were established. The principal contribution made by the Romans was the VILLA system of farming, in which more advanced implements and methods were adopted after the Italian pattern. Whereas prehistoric tillage as represented by the Iron Age LYNCHET was mainly on the chalk and oölitic limestone and only locally on lowland gravels, the villas were established mainly on heavier soils which had previously been partly or wholly forest-covered. Nevertheless the clearing of the lowlands of Britain, which had proved an insuperable obstacle to prehistoric peoples, made surprisingly little progress during the three hundred years in which Roman influence was important. Many of the villa estates had reverted to nature before Anglo-Saxon infiltration began.

Akkadians, an alternative name for the SUMERIANS, who were the primitive inhabitants of Babylonia. Their existence, formerly unknown, was inferred from CUNEIFORM inscriptions demonstrating that the script could not have been invented by the Semitic races who dwelt in Assyria and Babylonia in the third millennium B.C. The dynasty of Sargon I, c. 2350, is known as the dynasty of Akkad, while early rulers were known as kings of Sumer and Akkad. Akkadian or Sumerian culture may well

go back to 4000 B.C.

Altamira, a cave in the Pyrenees Mountains of northern Spain in which remarkable traces of early human inhabitation have been found, including a polychrome drawing of bulls, on one of the walls. Numerous other caves in the same limestone country have revealed similar prehistoric drawings miraculously preserved on walls not exposed to draught or moisture. FLINT weapons and implements found in the same caves as these drawings prove that they date from the Upper Palaeolithic (Old Stone) Age, known on this account as the Cave Period and estimated in France and Spain to have spanned the period c. 20,000 to 5000 B.C., or possibly later.

Ambresbury Banks, circular entrenchment consisting of a well-marked ditch and bank in Epping Forest, Essex. With Loughton Camp it is one of the only two Early Iron Age fortresses to the north-east of London. It represents one of the earliest traces of inhabitation in this area, which was densely afforested. Little positive evidence has been discovered of its purpose or

Amphitheatre

history, but it is associated in tradition with the rebellion of the ICENI led by Queen Boudicca (Boadicea) in A.D. 59-61.

Amphitheatre, a circular or oval arena surrounded by seats arranged in tiers. It was the common form adopted for places of outdoor entertainment within the Roman Empire. In Rome itself the amphitheatre was used for gladiatorial displays. In more distant parts of the Empire, such as the Roman province of Britain, it was probably used for athletic and equestrian displays by the army for the entertainment of the legionaries and the local people. Three well-known examples in Britain are at CAERLEON-on-Usk near Newport, at Chester, and at Dorchester. At Chester there were seats for about six thousand spectators. Amphitheatres were generally outside the walls of towns.

Amphora, a two-handled vase of a design deriving from classical Greece but commonly adopted in the Roman world and of

which examples have been found in Britain.

Anderida, one of the Roman forts of the Saxon Shore, adjoining the Sussex village of Pevensey. It consists of an almost continuous wall with ten of the original bastions, which exceed 20 feet in height. The area within the walls is approximately nine acres and contains the ruins of a Norman and later medieval castle, which utilized the defences of the Roman fort as the outer wall of the later fortress. Built like the several other Roman forts, including Porchester and Reculvers, during the fourth century A.D., at the time when a Count of the Saxon Shore was appointed to deal with the threat of Saxon infiltration, Anderida was manned until the end of the fifth century A.D., when according to the Anglo-Saxon Chronicle it was taken by storm by the South Saxons and its garrison put to death.

Antler Picks, picks made from the antlers of deer. They are associated with many periods in prehistory but especially with the Neolithic flint-mining industry, as at Grime's Graves on the borders of Norfolk and Suffolk, and at the Cissbury and Blackpatch mines in Sussex. Neolithic antler picks have been found also in many early hill forts, including Windmill Hill in Wiltshire. Others were found during excavation in the main ditch of Avebury. During the Bronze Age the use of deer antler was greatly extended. Hammers, hoes, and axeheads of this material have been found, and sockets of antler presumably for holding flint or bronze implements.

Antonine Wall, an earthen defence built by Roman legionaries linking the river Forth with the river Clyde. It represented the furthest advance northward of the frontier of the Roman province. Built between A.D. 140 and 145, it was abandoned probably in A.D. 181, when there is known to have been a major

incursion of barbarians from the north. The earthen wall was defended by a ditch and by forts and look-out towers at intervals. It may have been intended to replace it with a stone wall similar to Hadrian's Wall at a later stage.

Anvil Stone, any block of stone used in the manufacture of weapons and implements. The earliest types are massive blocks of FLINT attributed to the Old Stone Age. One of these measures two feet in length and weighs thirty-two pounds. Examples belonging to the Mesolithic Age have been identified in association with the Microlithic culture, e.g. at Lower Halstow in Kent and at Thatcham in Berkshire. They are also quite common in association with New Stone Age industries and were widely used for polishing flint weapons.

Apis, the sacred buil of Memphis, and the servant of the god Ptah, associated with a well-established cult which persisted for many centuries in the heyday of ancient Egypt. The sacred bull in this cult was an actual animal, or rather series of animals, tended by priests in a temple and buried in elaborate tombs with great ceremonial. In sculpture Apis is represented with a triangle on the forehead, the symbol of divinity. The Apis tomb at Memphis contains burial chambers ranging in date from the period of the New Kingdom, c. 1300 B.C., down to the Ptolemaic period, c. 100 B.C.

Aramaic, language of the Semitic family. It was the language spoken by the Aramaeans, one of the races which settled in Mesopotamia, and especially Syria. It was fully developed in the first millennium B.C. Rather similar to Hebrew, it was still the language of everyday speech in parts of Palestine during the first few centuries A.D., continued as a dialect throughout the Middle Ages, and in an altered form was spoken until recently in the area round Damascus.

Arbor Low, a stone circle on the fringe of the Derbyshire moors near Buxton. It is classified as a sanctuary of the Early BRONZE AGE, and consists of a rough circle of stones, of which some have fallen, surrounded by a ditch and bank pierced by two entrances. It has not yet been fully excavated.

Archaic Period, the whole period covered by ancient civilizations knowledge of which has been obtained chiefly by archaeological investigation. It is a term often used as synonymous with prehistory, but is used more aptly to describe the most ancient civilizations of Egypt, Crete, Greece, and Mesopotamia, including SUMERIA, BABYLONIA, and ASSYRIA.

Arretine Ware, a type of Roman pottery manufactured in Tuscany and exported from the reign of Augustus onwards to Gaul and other parts of the empire. Some examples have been found

Arrow-heads

in Britain but there is no evidence of extensive trade in this ware.

Arrow-heads, one of the largest classes of prehistoric weapons, mainly of FLINT but also of bronze and iron in later periods. Flint arrow-heads were manufactured from FLAKES struck off flint nodules and are divided for purposes of classification into many types, e.g. leaf-shape, lozenge-shape, swallowtail, etc. Some are tanged and barbed and show remarkable craftsmanship. Although associated chiefly with the New Stone Age, flint arrow-heads continued in use throughout the BRONZE AGE, while a few have been found in association with Early IRON Age remains, as at Loughton Camp in Essex. The number of bronze arrow-heads discovered is small but examples have been noted in Suffolk and Wiltshire.

Artifact, an implement or weapon of stone or other material shaped or chipped by human agency. The term is opposed to any object shaped or fractured by natural causes. Though there can be no doubt of the human origin of, for example, the chipped and polished FLINT weapons of the New Stone Age and little or no doubt about the majority of the stone weapons and implements of the later phases of the Old Stone Age, the borderline between human workmanship and natural fracture or abrasion is by no means clearly drawn and the human origin of many so-called artifacts of the EOLITHIC Age is still in dispute. The matter is still more obscure because natural fracture of flints under pressure through earth movements or other causes, or by the agency of frost, is often remarkably similar to the chipping carried out by primitive man on flint cores.

Assyria, a country and empire which originated in what is now Iraq and included by the seventh century B.C. the whole of Syria, Armenia, BABYLONIA, and part of Persia. Assyria as a country emerges between 2500 and 2000 B.C., while the Assyrian Empire was well established by 1400 B.C. It fell before the onslaught of the Medes and Scythians about 600 B.C. and was absorbed in the Persian Empire.

Atrebates, one of the tribes occupying Britain at the time of the Roman conquest. Their province was in south central England (Berkshire, Hampshire, and Wiltshire), and lay between the RELGAE on the south and the CATUVELLAUNI on the north. They are assumed to have been of Belgic origin and were in active opposition to Rome in the first century A.D. Their capital was CALLEVA (Silchester). The kingdom may have been formed by Commius, the first-known Prince of the Atrebates, who invaded Britain from Gaul about 50 B.C.

Aurignac, a culture or period of the PALAEOLITHIC (Old Stone)

Age named after Aurignac in France, where it was first studied. It belongs to the Upper Palaeolithic period and, although it cannot be dated precisely, is known to follow the LE MOUSTIER period and precede the SOLUTRÉ period. Implements and weapons of Aurignac type have been found widely in Britain, especially at Pinhole Cave in Derbyshire and in river gravels in the valley of the lower Thames in Kent, e.g. at Bapchild.

Avebury, one of the most important prehistoric sanctuaries in Britain. It consists of an oval-shaped earthen bank with a ditch on the inside surrounding a large MEGALITHIC circle and two inner circles. It includes within the entrenchments part of the medieval village of Avebury, the whole enclosure being almost thirty acres in extent. Although many of the stones were used in the Middle Ages to build the village and neighbouring roads, the circles have been restored in part and the position of stones which have disappeared has been marked by concrete pillars. A stone row, or avenue, leads from Avebury for a distance of nearly two miles to Overton Hill, where there was another sanctuary, and where the positions of the original stones are also marked by concrete pillars. The stones here, as in the circles of Avebury itself, were sandstone blocks obtained locally and part of the layer of sandstone which once overlaid the chalk in this region. The whole complex, formerly attributed to the New Stone Age, is now regarded as belonging to the early part of the Bronze Age, possibly a little earlier than the original sanctuary of Stonehenge. Avebury is unique in having had four entrances, all still clearly marked, one traversed by the village street, and a second by the road to Swindon.

Azilian, a culture or period intermediate between the Old Stone Age and New Stone Age. It is named after Mas d'Azil in France, where the culture was first studied, but is well represented in most parts of western Europe and in Great Britain. It represents the latest stage of the CAVE PERIOD of human development and is also identified with the MESOLITHIC or Middle Stone Age. Although it is not dated with certainty, the culture was probably at its height between 6000 and 4000 B.C. Implements and other material definitely assigned to the period have been found in the Victoria Cave at Settle, also on and near the Holderness coast of Yorkshire, in Cambridgeshire near Royston, and in other widely separated districts. Azilian man was a hunter and a fisherman, but appears to have domesticated the dog and according to some authorities had already become a husbandman, though still largely nomadic.

Aztec Kingdom, a highly cultured kingdom of Mexico which was conquered by the Spaniard Cortez in 1519. Archaeological

Baalbec

investigation into Aztec culture was long delayed and little progress was made until well into the nineteenth century. Even now much remains to be clarified but it is established that the main Aztec and TOLTEC cultures are related, the Aztec being the last to develop and absorbing the Toltec about A.D. 1300.

Raalbec, a village in the Lebanon on the site of one of the great cities of ancient Syria, known to the Greeks as Heliopolis. It was the main centre of worship of the Syrian sun god, or Baal. Among its spectacular ruins are those of two elaborate temples on the ACROPOLIS begun in the time of the Roman Emperor Antoninus Pius, one dedicated to the gods of Heliopolis, the other to Bacchus. A Roman colony was established here by the Emperor Augustus.

Babylon, the ancient capital of BABYLONIA.

Babylonia, a prehistoric country which reached an advanced stage of culture in the early part of the first millennium B.C. It was situated in what is now Iraq and included most of the fertile plain of the Euphrates and Tigris. It was founded by the SUMERIAN people, also known as AKKADIANS, who settled in the plain and were invaders from the mountains of the northwest. In its early phases Babylonian civilization was centred at Ur-Ur of the Chaldees in the Old Testament-but from c. 1800 B.C. the capital was Babylon. Babylon continued as the seat of government until the empire became a province of ASSYRIA (c. 900 B.C.). There were, however, Babylonian kings until 540 B.C., when the country was overrun by Persian forces under Cyrus. Most of the temples, palaces, and mural defences of Babylon date from the great revival of the city in the seventh century, and from the still later period when Nebuchadnezzar (605-562 B.C.) founded the new Babylonian empire.

Barbotine, a term applied to coated pottery on which naturalistic and other subjects are inscribed in relief, a type characteristic of many examples of SAMIAN and other Roman ware.

Barrow, a prehistoric burial mound. Barrow burial was current at various times between the New Stone Age and the Anglo-Saxon period, though the vast majority of barrows are either the Long Barrows of the New Stone Age or the Round Barrows of the Bronze Age. In Britain, Long Barrows fall into two groups. The MEGALITHIC barrows of the Atlantic coast, and of Kent, consist of a burial chamber composed of slabs of stone covered by an earthen mound, the latter in most cases having been eroded away, leaving only traces of the stone tomb. Those of all other parts of the country contain no stone burial chamber but reveal traces of inhumation in which wood may

well have taken the place of stone. The Round Barrows of the Bronze Age also show many variations. The early Bowl Barrow is a simple mound encircled by a ditch; Disk and Bell Barrows are characterized respectively by a small mound with well-marked bank and ditch and by a mound and ditch with a wide interval between the two. In the west country and elsewhere in places where stone was readily available cairns are found in place of barrows. The most important distinction between the Long Barrows of the Stone Age and the Round Barrows of the Bronze Age, apart from their shape, is that the former invariably show communal burial carried out in some cases over a considerable period of time, while the latter mark a single burial. Inhumation is the rule in megalithic tombs and other Long Barrows and also in early Round Barrows, but in the later types, e.g. most bell and disk barrows, cremation takes the place of simple inhumation. Barrow burial was rare in the Early IRON AGE, though in Yorkshire (near Driffield) a cairn cemetery has been discovered dating from the third century B.C., while those few which have been identified as Roman, e.g. the Bartlow Hills in Cambridgeshire and the Six Hills in Hertfordshire, are larger than those of early ages and have a markedly conical shape.

Basilica, one of the buildings which commonly surrounded the forum in towns within the Roman Empire. It was used as the court of justice and administrative centre, and was generally a long rectangular building with two rows of pillars dividing it into a central 'nave' and two aisles. The design of the basilica influenced that of early church architecture, giving the characteristic nave and aisle form. Some actual basilicas were used for Christian worship, including possibly, though not certainly, the basilica of SILCHESTER. The link was so close that early Popes gave the name basilica to many churches in Rome and elsewhere.

Bath, Roman, a feature of all Roman towns and large private houses. The public baths of Roman provincial towns became their chief social centres, especially in the case of spa towns like Bath (Aquae Sulis). They approximated to the modern idea of Turkish baths, which may possibly be derived indirectly from them through the eastern Roman Empire established at Istanbul (Byzantium). They included an apodyterium (dressing room), a tepidarium (warm room), a calidarium (hot room), and a frigidarium (cold plunge bath). The warm and hot rooms were heated by an elaborate system of hypocausts. The same elaboration was reproduced on a minor scale in the baths of Roman VILLAS.

Beaker Period, a name given to one phase of the Early BRONZE AGE because of the characteristic type of pottery associated

Belas Knap

with the invaders who arrived in Britain between 2000 and 1800 B.C. It is now accepted that the Beaker culture was introduced by two separate invasions, one chiefly affecting south-eastern England, the other the greater part of the north and west country. The principal areas in which abundant evidence of these earliest Bronze Age invasions are found include the southern part of East Anglia, the Peak District of Derbyshire, Wiltshire, and the Yorkshire Wolds. Characteristic beakers have also been identified in many other districts, including Anglesey and West Wales, the Fen District of England, and Northumberland.

Belas Knap, a MEGALITHIC Long BARROW near Winchcomb, Gloucestershire. It has been restored and represents more perfectly than any other similar monument the appearance of a typical burial place of the New Stone Age. The mound is oblong and orientated towards the east, while a false entrance is built against the earthwork. The original burial chambers were

adjacent to the sides of the mound.

Belgae, a group of Celtic tribes originally domiciled in Gaul. Disaffected elements carried out invasions of Britain between 80 B.C. and 70 B.C., and again about 50 B.C. after the conquest of Gaul by Julius Caesar. They settled in many parts of southern and eastern England and formed the hard core of resistance to Roman influence. They also provided the main resistance to the Claudian invasion in A.D. 43. Evidence of early Belgic culture has been identified especially in Kent, e.g. at Bigbury, Hertfordshire, the Chiltern country, and parts of south central England, including Hampshire. Later a closely-knit Belgic state developed with its capital at Winchester (Venta Belgarum).

Bignor, a village in Sussex well known for its exceptionally interesting example of a Roman VILLA. It is situated just under the northern face of the Downs and is adjacent to the main Roman road, STANE STREET, which linked London with Chichester. The ground plan of the residence, which is one of the largest in the country, is well preserved, and there are a number of mosaic designs of great beauty and complexity.

Bokerly Dyke, an earthen bank with supporting ditch extending for three miles in the Cranborne Chase district of Dorset. It was formerly believed to be a prehistoric entrenchment, but recent excavation has proved it definitely to be of late Roman origin. It was probably constructed in the early part of the fourth century and repaired or rebuilt at least twice after that, once at the end of the fourth century and again in the fifth century. It blocked an important Roman road and was probably designed as a protective work at a time when the government of the province was disintegrating.

Bone Engraving, a form of art associated with the CAVE PERIOD of the Old Stone Age. The shaping and working of bone, e.g. of the bison and elephant, date back to LE MOUSTIER times and possibly much earlier. Worked antlers of reindeer are also found in the rock shelters of the Dordogne dating from the AURIGNAC PERIOD. Small incised figures on bone not usually exceeding two inches in height have been identified in the debris of Pinhole Cave and Mother Grundy's Parlour in the CRESWELL series of caves in Britain.

Borcovicium, one of the largest permanent forts or camps on the line of Hadrian's Wall. It is also known as Housesteads.

Borer, an implement of stone representative of most Palaeolithic periods. Very early examples, such as those found near Darmsden in Suffolk, though their human origin is disputed, may date back to the Eolithic period. These are flint pebbles flaked only along one edge. Since a borer is one of the simplest of implements manufactured from a flint core and from its nature is capable of performing many functions important to primitive man, it is relatively more numerous in the Lower and Middle Palaeolithic beds than in more recent ones, while its use had virtually died out in the more complex industries of the New Stone Age.

Bran Dyke, one of a series of EARTHWORKS in Cambridgeshire, of which the FLEAM DYKE and the DEVIL'S DITCH are two others. All are believed to have served as boundaries between petty kingdoms founded by invading Anglian tribes in the sixth century. The Bran Dyke is especially interesting because it deviates to avoid an Anglo-Saxon burial place—positive evidence that it is not of Roman origin or earlier as previously believed. It consists of a single ditch and bank superseding what must have been an earlier boundary defence of two small parallel ditches separated by a bank.

Brigantes, the group name by which the people living in the north of England were known to the Romans at the time of the occupation. Many of these people were of indigenous origin, others were no doubt Celtic conquerors who had penetrated from the south. Finds proving the existence of Iron Age B culture (i.e. the cultural strains introduced into Britain about 250 B.C.) have been noted in the area. Some leaders of the Brigantes were in alliance with Rome and civil war between pro-Roman and anti-Roman factions continued for a time after the Claudian invasion. The Brigantes took part in the construction of Hadrian's Wall, while the area they occupied was later peacefully settled under the protection of the Roman legionary fortresses at Chester and York. A unique form of Romano-Celtic art developed here as typified by the Aesica brooch.

Broch, a fortified home of the Early Iron Age characterized by a double defensive enclosure of dry stone-walling. The broch is most frequently found in the Orkney and Shetland Islands and the Western Isles of Scotland, but occurs widely in many other parts of Scotland. These prehistoric dwelling places are popularly known as Picts' Towers.

Bronze Age, the period characterized by the use of bronze for weapons and implements. Though it varies in date considerably in different parts of the world, it almost invariably forms an intermediate period between the NEOLITHIC (New Stone Age) and the Early Iron Age. In Britain it began c. 2000 to 1800 B.C. with the invasions of the BEAKER folk, and continued until an iron-using people migrated from the area of the Rhine towards the end of the seventh or beginning of the sixth century B.C. There are, however, much overlapping and many regional differences in dating. The Bronze Age, for instance, did not affect parts of the Highland Zone until about 1000 B.C. and persisted there for some centuries after the Early Iron Age was well established in the south. By contrast it was current in the eastern Mediterranean area in the third millennium B.C. The beginning of the Bronze Age was particularly important as marking a social revolution which encouraged cultivation of the land and necessitated the development of trade routes and more settled communities than had been practical in earlier economies.

Bubastis, an important town of ancient Egypt known to Herodotus as the headquarters of the worship of the cat-headed goddess Bast. Excavation has brought to light here a cats' cemetery, suggesting that the worship of living animals was associated with that of the goddess, as in the case of the cult of Apis, the

sacred bull.

Bulbar Cavity, a hollow or depression in FLINT cores regarded as definite evidence that a FLAKE has been struck off the core by human rather than natural agency. The bulbar cavity or hollow corresponds with the bulb of PERCUSSION, the surest evidence

that a flint has been fabricated by human agency.

Burgh Castle, one of the series of late Roman forts—the Forts of the Saxon Shore—which protected the coastline of England in a wide arc from the Wash to the Isle of Wight. It is situated in Suffolk near the Norfolk boundary. Three of the walls are in a fine state of preservation, with some ruins of the bastions which protected them. Like most of the Roman forts, it originally guarded a harbour but has now been left high and dry by the sea and is separated from it by a considerable area of marshy ground. The fort is situated on a low cliff which may have served as an adequate defence on the fourth side, though it is possible

that the walls were continued along the cliff-top and have since been destroyed or fallen 'downcliff'.

Caerleon (Isca), a Roman fortress on the river Usk near Newport. It was the main centre of Roman military operations against the CELTS of Wales in the early days of the occupation and became a permanent garrison town and remained in active occupation until the middle of the fourth century. It was the headquarters of the Second Legion for more than two hundred years. Parts of the walls still exceed twelve feet in height. Excavation has shown that many buildings were constructed outside the fortress walls. The AMPHITHEATRE, now restored, is the best example of its type in Britain.

Caerwent, a Roman town in Monmouthshire of which substantial parts of the walls remain. It was the only Roman walled town in Wales and Monmouthshire and was the cantonal centre of the SILURES before being developed after the Roman occupation. Excavation has revealed the plan of the town, a compact rectangular area of about fifty acres divided into blocks by the usual grid of streets. Some good MOSAICS have been discovered though none is now in situ. The site was enclosed by earthen banks in the first century, the stone walls being added about two hundred years later. The town scems to have decayed rather than ever to have been destroyed by siege or direct attack.

Caer-y-Twr, an IRON AGE site in Anglesey, Wales. It consists of a dry stone wall surrounding what must have been an exceptionally strong fort on the upper slopes of Holyhead Mountain. It is notable for the remains of a parapet walk inside the walls, and, though never fully excavated, belongs probably to the last phase of the Early IRON AGE, when the Romans were in effective occupation of most of Wales. It may well have been constructed as a refuge for the people who lived in the neighbouring villages of HUT CIRCLES when attack threatened from Irish pirates, and may date from the third century A.D.

Calleva (in full Calleva Atrebatum), also known as Silchester, a Romano-British town, previously the cantonal centre of the ATREBATES. The visible remains consist of the almost complete circuit of the town walls enclosing an area of about 120 acres, with an incomplete bank and ditch outside the walls, together with a small AMPHITHEATRE. Excavation begun in 1890 has revealed not only the ground plan of the whole town but much of its history. A Belgic settlement was founded here in the first century B.C., but the earthen ramparts were constructed under Roman supervision in the latter half of the first century A.D., the walls being added at the beginning of the third century.

Camps, Prehistoric

The town was furnished with a fine FORUM on the Roman pattern and many public buildings, including a bathing establishment, while the dwelling places were laid out on the typical Roman grid pattern but less formally disposed than was usual in Roman towns. Foundations of a building dating from the fourth century are believed, but not with certainty, to have been those of a Christian church.

Camps, Prehistoric, see EARTHWORKS.

Camps, Roman, a general term used to describe any of the several types of military establishment set up by the Romans in various parts of Britain and the continent. They range from EARTH-WORKS thrown up to defend an overnight bivouac to massive permanent camps such as those associated with HADRIAN'S WALL and the unique series of fortresses defending the southeast coast from the Wash to Southampton Water known as the Forts of the Saxon Shore. The vast majority are rectangular in shape with four gates, and show a regular layout of barracks and other features, such as granaries, temples, bathing establishments, etc. The bastions of the Saxon Shore Forts, e.g. ANDERIDA (Pevensey), are unique. Many of the early camps, even the semi-permanent ones, were protected by earthworks only, though the majority were later rebuilt in stone. Roman earthworks of this type, however, are readily distinguished from prehistoric earthworks by their regularity of outline and their rectangular shape. Corstophum, near Corbridge, is one of the finest examples of a fully developed permanent Roman camp and supply base.

Canopic Jars, large vases in which the heart and intestines removed from dead persons who were to be mummified were preserved in ancient Egypt. Normally the jars were in sets of four and were covered with lids carved with heads representing the four sons of Osiris, god of the dead, including the hawk-headed Horus,

the ibis-headed Thoth, and the jackal-headed Anubis.

Capitol, a hill in Rome crowned with a temple of Jupiter, also frequently known as the Capitol. It had special sanctity as the

home of the Sibylline Books.

Car Dyke, a drainage ditch reaching from Cambridgeshire into Lincolnshire constructed by Roman engineers in order to bring part of the Fen district under cultivation. The course of the DYKE is still well marked in many places, as at Waterbeach, where excavation revealed a small dwelling-place on the edge of the dyke believed to be a very early Anglian hut. Fragments of pottery of Romano-British date were found in association with it.

Carnac, village in Brittany well known for the MEGALITHIC monuments in its immediate vicinity. These are thought to

belong to the same culture as many of the megalithic monuments of Cornwall.

Cassiterides, a word of ancient Greek derivation meaning literally tin islands. Numerous references in classical literature refer to a group of islands where tin was mined and from which it was exported by Phoenician traders. Identification of the Cassiterides is not certain but the view is well supported that they represent Cornwall and the Scilly Islands.

Catacomb, a subterranean burial place in Rome in which early Christians worshipped. The term is also applied to any similar communal burial chamber incorporating a passage or gallery

with recesses in the walls for the reception of coffins.

Catuvellauni, a Celtic tribe of Belgic origin which occupied at the time of the Roman occupation a wide area of what is now Hertfordshire and Buckinghamshire. Their sphere of influence extended northward into Bedfordshire and neighbouring areas. The capital was at VERULAMIUM (St Albans). Excavation has shown that Belgic invaders (IRON AGE C) formed the greater part of the population, but that an earlier people of Iron Age A lived side by side with the invaders in apparent amity. Cassivellaunus is the best-known chiestain of the Catuvellauni. He was reigning at the time of Caesar's expeditions against Britain in 55 and 54 B.C. and offered strong resistance to the Roman forces.

Causeway Camps, enclosures regarded as characteristic of the New Stone Age. Because of the levelling effect of erosion in the four thousand years or more since they were constructed the EARTHWORKS of the causeway camps are not as clearly visible as those of Iron Age camps, but several have been excavated, notably WINDMILL HILL Camp in Wiltshire and Whitehawk Camp near Brighton. They consisted of two or more oval concentric banks and ditches interrupted by several causeways where the soil and underlying rock have never been disturbed. Windmill Hill Camp has three concentric banks and ditches, Whitehawk Camp four.

Cave Period, a period of human development during which caves were used as semi-permanent or temporary shelters. It spans the Le Moustier, Aurignac, Solutré, and La Madeleine phases of the Old Stone Age, and the intermediate or Mesolithic period represented by the culture of Mas d'Azil. It was notable for the development of artistic perception illustrated on the one hand by, for example, the painted bison of the Altamira Cave and incised figures on bone, such as those discovered in the CRESWELL Caves of England, and on the other by a higher standard of craftsmanship and design in the manufacture of weapons and implements. The balance of opinion today is

that caves were at no time the permanent homes of prehistoric peoples, although the theory is still supported that some, especially those adorned with works of art, were the equivalent of later temples. Many important finds have been made in British caves. Apart from Mother Grundy's Parlour and Pinhole Cave in the Creswell group, King Arthur's Cave in Herefordshire, GOUGH's CAVERN at Cheddar, Aveline's Hole, also in the Mendip Hills, and Kent's Cavern near Torquay have all yielded ARTIFACTS and other evidence of human inhabitation. Some skeletal remains have also been found, especially in Aveline's Hole, Gough's Cavern, Kent's Cavern, and the PAVILAND CAVE in Wales, a few showing signs of formal burial.

Celt, an obsolescent term referring to prehistoric offensive weapons, whether of stone, bronze, or iron, and especially to axe-heads which were hafted to a wooden handle and were typical of the New Stone Age, as opposed to the HAND-AXES of the Old Stone Age. The word is said to be derived from a pseudo-Latin word 'celtis', and was current as early as the eighteenth century, when it was applied mainly to hafted cutting or chopping implements

of bronze

Celtic Race, a term loosely applied to a group of tribes which occupied a wide area of Europe in the centuries preceding the birth of Christ. Their chief link was a linguistic one, though all the tribes also had some cultural similarities. One important Celtic group was in occupation of Gaul, and it was from the lower Rhine area and the Low Countries that the major Celtic invasions of Britain were made during the last centuries B.C. Other groups penetrated to Spain and Ireland. The population of Britain at the time of the Roman occupation was largely Celtic in the south. In the early Middle Ages, during the period of Anglo-Saxon colonization, many of the Celtic people moved west and north, especially into Devon and Cornwall and Wales. The Celtic people of Scotland, the Scotti, were derived from Ireland. Until recent times the predominant strain in the population of Scotland, Ireland, Wales and Cornwall has remained Celtic. Differences in their origin, however, are shown by variations in their languages, e.g. GAELIC in the Highlands of Scotland and Cymric in Wales.

Cerne Giant, one of the oldest of the hill figures cut in the chalk hills of southern England at various prehistoric and historic times. It is the figure of a virile man unclad, brandishing a club, and is cut in outline in the chalk by a narrow trench. The figure is 180 feet high and has generally been regarded as a prehistoric symbol of fertility. More recently it has been suggested, though not confirmed, that he represents a Romano-British

cult of Hercules. Another theory is that the figure was cut after the dissolution of Cerne Abbey as a token of the country's release from religious mysticism.

Chaldaea, an early centre of Middle Eastern culture, consisting of parts of the fertile valleys of the Tigris and Euphrates. It was settled by a Semitic people whose capital was Ur and who played an important part in the development of Babylonian civilization.

Châtelperronian, a culture of the PALAEOLITHIC Age, characterized by implements fabricated from FLAKES and with relatively wide blades. It is generally regarded as the earliest of the Upper Palaeolithic culture, immediately preceding the AURIGNACIAN.

Chedworth, a village in Gloucestershire, famous as the site of the most complete Roman VILLA so far discovered in Britain. The preservation of its foundations and much of the lower storey is due to the accident of its being buried by a landslide for many centuries. Excavation has shown that its history extended from the first to the fourth century and that towards the end of its active life its original purpose as the nerve-centre of a farming estate was augmented by conversion of its northern wing into a fulling factory.

Chelles, a period or culture of the Old Stone Age. It is named after Chelles in France, where the industry was first studied, and represents one of the two most ancient periods of which remains are indisputably of human origin. ARTIFACTS of the period are almost wholly of FLINT, while most of them consist of HAND-AXES fabricated from a flint core. They have been found mainly in river drift gravels and terraces, while in Britain the Cromer Forest Bed has been especially productive of flint hand-axes of the Chelles type. Denudation of the cliffs between Weybourne and Cromer revealed a workshop of the earliest known Chelles industry, containing scrapers, choppers, etc., as well as the characteristic hand-axes. The term has now been largely superseded by Abbevillean.

Christian Monogram, the monogram chi-rho (\nearrow), i.e. the two initial Greek letters of the word 'Christos', generally accepted as proof of the adoption of the Christian religion at the time at which the initials were carved, e.g. in the floor of one of the rooms at Chedworth Roman VILLA. The only certainly known Christian chapel in a Romano-British house, that at Lulling-stone in Kent, was identified by the discovery of the monogram.

Cilurnum, a Roman fort on the line of HADRIAN'S WALL, which has been excavated and has yielded much evidence of the way of life of Roman legionaries during the occupation. It stands

Cinerary Urns

at the point where the Roman Wall crossed the river North Tyne and is popularly known as Chesters. The elaborate bathing establishment for the garrison is one of its most interesting features.

Cinerary Urns, urns in which the ashes of cremated bodies were placed. Many urns of this type have been found in association

with BRONZE AGE BARROW burials.

Cissbury, a site on a southern spur of the Sussex Downs where several periods of prehistoric culture are represented and where extensive prehistoric FLINT MINES have been discovered. The hill is crowned by an Early Iron Age fort which was occupied during the last two centuries B.C., later being deserted but re-fortified towards the end of the Roman period. The site of the flint mines is partly inside and partly outside the Iron Age entrenchments. They were worked in the New Stone Age and were derelict or perhaps forgotten when the Iron Age entrenchments were constructed.

Clactonian, an industry of ACHEULIAN date first studied at Jaywick, Essex, and now generally recognized as a type industry of a culture of the Lower PALAEOLITHIC period. FLINT implements, including many rudely fashioned HAND-AXES, are associated with the remains of several mammals now extinct. Industries of the same type have been recognized more recently in many parts of Britain, especially south-eastern England.

Cloisonné, a word often used in regard to enamel ware on which a design is made by a metal filament superimposed on the enamel surface. Cloisonné enamels dating from the Romano-British

period have been found in many parts of Britain.

Coldrum Stones, remains of a MEGALITHIC structure situated near the PILGRIMS' WAY at Trottiscliffe, Kent. It is the best preserved of a group of megalithic monuments in this part of Kent and represents probably a culture quite distinct from that of the Atlantic coast, but like the Atlantic culture it belongs definitely to the New Stone Age (c. 2200-2000 B.C.). Some authorities, however, have proposed the theory that a tribe belonging to the megalithic culture of the west migrated eastward along the line of the Downs and the Pilgrims' Way and settled in Kent some time before the infiltration of BRONZE AGE folk. The Coldrum Stones have been identified as the remains of a burial place comprising a burial chamber and a rectangular 'wall' of stones. The burial chamber is orientated to the east and its stones were originally covered by an earthen mound. Excavation of the burial chamber at the beginning of the century revealed the bones of a number of people apparently buried at different times.

Colosseum, an AMPHITHEATRE in Rome with accommodation for

nearly 90,000 spectators and nearly one-third of a mile in circumference. It was begun by the Emperor Vespasian and completed during the reign of Titus in A.D. 86. Though its fabric was used as a stone quarry during the later history of Rome, its ruins form the most spectacular link extant today with Imperial Rome. At the time of its construction it was by far the largest building in the world, and was used for gladiatorial displays and other public entertainments.

Combe Capelle, village of France in the Dordogne country, where skeletal remains of early man were discovered in association with numerous FLINT weapons. Combe Capelle man was long-headed but of slight stature, and is attributed to the Aurignac period. Industries of similar type have been found in England

in the Gipping valley near Ipswich and elsewhere.

Copper Age, a term often misused to describe a period of human development intermediate between the end of the New Stone Age and the beginning of the Bronze Age. Although the use of copper in the manufacture of, for example, ornaments is well established before the full flowering of the Bronze Age, the working of this metal did not, in fact, give rise to an 'age' of culture comparable with that produced by the introduction of bronze or iron.

Coptic, the language of ancient Egypt written in Greek letters, with the addition of a few characters derived from the DEMOTIC script. In art the term is applied to forms developed by Egyptians after the introduction of Christianity. The influence of both the art and the language has persisted to the present day, the language being the traditional one of the Coptic Church, i.e.

the Christian Church in Egypt.

Corstopitum, a Roman fortified camp and supply base near Corbridge, Northumberland. It was the main base of the legionaries manning Hadrian's Wall, approximately one mile to the north. Important features include numerous temples, well-designed granaries (of which almost the complete foundations have been unearthed), and the large and equally well-designed commandant's headquarters. The Corbridge Lion found here is a unique piece of Romano-British sculpture showing strong Celtic influence and suggesting a material development of Celtic art under the aegis of Rome in the North of England.

Creswell Crags, a limestone formation on the borders of Derbyshire and Nottinghamshire. It consists of a deep-cleft valley hemmed in by precipitous cliffs which are pierced at many points by caves, several of which have yielded indisputable evidence of inhabitation during the Old Stone Age. The two most important caves so far excavated are known as Mother Grundy's Parlour and

Cro-Magnon

Pinhole Cave. Discoveries include a vast number of FLINT implements of various dates from the middle phases of the Old Stone Age down to its end, and the intermediate period known as the Middle Stone Age. Incised figures on bone have added to knowledge of prehistoric art, while the characteristic flint weapons and instruments found in the latest deposits of these caves are representative of a relatively advanced stage of Middle Stone Age development and are now regarded as the type specimens of an industry widely recognized and named after the caves, the Creswellian Culture.

Cro-Magnon, a rock shelter in the valley of the Vézère in France, in which human remains showing evidence of formal burial were discovered. Cro-Magnon man was long-headed and tall in stature. He is attributed to the Aurignac Period of the Old Stone Age.

Cromlech, an obsolescent term generally used to describe the MEGALITHIC tombs of the New Stone Age. It is also often used in reference to other monuments of a presumably sacred nature, e.g. single standing stones. It is derived from the Welsh crom, meaning 'bent' and llech, meaning 'flagstone'. In the most recent archaeological terminology the term tends to be reserved for simple stone circles without external EARTHWORKS, but there is much confusion.

Cuneiform Characters, literally wedge-shaped characters (from the Latin cuneus, a wedge) used in many inscriptions of the BABY-LONIAN and other ancient civilizations of the east. Cuneiform writing consisted of a pictorial script cut on a tablet of clay, the latter being afterwards baked for preservation and proving remarkably resistant to change. Knowledge of cuneiform writing is said to date from the seventeenth century. More recent study has shown that it took many forms and was used from the time of the earliest periods of the Babylonian civilization down to the first millennium B.C. (as illustrated by the tablets of Persepolis c. 550 B.C.).

Cycladic Culture, a Bronze Age culture first developed in the islands of the Aegean and especially the Cyclades, from which it takes its name. Like the related HELLADIC CULTURE, it

is associated with the MINOAN.

Demotic, from the Greek word demos, 'people', in strict usage an adjective meaning in common use, is also used as a noun in reference to the common writing or language of a country, e.g. one of the inscriptions on the ROSETTA STONE in the contemporary writing of Egypt, a simplified form of HIEROGLYPHIC writing, is often referred to as Demotic, but more properly as Demotic script.

Dene Hole, a cave usually in chalk approached by a vertical shaft. It is believed that dene holes were used as storehouses in the New Stone Age. They are distinguished from swallow holes, the natural entrances to caverns in limestone country caused by the lowering of the bed of a stream.

Dere Street, a Roman road in Northumberland and southern Scotland. It has been traced from the neighbourhood of Corbridge as far as Melrose through Woodburn and Redesdale. It was built under the direction of Agricola, who established

several forts in southern Scotland along its line.

Devil's Ditch, also known as the Devil's Dyke, an EARTHWORK in Cambridgeshire near Newmarket, believed to have been the boundary entrenchment between the Angles of Suffolk and Norfolk and other tribes which had settled further to the west. It may be as early as the sixth century A.D. and have been designed to act as a barrier to the passage of the ICKNIELD WAY, which was at that time the main, and perhaps the only, means of communication from north-east to south-west across East Anglia, from the Wash to Central England. The Devil's Dyke in the Sussex Downs near Brighton, often confused with the Devil's Dyke of Cambridgeshire, is a natural formation.

Dolmen, an obsolescent term which has been given various meanings and is still used rather loosely. It is derived from Cornish dialect words – doll, a hole, and men, stone, and is frequently used as a synonym for CROMLECH. It is more properly reserved for the MEGALITHIC stone burial chambers, e.g. of Devon and Cornwall, dating from the New Stone Age, and particularly for the most simple type consisting of a rectangular or many-sided chamber made from a number of vertical blocks of stone and roofed over with a single capstone.

Dorians, a group of prehistoric tribes who descended from the north on Greece and neighbouring districts. They followed the ACHAEANS, whom they defeated c, 1000 B.C., occupying almost

the whole of Greece, many of the islands of the Aegean, Crete, and probably the coast of Asia Minor. The Greeks of the classical period were direct descendants of these Dorian invaders.

Druidism, a religion of Celtic Gaul which spread to Britain in the last centuries B.C. and was well established by the time of the armed reconnaissances of Julius Caesar, in 55 and 54 B.C., whose writings give the first direct evidence of the religion. The Druid priests were administrators as well as teachers of religion, and were believed by the Romans to ferment revolution against the imperial power. One of the prime purposes of the invasion of Britain in the reign of Claudius was to extirpate Druidism. Popularly associated with Stonehenge and other

Druid's Circle

BRONZE AGE monuments, the Druid priests can have had no part in their actual construction, though ancient sanctuaries might possibly have been adopted by Druidism at a much later date.

Druid's Circle, the local or popular name of several prehistoric monuments in England and Wales. Before scientific archaeology was developed, many man-made features of the landscape were attributed either to the devil, e.g. Devil's Dyke, Devil's Jumps, Devil's Quoits, and the like, or to the Druids. Two of the best-known examples are the Druid's Circle near Grassington in Yorkshire, an EARTHWORK of the Early IRON AGE, and the Druid's Circle near Penmaenmawr, Caernarvonshire, an incomplete stone circle planted in an artificial bank and probably of Late BRONZE AGE date.

Dyke, a general term referring to extended EARTHWORKS of the bank and ditch variety. Many of these have been identified in England, such as Offa's Dyke in the west and the series including the Devil's Dyke and the Bran Dyke in Cambridgeshire. Previously thought to have been pre-Roman in origin, most have now been proved conclusively to belong to the Anglo-Saxon period and to have served as boundary defences, either, as in the case of Offa's Dyke, between the Anglo-Saxons and the Welsh or between petty kingdoms in the earlier days of Anglo-Saxon colonization. In the latter case, like the Devil's Dyke, they were often astride an important route, e.g. the Icknield Way, and served as links between natural barriers provided by marsh, bog land, or dense forest. A few, such as the Bokerly Dyke, are of late Romano-British origin.

Earthworks, a general term describing any system of bank and ditch or trench raised for protective or ceremonial purposes at any time in prehistoric or early historic periods. The most simple earthwork consisting of a ditch and bank (composed of material taken from the ditch) is a natural and primitive form of defence. If the inner side of the ditch is perpendicular and the bank raised above it also perpendicular, a strong bulwark is provided which can be further strengthened by the erection of palisades or the like above the bank. From this simplest form of protective earthwork many complex types developed in prehistoric Britain, including Neolithic Causeway Camps and the elaborate defences of Early Iron Age hilltop or promontory fortresses or cantonal centres such as Maiden Castle. The term is equally well applied to the earthen walls which surrounded towns, camps, and bivouacs in the early years of the Roman occupation and which were in many cases later super-

seded by stone walls. Stone defensive works were frequently given added protection by earthworks, as e.g. Hadrian's Wall, while the military significance of earthworks was perpetuated by the moat which continued to be a feature of castle building into the later Middle Ages. The remains of early Norman or late Saxon fortresses of the motte and bailey variety are also frequently known as earthworks. Some earthworks of prehistoric date, consisting of a simple trench and bank, have the trench on the inner side of the bank, thus proving that they had no defensive purpose, e.g. at AVEBURY.

Eggar Dun, a well-preserved hilltop entrenchment in Dorset to the north of the main road from Lyme Regis to Dorchester. It is one of the most magnificent of the Early IRON AGE promontory forts and, though less complex, shows many points of similarity to MAIDEN CASTLE.

Egyptology, the study of the history and cultural life of ancient Egypt, based mainly on inscriptions and excavation on the sites of ancient Egyptian habitation.

Renewed interest in the subject sprang from the discoveries made by Frenchmen during the Napoleonic campaigns in Egypt. In 1801, when the French forces finally evacuated Alexandria, one of the conditions of the truce was that the French handed over to the English all the spoils won from Upper Egypt, including many prehistoric treasures, which were placed in the British Museum by order of King George III.

The translation of the three inscriptions on the ROSETTA STONE made possible the intelligent appreciation of HIEROGLYPHIC writing, while excavation of cultural sites was first given scientific exactitude by Sir Flinders Petrie (1853-1942) and is still being The combined evidence of excavation and inscription proves the culture of ancient Egypt to be one of the oldest in the world, though the date of its emergence and the course of events in its early days still await clarification. It is, however, established that Egypt became a state about 3200 B.C., that the so-called Middle Kingdom was at the height of its power about 2000 B.C., and that the glories of the New Kingdom of the eighteenth, nineteenth, and twentieth dynasties, represented by the great works undertaken when Tutankhamen and Ramses II and III were king, span the period c. 1550 to 1100 B.C. The last native dynasty of Egypt was c. 700 B.C. After that the country fell successively under Assyrian, Persian, Greek, and Roman rule.

Eleusis, the home of an ancient Greek cult concerned with the worship of Demeter (whom the Romans adopted as Ceres) and Dionysus (whom the Romans adopted as Bacchus). There are

Elgin Marbles

frequent references to the Eleusinian Mysteries in Greek literature, but nothing precise is known of their nature, or of the special function of those initiated into them.

Elgin Marbles, a collection of sculptures in marble, many by the leading Greek sculptor Phidias, now in the British Museum. They were taken from the Parthenon in Athens by the seventh Earl of Elgin in 1812, when Greece was still a Turkish province, under a licence from the Turkish Government.

Embalming see MUMMY.

Eolith, from two Greek words eos 'dawn' and lithos 'stone', an artifact of such rude craftsmanship that its human origin may be disputed. FLINT tools of very early date have been found in France, Portugal, and elsewhere in Europe, and also in many parts of Britain. They were first studied in the neighbourhood of Oldbury Hill in Kent by Benjamin Harrison in the last century. Although long questioned, these and similar eolithic 'tools' are now generally accepted as of human origin; natural fracture, however, can imitate human workmanship so well that there must be many borderline cases. Since the Kentish series of eoliths are found in gravels earlier than the full erosion of the Weald of Kent and Surrey, and in beds under the red crag of East Anglia, where they are obviously older than most PRE-CRAG implements, the acceptance of their human origin takes man's cultural development far farther into the past than was before believed possible.

Epigraphy, that branch of archaeology concerned with the study

of inscriptions.

Epipalaeolithic, an alternative term for MESOLITHIC, the period intervening between the last known cultures of the Old Stone Age (PALAEOLITHIC Period) and the flowering of the New Stone Age (NEOLITHIC Period). It is identified with the industries, among others, of Mas d'Azil and has been equated with some finds in British caves, including those of the CRESWELL district. The duration of the period is uncertain. Its upper limit is fixed c. 3000 B.C., its lower limit, according to various authorities, 10,000 to 6000 B.C.

Ermine Street, a Roman road providing a direct route between London and York. It ran by Royston to the crossing of the Ouse between Godmanchester and Huntingdon, where it was carried over the marshes by a causeway roughly on the site of the present high road. Thereafter it passed to the west of the Fen country of Lincolnshire and crossed the head of the Humber estuary to York, where it divided into a number of lesser roads linking the permanent legionary headquarters with the defensive outposts farther north and with HADRIAN's WALL.

Erse, the official language of the Irish Free State, but more strictly defined as the branch of the Celtic language spoken in Ireland from the earliest times, derived perhaps from a Gaelic form of speech introduced either at the end of the Bronze Age or early in the Iron Age. Like the Scottish branch of the same family of languages, it had virtually died out except in remote districts before its deliberate revival on the establishment of the Irish Republic.

Etruscans, a group of tribes which settled in Etruria (central Italy) and reached a peak of cultural development towards the middle of the first millennium B.C. Their origin is doubtful, but cultural similarities suggest that they may belong to the Palasgic people who were domiciled in Greece at the beginning of the millennium and may have invaded Italy soon afterwards. They had a direct influence on the history of Rome, the two last kings of Rome being of the Etruscan race, while after their absorption by the Roman Republic in 281 B.C. their culture made a substantial contribution to the development of art, religion, and social life. Their art was of a surprisingly high standard, including coloured wall paintings and carvings in bronze and terra-cotta, especially beautiful in the surrounds of SARCOPHAGI, several of which have been found virtually intact.

Figurine, a statuette, especially the numerous statuettes which have been recovered either intact or in fragmentary form from the sites of Roman VILLAS and town houses.

Flake, a thin leaf-like portion struck off a flint nodule by percussion, e.g. with a hammer. Many prehistoric weapons and implements were made from flakes rather than from flint nodules, while some, as in the New Stone Age, were ground and polished. Cultures which reveal a preponderance of implements fabricated from flakes are often known as flake cultures. Though most characteristic of the New Stone Age, flake industries have been identified at least as early as the ACHEULIAN period of the PALAEOLITHIC.

Fleam Dyke, a massive EARTHWORK in Cambridgeshire roughly parallel with the DEVIL'S DYKE and probably serving a similar purpose as a boundary line between two Anglian kingdoms in the centuries immediately following the withdrawal of the Roman legions.

Flint, a concretion normally opaque and black or dark brown in colour, consisting mainly of silica. Flints occur in massive formations of chalk such as the North and South Downs and the central plateau of chalk in southern England, and are often deposited in regular layers. They are also found in gravels derived

Flint Mine

from chalk country, and locally elsewhere when they have been transported by glacial or other natural action from their place of origin. The concretions are the product of silica-carrying water and are of varying sizes. Their importance in archaeology is that they provided the most suitable material from which primitive man could manufacture weapons and implements, either from the core, i.e. the whole flint, or from FLAKES struck off the parent nodule. Various tests of human workmanship have been evolved, including the presence or otherwise of the bulb of PERCUSSION. 'Decay' of flint nodules through exposure to the air, etc., changes their colour from black to neutral or white, when they are liable to PATINATION, that is to say, staining by contact with minerals.

Flint Mine, a mine consisting of shafts and galleries excavated in the chalk in order to recover perfect FLINTS. The raw material of PALAEOLITHIC and some later flint implements consisted of flints found on or near the surface of the earth and in gravels bearing flints transported from chalk country. In the New Stone Age in Britain, however, several mines in the strictest sense of the term were sunk in the chalk. Remains of these have been excavated and have yielded complete evidence of the form of the mine and of the implements used, e.g. the deer ANTLER PICK. Two of the best-known examples are GRIME'S GRAVES in Breckland on the borders of Norfolk and Suffolk and Cissbury in Sussex. It is believed now that the period when flint was mined most intensively was the end of the NEOLITHIC or beginning of the Bronze Age and that mining on a commercial scale had ceased before the first invaders of the Early IRON AGE arrived in Britain. Some, however, infer from the existence of pits without galleries, as at Grime's Graves and Easton Down in Wiltshire, that the industry dates back to the Upper PALAEO-LITHIC Period, i.e. the CAVE PERIOD of human development.

Forum, the social and administrative centre of a Roman town. It was a feature of all the chief towns of Roman Britain, many examples having been thoroughly excavated, as at St Albans (Verulamium) and Silchester. It consisted normally of an open market square and public meeting-place surrounded by handsome stone-built buildings, including the BASILICA.

Foss Way, one of the principal roads in Roman Britain, running from Lincoln to Exeter. Many important Romano-British towns were on its course, which may originally have marked the proposed western boundary of the province. These included Bath (Aquae Sulis), Cirencester, and Leicester (Ratac). At Lincoln it linked with the main road from London to York (Eboracum) and with WATLING STREET near Leicester. Thus it provided

an easy means of military transport between all the main points of the Roman perimeter defences of Britain, as well as a commercial artery which served a great number of Romano-British estates (VILLAS), especially the large group established in the oölitic limestone belt of the Cotswold country.

Gaelic, a Celtic language, one of the branches of the Indo-European family of languages. It was introduced into Britain late in the Bronze Age, c. 1000 B.C., and was later supplanted in the south and east by the Brythonic dialect, also of Celtic origin. It remained, however, the common speech of the highland zone, and was perpetuated in Scotland, to which it may also have been brought by the Scotti from Ireland.

Gizeh, a town in Egypt three miles from modern Cairo which formed part of the ancient capital of Egypt. It is in the immediate vicinity of some of the most remarkable monuments of ancient Egypt, including the SPHINX and the PYRAMIDS.

- Gough's Cavern, one of the caves in the Cheddar series, Somerset, which has yielded evidence of inhabitation during the Old Stone Age. It has been thoroughly excavated and many of the discoveries made are on view to visitors to the cave. They include FLAKE and core industries, implements made from deer antler, numerous remains of horses and reindeer, and the skeleton of 'Cheddar man' discovered in 1903. There was intermittent inhabitation of this and neighbouring caves from the early part of the Upper PALAEOLITHIC down to the MESOLITHIC, from which many FLINTS of CRESWELL type have been identified.
- Gravettian, a culture of the PALAEOLITHIC Age, characterized by implements fabricated from FLAKES into blades with blunt backs. The Gravettian industry is in many ways similar to the Châtelperronian. According to some authorities it was directly descended from the Châtelperronian, the two having been linked together under the single name Perigordian. In time it is regarded as later than the Aurignacian and earlier than the Solutrean.
- Grime's Graves, near Brandon, Suffolk, in the midst of Breckland, the site of an exceptionally interesting prehistoric flint MINE the first to be studied intensively in Britain. The chalk here is overlaid by glacial sand but the shafts connecting with the galleries penetrate the chalk to some depth. Flint cores, recovered mainly by deer ANTLER PICKS, were fabricated on the site presumably for export to other parts of the country. Mining seems to have taken place during the New Stone Age and to have continued into the BRONZE AGE, but not into the succeeding

Grim's Ditch

Early Iron Age. The time of its beginning is obscure but the balance of opinion is that this mine was not worked in any period earlier than the NEOLITHIC. One gallery has been reconstructed, and a fine model of the whole mine is in the Norwich Museum. The most significant discovery during excavation was of a shrine in one of the shafts (not used for mining) with crude drawings in the chalk of the goddess of fertility and a phallic symbol.

Grim's Ditch, an EARTHWORK in the Cranborne Chase district of Dorset in the same neighbourhood as the BOKERLY DYKE. It is identified as an Early Iron AGE boundary line older than the Bokerly Dyke and considerably longer. It is also the traditional name of a bank and trench in north Oxfordshire protecting an area which contained a number of Roman VILLAS, and of another earthwork in the Chiltern Hills (more usually known as Grim's Ditches) probably of early Saxon origin. Grim, or Grime, is a vernacular form of devil and had attributed to it by tradition many features of the countryside otherwise inexplicable before archaeological research.

Habitation Site, any place in which traces of human occupation have been found, whether the actual remains of human skeletons or ARTIFACTS (weapons, implements, pottery fragments, and the like). In Great Britain the most important habitation sites of the Old Stone Age are caves and rock shelters. Elsewhere traces of this period are principally found in gravel beds. The habitation sites of later periods include hill camps, e.g. the CAUSEWAY CAMPS of the New Stone Age, and the complex defences of Early Iron Age forts and settlements, groups of HUT CIRCLES and settlements in the stone country of the west and north surrounded by dry stone walling. Habitation sites of the Romano-British period include many earlier types of upland settlement in the Celtic tradition, VILLA estates, isolated farmhouses, and low-land settlements of Romano-British origin, ranging from small quasi-military stations to large towns.

Hadrian's Wall, a mural defence which once stretched in an unbroken line (apart from river crossings) from Wallsend-on-Tyne to the Solway Firth and served as the northern limit of the Roman province of Britain for the greater part of three centuries. Some parts of it, notably near HOUSESTEADS, have been restored, while the foundations of the wall have been traced for the greater part of its length and have been partly restored, as on the outskirts of Newcastle. During the first century A.D. the Romans apparently intended to add Scotland to the province, but decided that communications were too far-flung and contented themselves with fortifying the narrow neck of England with this unparalleled defensive work constructed under the personal supervision of the Emperor Hadrian between A.D. 120 and 126.

Basically the defensive system consists of the wall itself, protected by a ditch with a broad moat or vallum in support of it to the rear. The western end of the wall was at first built of turf but this was later replaced by stone, while the whole defence was strengthened by 'mile castles', a number of intervening turrets, and permanent forts at strategic points along it. The wall was abandoned temporarily soon after it was completed, when another move was made to advance the frontier to the line of the Forth and Clyde (the Antonine Wall). The latter was soon abandoned and Hadrian's Wall was again manned. Though there was a major break-through of Celtic forces between 196 and 200, it was breached only that once before the withdrawal of the Roman legions at the end of the fourth century.

Halicarnassus, one of the most famous of the ancient sites of Asia Minor opposite the island of Cos, best known for the Mausoleum which was counted among the Seven Wonders of the World. It was a monument to Mausolus, King of Caria, built c. 350 B.C. by his widow, and gave its name to this type of sepulchral monument. Fragments of the Mausoleum are in the British Museum.

Hallstadt, a town in Bavaria which has given its name to a late BRONZE - Early IRON AGE culture first studied in relation to burial places excavated in the vicinity. Many Hallstadt-type ARTIFACTS have been found in Britain, some, e.g. bronze swords,

ARTIFACTS have been found in Britain, some, e.g. bronze swords, being probably articles of commerce, but the majority introduced by one of the invading groups during the Early Iron Age.

Hamitic, a word literally meaning related to Ham, the son of

Noah, and sometimes used as a synonym for negroid. The Hamitic language is that spoken at present by a large group of peoples or races in North Africa, including the Somalis and the Touaregs. It was also spoken by the Egyptians before it was superseded by Arabic. The term is thus often used to describe the peoples of ancient Egypt.

Hand-axe, a weapon associated especially with the PALAEOLITHIC (Old Stone) Age. It was a pointed implement with sharp cutting edges towards the point and a generally unflaked butt at the holding end. The cutting edges and the point were produced by striking FLAKES off a FLINT nodule. In many examples the butt end retains traces of the original PATINATION. A few were fabricated from large flakes rather than the core. Handaxes are associated with all periods of Old Stone Age culture and

Helladic Culture

according to some authorities were a development from the ROSTROCARINATE belonging to a phase of human development between the EOLITHIC and the Palaeolithic. Later examples show great skill and artistry in flaking and more careful attention to the continuity of the cutting edges. Hand-axes were manufactured also from other available material, as for instance the four quartzite implements of LE MOUSTIER date found in one of the caves of the CRESWELL group.

Helladic Culture, a Bronze Age culture which was most vigorously developed in southern Greece (whence its name Hellas = Greece). It is regarded by some authorities as associated with the Minoan. Early Helladic discoveries date from c. 2500 B.C. but the later examples of this culture, taken mainly from Mycenae, span the period c. 1600 to 1200 B.C.

Henge Monument, a type of Early Bronze Age monument typified by STONEHENGE and WOODHENGE, but including in some classifications a number of stone circles of more or less complex design, e.g. AVEBURY, in Wiltshire, and Stanton Drew in

Somerset.

Herculaneum, a Roman town near Naples, and one of the most famous excavation sites in the world. It was overwhelmed by mud and lava in the eruption of Vesuvius of A.D. 79 and was buried by a layer of volcanic material varying from forty to seventy feet in depth. In time new settlements were superimposed on much of the ancient city and there is no record of any important excavation being undertaken until the beginning of the eighteenth century, when the stage of the classical theatre was discovered. Excavation continued in the period 1738 to 1765 and again, with several interruptions, between 1828 and 1875. After that there was no organized digging until work was resumed in 1927 in charge of the Italian government. The work continues, but much remains to be uncovered, including the FORUM. The ground plan, lower floors, and in some cases part of the upper structure of many fine residences have been uncovered and much highquality sculpture and other works of art have been discovered, many in situ and undamaged.

Hieratic Script, a form of Egyptian writing intermediate between HIEROGLYPHIC and DEMOTIC. Originating as a simplified form of the hieroglyphic script, it was used at first as the language of literature. Later when the still more simplified form known as demotic was evolved, this became the normal means of expression in secular writing, while the hieratic continued to be used in religious inscriptions and religious literature generally. The word is derived from a Greek word meaning 'sacred' or

'priestly'.

Hieroglyphs, signs or pictures which are the characters of the earliest known writing of the Egyptians. Other ancient peoples developed a picture script to which the term hieroglyphic is sometimes applied. Translation of hieroglyphic writing made possible by the interpretation of inscriptions on the ROSETTA STONE has greatly increased knowledge of the history and social organization of Egypt in the earlier dynasties.

Hill Figure, a general term covering the numerous figures cut on the steep slopes of the chalk downs of southern England. The date of many of these hill figures is unknown but it is certain that they range from prehistoric times to recent centuries. Two of the most ancient are the White Horse, which gives its name to White Horse Hill in Berkshire, and the Giant of CERNE ABBAS, Dorset, both of which are probably of the Early IRON Age or still more ancient. Comparatively recent ones include the figure of George III cut in the downs near Weymouth and the regimental insignia of units stationed in Wiltshire in the present century on the downs overhanging the road between Wilton and Shaftesbury. Most hill figures, ancient and modern, are formed by the removal of the turf covering the chalk, but two, the Long Man of Wilmington and the Giant of Cerne Abbas, are distinguished by being outline figures formed by a shallow trench about two feet wide and filled with chalk.

Hittites, a group of tribes which emerged as a unified state about the beginning of the second millennium B.C. in Anatolia and by c. 1300 B.C. had occupied a large part of Asia Minor and Syria. Their capital, Hattusas, which along with several other Hittite sites has been excavated, has revealed a cultural life of a high order. During the first millennium B.C. the Hittite kingdom came under the rule of ASSYRIA, the Hittite army being defeated by Sargon II c. 720 B.C.

Housesteads, see BORCOVICIUM.

Hut Circle, a circular or oval depression in the ground proved to have been a prehistoric habitation site. Many hut circles in the stone country of the west and north of Great Britain retain the stone foundations of primitive homes which were probably thatched. They usually occur in groups and are sometimes surrounded, as at Grimspound, with a protective wall. The vast majority of hut circles, including many excavated within the downland EARTHWORKS of the south, are of Early IRON AGE date. Some, e.g. on the fringe of Dartmoor, show evidence of dating from the later BRONZE AGE, while many others, e.g. those on Holyhead Island, were inhabited by native Celtic people until late in the period of Roman occupation.

Hypocaust, a system of flues carrying hot air from a central furnace,

Iceni

and associated particularly with Roman BATHS, whether public ones in towns or private ones in VILLAS. A hypocaust system was also used in Roman and Romano-British houses to warm the main apartments on the ground floor. In the typical Roman bath arrangement earthenware flues conveyed the hot air from the furnace room first to the calidarium, the hot room, and then under the flooring to the tepidarium, the warm room, the natural loss of heat in transit assuring what was regarded as the correct relative temperature of these two chambers.

Iceni, a group of tribes settled in East Anglia and on the border of the Fen country at the time of the Roman occupation, when their rulers were in alliance with Rome and were in conflict with the Belgic peoples of Essex and areas farther west. After the occupation they were in revolt against the Romans and

were led by their Queen Boudicca (Boadicea).

Icknield Way, a prehistoric trackway reaching from the Marlborough Downs area to the Wash near Hunstanton. It follows the lower northward-facing slopes of the Berkshire Downs (crossing the Thames at the Goring Gap), the Chiltern Hills, and the East Anglian Heights. It is a traditional route paralleled in some parts by a hilltop track, e.g. the RIDGEWAY in Berkshire, and was possibly first blazed in the New Stone Age. It continued in use throughout the prehistoric period, and was adapted by the Romans as a through route. Parts of it are still preserved either as a road or as a footpath. Before the draining of the Fens and the clearance of the forests, including those which covered much of the Chiltern Hills, it was the only practical means of progress from the area of the Wash to central England.

Ideographic Writing, from two Greek words, idea, an idea, and grapho, I write, a form of writing in which the signs or characters represent ideas. It is opposed to phonetic writing, the system in use in the western world at the present day. Ideographic writing may use either crude pictures copied from nature (PICTO-GRAPHIC) or symbols derived from pictures which express

objects or ideas.

Inca Culture, a culture established principally in Peru by a people derived from the South American Indian tribes, whose descendants still live in the Andes country. The date of the emergence of a highly developed Inca culture is still unknown, but it declined after the first half of the sixteenth century, when the civilization was absorbed by Spanish invaders.

Inhumation, interment of the dead, i.e. simple burial in the ground

(Latin humus = ground) as opposed to cremation.

Iron Age, the period in which the use of iron superseded that of bronze. The use of iron for weapons and implements, especially those connected with working the land, heralded a major agricultural revolution as well as an upward surge in the standard of living and a marked difference in social organization. It also involved indirectly the permanence of habitation sites, for with increasing tillage of the land small tribal settlements became established, towns and regional organization became a necessity. The use of iron developed in two main areas of Europe, the Black Sea area and Bavaria as typified by the HALLSTADT industry and in the Mediterranean area as typified by the LA Tène industry. In Britain the most important monuments of the Early Iron Age are the great hillton or promontory entrenchments, e.g. MAIDEN CASTLE, EGGAR DUN. LYNCHETS or Celtic field, especially in the downland country of southern England, also date from this period.

Early Iron Age invaders of Britain, all of whom are generally referred to as CELTIC, came in several distinct waves. The first wave was derived from the Rhine basin and the Low Countries and spread over the greater part of south-eastern England during the sixth and fifth centuries B.C. This invasion was associated with culture of the Hallstadt type. It is remembered chiefly by a number of forts (rather than defended towns), e.g. Trundle Hill in Sussex. Another wave, sometimes referred to as Iron Age B, showing La Tène characteristics entered the country from the south-west during the fourth century, and was derived possibly from Brittany or north Spain. A third wave of invasion during the first century B.C. derived mainly from Gaul and was carried out by the group of tribes known as Belgae. These invaders absorbed earlier cultures and established themselves over much of south central England and the Home Counties, producing order out of relative chaos and uniting the scattered communities of the earlier peoples into better organized kingdoms.

Jogassien, an Early Iron Age culture representing a development of the HALLSTADT type, and dated to the sixth or fifth century B.C. It is illustrated in Britain by pottery, ornaments, and iron implements found at several Early Iron Age sites, including Hengistbury. Pottery excavated at an Early Iron Age village near All Cannings Cross, Wiltshire, also provides an important link with this culture, which here does not have a culture of LA Tène type superimposed on it, as in most sites both in Britain and in northern France.

Karnak

Karnak, village in Egypt built over the foundations of Thebes, once the capital of ancient Egypt (which included also a settlement on the other bank of the Nile and the site of Luxor further south). The temple of Ammon including the carved stonework of the hypostyle hall of Ramses II (c. 1250 n.c.) is one of the most outstanding monuments of the New Kingdom.

Karnak, Royal Tablet of, an inscribed stone discovered in 1843 at KARNAK and placed subsequently in the collection of the National Library of Paris. Its importance is that the inscription contains the names of many Egyptian kings, ending at the eighteenth dynasty, and was the first evidence obtained for the

sequence of ancient Egyptian governments.

Kent's Cavern, a limestone cave near Torquay, Devonshire, long inhabited during the Old Stone Age. Excavation of the floor of the cave has brought to light not only great quantities of FLINT implements and weapons, but fossil bones of many animals now extinct. Industries represented include typical ones of the Upper Palaeolithic (Cave Period), and also one of Chelles type, not identified in other British caves. Human remains found here correspond with those of the Mendip caves and elsewhere.

Kitchen Midden, a mound containing the domestic refuse of early man. The term is obsolescent and the mounds are now generally known as shell mounds. They were first studied in Denmark but others have been found in many parts of the world. They represent an early stage of the NEOLITHIC period or that immediately preceding it, the EPIPALAEOLITHIC or MESOLITHIC.

Knossos, the chief city of ancient Crete and one of the main centres of early MINOAN civilization. Its modern intensive excavation was begun by Sir Arthur Evans in 1900 and has continued at intervals during the last fifty years. Its heyday was probably from c. 3000 to c. 1250 B.c. with a period of marked prosperity between 2000 and 1600 B.c. The Palace of Minos at Knossos is the most elaborate and costly building of prehistory. The site has also yielded evidence of Neolithic inhabitation dating back to before 3000 B.C.

La Madeleine, a culture of the Old Stone Age representing the highest development of the Cave Period and merging into the more definitely transitional (EPIPALAEOLITHIC) culture of Mas d'Azil. It takes its name from a cave near the banks of the Vézère. La Madeleine type industries have been identified in many parts of Britain, including the gravel deposits bordering the lower Thames and in the Creswell group of caves, where the so-called native Creswellian culture shows distinct La

Madeleine characteristics, though with earlier Aurignac survivals. From the wide distribution of other finds bearing a strong family resemblance, it seems likely that a people of La Madeleine culture ranged over the greater part of lowland Britain and penetrated later into the highland zone.

La Micoque, a culture and industry of the Old Stone Age. It is well represented in Britain, especially by HAND-AXES which characteristically had one flat face. The industry is related to

the ACHEULIAN.

La Tène, an Iron Age culture and industry named after a valley in Switzerland where it was first brought to light and where numerous weapons of iron as well as coins and household debris were discovered. The culture represented by these finds originated in the Mediterranean and moved north, typifying a full development of the Early Iron Age. It spread to southern England, though the earlier HALLSTADT type persisted in many places well into La Tène times, and the Iron Age A culture (the first to appear in southern England) absorbed many of its features.

Labyrinth, a legendary maze associated with the Cretan Palace of Minos. A monster variously portrayed, but generally as half bull, half human, and known as the Minotaur, had his home in the Labyrinth and fed on human sacrifice. It was slain by Theseus, an Athenian. Another well-known labyrinth of antiquity has

been identified near Lake Moeris, Egypt.

Lake Dwellings, huts raised on piles at the shallow margins of lakes or in marshes. Such prehistoric villages were first studied in Switzerland, where numerous sites have been identified and range in date from the end of the NEOLITHIC period to the Early IRON AGE. In some places, e.g. at Lake Neuchâtel, several periods are represented on the same site, from a relatively undeveloped form of Neolithic culture to an Early BRONZE AGE one. In Britain the remains of pile dwellings have been brought to light in Somerset near Glastonbury and at Meare, and in Glamorgan (Lake Llynfawr), and also probably in the Thames marshes, where pile dwellings of a specifically alpine type have been inferred dating from the Later Bronze Age, and perhaps continuing into the Early Iron Age. There is also evidence of pile dwellings in Yorkshire, especially in Holderness and the Vale of Pickering. The most recent research suggests that the term 'lake dwelling' is not a strictly accurate one and that socalled lake dwellings always occur in formerly marshy land which has since subsided, and were never in fact occupied over

Le Moustier, a culture and industry of the Old Stone Age immediately succeeding the Acheulian and preceding the

Levallois

AURIGNACIAN. It is named after a cave near the river Vézère in the Dordogne district of France and represents the earliest period of human development of which the remains are found predominantly in caves. Le Moustier type industries have been identified in many of the habitation caves explored in Britain, including those of the Creswell group in Derbyshire.

Levallois, a type of FLINT implement of LE MOUSTIER date (PALAEOLITHIC Age) identified in many cave HABITATION STTES and in drift gravels, e.g. in the Lower Thames area, also in some plateau gravels, e.g. in Berkshire. The discovery of a Levallois industry on the site of the prehistoric FLINT MINE at GRIME'S GRAVES near the Norfolk-Suffolk boundary was the chief factor in persuading many scholars that this and other mines were worked as early as the Palaeolithic period. It is likely, however, that the Palaeolithic implements found here and in other mines are unrelated with the actual mining operations. The characteristic Levalloisian implement is a FLAKE as opposed to the core implements of many other Palaeolithic cultures, from which it is now clearly distinguished. Although fully developed in Le Moustier times, the origin of the culture is found in the middle ACHEULIAN period, while it persists until the AURIG-NACIAN period. In its last stages core and flake implements were manufactured simultaneously.

Lullingstone, an excavation site in the Darent valley, Kent, near modern Lullingstone Castle. It has revealed extensive foundations of an important Roman VILLA, the only one in Britain definitely proved to have contained a Christian chapel.

Luxor, a site in upper Egypt on the east bank of the Nile, forming

part of the ancient Egyptian capital of THEBES.

Lynchet, a terraced field characteristic of the Early Iron Age, common in the southern half of England and especially in the chalk downlands. The Celtic system of embankments delineating these fields has been shown by air photography to have been much more extensive than was previously believed. Introduced near the beginning of the Early Iron Age, the system persisted well into Romano-British times side by side with the more advanced agriculture developed by the Romans in the lowlands.

Magdalenian, the adjective from LA MADELEINE.

Maiden Castle, a complex series of concentric earthworks situated on high ground to the south of Dorchester. It is the largest and most strongly defended of British Early Iron Age fortresses. It is protected by four concentric ramparts and ditches and has unusually well-defended entrances. Originally there was a NEOLITHIC CAUSEWAY CAMP on the site but this was left

deserted for many centuries and its ramparts and ditches were effaced when a small stronghold was built about the end of the fourth century B.C. This stronghold was later enlarged but it was not until about fifty years before the beginning of the Christian era that the major fortifications were built by fresh CELTIC invaders. Excavation has shown that it was taken by storm during the Claudian invasion, possibly in A.D. 45, when a large number of the defenders, including women, were killed and buried near the eastern entrance, where their cemetery has recently come to light.

Maya, a civilization of Central America and Yucatan related with the TOLTEC and AZTEC. Mayan culture flourished in the early part of the Christian era, though its origins are certainly much earlier. It decayed after the tenth century with the Mexican occupation, and had virtually ceased to exist as a native culture by the time of the Spanish conquest of Yucatan in the sixteenth century.

Megalithic, from two Greek words, megas and lithos, 'big stone', a general description of monuments typical of the New Stone Age and early BRONZE AGE composed of large blocks of stone, e.g. the siliceous sandstone in the downland country of the south. The burial chambers of Long Barrows, both those of the Atlantic coast district and of Kent, are typical of megalithic monuments. The circles and single standing stones, probably of the Early Bronze Age period, are also described as megalithic. The PYRAMIDS of the ancient Egyptians and other prehistoric peoples may further be regarded as megalithic.

Memphis, an excavation site, twenty miles south of Cairo, which was at one time capital of ancient Egypt. Its fame was founded on its position as the city sacred to the god Ptah. It was at the height of its power during the period of the building of the PYRAMIDS (the Old Kingdom), c. 3000 to 2250 B.C., but yielded its position to THEBES by the time of the Middle Kingdom c. 2100 B.C. It was revived in the heyday of the New Kingdom, when further monuments were raised at the instance of the Pharaoh Ramses II. Aprs, the sacred bull of Memphis, was regarded as the intimate of the god Ptah, and the cult arising from its worship was one of the most elaborate in Egypt and lasted until the time of Ptolemy.

Menhir, a term used with various meanings in archaeological writing. It is now generally reserved for free-standing singlestone monuments or for individual stones in more complex monuments such as the Hele Stone of STONEHENGE. Menhirs are most common, like stone rows, in the stone country of the west of England, especially the fringe of Dartmoor, but have

Mesolithic

also been identified in many parts of Northern England, and in France and other parts of Europe, Africa, and Asia. The original purpose of the menhir is still unknown, though some are believed to be the remains of larger monuments and some may have marked a tomb or have been raised to commemorate a military victory or other great event. The word is derived from Breton words meaning long stone (men hir).

Mesolithic, from two Greek words, mesos and lithos, 'Middle Stone', i.e. the period between the end of the Old Stone Age and the beginning of the New Stone Age. Pigmy FLINT implements (see MICROLITH) are one of the outstanding industries of the Mesolithic Age, but many other ARTIFACTS are associated with it, while the Microlithic industry lingered on far beyond the end of the Mesolithic period. Unpolished flint axes of the Mesolithic Age have been identified in several places, so looking forward to the more elaborate polished axes of the NEOLITHIC period. The type of flint pick known as the Thames pick is also characteristic, especially in south-east England. In western Europe the Mesolithic period is identified with the AZILIAN culture. In Britain, though its duration is still disputed, it has been divided into several sub-periods, representing individual variations of culture, the earliest of which is probably not earlier than 10000 B.C. or later than 6000 B.C., while the latest merges into the Neolithic period.

Microlith, from two Greek words, micros 'small' and lithos 'stone', a pigmy stone implement or weapon generally not more than an inch long, but often beautifully chipped and shaped, though not polished. Microliths, which have been found widely in Britain, are associated especially with the Mesolithic period but have also been found in association with Beaker type pottery, proving their survival into the Neolithic period, while at Rowberrow Cave and elsewhere there is evidence of the survival of the industry into the Bronze Age.

Mile Castle, a defensive tower or fortification built at intervals

of about a mile along HADRIAN'S WALL.

Minoan, a civilization of Crete derived from Minos, the first legendary king regarded by the Greeks as the son of Europa and Zeus. Modern archaeological research initiated by Sir Arthur Evans in 1900 has proved beyond doubt the reality of the legendary Cretan civilization, its wealth and advanced culture. The civilization of Crete and its capital Knossos is believed to have been established by seafaring immigrants from Egypt and Asia Minor. The date of its origin is still uncertain, but early Minoan art and culture were certainly well established by c. 2500 B.C. and were fully developed before 1800 B.C., while

Knossos itself, with its palace and many of its temples, seems to have been destroyed about 1400 B.C.

Mithraeum, a temple of Mithras. In Roman Britain the cult of Mithras is thought to have attracted many of the wealthy families of the commercial world and to have proved a formidable obstacle to the acceptance of Christianity. Many of the temples were underground, as probably at Colchester. Recent excavation of the bombed area on the site of Roman London brought to light an especially elaborate temple, while another well-restored example is near Hadrian's Wall between Chesters and House-steads. Although it has long been thought that the cult which swept over the whole of the Roman Empire was not firmly established in Britain until the third century, some evidence has recently been brought to light of a much earlier incidence.

Mosaic, a design made by the cementing of numerous pieces of vari-coloured stone known as tesserae. Mosaic work of Italian origin was used extensively in the adornment of VILLAS and town houses in Roman Britain, and many elaborate and beautiful examples have been found during excavation, e.g. at VERU-LAMIUM, BIGNOR villa, Durovernum (Canterbury), and CHED-WORTH villa. Many of the individual tesserae were of locally quarried stone; others were of marble or volcanic glass, but some examples have proved to be of foreign origin and illustrate the extent of trade in luxuries as well as the practical commodities of commerce between Britain and the Mediterranean world during the heyday of the province.

Mousterian, the adjective from Le Moustier.

Mummy, the preserved body of a dead person. The art of embalming or mummification was practised by several peoples of antiquity but especially by the ancient Egyptians. Methods varied in detail, but the commonest was to remove the brain and the viscera, the former being pulled through the nose, the latter removed by incision. These remains were preserved in CANOPIC JARS, while the heart was often replaced in the body by a precious or semi-precious stone in the form of a SCARAB. The bodies were preserved by immersion in a salt solution for a period of a month or more, after which they were dried. Then they were wrapped tightly in linen bandages and placed in wooden coffins, the latter being laid finally in stone SARCOPHAGI.

Mycenae, a town in Greece and the centre of a civilization and culture probably derived from the Minoan culture of Crete. Archaeological investigation started by Heinrich Schliemann in 1872 brought to light here, as also at Tiryns, the existence of an artistic and cultural life which had its heyday a thousand years before the peak period of Greek civilization. Introduced

Neanderthal

as a Bronze Age culture c. 1700 B.C. Mycenean cultural activity declined after 1100 B.C. as a result of Doric and Ionian invasions.

Neanderthal, a limestone ravine near Düsseldorf, Germany, where fossilized human remains of an early race were discovered in 1856. Homo neanderthalensis (Neanderthal Man) has long been thought to correspond with the Le Moustier culture, and bears a striking resemblance to the human remains associated with the Le Moustier industry in one of the Dordogne caves.

Neolithic, from the Greek words neos and lithos, 'New Stone', the age of human development represented by the first semi-permanent settlements and by the culture generally known as MEGALITHIC. The Neolithic Age coincided in northern Europe with the final retreat of the glaciers. Neolithic man was essentially a herdsman. He was skilful in the manufacture of pottery and in weaving, and was the first to plant and harvest crops. His weapons and implements, characteristically of FLINT, were often polished. His skill in working flint FLAKES into arrowheads, knives, spear-heads, and the like, was remarkable. He also used hard stone, such as diorite, for the manufacture of axes and other heavy implements. In Britain his permanent or semipermanent enclosures are represented by the CAUSEWAY CAMPS, e.g. WINDMILL HILL near AVEBURY. The megalithic tombs of the West Country and of Kent, and the unchambered Long BARROWS of other areas, are interesting memorials of the period. Several Neolithic FLINT MINES have also been identified, e.g. at CISSBURY and GRIME'S GRAVES. Towards the end of the Neolithic period in Britain, where it is generally thought to have lasted from 2250 B.C. or a little later until the beginning of the Bronze Age 1800 B.C., some sanctuaries of a simple type (stone circles) may have been raised, though other authorities attribute all these to the Early Bronze Age. A Neolithic period has been identified in most other parts of Europe and in the Near East, where it was materially earlier in date than in Britain. In Crete, for instance, a Neolithic culture was introduced probably c. 3500 and persisted until 2700 B.C., when it was superseded, as in Britain and most other countries, by a Bronze Age. In Egypt it probably ended even sooner, while recent excavation of the site of Jericho has suggested a Neolithic culture dating from c. 7000 B.C.

New Forest Ware, one of the few types of pottery known positively to have been produced in quantity in Roman Britain. Pottery kilns in the New Forest were first excavated in 1852, since when kilns have been discovered in many other parts of Roman Britain, though the New Forest examples remain some of the most impressive. It is believed that New Forest pottery largely super-seded Samian Ware about a.D. 200. Examples include numerous attractive designs in white on black coated pottery, especially jugs and bottles.

New Stone Age. See NEOLITHIC.

Nineveh, a city of Assyria, once the capital of the Assyrian kingdom situated on the bank of the Tigris opposite modern Mosul. Excavation on the site has shown that it was at the height of its power about the time that Sennacherib was King of Assyria c. 700 B.C., when it was enriched by monuments and temples fairly described as colossal.

Offa's Dyke, an EARTHWORK stretching from the Dee to the estuary of the Severn near Chepstow, bearing the name of Offa, King of Mercia, and constructed probably at his instance c. A.D. 750 as a boundary line between the Anglo-Saxon kingdom and the Celtic country of Wales. It consists of a single bank and ditch, the ditch for most of the length being traceable on the Welsh side of the bank, though locally it occurs on the Mercian side, representing, according to some authorities, an agreement between the Saxons and the Welsh on the siting of the boundary and its construction in some places in a manner favourable to the Welsh people and in others favourable to the Saxons.

Old Stone Age, see PALAEOLITHIC.

Palaeography, from two Greek words palaeos, 'ancient', and grapho, 'I write', the study of ancient writing, especially the scripts of peoples whose language defied scholars until the modern age of scientific research. The HIEROGLYPHIC writing of ancient Egypt and the CUNEIFORM writing of other ancient peoples are two which have yielded to interpretation during the last century and have increased the world's knowledge of the civilizations in which they were used.

Palaeolithic, from two Greek words palaeos, 'ancient', and lithos, 'stone', the Old Stone Age, extending from the earliest time at which undisputed artifacts have been identified to the rather indefinite period which preceded the New Stone Age. It was preceded by the Eolithic period, the dawn of the Old Stone Age, and succeeded by the Mesolithic or Epipalaeolithic, the intermediate period before the New Stone Age. The duration of the Palaeolithic Age is still hotly debated. Its upper limit may be assumed c. 6000 B.C., its lower limit may be 50,000 B.C. or much earlier. Palaeolithic man was generally nomadic and manufactured his weapons and implements from flint nodules

Palaeontology

or FLAKES, or from other available types of stone. Artifacts of the period occur mainly in gravel terraces marking the courses of prehistoric rivers until the period is reached when limestone caves and rock shelters were inhabited. This latter period is generally known as the Upper Palaeolithic to distinguish it from the more primitive cultures of earlier periods. The CAVE PERIOD reveals a much higher development than the preceding one, including obvious artistic appreciation. Evidence of this ranges from the painted bison of the ALTAMIRA cave in Spain to the incised figure of reindeer on bone in the CRESWELL caves of Derbyshire. The Lower Palaeolithic is conventionally divided into the following main industries: STRÉPY, CHELLES, ACHEU-LIAN, and LE MOUSTIER, the Upper Palaeolithic into AURIGNAC, SOLUTRÉ, and LA MADELEINE. The Le Moustier industry is a direct link between the primitive Lower Palacolithic and the more advanced Upper Palaeolithic, and marks the transition to the Cave period, while the AZILIAN culture, often referred to as a Palaeolithic one, is now more properly regarded as Epipalaeolithic (or Mesolithic). In the most up-to-date terminology the Chelles period is generally referred to as ABBEVILLEAN. while a number of type industries quite distinct from the traditional ones, though overlapping them in time, have been identified, e.g. the LEVALLOIS, the CLACTONIAN, and the CHÂTEL-PERRONIAN.

Palaeontology, from three Greek words, palaeos, 'ancient', onta, 'being', and logos, 'argument', the scientific study of extinct forms of existence, generally of life forms known only through their fossils. This science crosses the path of archaeology, when ARTIFACTS are found in association with fossils of extinct life forms, e.g. in the caves occupied during the PALAEOLITHIC Age.

Palimpsest, from the Greek word palimpsestos, a papyrus or other writing material on which two scripts are superimposed, i.e. one which has been used a second time but on which the original

writing is decipherable because of imperfect erasure.

Palstave, a cutting implement intended to be fitted into the split end of a wooden or bone handle and spliced. Palstaves may be of stone, bronze, or iron, but the term is used most frequently in reference to the bronze palstaves which are a feature of the culture of the Middle BRONZE AGE, 1500 to 1000 B.C. in Britain. Bronze palstaves, however, are not confined to this part of the Bronze Age, and their manufacture continued certainly into the first quarter of the first millennium B.C., when the Bronze Age was giving way to the Early Iron Age culture.

Papyrology, the study of ancient writing on PAPYRUS.

Papyrus, strictly speaking an Egyptian water plant, the stems of

which were split and beaten and used as writing material. The manufacture of papyrus, which resembles a thick rough paper, originated in Egypt and was adopted in the Greek and Roman worlds. It was suitable for writing in an ink-like liquid and was normally stored in rolls.

Patera, a shallow dish, of which some good examples have been found in Britain, believed to have been used for ceremonial use in Roman worship. Paterae are frequently highly decorated.

Patination, the staining by contact with mineral substances of stone, and especially FLINT. The word is also used to describe a green crust which forms on objects made of bronze, e.g. coins. The patination of flint weapons and implements is regarded as proof of great age and of long exposure to the weather. Multi-coloured effects have often been produced in PALAEO-LITHIC and to a lesser extent in NEOLITHIC implements. Flint is normally black or dark brown, and patination only occurs when the flint has decayed, that is to say, has become colourless or white, a process possibly accelerated by deposition in a white chalky soil. It is this white surface of decay that is capable of being stained by minerals with which it comes into contact or which flow over it in a water solution. The commonest colours of patination are yellow and red (through contact with iron).

Paviland Cave, or Goat's Hole, a limestone cave in the Gower peninsula of South Wales. It is one of the most important sites at which the CAVE PERIOD of the Old Stone Age has been studied. Many FLINT ARTIFACTS and implements of ivory and bone dating from the early part of the Cave Period of human development have been found in association with remains of extinct mammals, including the mammoth and the cave bear. Traces of formal human burial have also been discovered. 'The Red Lady of Paviland' is a fossil skeleton of a human being, so named from the staining of the skeleton by mineral substances.

Percussion, Bulb of, the acknowledged sign of a worked FLINT implement or weapon, i.e. one fabricated by human agency. Though there may be exceptions where a similar marking is produced by natural causes, in general the bulb of percussion, the effect on a flint of a sharp blow with a hammer or other striking object, is entirely characteristic. It is found on the FLAKE or flakes struck off the flint core immediately under the point at which the hammer blow falls, and corresponds with a bulbar cavity or hollow on the flint core itself.

Perigordian, a term often used to describe the combined cultures known individually as Châtelperronian and Gravettian.

Pictograph, a single character of the picture writing which was the most primitive form of communication and has survived in

Pilgrim's Way

the inscriptions of many ancient peoples. The HIEROGLYPHIC writing of ancient Egypt is an example of horizontal pictographs, Chinese a highly developed form of a vertical type. The CUNEIFORM writing of BABYLONIA and other countries is also sometimes called pictographic although it represents, strictly speaking, a major adaptation and development from the pictorial method of writing.

Pilgrim's Way, an ancient trackway following the lower southward-facing slopes of the North Downs through Hampshire. Surrey, and Kent. It is similar to the ICKNIELD WAY and originally provided a link between the main centres of prehistoric culture in the Marlborough Downs and Salisbury Plain area and the sea in the neighbourhood of the Dover cliffs. When it originated is not known, but it is likely to have been used during the New Stone Age, when the MEGALITHIC monuments of Kent near its course were raised, e.g. the COLDRUM STONES. Kit's Coty. It continued in use throughout the Bronze and Early Iron Ages and into the heyday of Roman Britain. Victorian antiquaries gave it its present name because of a reputed connection with pilgrims to the shrine of St Thomas Becket in Canterbury Cathedral. Though the course of the trackway, a traditional one avoiding the exposed terrain of the hilltops and the forest country of the Weald and fording the principal rivers at convenient points, may still have been in use in the Later Middle Ages, the main pilgrim route to Canterbury was certainly through London and Rochester. Much of the Way's original course is preserved either as a footpath or motor road, but its original course in East Kent, especially east of the Stour, is not certainly known.

Pit Dwellings, scooped-out hollows in the ground, generally circular or oval, which contained the foundations and lower parts of primitive dwelling-places normally thatched, the thatch often being held up by a central pole. Pit dwellings are associated especially with the BRONZE and Early IRON AGES, but many so-called have proved to be storage huts.

Pompeii, a modern town in Italy and a town of the Roman Empire, situated ten miles from Naples, one of the most famous excavation sites in the world. The Roman town sprang from a fishing settlement which was inhabited from the tenth century B.C. It came successively under ETRUSCAN and Greek influence, while c. 424 B.C. it was occupied by Samians. It was not until 80 B.C. that the town accepted Roman suzerainty and became a Roman colony in which many wealthy Romans, including some of the emperors, built summer residences. An earthquake caused serious damage in A.D. 62, while the eruption of Vesuvius in

August, A.D. 79, overwhelmed the whole town with pumice and ashes. It remained buried until excavations began in 1748. Excavation has continued sporadically ever since and is still far from complete, only about two-thirds of the town having been uncovered. Many buildings in Pompeii, including the Temple of Isis, are in an almost perfect state of preservation, while those badly damaged or destroyed by the weight of volcanic material have still yielded many fine art treasures which are a speaking commentary on the Roman way of life in the first century A.D. Buildings so far identified show that Pompeii was a walled town with an AMPHITHEATRE, FORUM, and BASILICA, several public bathing establishments, two theatres, and at least nine temples, as well as a Christian meeting-place. There were hotels and taverns, gambling houses, brothels, and a wide variety of shops and workshops.

Pound, an enclosure fairly common in moorland districts of the west of England. These enclosures characteristically consist of a protective wall surrounding groups of HUT CIRCLES, i.e. the foundations of primitive homes. Grimspound (i.e. the Devil's enclosure) on the fringe of Dartmoor is one of the bestknown and largest. Most have been dated to the Early IRON AGE but some seem to have been in existence since the latter part of the BRONZE AGE.

Pre-Chellean, earlier than the CHELLES industry. The term is not normally applied to EOLITHIC industries but rather to definitely PALAEOLITHIC cultures, and most commonly to the STRÉPY.

Pre-Crag, the name given to primitive industries identified in deposits earlier than the laying down of the Red Crag of Suffolk and the Norwich Crag. FLINTS discovered soon after the turn of the century on this geological horizon, previously thought to have been earlier than human evolution, were long regarded with the same suspicion as EOLITHS, but are now generally accepted as genuine ARTIFACTS. The characteristic implement of the Pre-Crag is the ROSTROCARINATE, 'eagle-beak', now thought to be a positive link between Eolithic industries and the fully-developed CHELLEAN HAND-AXE. There are also numerous implements fabricated from chipped flint FLAKES. Some of the finds show striations similar to those produced by glacial action and are regarded by many as evidence that the land surface occupied by Pre-Crag man was later overwhelmed by glaciers.

Pre-Dynastic, the period of ancient Egyptian history preceding the emergence of the country as a unified state at the time of the first dynasty, c. 3000 B.C., which was founded by Menes,

Pyramid

who forged a new Egypt out of the previously incompatible elements of the people inhabiting respectively Upper and Lower Egypt.

Pyramid, strictly a square-based structure with triangular sides tapering to a point. Although found in association with several ancient civilizations, pyramids are characteristic especially of the culture of ancient Egypt. Built of stone or brick, they formed normally the superstructure of the tombs of the Kings. Some were of enormous size, the great Pyramid of Cheops at Gizeh, for instance, having a height of 467 feet, while each side of its square base was 736 feet long. The Pyramid of Khephren is little smaller. It has been calculated that the Pyramid of Cheops contains just under thirty million cubic feet of limestone and more than two and a quarter million separate blocks of stone.

Quern, a mill for grinding corn by hand. Querns are characteristic of all periods of cultural development from the New Stone Age onwards. Saddleback querns, for instance, have been found in association with the Neolithic Causeway camps, and equally in association with Iron Age finds. Rotary querns were a later development, probably introduced into Britain by Belgic invaders towards the end of the Early Iron Age.

Ridgeway, any hilltop track, but especially the track which follows the high ridge of the Berkshire Downs past Uffington Castle and Wayland's Smithy parallel with the line of the Ickneld Way on the lower northward-facing slopes. This and other ridgeways are certainly of prehistoric origin, and may have been developed as early as the Neolithic period and maintained throughout the succeeding Bronze and Early Iron Ages and into the Romano-British period.

Rock Carving, Prehistoric, any sign, symbol, or pictorial representation found on rock in circumstances which prove a prehistoric origin. Many examples have been found in Britain, especially in the upland areas of the west and north of England, e.g. Derbyshire and Northumberland. Cup and ring markings are most common. Some examples have been published bearing the representation of deer antlers. These carved stones are certainly of various ages, but the majority are thought to belong to the extreme end of the Neolithic Age or the first half of the Bronze Age, and probably derive from the same culture that is represented by STONE CIRCLES.

Rollright Stones, a group of prehistoric monuments on the high

ridge of the Cotswold range on the boundary of Oxfordshire and Warwickshire above the village of Great Rollright. They include a STONE CIRCLE (the King's Men), a single standing stone (the King Stone), and the remains of a chambered burialplace (the Whispering Knights).

Rosetta Stone, a STELE approximately three feet high and two feet four inches broad, containing inscriptions in Greek, Demotic (the common script of Egypt), and HIEROGLYPHIC writing. It was discovered in 1790 by French soldiers at Fort Julien near the village of Rosetta. The identity of meaning of the three inscriptions made possible the first successful effort to decipher hieroglyphics. The stele is now in the British Museum, having, together with a great deal of other material of archaeological interest, come into the possession of the English commissioners after the fall of Alexandria and the defeat of the Napoleonic army.

Rostrocarinate, an early type of weapon, the name of which is derived from the carina or keel, shaped rather like an eagle's beak, frequently visible in the cutting edge. This type of implement is clearly a very primitive type and is considered by some to be a connecting link between the roughly-chipped FLINT weapons of the EOLITHIC Age and the more fully developed hand-axes of the PALAEOLITHIC Age.

Runes, the individual characters of an ancient script developed by Teutonic peoples in north-west Europe (Runic). The use of this script spread to Britain and also to the Scandinavian countries. It appears in many inscriptions found in England, Wales, and Ireland, dating from the Anglo-Saxon period.

Samian Ware, a red glazed pottery commonly used in Romano-British VILLAS and town houses and later in the CELTIC settlements of Roman Britain. It was largely imported from northwest Europe, though factories were probably also established in Britain. Quantities dredged from the bed of the Thames suggest that one, and perhaps more than one, ship bringing this ware to England foundered in the river estuary. The name is derived from the Greek Samos because of the superficial resemblance of the ware to pottery manufactured there. It is alternatively known as terra sigillata.

Sarcophagus, from a Greek word meaning 'flesh-eating', in strict usage a limestone credited with the power of destroying flesh without trace (compare the action of quicklime). The term is also commonly used to describe the stone coffins in which mummified bodies were placed, especially in ancient Egypt. Other examples have been found which date from the heyday of the Etrurian civilization. Many Egyptian sarcophagi were elaborately sculptured and carry inscriptions in HIEROGLYPHICS.

Scarab, the sacred beetle of the Egyptians, an insect with black wings of the genus scarabeus. Amulets and the like, including a gem on which there was an engraving of a scarab, were often worn in ancient Egypt as symbols of fertility. Many beautifully carved examples have been found in tombs and were used as replacements for the heart during the process of embalming.

Serapeum, the area near Sakkara, Egypt, in which an alley of SPHINXES linked two temples connected with the worship of APIS. It is named after Serapis, a god whose cult arose from that of Apis and was regarded as combining the sacred qualities

of Apis and of Osiris, the god of the dead.

Seven Wonders of the World, seven monumental works of antiquity traditionally enumerated by classical writers. They were the Pyramids of Egypt, the Mausoleum at Halicarnassus, the Temple of Artemis at Ephesus, the Colossus at Rhodes, the statue of Zeus at Olympia, the Lighthouse (Pharos) of Alexandria, and the Hanging Gardens of Babylon. All except the Pyramids have now disappeared, though fragments of the Mausoleum at Halicarnassus are in the British Museum,

Silbury Hill, an artificial mound in Wiltshire, near the early Bronze Age sanctuary of Avebury. It is the largest artificial mound in Europe and is certainly earlier than the Roman road which makes a small detour to avoid it. Though trial shafts and tunnels have not revealed a grave, it is generally assumed to be an elaborate burial mound contemporary with the entrenchments of Avebury.

Silchester, the site in Hampshire of an important Roman-British town identified with CALLEVA ATREBATUM.

Silures, an Early IRON AGE group of tribes who were settled in south-east Wales and the southern Welsh Marches at the time of the Roman occupation. They are assumed to be of Belgic origin and were active opponents of Rome. They are believed to have absorbed a surviving BRONZE AGE culture centred on the mountain valleys of South Wales. Later they were associated with the prolonged resistance to Roman arms led by Caratacus (Caradog).

Slingstone, a general term given to any prehistoric weapon apparently designed to be shot from a sling. Natural weapons of offence, slingstones are found in association with most prehistoric and also with early mediaeval cultures. Oval or rounded stones are typical of the STONE AGE and also of the BRONZE AGE. Bullets of baked clay approximately egg-shaped are specially characteristic of Early IRON Age sites.

Solutré, a culture and industry of the Old Stone Age intermediate between the Aurignac and the La Madeleine. It takes its name from Solutré in the province of Saône-et-Loire, where the culture was first studied. It is one of the most advanced as well as one of the latest of the Old Stone Age, and is associated particularly with the inhabitation of caves. It is represented in many parts of Europe, and also in Britain, where it has been identified among other places in the Creswell series of caves and the Paviland Cave in the Gower peninsula of South Wales, in East Anglia, in the Mendip caves, especially Soldier's Hole, and in King Arthur's Cave in Herefordshire. The Solutré industry is best known for its leaf-shaped flint blades, beautifully chipped and shaped on both sides.

Spearheads, shaped and pointed weapons designed to be hasted to a wooden shaft and in early industries distinguished from a dagger largely by this factor. Bronze spearheads with side loops are characteristic of the middle Bronze Age in Britain (together with rapiers and elongated daggers). Earlier Bronze Age spearheads are tanged. A number of later types have been identified, many of those associated with the Late Bronze Age being without loops and showing slight variations in design corresponding with varieties noted in central European discoveries. Wrought iron came into use for the manufacture of spearheads very early in the Iron Age, but many examples imitated the designs current in the later Bronze Age, while bronze itself seems to have continued in use for some time.

Sphinx, a figure with the body of a lion and the head of a human being. In the heyday of ancient Egypt it typified the might of the Pharaohs and the mysticism underlying their strength. The best-known example is the Great Sphinx of El Gizeh, more than two hundred feet long and dating from c. 3000 B.C. An 'alley' of no fewer than 140 sphinxes linking two temples was discovered at Sakkara in 1850. Similar 'sphinx alleys' have since been identified.

Stane Street, Roman road linking London with Chichester (Regnum). In addition to providing a main route between the capital and this important provincial centre it served a number of large agricultural estates (VILLAS), some of which, e.g. BIGNOR, have been identified and excavated. Its course has been preserved for much of its length, either as a main road (near Pulborough) or as a grassy track over the Downs, as at Bignor Hill, where it has been excavated and its precise alignment determined.

Stele, a stone column or table inscribed with writing or covered in low relief. Though strictly applied to ancient Greek monuments (it is a Greek word in origin), the term is freely used in

reference to inscribed stones found elsewhere, e.g. from Egypt, as the Rosetta Stone, which bears an identical inscription in Greek, DEMOTIC, and HIEROGLYPHIC writing.

Stone Age, the age or period of human development in which the principal but not the only material for the manufacture of weapons and implements was stone (mainly flint). It is divided conventionally into four main periods: the Eolithic, the very earliest period of human culture, in which many of the ARTIFACTS are disputed; the Palaeolithic, or Old Stone Age, spanning the whole period between the time when artifacts are indisputable and the end of the Cave Period; a third rather indefinite subdivision, the Mesolithic or Epipalaeolithic (Middle Stone) Age, though some regard this as properly part of the preceding Upper Palaeolithic; and finally the Neolithic (New Stone) Age, representing an entirely different culture far more advanced than anything that had gone before.

As regards dates, the lower limits of the Eolithic and Palaeolithic are still disputed. Possibly 50,000 B.C. represents a fair assessment of the balance of opinion for the beginning of a true Palaeolithic culture. The Mesolithic may span the period 8000 to 2300 B.C. in Britain, the Neolithic 2300 to 1800 B.C. In other parts of the world a Neolithic culture was established much earlier and also ended earlier. In Crete, for instance, it ended 2700 B.C. and possibly earlier, being succeeded there, as in the Near East and in Britain, by a BRONZE AGE. There is much overlapping between the Mesolithic and the Neolithic, and between the Neolithic and the Bronze Age.

Stone Circle, a roughly circular ring composed of standing stones believed in the majority of cases to be of early BRONZE AGE date and to have served ceremonial purposes. Several types are differentiated. The most simple form consists of a circle or group of circles without EARTHWORKS, e.g. The Hurlers in Cornwall, the best example of a multiple stone monument (in this case there are three circles) with no surrounding entrenchment. The more complex varieties are all surrounded by a bank with a ditch on the inner side. The earthwork may either contain a single circle, or a complex of circles, as at AVEBURY, or a complex of circles and horseshoes, as at STONEHENGE. In some minor respects almost every stone circle is different from all others, but they obviously represent the same culture, and, although a few have not been dated definitely and may belong to the latter part of the New Stone Age, essentially the age of MEGALITHIC Long BARROWS, it is likely that most, if not all, were raised early in the Bronze Age.

Stonehenge, one of the most important MEGALITHIC monuments

in the world. It is situated on the edge of Salisbury Plain to the west of Amesbury and is in a region in which Round Barrows are especially numerous. In its complete form it consisted of a circle of monoliths surmounted by capstones linked by rude toggle joints, and an inner circle of blue stones, together with a horseshoe of trilithons, i.e. two uprights supporting a lintel stone, and an inner horseshoe of blue stones. There were, in addition, a single large stone slab situated at the open end of the horseshoes and known traditionally as the Altar Stone and, outside the main structure, a monolith known as the Hele Stone. The latter is so named (Greek helios, the sun) because it has been calculated that at approximately the time of the construction of Stonehenge it lay in a direct line between the centre of the circle and the point at which the sun appeared to rise on Midsummer's Day, although this calculation has been questioned and may be irrelevant.

The outer circle and the horseshoe of trilithons are composed of blocks of sandstone (sarsen stones), part of a sandstone covering which was once overlaid on the whole of the chalk plateau, and of which fragments may still be seen on Salisbury Plain and the Marlborough Downs, where they are known traditionally as greywethers. The blue stones, however, have been proved conclusively to have been brought from the Prescelly Hills in Pembrokeshire, while the Altar Stone (possibly originally an upright stone) must also have been brought from West Wales, since the particular kind of sandstone of which it is composed occurs no nearer than that. Other features of this unique monument seldom noticed by casual visitors are the outer embankment. or EARTHWORK, similar to but much less conspicuous than that of AVEBURY, an avenue which starts at the Hele Stone, and a ring of holes, now scarcely visible, just inside the ditch of the outer earthwork. Excavation revealed that many of these holes had received human burials (cremation). The origin and purpose of the monument is still not certainly known, but it is a fair assumption that it was a temple, possibly to the sun god, that it was begun in the early part of the BRONZE AGE, and that it was probably constructed in parts, the outer earthwork and the circle of sarsen stones being the earliest. No positive evidence supports its relation with the Druid religion, an invention of nineteenth-century antiquaries, but excavation does support the idea that the site was taken over during the latter part of the Early IRON AGE, when DRUIDISM was introduced into Britain from Gaul, and that at this time additional wooden circles were erected on the outer side of the sanctuary.

Stone Row, a double line of standing stones of unknown purpose

Stratification

but probably of religious significance and dating from the early part of the Bronze Age, i.e. the same period as the Stone Circles. Stone rows are most numerous in the Dartmoor country, but examples have been noted in the Fishguard Bay area and elsewhere. The simple stone row is clearly linked with the more complex avenues, e.g. that of Avebury which may have been a processional way used in connection with ceremonies involving Avebury itself and the sanctuary at the end of the avenue.

Stratification, a term used mainly in geology, meaning the orderly laying down of rock and other deposits. The underlying importance of stratification in archaeological research is that strata or layers which are above other strata are more recent. In the excavation, therefore, of, for example, a cave, it is assumed, in the absence of evidence to the contrary, that implements, bones, etc., found in the upper strata are later in date than those found beneath.

Strépy, a culture and industry of the Old Stone Age, the earliest of the cultures identified as definitely Palaeolithic. It is named after a place in Belgium where implements of Pre-Chellean type were first studied. Strépy flints are characterized by being only roughly flaked and often have part of the original flint crust intact. The typical implement is the Hand-Axe.

Stylus, a writing instrument for incision on wax tablets, especially characteristic of the Romano-British period. It was made of iron or of bronze, was sharply pointed at one end and blunt at the other to permit erasure.

Sumerians, a people who were settled in the southern part of Mesopotamia before the Babylonians and Assyrians. One of their chief contributions to the evolution of human culture was the invention of a system of writing. Their embryonic cultural tradition was absorbed by and largely influenced the Semitic peoples who were responsible for the advanced civilizations of Babylon and Assyria. They are also known as AKKADIANS.

Tardenois, a culture of the Mesolithic Age. It takes its name from La Fêre-en-Tardenois in France, where it was first studied. It is characterized by Microliths (small flint implements), especially microgravers, and has been identified in several places in Britain, e.g. Mother Grundy's Parlour in the Creswell series of caves, as an evolution from the native Creswellian culture. A Microlithic industry survived perhaps until the beginning of the Bronze Age in some districts, as demon-

strated by discoveries made at Rowberrow Cave in the Mendip Hills, but such ARTIFACTS are not strictly speaking of Tardenois type though showing some points of similarity.

Terraces, deposits of gravel in horizontal layer-form normally situated on relatively high ground adjacent to modern rivers. They are due to the erosive action of prehistoric rivers associated with earth movements. An archaeologically important series of terraces has been noted along the Kentish bank of the lower Thames, and, like many other terraces in different parts of Europe, has provided the strongest evidence of PALAEOLITHIC man, including many thousands of FLINT implements and occasional fossilized human bones.

Tesserae, see MOSAIC.

Thebes, the capital of ancient Egypt for the greater part of the heyday of the Egyptian empire. It was situated on both banks of the Nile approximately three hundred miles south-east of modern Cairo. Karnak and Luxor were both built on its site, which has been intensively excavated. The nearby Valley of the Kings was part of a necropolis occupying a large area on the west bank of the Nile. An avenue or 'alley' of sphinxes linked Luxor with Karnak, and there were many temples, of which some are still recognizable, though ruined, e.g. the temple of Memnon. Though Thebes was at the height of its power c. 1250 B.C. in the time of the nineteenth dynasty, excavation has proved that it was no mean city as early as 2500 B.C.

Toltec, a culture of unknown antiquity centred on Mexico. Tula to the north of modern Mexico City was the capital of the Toltec people, whose civilization was later superseded by the AZTEC. Like the Aztec, the Toltec culture was remarkable for the building of PYRAMIDS, some of great complexity, which were probably associated with sun or moon worship and showed a high standard of carving and sculpture. Though the dating of the Toltec culture is still hotly debated, the great pyramid of Tula was probably built in the fourth or fifth century A.D. A recent theory based on the probable age of the lava which overwhelmed the pyramid of Cuicuilco is that the origin of Toltec culture was not less than eight thousand years ago and that it is possibly the oldest civilization in the world. The Toltecs are believed to be descendants of a migratory people from Mongolia who may have approached the American continent by way of Siberia and Alaska.

Troy, a site in Asia Minor near the modern Hissarlik, identified by Heinrich Schliemann in 1870 as the city of the Homeric Iliad. Further excavation has revealed nine cities superimposed on one another, the earliest dating from c. 3500 to 3000 B.C., the

Tumulus

latest from the fourth century A.D. The Homeric city is believed to be the seventh of these nine, built c. 1300 B.C. and destroyed c. 1200 B.C.

- Tumulus, obsolescent term appearing for example on Ordnance Survey maps for burial places (Latin tumulus = mound). It is especially applied to the Round Barrows of the Bronze Age.
- Tyre, city of ancient Phoenicia, is situated approximately thirty miles from modern Acre. It consisted of two towns rather than one, built respectively on the mainland and on an island which was linked with the mainland by a causeway in the fourth century B.C. and now forms a sandy isthmus. Founded in the tenth century B.C. or earlier, it was captured by Sennacherib, King of Assyria. It later fell into decay and formed part of the Roman Empire. By the fourth century A.D. it was once more regarded as one of the richest cities in the Near East, though it declined under later Turkish rule.
- Uffington Castle, an Early IRON AGE fort with well-preserved rampart and ditch situated on the high ridge of the Berkshire Downs in close proximity to the White Horse, a symbolic HILL FIGURE in the chalk which gives its name to the hill and to the broad valley below, and which may possibly be a religious emblem of the tribe which constructed the EARTHWORKS of the castle.
- Verulamium, a Romano-British town by the banks of the Ver immediately to the south of St Albans' Abbey and near the line of the Roman WATLING STREET. It superseded an earlier entrenched site, of which EARTHWORKS remain nearby and which was the capital of a small Celtic (Early Iron Age) kingdom. Verulamium has been largely excavated and remains of the forum and numerous houses have been discovered. Sections of the walls remain virtually intact, while the theatre, apart from that recently discovered at Canterbury, is the only one of its kind known to have existed in Roman Britain, and has been partially reconstructed.
- Villa, Roman, an important unit in the economic development of Roman Britain. Villas were essentially agricultural estates of new foundation, as opposed to the Celtic village communities which persisted throughout the period. They were fairly numerous in most parts of southern England and probably many have yet to be discovered, but they appear to have been most numerous in the oölitic limestone belt and especially in the Cotswold country round Cirencester, with secondary concen-

trations in the country immediately under the Downs of Surrey, Kent, and Sussex, e.g. BIGNOR. They varied greatly in size, from palatial establishments like CHEDWORTH, to relatively modest farmhouses. Generally the lower floor was of stone, the upper storey probably half-timbered. Fine MOSAIC floors are interesting features of some of the principal living rooms, as at Bignor and Chedworth.

Viroconium, see WROXETER.

Wansdyke. An EARTHWORK consisting of a single bank and ditch which has been traced, though not continuously, for a distance of nearly fifty miles. It begins at a point between Hungerford and Inkpen Beacon and runs generally west or north-west to the coast of the Bristol Channel. Its finest section is to the south of Marlborough where it is still clearly visible near the southern escarpment of the Downs. It is certainly a defensive earthwork, analogous to Offa's Dyke, and, from the fact that the ditch lies to the north of the bank, must have been constructed by a people established to the south against attack from the north. It has also been proved to be later in date than the Roman occupation, and is generally assumed to have been built by the remnants of the Celtic (i.e. Romano-British) people of the south as a protection against the Teutonic (i.e. Anglo-Saxon) tribes established to the north during the latter part of the fifth century A.D.

Watling Street, the most important of the roads of Roman Britain, linking the ports of Kent with the crossing of the Thames at London, the midlands, and north-west England. Several feeders from Reculvers, Richborough, Dover, and Hythe joined at the ford over the Stour in Canterbury, from which the road ran straight to the ford over the Medway at Rochester, then into London near the site of Old London Bridge and on by VERULAMIUM to WROXETER (near Shrewsbury), whence there were links with the Roman roads of the Marcher country and with

Chester.

Wayland's Smithy, the remains of a chambered Long Barrow of New Stone Age date beside the Ridgeway on the high ridge of the Berkshire Downs. The original earthen mound has disappeared, but there are a number of the stones which formed the entrance and burial chamber and one of the cap stones still in situ. The name Wayland's Smithy (formerly corrupted nonsensically into Wayland Smith's Cave) derives from the legend that horses in need of re-shoeing could be left overnight tethered to the monument and would be found re-shod next morning (according to one account a payment of one groat was required).

Windmill Hill

of the New Stone Age, situated near the Wiltshire village which gives it its name. Like WAYLAND'S SMITHY, it is of a type rare except in the west country and in Kent.

Windmill Hill, a New Stone Age site near AVEBURY where remains of a CAUSEWAY CAMP were discovered. The pottery, and characteristic tools of FLINT and deer antler, found mainly in the ditches of the camp, are the type specimens of the culture generally known as Windmill Hill, probably the earliest type of the New Stone Age (as opposed to the later Beaker culture). The pottery was roughly fashioned, sparingly decorated, and consisted mainly of round-bottomed bowls.

Woodhenge, an Early Bronze Age sanctuary or temple in Wiltshire of the same family as Stonehenge but constructed originally of wooden posts in place of stone slabs. Discovered by aerial photography, the site has been completely excavated and concrete posts mark the position of the socket holes of the original timbers, showing a total of six circles, or more strictly ovals, orientated to the north-east and, like the arrangement of Stonehenge, suggesting a connection with the rising of the sun at the longest day.

Wroxeter, a village in Shropshire approximate to the site of the Roman town known as VIROCONIUM on the line of WATLING STREET. Only part of this large Romano-British town, which was nearly 200 acres in extent, has been excavated but the remains of the FORUM and adjacent buildings are impressive.

Yucatan, a peninsula of Central America between the Caribbean Sea and the Gulf of Mexico, including the modern Mexican State of the same name. It is the home of the MAYA civilization, which arose from unknown beginnings, achieved full development c. A.D. 300, and virtually came to an end with the sixteenth-century conquest of the area by Spain.

