

ON THE CHARACTER AND INFLUENCE OF
THE ANGLO-SAXON CONQUEST OF ENGLAND,
AS ILLUSTRATED BY ARCHÆOLOGICAL RESEARCH*

THERE are numerous points of general and living interest relating to the Anglo-Saxon conquest of this country which are very largely dependent upon archæological research for their elucidation. Amongst these may be mentioned the question of the extent to which the Romano-British population previously in occupation was extirpated; the question of the relative position, in the scale of civilization, held by victors and vanquished; and the question of the extent of our indebtedness as to language and laws to one or other of the two nationalities. Light is thrown even upon points apparently of the most purely archæological character from such literary sources as histories of the nomenclature of localities; as the records of monasteries; as illustrations in manuscripts; and as laws. But the graves of the Anglo-Saxons and their contents have been for the present investigator the primary; and such literary works as those alluded to, and such as many of those published under the direction of the Master of the Rolls and by the Early English Society, have been only a secondary source of information. They have however, been by no means neglected by him.

It may be well to begin by stating how an Anglo-Saxon is to be distinguished from a Romano-British interment. Anglo-Saxons, during the period of their heathendom, which may be spoken of roughly as corresponding in England to a period of some 200 or 230 years onwards from their first invasion of the country in force, were interred in the way of cremation, and in urns of the pattern so common in the parts of North Germany and of Denmark whence they are supposed on all hands to have come. A reference to any manual of archæology, or an inspection of any such series as that figured by Mr. Kemble in the *Hours Férales* from the Museum in Hanover, will show the unmistakable identity of the pattern, fashion, and moulding of such urns as these, and these which I have had figured after digging them up in Berkshire. The Romans and Romano-Britons had given up the practice of burning the dead long before the time of Hengist and Horsa. When they practised it in England, their urns were of a very different kind, being well burnt and lathe-turned. All the Romano-Britons I have exhumed in the particular cemetery which has furnished me with the tolerably wide basis of something approaching to 200 interments of all kinds, were interred much as we inter our dead now. They were oriented, though by the aid of the sun and not by that of a compass; and, dying in greater numbers in the winter quarters of the years, had the bearings of their graves, as has been observed by the Abbé Cochet, pointing a little south of east. Now a Romano-British interment in this way of burial has to be distinguished from an Anglo-Saxon one in the same way of non-cremation; and this may be done thus. The Romano-Britons never buried arms nor any other implements which could be of use in this, and might be supposed to be of similar use in the next world, together with a corpse. Funeral ware, such as lacrymatories, I have not found in company with coins of the Christian Emperors; but such articles stand in relation to quite a different idea from that which caused the Teuton to inter the dead with spear, shield, and knife; to say nothing of the less common *situla* and sword.

The Anglo-Saxons are supposed by Kemble to have relinquished cremation only when they assumed Christianity; it is a little difficult to be quite sure of this; at any rate, when we find, as we often do, an Anglo-Saxon in a very shallow grave, which may point to any one point of the compass, and in the arms or other insignia which it contains, gives us such clear proof that its tenant thought that whatever he may *not* have brought with him into the world, at all events he could take *something* out, we are tempted to differ even from such authority as Mr. Kemble's. But I am inclined to think that in some cases it is possible to identify the tenant of a properly oriented grave as having been an Anglo-Saxon. In many such graves Anglo-Saxons are to be recognised by virtue of their insignia; and mixed up with their bones may be found the bones of the Romano-Briton who occupied the grave before them. But further, in some such cases it is possible to be nearly sure that we have to deal with an Anglo-Saxon, even though there be no arms or insignia in the grave. These cases are those in which we have evidence from the presence of stones under the skull that no coffin

was employed in the burial; and in which stones are set alongside of the grave as if vicariously. In many such cases the cranio-logical character of the occupant of such a grave lends some colour to this supposition. But upon such identifications as had been come to in the absence of arms and insignia I have based no statistics. The results of the statistics of the cemetery which I have explored, as stated above, when brought to bear upon the large questions alluded to at the beginning of the paper, would lead us to think that the Anglo-Saxons were in a considerably lower grade of civilisation than the people they conquered, firstly and most forcibly on account of the shorter lives they led. An old Anglo-Saxon male skeleton was a rarity, an old Romano-British one a very common "find" in my excavations. Nothing however in this life is from the natural history point of view more characteristic of real civilisation or real savagery than this matter of the duration of life. The Merovingian Franks had, like the followers of Cerdic, been observed to have led short lives, merry, as the Capitularies of Charlemagne teach us of their kinsmen, with those kinds of mirth the end of which is heaviness. The next question which suggests itself upon the mastery of these facts and figures is, were not these men merely soldiers encamped? are not these statistics just such as a cemetery similarly explored now-a-days, say at Peshawar or Samarcand, would yield? Not altogether such; for, however improbable it may seem, it is nevertheless true that the Anglo-Saxons, at all events in Berkshire, appear to have brought their own wives with them, and not to have provided themselves with wives from the families of the conquered previous inhabitants. The figures of the crania of females interred with Anglo-Saxon insignia, when compared with figures of the crania of Romano-British women, show a very great difference, to the disadvantage of the former of the two sets of females. The soldiers of Cerdic, who conquered this part of Berkshire about half-a-century or so after the time of the first invasion, resembled the soldiers of Gustavus Adolphus in very little else, but they appear to have resembled them in being accompanied by their wives. Whether this was the case elsewhere in England, I do not know; I am inclined to think that savagery was no great recommendation, nor heathendom either, to a Christianised female population in those days; and that the reluctance which would on these grounds interpose itself to prevent inter-marriage between Romano-Britons and Saxons, sets up as great an *a priori* improbability against the theory which assumes that such inter-marriages did take place, as the difficulty of bringing wives over in the ships in those days sets up in its favour.

Indeed, on the hypothesis of much inter-marriage the actuality of our Anglo-Saxon language is a very great difficulty. We do speak a language which, though containing much Celtic and a good deal of Norman-French, is nevertheless "English." Now we know, from finding cremation urns of the Anglo-Saxon type all over England nearly, that the whole of the country was overrun by a heathen population; to thus overrun it, this population must have been (relatively at least) numerous: add to the two conditions of heathendom and multitude which may be considered as proved, the third condition of isolation which may be considered as matter for dispute; and then the fourth of this heathendom and isolation lasting from the time of Hengist to that of Augustine; and the present fact of our language being what it is explained.

For proving anything as to the period of which I have been speaking, a period which is rendered Pre-historic, not so much by conditions of time as by conditions of space, the absence of contemporary historians having been entailed by geographical and political isolation, arguments of two kinds, literary arguments and natural history arguments, must be employed. Neither the one kind nor the other is sufficient by itself. The empires of the natural sciences and of literature touch at many isolated points, and here and there they lie alongside of each other along lengthy boundary lines. But empires need not be hostile though they be conterminous; and that the empires of which we have just spoken may be united happily and in a most efficient alliance for work in common, may be seen from the title-page of that most excellent German periodical, the 'Archiv für Anthropologie,' where we have the name of the Physiologist Ecker coupled in editorship with that of the Antiquarian Lindenschmit. The necessity for a combination of the two lines of evidence and argument is as obvious when we have to controvert, as when we have to establish a conclusion. If you have to attack or resist a force comprising both cavalry and infantry, you must have both

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cavalry and infantry of your own; otherwise, some day or other, either in a country intersected with woods, or in some open plain furrowed into deep undulations, one of the two arms in which you are deficient will take you in one or both flanks, and you will be surprised, broken, and routed.

GEORGE ROLLESTON

SOCIETIES AND ACADEMIES

LONDON

Chemical Society, April 21.—Prof. Williamson, F.R.S., president, in the chair. T. Patchett was elected a Fellow. Prof. Roscoe, F.R.S., delivered a lecture on "Vanadium." This metal was discovered in 1830 by Sefström, who also ascertained some of the most peculiar characters of the substance, and prepared some of its compounds in the pure state. Sefström not having leisure to prosecute the full examination of the new metal, handed over his preparations to Berzelius; and it is to the investigations of the great Swede that we owe almost all our acquaintance with the chemistry of vanadium. He found the atomic weight of the metal = 68.5, and wrote its oxides:—VO, VO₂, VO₃, and its chloride VCl₃. Some years afterwards Rammelsberg observed that the mineral vanadinite, a double salt of lead vanadate and lead chloride, is isomorphous, with apatite and with mimetite, the former containing phosphoric, the latter arsenic acid. This crystallographic analogy would have led to the conclusion that the oxide of vanadium in the vanadinite has the formula V₂O₅, agreeing with the corresponding oxides of phosphorus and arsenic, P₂O₅, and As₂O₅. But the unyielding facts Berzelius had obtained in his analysis, and according to which the oxide in question was represented by the formula VO₃, compelled to regard vanadinite as an exception to the law of isomorphism. Prof. Roscoe, having come into the possession of a plentiful source of vanadium, determined to ascertain whether there really was such an exception, or whether Berzelius's formula may not perhaps be erroneous. He soon found the latter to be the case. He proved that the substance supposed by Berzelius to be vanadium, is not the metal, but an oxide, and that the true atomic weight of the metal is 51.3. Thus the VO₃ of Berzelius becomes V₂O₅, corresponding to P₂O₅ and As₂O₅. The lecturer went on to demonstrate that the characters of the vanadates bear out the analogy of V₂O₅, with P₂O₅ and As₂O₅, and vanadium, hitherto standing in no definite relation to other elements, must therefore be regarded as a member of the well-known Triad class of elementary substances, comprising nitrogen, phosphorus, boron, arsenic, antimony, and bismuth. The above-mentioned source of vanadium is a by-product obtained in the preparation of cobalt from the copper-bearing beds of the lower Keuper sandstone of the Trias at Alderley Edge, in Cheshire.

The President, in proposing a vote of thanks to the lecturer, called attention to the great service Prof. Roscoe had rendered chemical science by his successful investigation of vanadium. The President's remarks were fully endorsed by Profs. Frankland and Odling, and the meeting expressed its appreciation of Prof. Roscoe's lecture by prolonged applause. Prof. Hofmann, from Berlin, who was present at the meeting, favoured the Society with some observations on a compound (C H₂ N₂), which he had obtained when treating sulpho-urea with silver oxide. The body is distinguished by its great tendency to polymerise. Dr. Hofmann further communicated that a compound isomeric with chloral (the new anæsthetic) had recently been discovered by two Berlin chemists. It differs from the ordinary chloral by possessing a much higher boiling point.

Geological Society, April 13.—Sir P. de Malpas Grey Egerton, Bart., M.P., F.R.S., vice-president, in the chair. Mr. S. W. North, of Castlegate, York, was elected a Fellow of the Society. The following communications were read:—

1. A letter from Dr. Gerard Krefft, dated Sydney, 29th January, 1869, accompanying a model of the left lower incisor of *Thylacoleo carnifex*, Owen, and the original fragment from which the model was made. Dr. Krefft also referred to the fossil remains of herbivorous marsupials in the museum at Sydney, which included, according to him, besides a great number of Wombats (*Phascolomys*), many wombat-like Kangaroos or Wallabies (*Halmaturus*). He proposed to divide the Kangaroos into the following groups:—

1. *Macropus*, dentition as in *Macropus major*.
2. *Halmaturus*, with the premolar permanent, divided into two sub-groups:—

- a. True Wallabies, with the premolars long, narrow, and compressed, and the rami of the lower jaw but slightly anchylosed.
- b. Wombat-like Wallabies, with the premolars compact, rounded, and molar-like, and the rami of the lower jaw firmly anchylosed.

Illustrative sketches and photographs accompanied this paper. Prof. Owen remarked upon the importance of the researches made by Dr. Krefft and Prof. Thompson. No traces of man had been found. The numerous remains of mammals, especially the herbivorous species, had doubtless been carried into the caves by *Thylacoleo*. Prof. Busk inquired on what evidence Prof. Owen decided that the tooth of *Thylacoleo* was that of a Carnivore. Prof. Owen indicated the remarkable compression of the tooth and the absence of the spatulate form proper to the Kangaroos as characteristic of *Thylacoleo* and indicative of carnivorous habits. Mr. W. Boyd Dawkins stated that *Thylacoleo* was most closely allied to *Plagiaulax*, which was probably a true Herbivore. He indicated the importance of the question, as if *Thylacoleo* were a Carnivore, *Plagiaulax* would be one also. Prof. Owen remarked that *Plagiaulax* was also a Carnivore. The premolars resembled the small tubercular molars of the Hyenas, Felidæ, &c. The anterior tooth, associated with the small tubercular tooth, was compressed and sharp pointed. The low condyle forming part of the angle of the jaw, was such as occurs in *Thylacinus*. Dr. Dnnan remarked that it was by no means necessary that all carnivorous mammals should be formed upon the same type, and that he did not see why there should not be a carnivorous form of the kangaroo type. The chairman said that the settlement of these questions must now be postponed until we obtain further materials. He mentioned the discovery by Dr. Krefft, in the interior of Australia, of a species of fish resembling *Lepidosiren*, and possessing singular affinities to some of the Devonian fishes.

2. "On the Fossil Remains of Mammals found in China." By Prof. Owen, LL.D., F.R.S., F.G.S. The specimens of teeth described by the author were obtained by Robert Swinhoe, Esq., late H. M. Consul at Formosa, chiefly by purchase in the apothecaries' shops at Shanghai. They included two new species of *Stegodon* (named *S. sinensis* and *S. orientalis*), a new Hyena (*H. sinensis*), a new Tapir (*Tapirus sinensis*), a new Rhinoceros (*R. sinensis*), and a species of Kaup's genus *Chalicotherium* (*C. sinense*). The author remarked that the whole of these teeth presented an agreement in colour, chemical condition, and matrix, which led to the conclusion that all belonged to the same period. But for the presence of the *Chalicotherium*, they would have been referred either to the Upper Pliocene or the Post Pliocene period. The author did not consider that the occurrence of the Anoplotherioid species need affect the determination of the age of the fossils, especially as *Chalicotherium* departs in some respects from the type genus *Anoplotherium*, and is not known from deposits older than the Miocene. The Chairman called attention to the remarkable association of forms among the fossils described by Prof. Owen. Prof. Busk remarked that the materials at command seemed to him insufficient for the establishment of new species. He observed that the distinctive characters of *Stegodon sinensis* appeared to be very slight, and that the Hyena was probably *H. sylvæa*. The tooth of Rhinoceros might be a milk-molar of *R. sumatranus*. Mr. W. Boyd Dawkins suggested that, as the specimens were obtained from apothecaries, there was no evidence of the contemporaneity of the fossils. Mr. H. Woodward stated that Mr. Swinhoe had himself obtained a series of these fossils from a cave many miles inland, he believed on the course of the Yang-tse-kiang. Mr. Woodward also called attention to Mr. Hanbury's paper on Chinese *Materia Medica*, in which many fossil teeth of mammalia are noticed. Prof. Owen, in reply, stated that great quantities of the fossils had passed through his hands, and that he had selected for description those which, from their minute agreement in chemical and other characters, might justly be inferred to be derived from caves of the same age.

3. "Further discovery of the Fossil Elephants of Malta." By Dr. A. A. Caruana. Communicated by Dr. A. Leith Adams, F.G.S. The author described a new locality in Malta in which the remains of elephants had been found recently—the Is-Shantiu fissure at the entrance of Micabbiba. It was filled with a compact deposit of red earth containing fragments of limestone, many teeth and fragments of bones of elephants, associated with bones of large birds. The author found three small