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ERNEST WESTLAKE (1855–1922) FOUNDER MEMBER OF THE HAMPSHIRE FIELD CLUB

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ABSTRACT

Ernest Westlake (1855–1922) was a prolific field naturalist and one of the founding members of the Hampshire Field Club. A short biographical sketch is presented which concentrates on his geological and archaeological activities. Much of this account is based on Westlake's recently discovered field notebooks and memoranda, preserved at his home at Godshill, near Fordingbridge.

It is appropriate that in its centenary year the Hampshire Field Club should recall the five naturalists who, on March 28th, 1885, launched it firmly on the course it still follows. These were T W Shore, W Whitaker, E Westlake, the Rev W L W Eyre, and the Rev T Woodhouse (Colenutt 1944).

Of these, Westlake is, or until recently has been, the least well known, for unlike Shore who became intimately associated with the Hartley Institute in Southampton and Whitaker who rose to eminence in the Geological Society, he was of an essentially retiring disposition and spent much of his life (at Fordingbridge) engaged in extensive private field studies, of which most have never been published. Indeed, except for various brief references to him in the scattered publications of certain contemporaries, Westlake has remained an almost forgotten figure of Hampshire's Victorian past, and it was not until the present writer's fortuitous discovery in 1980 of the survival of Westlake's field notebooks and memoranda at Godshill near Fordingbridge that the true scope of this extraordinary Hampshire naturalist's endeavours became apparent. Subsequently, a general review of Westlake's geological and archaeological activities was produced in a specialist journal (Delair 1981). At the time, however, it was not possible to do more than hint at the extent of Westlake's other interests. In order to remedy this situation, there follows a short and perhaps long overdue biographical sketch of this ill-known founder member of the Hampshire Field Club – Ernest Westlake, naturalist and prehistorian extraordinary.

Born on November 16th, 1855, at Fordingbridge, Ernest was the son of Thomas Westlake (1826–1892) – Quaker proprietor of a successful sail-cloth manufacturing firm in that town – and Hannah Sophia Neave (died 1857). His uncles were William Colston Westlake (died 1893) and Richard Westlake (died 1915).

Thomas Westlake's commercial commitments were such that he could never indulge his very considerable scientific interests to his satisfaction, even though he built a small observatory to accommodate an equatorially-mounted 12½ inch reflecting telescope (made by Calver), and for many years kept exact records of local daily temperatures, rainfall, *etc*, the majority of which were duly printed in the local press (Westlake 1892). It was with considerable encouragement, therefore, that Thomas advised Ernest to pursue the scientific career denied to himself upon admitting that, after a year or so in the family business, Ernest apparently possessed no aptitude for commerce at all.

Thus it was that Ernest entered University College, London, to study, among other subjects, geology and mineralogy under Thomas Huxley and John Tyndall. Westlake's surviving student's notes show that he met or attended lectures by such eminent Victorian geologists as John Morris and Joseph Prestwich, and developed a keen interest in botony through the enthusiasm of Prof Ralph Meldola. Ernest did not proceed to a degree but, as his later activities reveal, left London with a keenly developed sense of the importance of fieldwork and of the methods

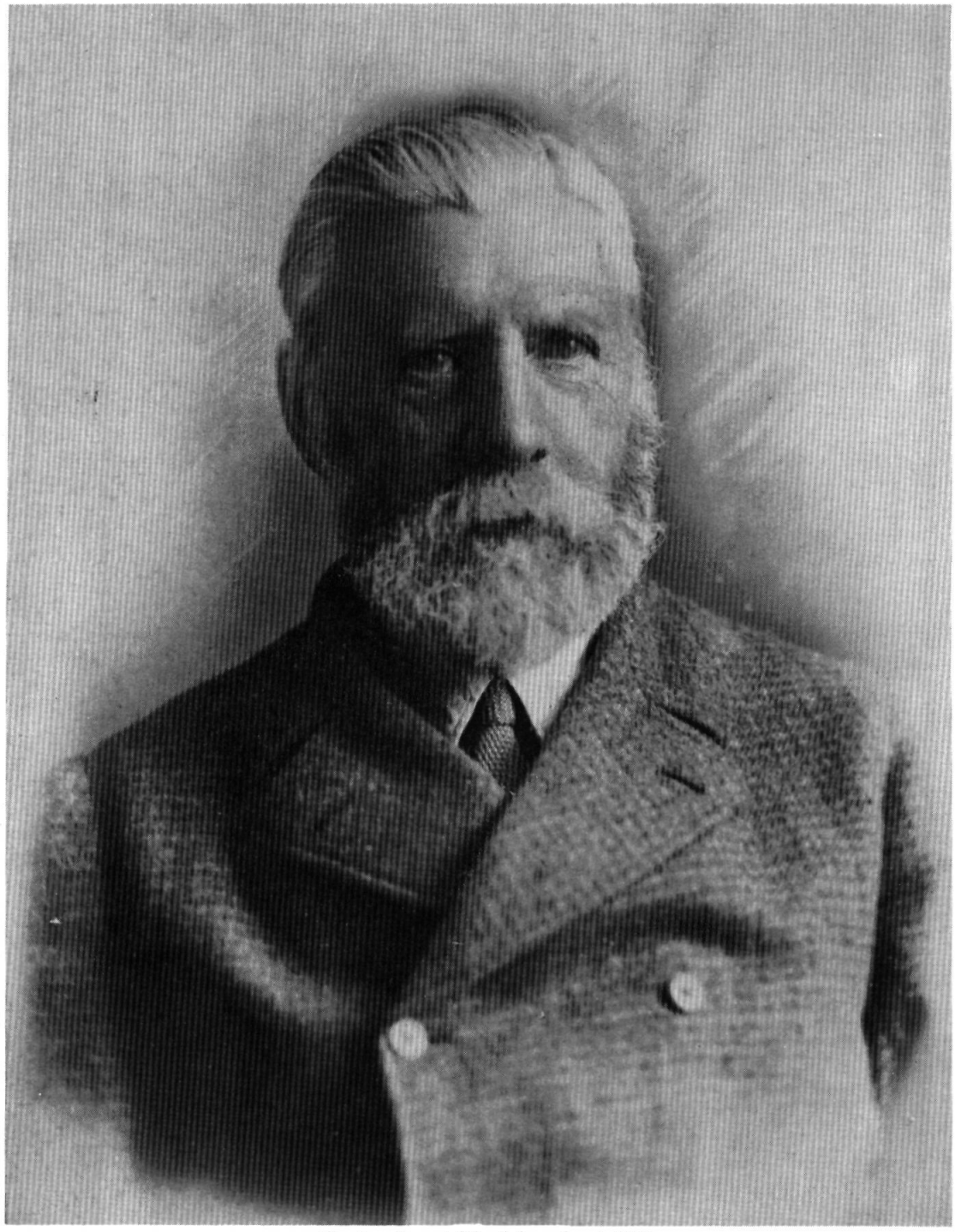

Fig 1. Ernest Westlake, about 1910.

necessary for pursuing it effectively. Indeed, in all that he subsequently undertook, it is clear that Ernest was pre-eminently a field scientist who preferred facts to theories.

Returning to live at the family home (Oaklands House) in Fordingbridge, geology became one of Ernest's ruling passions; and, being released through his father from the problem of actually having to earn a living, he was able to devote virtually all his time to the subject. In 1877 he became a member of the Geologists' Association (*Anon* 1923) and, two years later, was elected a Fellow of the Geological Society of London (Sollas 1923). From the late 1870s onwards, Westlake made innumerable visits to museums, private fossil collections elsewhere, and to coastal and inland geological sites all over southern Britain (and also some abroad), undertaking in the process the detailed measuring and drawing of cliff, quarry, and well exposures, and road and railway cuttings. This work embraced the collecting of suites of fossils from the many horizons and sites examined. In due course, Ernest's observations filled many notebooks (still extant) while, concurrently, an enormous collection of fossils (now divided between the Geology Department of Southampton University and the Salisbury and South Wilts Museum) was amassed – both by personal collecting and acquisitions from others.

Several of these records are of more than passing interest. Measurements and careful drawings of chalk stacks at Studland Bay, Dorset, for example, constitute valuable information about their precise proportions during a period before subsequent erosion altered and, in one instance, demolished them. The detailed sequences of deposits in quarries, brickpits, and cliffs – often measured to the nearest inch – also represent irreplaceable records of exposures either no longer accessible or now greatly altered. Large numbers of Hampshire sites figure in these records.

Early in the 1880s, Westlake became especially interested in the zones and fossils of the Chalk Formation, which, at that time, had not been worked out in the detail familiar to us today. Through remarkable energy and diligence, Westlake visited all the British Chalk exposures he could reach, even those as distant from Fordingbridge as Beer (Devon) Flamborough (Yorkshire), Eastbourne (Kent), Norwich (Norfolk), and Ireland. He also made trips to France to study the Chalk at Le Havre and other French localities. Improvements made to the railway network during those years, especially the Meon valley line, that from Andover to Stockbridge and Romsey, that from Alderbury (Wiltshire) to West Moors near Wimbourne (Dorset), and others at Micheldever and around Winchester, entailed extensive cutting through Chalk and Tertiary deposits, and provided splendid opportunities for fieldwork. That Westlake wasted none of these is clear from his notes and the suites of fossils obtained from these exposures.

Westlake's investigations were often most thorough, and included such details as the dip and strike of strata and their relative elevations above mean sea-level. The huge numbers of fossils collected enabled him to prove the existence of certain Chalk horizons at particular localities for the first time and permitted the correlation of specific zones in the Chalk exposed at many widely sundered lcoations. Many of these were Hampshire sites. One such was Stoke Hill near St Mary Bourne; Westlake's observations there were published by Joseph Stevens in the late 1880s (Stevens 1888), their accuracy being confirmed in 1906 by H Osborne White. Westlake also corrected certain of Prof Barrois's earlier statements about British Chalk zones at specific localities. These corrections, which were later confirmed by Jukes Browne (Jukes Browne 1908), had been mostly embodied in a remarkable tabular summary of Upper Cretaceous fossils from England and Ireland issued by Westlake (Westlake 1888) just one year after the publication of his paper on an unusual Chalk terebratulid in C J Read's collection at Salisbury (Westlake 1887a).

The significance of Westlake's Hampshire and Wiltshire Chalk researches was acknowledged by several contemporary professionals

(including Reid 1903; Jukes Browne 1904, 1908). Indeed, many lists of Chalk fossils recorded from particular Hampshire and Wiltshire exposures by these authors were based largely upon Westlake's previous field work at those localities.

But Westlake's enquiring mind ranged far beyond the problems of the Chalk Formation, and as early as 1882 we find him, jointly with T W Shore, presenting an account to the British Association of a then recently sunk artesian well at Southampton (Shore and Westlake 1883; Reid 1902b). His notebooks for this and subsequent years contain details of numerous other well sections inspected in Hampshire, Dorset, Wiltshire, and elsewhere. The following year saw Westlake publish a very able summary of geological phenomena in the vicinity of Fordingbridge (Westlake 1883), an account amplified in 1887 (Westlake 1887b) and again in 1908 (Westlake 1908). Another version of the same account, in which the different gravel terraces of the Avon valley were identified for the first time, was printed privately in 1889 (Westlake 1889; Reid and Dixon 1899).

Westlake began investigating the gravels and other post-Tertiary deposits of the Avon valley, especially with respect to the occurrence in them of flint implements, at least as early as 1879. It is not clear who or what stimulated Westlake's interest in this field, although perhaps it was the knowledge that, as early as 1864, John Evans had reported the existence of flint tools in Westlake's home town (Evans 1864), and that Humphrey P Blackmore, a well known antiquarian and the then curator of Salisbury Museum, had recorded similar finds at Milford Hill east of Salisbury just one year later, even though the actual discoveries had been made in 1856 (Blackmore 1865). The Milford Hill implements proved to be dissimilar from others previously obtained from fossiliferous brickearth at Fisherton, west of Salisbury (Blackmore 1865), and a general realization was not long in emerging that ancient stone tools exhibited not only different characters but were representative of different cultures from different periods of prehistory. Thus, the Fisherton finds were correlated with others from Menchcourt in France, and those from Milford Hill with those from St Acheul, also in France (Codrington 1870). All the implements were assigned to the Old Stone (Palaeolithic) Age, which, geologically speaking, largely falls within the Pleistocene period.

Between 1879 and 1889, Benjamin Harrison of Ightham, Kent, discovered many crudely chipped flints in high Plateau Gravels. He urged that the chipping had been effected artificially, a view supported by Sir Joseph Prestwich who later described Harrison's finds (Prestwich 1889, 1891). Accordingly, an earlier (pre-Pleistocene) Eolithic Age was advocated as having preceded the Palaeolithic, and the alleged antiquity of Man was extended backwards into the Pliocene period. During 1890 and 1894, Blackmore discovered several 'eoliths', as these crudely chipped flints were called, at Alderbury in gravels 180 feet above the level of the Avon (Westlake 1902), and the possibility that evidence could be found in the Avon valley for the existence of Pliocene Man who made eoliths was then obviously thought to be very real.

Westlake, perhaps encouraged by Blackmore, enthusiastically took up the search for palaeoliths and eoliths from about 1882 onwards, radiating out in his quest from Fordingbridge in all directions. Many of his excursions to likely implementiferous localities are recorded in his field notebooks, one of which is devoted solely to finds of flint implements. Westlake prosecuted these searches no less vigorously than his purely geological investigations, and he rapidly amassed a very large assemblage of chipped flints of all shapes and sizes, including numerous examples from Breamore and Wood Green, two localities rendered archaeologically famous by his efforts (Reid 1902a; Ashington Bullen 1903). Some of these discoveries were discussed in 1903 in a general review of the antiquity of Man in Hampshire (Westlake 1903). Many specimens came from sites apparently never recorded in the literature, and certainly omitted from Rowe's gazet-

teer of British Palaeolithic localities (Rowe 1968). Westlake's palaeoliths falling into this category are currently being catalogued and studied at Southampton University.

Westlake's eoliths – including between four and five thousand flints from Aurillac in the Cantal, France – are still undescribed and remain little known, at his late home at Sandy Balls, Godshill. The French examples were collected in 1904 when Westlake visited the Cantal expressly to obtain evidence of Tertiary (pre-Pleistocene) Man. His excavations there occupied almost an entire year (Sollas 1923). These flints lay in deposits usually considered to be of Miocene (*ie*, pre-Pliocene) age, and were thus roughly coeval with chipped flints previously discovered in supposed Miocene strata near Pontlery, France (Bourgeois 1869, 1877), and with others from a ferruginous conglomerate in Burma thought to be of late Miocene or early Pliocene age (Noetling 1894). Later still, eoliths were reported from yet earlier (Oligocene and Eocene) horizons (Rutot 1907, 1908; Breuil 1910), and generally appeared to resemble Westlake's Cantallian specimens. These discoveries called the validity of eoliths as genuine human artefacts into question, and it was not long before their natural origins were advocated (Warren 1905).

The status of eoliths as rude human handiwork remains unsettled. It is unquestionably an exaggeration to claim, as in 1965 (Morley-Hewitt 1965), that Westlake was 'Largely responsible for the recognition of eoliths, the earliest stone tools used by man in the Eocene period of geology'; Harrison, Blackmore, Prestwich, and others before him claimed to recognize them as artificial objects, while, conversely, there are – and were even in Westlake's day – many who regard eoliths as natural productions. There is, of course, no doubt that Westlake *did* collect thousands of well documented chipped flint eoliths: the specimens still exist. It is not their physical occurrence but the agency responsible for their present chipped condition that is the real controversy.

It was a great loss to the subject when a major study of Westlake's Cantallian finds, undertaken by the late Prof Reid-Moir just before World War II, was destroyed by enemy bombing before it could be published. Among the items so lost was an unpublished geological memorandum by Westlake detailing his field work at Aurillac. Reid-Moir died before he could rewrite his findings, or realise his intention to monograph Westlake's material (Reid-Moir 1941). An undated draft of Reid-Moir's intended monograph has, however, fortunately survived and is now preserved at Godshill. Reid-Moir evidently agreed with earlier assessments of the specimens by Capitan, who travelled from France specially to examine them (Westlake miscellaneous memoranda), and by Sollas, who concluded that they were genuine, if crude, human artefacts (Sollas 1924). As late as 1955, D F Baden-Powell entertained similar opinions (Baden-Powell 1955).

By way of further effort to establish that primitive man chipped flints resembling eoliths, Westlake spent two years (1908–1910) in Tasmania collecting numerous examples of extinct Tasmanian handwork (Sollas 1923). His collection went to the Pitt-Rivers Museum, Oxford, but was not generally reviewed until 1924 (Balfour 1925).

On the occasion of the founding of the Hampshire Field Club, Westlake was therefore not only familiar with the geology of Hampshire and the adjacent counties, and had already published some of his observations, but was firmly involved with researches concerning ancient stone tools and their implications for the antiquity of Man. He was evidently well known to many contemporary naturalists and antiquarians, not only in and around Hampshire but also further afield. Thus, from every point of view he seems to have been well-suited to help found the Hampshire Field Club; yet, although for a few months he served as one of its joint secretaries and then (until 1898) as local secretary for the Fordingbridge district, and remained on the committee until 1890, he apparently contributed very little towards the expansion and development of the Club. Indeed, his sole recorded action concerned the distribution

among members of a drawn section of the Chalk of the Winchester area in May 1885 (*Anon* 1890).

Nevertheless, as one of Hampshire's leading Victorian naturalists, Westlake was still much consulted (he received numerous letters which are still preserved at Godshill), while his ever-growing fossil and mineral collections were considered sufficiently important to be included by William Dale in a list of Hampshire's most noteworthy collections (Dale 1888).

Westlake's interests were very varied. His notebooks contain many entries concerning plants and insects, and he made large collections of these, many of his specimens coming from the New Forest and Cranborne Chase areas. He also made an extensive collection of marine shells (Dale 1888). Most of these biological collections, however, were accidentally destroyed by fire at Oaklands House shortly before World War I. Westlake's notebooks also contain entries on psychical phenomena and dowsing, his interest in the latter being, perhaps, related to his interest in wells and water-tables. Scattered notes and observations suggest that he related water-tables to plant distribution, growth patterns, and insect populations.

In 1891, he spent long hours at the British Museum compiling a 'Bibliography of the Divining Rod, circa 1100 to 1900 A D', for which he perused numerous references in the English, Dutch, French, Hungarian, Spanish, German, Italian, Latin, Norse, Swedish, Danish and Bohemian languages. Together with his large library, this massive and original manuscript (unpublished) is still preserved at Godshill, and is a remarkable piece of work. It was probably through his involvement with dowsing that Westlake shortly afterwards contributed an appendix to a paper on the divining-rod by W F Barrett (Barrett 1900), which ably demonstrated his familiarity with that subject.

On May 1st, 1891, Westlake married fellow Quaker Lucy Ann Rutter of Mere, Wiltshire, and went to live for a while in Hampstead, London. By her, Westlake had two children – Aubrey Thomas born in 1893, and Margaret Agnes born in 1896. In later years he became deeply interested in child education, one of the outcomes of this being his acquisition in 1919 of his final home – the woodland estate of Sandy Balls near Godshill, east of Fordingbridge, and overlooking the River Avon he loved so much (Westlake 1956).

Westlake died tragically in a road accident in Holborn, London, on November 29th, 1922, scarcely a fortnight after his 67th birthday, and was buried on Woodling Point in the heart of his Godshill estate. Several obituaries of him appeared at the time, including one in the *Proceedings* of the Hampshire Field Club (*Anon* 1924). None of them, however, conveyed the true extent of his interests, activities, or accomplishments.

It is transparently clear that Ernest Westlake was pre-eminently a collector of factual data in each of the fields he chose to study. He collected on a grand scale. No scrap of information was too small to overlook, and judging from the minute size of many of his fossils he must have possessed remarkable eyesight. Thus we yet possess identifiable specimens or fragments of specimens of fossil creatures from exposures not represented in other collections, or which, in many instances, are actually unnoticed in the literature. One of these, a Chalk echinoid (sea-urchin), has recently been made the type of a new species named in his honour – *Micraster westlakei* (Stokes 1977). Elsewhere, enormous suites of fossils from particular sites afford valuable faunal data and excellent morphological material. One can only guess at the character of the destroyed insect and botanical collections. Both, however, are alleged to have been similarly extensive and comparably rich.

Westlake worked, of course, during an 'ideal' period, when quarrying of all kinds was in full spate and when railway networks were being extended at a great pace. In those days, excavation work was still carried out by hand, with opportunities for noticing specimens being correspondingly greater than with the mechanised methods of our own era. His botanical and entomological investigations,

however, must have been motivated by other ideals, for these enquiries do not concern static things like strata or fossils but longer term factors and, sometimes, geographically mobile subjects.

That Westlake was in his own special way an exceptional man is undeniable; that he accumulated such a wealth of data is continuously astonishing; and that he deliberately recorded so much information for posterity is something for which all present and future naturalists and historians should be grateful. He was one of a once common breed – the all-round naturalist – who, although individually specialising in particular fields of enquiry, were peculiarly adept at integrating wide-ranging facets of Nature into an harmonious whole, and knew enough to record all that they saw. That Westlake was an unusually fitting person to be a founder of the Hampshire Field Club is self evident.

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