MEDICAL PRACTICE

Outside Medicine

William Stukeley: Doctor, Divine, and Antiquary

S. PIGGOTT

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Looking back on his days as a medical student in Cambridge, a distinguished antiquary of the eighteenth century entertainingly described his room in college in 1705. "It had," he said, "a very strange appearance with my Furniture in it, the wall was generally hung round with Guts, stomachs, bladders, preparations of parts and drawings. I had sand furnaces, Calots, Glasses, and all sort of Chymical Implements. . . . Here I and my Associats often dind upon the same table as our dogs lay upon." This was William Stukeley, aged 18, a Holbeach boy who had escaped from his father's legal business to train for the profession his incipient scientific mind craved, and which he practised until 1730.

Over the years 1718-25 he made a series of journeys across the English countryside; a pupil of Dr. Richard Mead at St. Thomas's, he frequently dined with the great man, "where we drank nothing but french wine," and so "was laid up with gout" every winter and "in the spring, I was oblig'd to ride for my health, and that brought me in the humour of and love of travelling; whereby I indulg'd myself in the study of the antiquities of my country." In these journeys he laid the foundations of modern field archaeology, and made surveys of the great prehistoric monuments of Avebury and Stonehenge that were not equalled until well into the last century. Dr. Mead's claret contributed to archaeological scholarship in an unexpected manner.

But though only 38, Stukeley was to do no more field work after 1725; indeed, he ceased to practise medicine in 1730, on his ordination in the Church of England and appointment to a living in Stamford. Antiquarian studies continued, however, as he cogitated on the material collected over those seminal eight years of field trips, and saw in it more and more that could be turned to

FIG. 1—William Stukeley, aged 39, self-portrait 1726 (Bodleian Library).

use in religious controversy of an eccentric kind. He planned at first a corpus of prehistoric stone circles and allied monuments, but it got no further than notes. In 1740 and 1743 the Stonehenge and Avebury notes were put into shape and published in two volumes, which are an extraordinary mixture of sound objective fact and the most curious flights of fancy, and it was these, with their Druidic inventions, that attracted attention and inflamed romantic after crazy romantic. Stukeley became remembered as a crackpot, a byword for all that was silly in eighteenth-century antiquarianism. Only the fortunate survival of so many of his papers makes it possible to reconstruct his intellectual life and

FIG. 2—Sketch of William Stukeley asleep after a day's field work at Avebury, August 1722, by Gerard Vandergucht (Bodleian Library).

see the real worth of his contributions as a young man. But what happened? Why does his life seem to fall into such disparate halves? To seek an answer we must look at what happened to antiquarian studies as a whole over the century 1650-1750.

Intellectual Climate

Stukeley's description of his college room has more than entertainment value, for it places him, as an impressionable youth, firmly in the intellectual climate of the new experimental science that has developed from foundations laid by Francis Bacon in the second half of the seventeenth century. The Royal Society had received its charter in 1662; and had created an attitude of mind which included an objective approach to the phenomenal universe in which flowers and fossils, butterflies and antiquities, were all seen to be in need of pragmatic investigation, record, and classification. As an undergraduate Stukeley coincided with Bentley's encouragement of scientific studies in Cambridge and the appointment of Vigani as Professor of Chemistry. He collected fossils from the local gravel and chalk pits, and checked his identification of plants against John Ray's famous *Cambridge Catalogue* of 1660. In 1718 he was elected Fellow of the Royal Society, then under the aged Newton's presidency: both Lincolnshire men, they became friends, and Stukeley's reminiscences of Newton are our source for the story of the falling apple. In 1726 they discussed antiquities together in the form of Solomon's Temple, for, from the 1690s, Newton had become increasingly concerned with Biblical exegesis and ancient chronology, and at this time also Stukeley's mind was moving away from facts and the actual monuments of antiquity to theories and religious speculation.

But those years when Stukeley in his 30's started observing and recording antiquities in the English countryside, and then concentrated his attention on Avebury and Stonehenge, mark the application of the Royal Society approach. It is the work of the early 1720's which has given Stukeley his pre-eminent position in the history of British field archaeology. He looked at the monuments of prehistory with an objective desire for classification and precise record. He also looked for reasoned statements

of their likely function attempting to set them in chronological relationship with at least Roman structures. At Avebury the improvements in eighteenth-century agricultural techniques were leading to destruction and vandalism in an ominously modern fashion, and here he deliberately set out to make a one-man "rescue" survey, for which archaeologists have continued to be grateful ever since.

Legacy of Aubrey

The impetus to visit the Wiltshire monuments seems to have come from reading the unpublished and rather chaotic draft of a book on antiquities by an earlier Fellow of the Royal Society, John Aubrey, who had compiled his *Monumenta Britannica* between 1665 and 1693 and, as the first to put the stone circles of Avebury on record, had included a section on these, Stonehenge, and allied monuments under the title of *Templa Druidum*. As we saw, Stukeley planned to write his own version of such a book, which would include a treatment of Avebury in far greater detail, as well as a discussion of other sites of similar type. In the scientific tradition Aubrey and Stukeley were applying the methods of collection—assembling a corpus, whether of dried plants or fossils, or plans and drawings of field monuments—and of classification, arranging them in some sort of meaningful taxonomy. But Aubrey's work was never published and by 1730 or so the intellectual and emotional temper of the times was changing, and Stukeley's own life was at a personal turning point.

If one said that intellectually the seventeenth century lasted until about 1730 (as one could with some justice say that the eighteenth-century tradition ended about 1830), one would find that at just about this date the end came to the extraordinary flowering of English historical studies, and that of Old English literature, which centred on the great Restoration scholars such as Hickes and Wanley, Maddox, and Rymer. By 1750 the decline in scholarly standards was complete. The Royal Society, which had gone downhill under the senile Sir Hans Sloane and his successor, Martin Folkes, was the subject of open and justified ridicule when, in the 1750's, Stukeley stood sponsor to the publication of an alleged *Itinerary of Roman Britain* which was a complete forgery. Contemporary historical and textual scholarship were at such a low ebb that this student's joke (for such it was) was received with uncritical acclamation. Half a century before it would have had no chance of survival. Historical studies, in this country as in France, were taking on a "philosophical" aspect, with wide generalizations replacing documentary erudition. Antiquarian studies, dropped from the now more strictly defined scientific disciplines and abandoned by the

FIG. 3—Sketch by William Stukeley of himself and his friends doing field-work at Avebury, 1722 or 1723 (Bodleian Library).

social theorists, were left to be caught up in the net of the growing enthusiasm for the picturesque, the romantic, and the vaguely religious quest for the Noble Savage in antiquity.

Against this background Stukeley's personal history becomes more explicable. There certainly seems to have been an intellectual and emotional crisis in his life about 1729, and one is reminded of Newton's nervous crisis of 1692-3. We saw how the two men discussed Biblical antiquities together, and in 1731 Stukeley drafted a *Mosaic Chronology* on a topic dear to Newton's heart. He was becoming concerned with a framework of the ancient world within which he could set his prehistoric monuments; he needed an "explanation" within the terms of which Avebury, Stonehenge, and the rest would make some sort of sense beyond the limits of description, order, and classification. That "explanation" had in fact constituted something new and acceptable in the Royal Society's approach a century before, but it no longer satisfied contemporary demands of intellect and emotion, and it no longer satisfied Stukeley.

Unfinished Manuscripts

Among his manuscripts are several drafts of the book he never finished. As early as 1723 it was planned as *The History of the Temples of the Ancient Celts*, but, ten years later, four years after he had retired from medicine and taken Holy Orders, this had become emended to *The History of the Religion and Temples of the Druids*. Nevertheless, in 1740 a book on Stonehenge and three years later a companion volume of Avebury were published, announced by Stukeley to be two sections only of a seven-volume treatise on patriarchal Christianity, of which no more appeared. Had they done so the remaining five would have been introductory, beginning with ancient chronology and going on to demonstrate that "the first religion was no other than Christianity . . . that all mankind from the Creation had a knowledge of the plurality of persons in the Deity" and that

Phoenicians had colonized Britain, bringing patriarchal religion with them "about the time of Abraham" in the persons of the Druids, who were "of Abraham's religion intirely" and though "we cannot say that Jehovah appeared personally to them they had the notion and expectation of the Messiah."

Such a demonstration would, Stukeley thought, "combat the Deists from an unexpected quarter"—so unexpected indeed that no one seems to have recognized his books as contributions to contemporary religious controversy at all. But Stukeley was quite logical. On the one hand, this dispute involved churchmen like himself to whom divine revelation, the coming of the Messiah and the fulfilment of prophecy, and the doctrine of the Trinity, were among the foundations of their faith. On the other hand, the Deists, confident of the original nobility and perfectibility of a man from the Creation, and convinced by the mathematicians of a divinely ordered universe, found that "The State of Nature was the reign of God," as Pope put it, and that revelation and the miraculous elements in Christianity were irrelevant. One way to attack this disturbing view was to make "Christianity as Old as the Creation" as part of the title of Tindal's book of 1730 puts it, and Stukeley—by now so devoted to his ancient Druids that he must have thought of them as prehistoric fellow clergymen—followed Tindal and others who were confounding Deism by making Christianity the original religion of nature.

Noble Druids, natural Christians, stout patriots in the face of Roman rule, and worshipping at Stonehenge—all this was immediately acceptable to men of feeling and sensibility as well as to gentlemen of taste in the mid-eighteenth century. As the momentum of the Romantic Movement increased (and Macpherson's Ossian fabrications had their first wild success around the time of Stukeley's death), so these ideas became more deeply embedded in our national folklore, and we are by now a very long way from the scientific curiosity which prompted Stukeley's painstaking records and measurements of two great prehistoric monuments in the 1720s.

Occasional Survey

Treatment of Paget's Disease of Bone with Synthetic Salmon Calcitonin

J. A. KANIS, D. B. HORN, R. D. M. SCOTT, J. A. STRONG

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Summary

Thirteen patients with painful Paget's disease of bone were treated as outpatients with low doses of synthetic salmon calcitonin 22.5-50 µg three times weekly. Treatment produced full remission of pain in a mean time of 5.5 weeks and

a mean depression of serum alkaline phosphatase activity of 33%.

The interval before symptomatic relief could not be predicted from the variables studied. The ultimate fall in serum alkaline phosphatase activity, however, could be predicted from the initial levels and from the early rate of decrease ($P < 0.001$). Biochemical resistance to treatment, which occurred in three cases, could be related to the dose and duration of treatment.

Prolonged remissions of pain may occur which are not related to biochemical remission, to the dose of calcitonin, or to the duration of treatment. The side effects attributable to salmon calcitonin were transient nausea (in nine patients), transient flushing (in four), diarrhoea (in two), and rash (in one) though in only one patient did treatment have to be withdrawn prematurely because of these effects.

Western General Hospital, Edinburgh EH4 2XU

J. A. KANIS, M.B., M.R.C.P., Senior House Officer*

D. B. HORN, PH.D., M.R.C.PATH., Biochemist

R. D. M. SCOTT, M.B., M.R.C.P., Lecturer in Medicine

J. A. STRONG, M.D., F.R.C.P., Professor of Medicine

*Now Medical Registrar, Royal Infirmary.