Book Reviews

Lost Languages, Philip Ellaby Cleator, London, 1959. Reviewed by

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The urge to discover secrets is deeply ingrained in human nature; even the least curious mind is roused by the promise of sharing knowledge withheld from others. Some are fortunate enough to be employed in the solution of mysteries, whether they be physicists who track down a hitherto unknown nuclear particle or policemen who detect a criminal. Most are driven to sublimate this urge, however, by the solving of artificial puzzles which have been devised for their entertainment. Detective stories or crossword puzzles suffice for the majority; the solution of secret codes may be the hobby (or the livelihood) of a few. *Lost Languages* is the story of the solution, primarily by cryptologic methods, of genuine mysteries which had baffled men for centuries; it is the story, too, of mysteries which still await their Champollion.

It was only a century and a half ago—a mere pinpoint in time—that certain discoveries were made in the humanistic sciences which paralleled the new and radical facts of knowledge in the fields of physical science and technology. It was in the 19th century that archaeology acquired a new look—a look based on the principles set forth earlier by Winckelmann; it was in the 19th century that there was an intensified study of original inscriptions and the first steps were taken toward a true science of linguistics. For the first time, men looked back at the races which had existed before the beginnings of Greek history and which had shaped the earliest history of mankind in the Near East; for the first time, scholarly attention was devoted to the inscribed monuments which had survived from the remote period of antiquity. Despite the Horatian dictum *"vixerunt fortes ante Agamemnona"* history had hitherto begun with Homer and the tales of the Old Testament; of earlier civilizations which had flourished elsewhere in the Mediterranean area, little was known, and the knowledge of ancient tongues was restricted to Latin, Greek and Hebrew. Admittedly, a certain formal familiarity with the monuments of ancient Egypt, perhaps even of Mesopotamia, had been salvaged from remote antiquity, but man still gazed at the odd pictorial or wedge-shaped characters with which these monuments were covered with the same sense of wonderment as had the Greeks and Romans, to whom the hieroglyphs were equally mysterious. Knowledge of these scripts had been lost in time, and seemingly no effort was made in late antiquity or during the Middle Ages to de-

cipher them.[1] Thomas Paine perhaps reflected the vulgar feeling when he wrote in 1794: "As there is now nothing new to be learned from the dead languages, all the useful books being already translated, the languages are becoming useless, and the time expended in teaching and learning them is wasted. So far as the study of languages may contribute to the progress and communication of knowledge, it is only in the living languages that new knowledge is to be found."[2] And yet, today Egyptian hieroglyphics and language form part of our knowledge as well as the cuneiform characters of the Near East and many other formerly forgotten scripts and languages. Archaeological activities directed the attention of scholars to the countless inscriptions left behind by the early inhabitants of parts of Asia and Africa, with the result that we are today better informed about some of the monarchs who ruled these realms in 2000 B.C. than we are about events in England during the reign of Alfred the Great. The decipherment of these scripts and languages in the 19th and 20th centuries ranks with the most outstanding achievements of the human mind, and the only reason it does not stand in the limelight of public interest as a co-equal of the triumphs, in the same period, of physics and technology and their related sciences is that it cannot produce the same effect on practical daily life.[3] As a result of these achievements the historical horizon has been pushed back significantly, so that the surveyable history of mankind now comprises some 5,000 rather than 2500 years. This knowledge includes not merely political events but also the material and intellectual culture of these ancient races—their homes, their manner of living, their religious, juristic and scientific thinking; knowledge of the remoter past has made

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[1] In late antiquity, Horapollon in his *Hieroglyphica* advanced the view that the Egyptian script was not writing, like other writing, but concealed the secret wisdom of philosopher priests, to be understood only by one who had been similarly initiated into magico-mystic wisdom. This interpretation remained virtually unchallenged for centuries (attracting even Champollion) and explains why, as late as the 17th century, Athanasius Kircher in his *Sphinx Mystagogica* could give free rein to his imagination and interpret the simple phrase, "Osiris says," as "The life of things, after the defeat of Typhon, the moisture of Nature, through the vigilance of Anubis." If the absurdity of these hieroglyphic elucidations was not apparent to Kircher's admiring contemporaries, it was because the depth of his ignorance was more than matched by their own. Ironically, an accurate translation of the inscription of the so-called Flaminian obelisk had been made by Hermapion, an Egyptian priest, and preserved *in toto* for an incredulous posterity by Ammianus Marcellinus.

[2] *The Age of Reason*, I.

[3] This inferior evaluation accounts for the fact that the unlocking of the secrets of extinct languages and scripts is rarely described coherently and is, therefore, hardly known to the general public.

possible an insight into the development of human life and thought from a perspective far wider in space and time.

Philologists, prior to the initial decipherments, refused to admit that the incised and painted hieroglyphs of Egypt or the indentations exhibited by the baked clay tablets of Mesopotamia were a form of writing at all. *Lost Languages* tells how these and other age-old records came first to be discovered and then deciphered. In so doing it affords a fascinating glimpse of the cryptologist-decipherer and his work—the inspired guesses, the slender clues, the deductive reasoning, the apparently unrelated facts, the seemingly trivial details. It contains, in fact, the essential ingredients of an exciting detective story. Not only are linguistic remains, long defunct and forgotten, unearthed and identified, but they are effectively brought back to life. After a general introductory chapter on the diversity of tongues and the classification of languages, the author devotes a chapter each to the two great decipherments—the Egyptian hieroglyphs and cuneiform—and a chapter to what he describes as the subsidiary systems—Hittite, Ugarit and Minoan Linear B. In his concluding chapter he describes briefly the half dozen or more undeciphered scripts which, for one reason or another, continue to baffle scholars. A brief but informative history of the important nations or peoples concerned has been included in each chapter to provide the reader with the proper perspective, along with an account of the often bizarre individuals who each played his role in deciphering the linguistic puzzles. The gallery of portraits includes the brilliant Georg Grotefend, undertaking on a wager, if the story be not apocryphal, and with no real knowledge of the Oriental languages, to decipher the cuneiform script; Champollion, precocious genius, dedicated at twelve to unlocking the secrets of the hieroglyphs like a youthful Hannibal swearing eternal enmity to Rome; Michael Ventris, as a fourteen-year-old schoolboy, falling under the spell of the legendary Sir Arthur Evans and determining to take up the challenge of the undeciphered Cretan writings; the indefatigable Rawlinson copying the great Behistun inscription from a perilously swaying scaffold; and Young and Layard and Hincks and Lepsius and many others—along with a recognition of the existence and the toil of the uncounted Misses Blimber who labored mightily and reaped a mutely inglorious anonymity.[4]

It is in the details of the decipherment, however, that the cryptolo-

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[4] "There was no light nonsense about Miss Blimber . . . She was dry and sandy with working in the graves of deceased languages. None of your live languages for Miss Blimber. They must be dead—stone dead—and then Miss Blimber dug them up like a ghoul." (Dickens, *Dombey and Son*, chapter 11.)

gist will be most interested, for it is obvious that there is a distinct similarity between an unreadable script and a secret code; similar methods may be employed to break both. The differences must not however, be overlooked. The code is designed deliberately to baffle the investigator while the script is only puzzling by accident. The language underlying the coded text is generally known; in the case of a script there are three separate possibilities. The language may be known or partially known but written in an unknown script; this, for instance, was the case with the decipherment of the Old Persian inscriptions by Grotefend in 1802; the cuneiform signs were then quite unknown, but the language, as revealed by the recognition of proper names, turned out to be largely intelligible through the medium of the Avestan texts. Secondly, the script may be known while the language is unknown. This is the case of Etruscan, which is written in a modified form of the Greek alphabet presenting little difficulty to the understanding of its sounds, but as yet no language has been found closely enough related to throw any light on the meaning of the words. Thus, in spite of a large collection of inscriptions our knowledge of Etruscan is still very elementary and uncertain. Finally, there is the situation which confronted the decipherers of the Minoan script—an unknown script *and* an unknown language. The fact that the language *subsequently* proved to be known is irrelevant; that fact could not be used in the first stages of the decipherment. In this last case decipherments have usually been judged to be possible only when they could start from a bilingual text. The Egyptian hieroglyphs began to yield their secrets only when the discovery of the Rosetta stone, with the Egyptian text repeated in Greek, made it possible to equate the royal names in the two versions.

It is apparent that cryptology has contributed a new weapon to the student of unknown scripts. It is generally known that any code can, in theory, be broken, provided sufficient examples of the coded text are available; the only method by which to achieve complete security is to ensure continuous change in the coding system or to make the code so complicated that the amount of material necessary to break it can never be obtained. The detailed procedures are irrelevant, but the basic procedure (obvious to the reader) is the analysis and indexing of coded texts so that underlying patterns and regularities can be discovered. If a number of instances can be collected, it may appear that a certain group of signs in the coded text has a particular function; it may, for example, serve as a modifier. A knowledge of the circumstances in which a message was sent may lead to other identifications, and from these tenuous gains further progress becomes possible until the meaning of most of the coded words is known. The application of these basic cryptologic methods to unknown languages is

obvious; such methods enable the decipherer to determine the meaning of sign groups without knowing how to pronounce the signs; indeed, it is possible to imagine a case in which texts in an unknown language might be understood without finding the phonetic value of a single sign.

Certain minor criticisms of *Lost Languages* may be made, even though the author makes no pretense of having written anything other than a reasonably accurate popular account of a subject far too little known. C. W. Blegen of the University of Cincinnati consistently appears as Blegan; a scholar famous in the field of ancient history and especially renowned for his archaeological discoveries at Troy and Pylos surely deserves to have his name spelled correctly. To the bibliography, part of which is out of date and part of which appears to be mere padding, should be added Pallottino,[5] Bloch,[6] Friedrich[7] and Chadwick[8]—the last, especially, of great interest to the cryptologist. From the standpoint of the cryptologist, too, I should suggest that a complete chapter might well have been devoted to the decryption of Minoan Linear B which Gelb, at the Second International Congress of Classical Studies at Copenhagen in 1956, described as the "most successful single attempt in the whole history of the decipherment of unknown writings and languages."[9] Admittedly, one may always read Chadwick, so that this complaint, like the others, may be captious and unjustified.

What are the prospects for the future? The very fact that Ventris' astounding feat was accomplished as recently as 1952 by someone other than a professional philologist certainly suggests that there is nothing to prevent would-be Champollions from exercising their ingenuity and talents, always providing that these attributes are accompanied by a thorough knowledge of the subject of their choice. Not a few problems are at present outstanding, some of them far from new, as, for example, that presented by the language of the Etruscans, which has long puzzled scholars and is apparently little nearer solution than it was 2000 years ago.[10] Other questions have arisen since the beginning of the present century, and some of them, at least, promise to be less intractable since they seemingly await nothing more than

[5] Pallottino, Massimo, *The Etruscans*, Rome, 1954.

[6] Bloch, Raymond, *The Etruscans*, New York, 1958.

[7] Friedrich, Johannes, *Entzifferung Verschollener Schriften and Sprachen*, Berlin, 1954.

[8] Chadwick, John, *The Decipherment of Linear B*, Cambridge, 1959.

[9] With the possible exceptions of Beattie and Grumoch, scholars now accept the accuracy of Ventris' decryption.

[10] Perhaps the incipient Etruscan club within our midst may rend the veil.

the discovery of additional material. Gordon, at Brandeis, claims to have identified Linear A terms with words used in Babylonian Akkadian; others have speculated on possible Semitic affinities, and the ultimate solution may be found along these lines even though these views still appear premature to the scholarly community. What harm the bigotry of the vandal cleric de Landa wrought in destroying almost completely the ancient Mayan records may happily be righted by the activities of the Friedmans who even now are investigating the Mayan glyphs in an attempt to decipher something more than the calendrical texts; this may well be a difficult task since it seems unlikely that the Mayan writing is a phonetic system, if only because it has so far defied all attempts at elucidation even though Mayathan continues to be spoken in the neighborhood. These and other problems, however, will yield in time to persistent investigation, as have all the seemingly unsolvable problems of the past. Whatever the language, however obscure, each additional achievement will advance in its own way the sum of human knowledge.

————R. F. B.

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