"The Curious Mixture of Signs" That Is Hieroglyphics*

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In the early pages of Wuthering Heights, Lockwood, the narrator, gets snowed in at the remote farmhouse from which Emily Bronte's only novel takes its title. Exploring the place, he comes across a cache of dilapidated and mildewed books. On the shelf where the books rest, he sees writing scratched into the paint: "This writing, however, was nothing but a name repeated in all kinds of characters, large and small—CATHERINE EARNSHAW, here and there varied to CATHERINE HEATHCLIFF, and then again to CATHERINE LINTON." When he examines the books more closely, Lockwood notices that the margins have been filled with scribbled notes that, he realizes, amount to a sort of diary. "An immediate interest kindled within me for the unknown Catherine, and I began forthwith to decipher her faded hieroglyphics."

Of course, we're not meant to think that Catherine's diary was actually written in hieroglyphics, just that her writing resembled the ancient Egyptian script in being old and hard to read as well as mysterious and highly alluring. Such writing seems to hold out the promise of unlocking ancient, hidden secrets. It certainly does so in *Wuthering Heights*, since this is how Lockwood begins to uncover the story of revenge and timeless love that has captivated readers ever since (and which, despite numerous film versions, continues somehow to elude movie audiences).

^{*}Andrew Robinson, Cracking the Egyptian Code: The Revolutionary Life of Jean-François Champollion. New York: Oxford University Press, 2012. 272 pages. \$29.95 cloth.

Characteristically, Emily Bronte chose the perfect metaphor here and deployed it with breathtaking, seemingly casual precision. When Wuthering Heights came out in 1847, the decipherment of hieroglyphics was fresh and very much alive in popular imagination. The big breakthrough had come only a quarter-century earlier, in 1822, and important progress was still being made and widely followed by a very interested public. The Heathcliffesque genius who figured out hieroglyphics, Jean-François Champollion, had died at the age of 41 just a decade and a half before the novel, in 1832. More specifically, though, Bronte's use of the metaphor is precise not only because it picks up on the repetition of names, which in fact played a central role in the decipherment, but also because the key to understanding the script was Champollion's 1822 insight that it did, indeed, embrace "all kinds of characters" what Champollion's fellow Egytpologist Karl Richard Lepsius, in 1837, called "the curious mixture of signs of a totally different nature that comprise one and the same alphabet." Not to mention that, from the beginning of nineteenth century, the romance of ancient Egypt had kindled the interest of Europeans like nothing else.

In his recent biography of Champollion, journalist and author Andrew Robinson does full justice to all aspects of this story for the general reader. It's a narrative with great visual appeal, and one of the book's strengths lies in its generous graphics, with plentiful, well-chosen black-and-white illustrations interwoven with the text and two fine selections of color plates. In addition, the examples of the hieroglyphic signs themselves, which appear frequently in the text, are cleanly and crisply reproduced. And for the most part, Robinson finds just the right level of detail in laying out the many complexities of the Egyptians' baffling script clearly and understandably, while offering an enthralling yet judicious portrait of the first person since late antiquity who truly grasped it.

The book's graphic excellence may have something to do with its publishing history, since the British edition was published by Thames & Hudson, who also published several of Robinson's other books on related subjects. Robinson, a former literary editor of the *Times Higher Education Supplement*, has carved out a niche for himself with well-illustrated books of popular synthesis on the history of writing systems and the modern decipherment (or lack thereof) of some early ones. His previous books include *The Story of Writing* and *Lost Languages: The Enigma of the World's Undeciphered Scripts*, as well as *The Man Who Deciphered Linear B: The Story of Michael Ventris* and *The Last Man Who Knew Everything*, a biography of the English polymath Thomas Young, who was Champollion's main rival in the race to decipher hieroglyphics and who made important early contributions to Champollion's eventual success.

Robinson opens his narrative in medias res, with a brief prologue set at the height of unconsummated "Egyptomania" in 1821, when a bravura exhibition drew large numbers of the curious—some 2,000 on opening day—to Egyptian Hall, a private museum built in the "Egyptian style" two decades earlier in London's fashionable Piccadilly. The main attraction was a "magnificently carved and painted" one-sixth scale reproduction of a tomb discovered three years earlier in Luxor (ancient Thebes): "At the inauguration ceremony, held on 1 May 1821," Robinson writes, "the tomb's Italian discoverer, Giovanni Belzoni—a former circus strongman turned flamboyant excavator of Egypt, who was about to become one of the most famous figures in London—appeared wrapped in mummy bandages before a huge crowd" (9). Mummy bandages! Circus strongman! Robinson had me before the end of the first paragraph.

Mummy bandages aside, what makes Robinson's prologue apt is the striking contrast of enthusiasm with ignorance, which dramatically highlights the poor state of understanding that Europeans brought to all the tombs, sarcophagi, obelisks, stelai, and other artifacts that had enchanted them so powerfully ever since Napoleon's invasion of Egypt in 1798. The centerpiece of Belzoni's reconstructed tomb, Robinson tells us, didn't arrive in London till August: a su-

perb alabaster sarcophagus about ten feet long that remains "one of the finest Egyptian works of art ever discovered," and which ended up at Sir John Soane's Museum in London, where a few years later a visiting gentleman quoted by Robinson would memorably describe "fancy delicate ladies of fashion dipping their pretty heads into an old moldy, fusty hierogliphicked coffin, blessing their stars at its age, wondering whom it contained" (10). The coffin may have arrived, but the viewers were at sea, Belzoni as much as anybody. The tentative reading of a single cartouche by Thomas Young had led the overconfident former strongman to identify the tomb as that of "Psammis," a sixth-century BC pharaoh mentioned by Herodotus. Before that, on the strength of an embalmed carcass of a bull found in the tomb, Belzoni had with equal confidence proclaimed the tomb to be that of the sacred bull Apis. In fact the tomb is now known to be that of the thirteenth-century BC pharaoh Seti I, father of Ramses II the Great.

Nor were early nineteenth-century Europeans the first to be both fascinated and mystified by hieroglyphics. Beginning with Herodotus, Greek and Roman writers habitually revered the antiquity of Egyptian civilization, and many of them attributed the invention of writing itself to the Egyptians, though Pliny the Elder, who gave that credit to the Mesopotamian inventors of cuneiform, was an important exception. But, as Robinson observes, none of them seems to have been able to read hieroglyphics, since their descriptions of it uniformly get it wrong. Though the ancient accounts vary in details, they agree that hieroglyphic writing was exclusively conceptual, and that it incorporated no phonetic elements, as do syllabaries and alphabets. More than anything else, it was this erroneous but surprisingly persistent impression that stood in the way of all attempts at decipherment after hieroglyphics fell into disuse by the end of the fourth century AD.

And there was a more recent but oddly symmetrical misunderstanding that figures into the story, too, one that Robinson also explains in his account of those attempts, and of the stimulus to them provided by Napoleon's invasion of Egypt, before getting to Champollion. The biggest stimulus, of course, was the Rosetta Stone, found in the village of Rashid or "Rosetta" in the Nile delta by French army engineers in 1799, and captured by the British during their defeat of Napoleon's Egyptian force in 1801. This much-copied bilingual inscription commemorates in Greek and Egyptian the first anniversary of the coronation of the Hellenistic king Ptolemy V Epiphanes in 196 BC. Though the inscription is two languages, it is written in three scripts: hieroglyphic on top, demotic in the middle, and the Greek alphabet on the bottom. The former two represent different ways that Egyptian was written, and they don't exhaust the possibilities. Demotic script developed from another script called hieratic, which dates from as early as 3,000 BC and was used in tandem with the strictly monumental hieroglyphic script, but was no longer in use by Hellenistic times. The demotic script was completely unknown, but scholars took proper names repeated at intervals in the Greek text and then matched them with isolated groups of signs that appeared in the same pattern in the demotic text. The names appeared to be written phonetically, and so it was assumed that demotic script was exclusively phonetic. Unfortunately, the names were written phonetically but most of the other words were not. This, then, was the other mistaken assumption that had hindered scholars up to around 1814, when Champollion and Thomas Young began, independently, to focus in earnest on deciphering hieroglyphics.

As Robinson relates, the impetuous and still immature Champollion made several rash, even absurdly presumptuous missteps, though they seem to have left him serenely unshaken. The second son of a ne'er-do-well bookseller from the provincial town of Figeac, Champollion devoted himself at an early age to the study of Egyptian and other ancient languages. Robinson's account of Champollion's childhood and early studies is enlivened by quotations from the correspondence between Champollion and his brother and schol-

arly mentor Jacques-Joseph, twelve years older, upon whom the younger Champollion always relied heavily for both intellectual and material support. There's a wonderful photo of an undated letter in which Champollion, a penniless student in Grenoble (where their father had relocated the family), asks his brother to send books on philology and buckles for his culottes (47). But Robinson is especially good at untangling Champollion's early misperceptions about the Egyptian scripts from the grains of real insight that came with them as he groped toward understanding. And his biographer's understanding of Young enriches his account of the rivalry between the two strikingly different men. (Robinson has much of interest to say about genius here, and has written books about that, too.)

Where Champollion was obsessed with Egypt (though in the broadest possible way, right down to flora and fauna), Young participated at the highest level in a stunning array of disciplines. A medical doctor, classicist and physicist, apart from his contributions to the decipherment of hieroglyphics, Young is best known today for discovering the phenomemon of wave interference in light. As a classics student, he was noted for his fine Greek penmanship, and this skill, Robinson plausibly suggests, now paid off in the process of decipherment. For it was Young who figured out, based on the sensitivity to letter shapes he had acquired through long hours of copying ancient papyri, that the hieratic and demotic signs had actually evolved from hieroglyphic ones. Up to then, scholars including Champollion had commonly assumed that hieroglyphics was the later, more developed, script. Young also realized that the demotic script was a mix of "alphabetic" signs (phonetic, in modern terms, since all the Egyptian scripts lacked vowels) and "conceptual" ones (logographic, in modern terms).

Then, in a famous *Encyclopedia Britannica* article on Egypt in 1819, Young demonstrated that hieroglyphics, too, almost certainly incorporated phonetic elements for foreign names such as Ptolemy, Cleopatra, and Berenice that ap-

peared commonly in cartouches, for several of which he was now able to suggest partial transliterations. (French soldiers, observing the oval shapes that enclosed isolated collections of hieroglyphic signs, called them "cartouches" because they resembled the rifle cartridges they carried. Cartouches are used exclusively for royal names in hieroglyphic script.) Whether Champollion saw that article or not has been the subject of endless wrangling over who gets credit for what, which Robinson duly rehearses (based partly on Champollion's evasiveness, Robinson thinks it likely, though not provable). What is certain is that Young did not take the further step of asking if the same might be true of other words in the hieroglyphic script as well, nor was he able to transliterate any cartouche fully and convincingly. That was to be Champollion's breakthrough in 1822, though during the interim both Champollion brothers, who had supported Napoleon, became embroiled in protracted political difficulties that began following Napoleon's fall in 1815.

Worn out by his part in those struggles, in 1821 Champollion fled Grenoble to find refuge with his older brother in Paris, where he embarked upon several intensely fruitful years of study, bringing all his considerable gifts to bear directly on the decipherment. At first, he clung determinedly to his conviction that hieroglyphics was purely "conceptual." But starting in September 1822 he suddenly reversed himself. Perhaps taking Young's suggestion as a jumping-off point, he first proposed his own transliterations of several cartouches. He then took the critical step of extending those transliterations to other hieroglyphic writing and found that he could produce recognizable Egyptian words. Letter by letter, starting almost too deliciously with the name Cleopatra, he began putting together a hieroglyphic "alphabet." By April 1824, when he published this revolutionary work in his Précis du système hiéroglyphique des anciens Égyptiens, Champollion had worked out a basic system of some twenty phonetic signs and had added hundreds of logographic ones. He carried on adding more signs, publishing a second edition of the *Précis* in 1828. In that year, too, Champollion finally made it to Egypt, and Robinson offers a full and exciting account of his expedition up the Nile as far as Wadi Halfa, which lasted from August 1828 to December 1829. There's a useful map showing how long Champollion stayed in each location—he spent the most time in Thebes, industriously copying inscriptions and always adding to his store of known signs. By the time he returned, he was famous, although the rigors of the expedition and the constant lecturing that followed left him exhausted and ill. Champollion died of stroke in March 1832.

To grasp why hieroglyphic writing posed such a challenge, it's important to recognize that each of the basic categories of signs, phonetic and logographic, has subtle complexities. Robinson helpfully explains some of these subtleties in a final chapter describing the progress that Champollion's successors, including Karl Richard Lepsius, continued to make in the decades after his death. In addition to single consonants, some signs represent double consonants, and some even triple consonants. But a consonant can also be used as what's called a "phonetic complement," to reinforce a previous consonant rather than as a stand-alone. Then there are logograms that stand for whole words, but that can also be used as "determinatives," which provide a clue about the meaning of the word as a whole. And many signs can be read phonetically or logographically, depending. To take a simple example, the pictogram for "arm" can logographically signify the word for arm, or it can be pronounced phonetically as part of another word (in this case, a glottal stop), or it can be used as a determinative to show that the meaning of the word it's found in has something to do with force.

In this final chapter, Robinson observes that Champollion erroneously attributed vowel sounds to hieroglyphic signs that scholars now know to have been consonantal. Hieroglyphic writing, we're told, did not use vowels, nor did hieratic or demotic. This begs the question of how, exactly, ancient Egyptian—or any other language, for that matter—

could be read without vowels. Robinson's decision not to address a question that a curious reader might be expected to ask represents my only significant reservation about the book, since it would not have taken much effort to explain that ancient Egyptian relied on consonantal roots, just like the Semitic family of languages to which it is related. (Both are part of the Afro-Asiatic linguistic grouping, and Semitic languages such as Hebrew and Arabic to this day are also normally written without vowels.) But I'm hesitant to quibble when a story is as full of complexity as this one and yet as well told.

The complexity of hieroglyphics—its strange and slippery mixture of signs—set it apart from other writing systems and made it very hard to crack. Yet, as Andrew Robinson both asserts and demonstrates, that mixture also gives this unusual writing system much of its undeniable fascination.