COMMENTARY ►

Unlocking the Civilization of Ancient Egypt

How Champollion Deciphered the Rosetta Stone

ne of the great pleasures in retracing the steps of a fundamental discovery, be it in science, or music, or art, is remaking the discovery for oneself, reexperiencing the process through which the scientist or artist grasped something profound, which hitherto had been utterly unknown. The joy of that moment, though but a pale reflection of what must have been the emotion of the original thinker, gives one a taste of what creativity really is all about. And the taste, what Nicolaus of Cusa called the "sweetness of Truth," has the effect of whetting the appetite further, so that one yearns to find out what lies ahead on the path to knowledge.

Reliving such discoveries makes last-

ing friendships. For, once one has traversed the same, at times tortuous, path found by the original thinker, one comes to know the personality of that mind, to respect it and love it.

Such is the experience of meeting Jean François Champollion (1790-1832), the great French philologist and historian, whose discoveries laid the basis for what is known today as Egyptology. It was Champollion who fiercely contested all the academic assumptions about Egypt, and, by unlocking the secrets of its ancient language, established a scientific basis for studying Egyptian civilization. In so doing, he dealt a mortal blow to British historiography, which had attempted to bury the truth about the Pharaonic culture under a heap of prejudices, misconceptions, and outright lies. Champollion was also, not accidentally, a fervent patriot, who fought for truth, also, for



Jean François Champollion

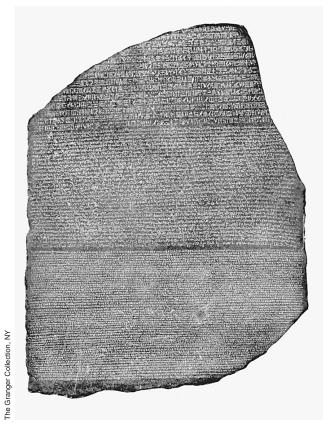


FIGURE 1. The Rosetta Stone, found at Rosetta near Alexandria in 1799. Text is inscribed in three different scripts: hieroglyphic (top section), demotic (middle), and Greek (bottom).

the glory of France. It is only just and proper that France, today, should celebrate young Champollion as a kind of national hero, two hundred years after the events that led to his discovery.

Jean François Champollion, born in Figeac on Dec. 23, 1790, has gone down in history as the man who succeeded in deciphering hieroglyphics, the ancient script of Egypt, on the Rosetta Stone, and numerous other documents. Yet, it was not merely a question of breaking a code, as a cryptographer might imagine. It was a matter of demonstrating that what had been considered a mysterious, pictographic cult object, manipulated by a sinister, elite preisthood to exert social control over the masses, was, in reality, a

highly sophisticated, rational form of writing, which communicated the spoken language of Egypt.

This meant, as well, that the Egyptian society which British scholarship had depicted as backward, slave-based, and devoted to a death cult, was instead a civilization with an advanced language-culture and science. Not only: by deciphering the hieroglyphic texts reaching back to the earliest dynasties, Champollion was able to prove the antiquity of this language-culture, and its extraordinary, unbroken continuity over twenty-two centuries. This established the fact that the Egyptians, far older than the Greeks, had invented writing, in the form of a beautiful alphabetical system, and given this great gift to mankind. As the French philologist wrote, at the conclusion of his major work, the invention of such an alphabetical system was an historical breakthrough. "The solution to such a problem offered extreme difficulty," he wrote, "and the first to find it, changed, without knowing it, the face of the earth; he determined at the same time the social state of his country, that of neighboring peoples, and the destiny of all future generations. The Egyptians, who doubtless had forgotten or had never known the name of the inventor of their phonetical signs, rendered honor, in the time of Plato, to one of their gods of the second order, Thoth, whom they also considered father of the sciences and the arts." (*Précis*, p. 355)

Cultural Warfare

There can be no doubt, that the British were committed to maintaining the falsehood, that Egyptian culture had been a wasted effort. This was manifest in the way the British responded to the discovery of the Rosetta Stone. It was in summer 1799, that a Frenchman, working on fortifications in a town thirty miles from

Alexandria, struck upon a stone in the ground with his pick. When the object he had hit was dusted off, it became clear that it was something of enormous value: although broken off in the upper portion, the basalt slab was inscribed with texts in three scripts: hieroglyphics at the top, demotic (popular Egyptian script) in the middle, and Greek at the bottom [SEE Figure 1]. The unusual monu-

ment was immediately sent to the Institut National in Cairo, an institution which the French under Napoleon had set up, for study of the artifacts that they were collecting. Napoleon's expedition into Egypt, in 1798, had been not only military, but scientific: he had organized a team of 167 scientists, members of the balloon corps, engineers, printers, geometers, astronomers, zoologists, botanists, artists (including painters, designers, sculptors and poets), mathematicians, economists, journalists, and so forth, to canvass the country, and, later, to publish a comprehensive report on their findings

in the *Description de l'Egypte*, a monumental work of eighteen volumes, with illustrations.

Although no one could read the inscriptions, all were aware that the trilingual text opened up the possibility of deciphering hieroglyphics. The British, fully cognizant of the opportunity the stone represented, moved militarily against the French, and after the capitulation in 1801, confiscated all the artifacts the French had collected—especially the Rosetta Stone, which they sent to the British Museum in London.

Not only did the British grab the

Rosetta Stone through war, but they also controlled access to it. Through the offices of the Royal Society, the institution

The scientific results of Napoleon's expedition to Egypt were published in volumes of the "Description de l'Égypte," beginning in 1809. Left: Title page of Volume I. Above and right: Illustrations from Latopolis and Thebes.



to decipher the script, but failed.

The general content of the demotic

and hieroglyphic texts on the Rosetta

Stone could be deduced from translation

of the Greek text, which was quite com-

plete. It was a decree, promulgated in

197-196 B.C., of the anniversary of the

accession of Ptolemy V Epiphanes to the

throne in Egypt. After listing the many

good deeds of Ptolemy V, who ruled

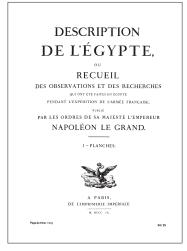
203-181 B.C., it decreed that statues in his

honor be erected in all the temples, and

that celebrations honoring him be held.

The concluding paragraph declares,

"And this Decree shall be inscribed



through which the British sought to control science, they initiated a project to decipher hieroglyphics.

In 1802, the Royal Society took in as a member Dr. Thomas Young, a physicist and medical doctor, who had extensive knowledge of oriental languages. Young quickly rose in the Royal Society, becoming a fellow in 1804. Then, in 1814, Young was given two papyrus texts with hieroglyphic and demotic inscriptions, and it was assumed he would tackle their decipherment, with the aid also of the Rosetta Stone, which he could consult in the British Museum. Young tried

upon stelae of hard stone, in holy, and in native, and in Greek letters," and shall be set up in the temples, alongside statues of Ptolemy V.

The "holy" script was the hieroglyphics and the "native" was the demotic. Although nothing was known of the first script, certain progress had been made in attacking the second. Silvestre de Sacy, Champollion's professor of oriental languages in Paris, was the first to identify groups of names in the demotic script, corresponding to the proper names in the Greek, and to hypothesize that the characters were phonetical. Georges Zoega had intuited in the Eighteenth century, that proper names could be isolated, because they were contained in cartouches, or oval-shaped enclosures. After de Sacy, the Swedish researcher Akerblad attributed sound values to the characters, to make out the name of Ptolemy, for example.

Young worked on the demotic script, using Akerblad's rudimentary alphabet, but did not make much progress. His approach was that of a computer: he counted the number of times a certain word, like "god," appeared in the Greek text, then went to the demotic, to search for a word that appeared about the same number of times. He thus established correspondences, but did not decipher the words.

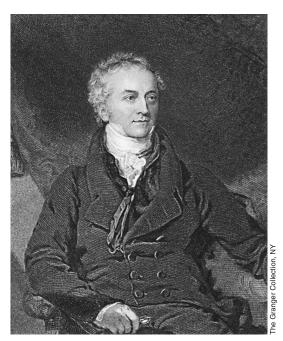
In working on the hieroglyphic text, Young followed a purely haphazard method. The only name in a cartouche in the much reduced hieroglpyhic text of the Rosetta Stone, was "Ptolemy." Young proceeded thus to guess the values of the characters, comparing them with the values posited by Akerblad for the same name in demotic [see Figure 2]. As Champollion pointed out later, Young was trying to fit a square peg into a round hole, twisting and turning to make it fit. Thus, he thought some characters were letters, some were sylla-



FIGURE 2. The name "Ptolemy" in hieroglyphic cartouche (top) and demotic script (bottom).



FIGURE 3. Hieroglyphic cartouche of the name "Berenice."



Dr. Thomas Young

bles, and some were meaningless. Young's attempt to decipher the name Berenice, from a cartouche found at Karnac [SEE Figure 3], was even less lucky, as he guessed correctly only a few characters.

Young gave up after this, regardless of the fact that other proper names in both demotic and hieroglyphics would have been available to him. Why he went no further has not been explained, even by Young's most fervent supporters, like the British Museum's official historian on the Rosetta Stone, E.A. Wallis Budge. Despite his evident shortcomings, Young was commissioned to write an item on Egypt for the Encyclopedia Brittanica of 1818, and did so, claiming he had discovered the hieroglyphic alphabet. Young also led a veritable witch-hunt against Champollion, following the latter's breakthrough in 1822, which was based on the slanderous assertion that Champollion had plagiarized the work of the British physician.

The Play Drive of the Creative Mind

No two personalities could be more distinct than Dr. Young and Champollion. If the former was motivated by undisclosed aims, shaped by an empiricist approach, the latter was driven by an

unqualified love for truth, and informed by the method of hypothesis. If Young were rigid and dogmatic in his assumptions, Champollion was a free spirit, capable of questioning his own most cherished beliefs.

The key to Champollion's achievement lay in his uncompromising commitment to seek the truth, a commitment shaped by his extraordinary education and upbringing. The son of a bookseller, Jean François became a bibliophile at an early age. His older brother, Jean Jacques, known as "le Figeac," was also an unusually independent mind, who assumed the responsibility for the education of his younger brother, known as "le Jeune." Jean Jacques placed his younger

brother in the care of a religious tutor, who taught him Greek and Latin; later, in 1802, the younger Champollion started studying oriental languages, Hebrew, Arabic, Syriac, Chaldean (Aramaic), and Coptic, the language of the Egyptian Christians. With this grounding in Classical and oriental languages (as well as modern tongues, of course), Jean François immersed himself in the works of the ancient writers; from Herodotus to Strabo, Plutarch to Horapollon, Clement of Alexandria, as well as Plato. Champollion read these works, not as some academic exercise, or to prepare to pass an examination, but to learn what they had to tell him, above all, about Egypt, a subject which became a passionate interest very early.

Part of his interest in Egypt was prompted by his brother, who was to publish a major work on the history of the country. And, it was buttressed by the enormous interest generated in French intellectual circles, by the Napoleonic expedition and the discovery of the Rosetta Stone, which took place when Jean François was nine years old. It was only two years later, that the young boy announced he would be the one to decipher hieroglyphics. In 1806, he explained in a letter to his brother what his plans were

for Egypt: "I want to conduct deep, continuing studies into this ancient nation. The enthusiasm which the descriptions of their enormous monuments ignited in me, the admiration which their power and knowledge filled me with, will grow with the new things that I will acquire. Of all the peoples that I love the most, I will confess that no one equals the Egyptians in my heart."

Champollion's first major work, which he presented to the Academy of Arts and Sciences of Grenoble, just prior to moving to Paris to continue his studies at the College de France, was an "Essay on the Geographical Description of Egypt before the Conquest of Cambyses." Egypt was his passion; but it was not a thing in itself. Rather, he was investigating the history of Egypt, in an effort to comprehend more fundamental, universal questions. This is evident in the titles of courses which he taught, as a twenty-year-old assistant professor of ancient history, at the University of Grenoble; these included "The Antiquity of the World and the Origins of Man," and "Critical Reflections on the Historians of All Times and All Nations."

In Paris, Jean François attended courses at the College de France and the Ecole des langues orientales, where he studied Hebrew, Arabic, Persian, Syriac, Chaldean, and Coptic. He loved languages, and threw himself into their study with incredible joy. As he wrote his brother in December 1807, his course of study was intensive: "At nine o'clock [Mondays] I follow M. de Sacy's Persian class until 10:00. Leaving the Persian class, since Hebrew, Syriac, and Chaldean are at 12:00, I go to M. Audran's, who offered to take me Mondays, Wednesday, and Fridays from 10:00 to 12:00. . . . We spend these two hours talking oriental languages, translating Hebrew, Syrian, Chaldean, or Arabic. And we always dedicate a halfhour to work on Chaldean and Syriac grammar. At noon, we go down, and he gives his Hebrew class. He calls me the patriarch of the class, because I am the

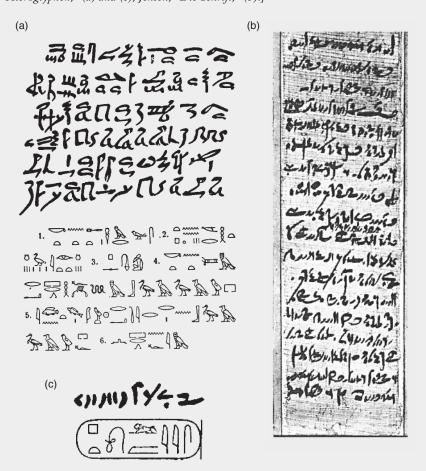
All this intensive study, Champol-

lion experienced as great fun. In fact, play was a constant element in his language study. When he was concentrating on Arabic, Jean François sported Arab dress, and adopted the nickname, "al Seghir," the younger, in Arabic. And when he immersed himself in Coptic, the language which became his overriding passion, he knew no bounds. He wrote his brother in 1809: "I am totally immersed in Coptic, I want to know Egyptian as well as I know French, because my great work on the Egyptian papyrus [hieroglyphics] will be based on this language My Coptic is moving along, and I find in it the greatest joy, because you have to think: to speak the language of my dear Amenhotep, Seth, Ramses, Thuthmos,

is no small thing. . . . As for Coptic, I do nothing else. I dream in Coptic. I do nothing but that, I dream only in Coptic, in Egyptian. . . . I am so Coptic, that for fun, I translate into Coptic everything that comes into my head. I speak Coptic all alone to myself (since no one else can understand me). This is the real way for me to put my pure Egyptian into my head. . . . In my view, Coptic is the most perfect, most rational language known."

Similarly, with Etruscan, a language which had not been deciphered. At 18, he reported to Jean Jacques: "I am totally immersed in the language, in the coins, in the metals, in the monuments, in the sarcophaghi, everything I can find, the tombs, the paintings, etc., about

FIGURE 4. The three ancient Egyptian scripts: (a) Hieratic script (top) with hieroglyphic transposition (bottom). (b) Sample of demotic script. (c) Demotic (top) and hieroglyphic (bottom) versions of the name "Ptolemy." [From Erman, "Die Hieroglyphen," (a) and (c); Jensen, "Die Schrift," (b).]



the Etruscans. Why? because the Etruscans come from Egypt." Then, in a characteristic jab at "official knowledge," he added, "That's a conclusion, that would make the academics climb the walls, those that have a smattering of Greek and Latin, but I have monumental proof."

Another aspect of his study-play with languages, was comparing scripts. He took the alphabets of the languages he was learning, Aramaic, Syriac, Arabic, and Hebrew, and compared them, letter for letter; then he would compare each of them with Greek, Coptic, and so forth. While playing with the similarities and differences of forms, he was in essence playing with the hypothesis that the different languages of that region of the world bore common principles.

The Grand Hypothesis

Champollion's work on deciphering hieroglyphics was a life-long occupation. From his deep study of the ancient authors who dealt with Egypt, he developed several hypotheses, which were to guide his research. First, as is evident in his letters about Coptic, he assumed that Coptic was "Egyptian," the language not only of the Christians but of all Egyptians, going back to the earliest times. Thus, he assumed a continuity of the language culture through millennia.

Related to these ideas, was his early conviction, that the three forms of script, of which the Greeks wrote—the hieroglyphic, the hieratic and the demotic—were essentially different versions or forms for writing the same language [SEE Figure 4]. To test out this hypothesis of the fundamental unity of the three, Champollion did extensive work comparing the scripts—in the same way he had, as a child, compared the alphabets of oriental languages. He used all the material available to him, the demotic and hieroglyphic texts on the Rosetta Stone, various versions of the Book of the Dead, and any papyrus he could get his hands on. With the issuance of each new volume of the Description de l'Egypte, beginning in 1809, he found new material for his comparative studies.



FIGURE 5. Hieroglyphic cartouche containing the name "Ptolemy" from the Rosetta Stone.



FIGURE 6.
Hieroglyphic
cartouche
containing the
name "Ptolemy"
from the Philae
obelisk.

By 1821, he had come to the conclusion that that "the hieratic is nothing but a simplification of hieroglyphic," and that it "should be considered as shorthand for the hieroglyphs." By extensive comparisons, he succeeded in identifying what he called the "most simple traits" of the hieratic, and finding corresponding symbols in the hieroglyphs. Although he could not read the scripts, he could find the correspondences; in fact, he would take a word or group in hieratic, and transpose, according to the correspondences he had observed, into the hieroglyphic. He did the same, from the demotic to the hieratic. In 1821, he drew up a table of 300 signs which was intended to demonstrate this unity among the three. What he was seeking, was not primarily the decipherment, but the internal dynamic of the writing as a coherent system.

What the nature of the writing was—whether symbolical, ideogrammatic or phonetical, was still an open question. At one point, he thought they were phonetical. In a paper on the hieratic which he read in August 1821, to the Académie des Inscriptions et Belles-Lettres in Paris, he said that he considered the scripts essentially ideographic. In his work of 1822, the *Lettre à M. Dacier*, he said he had previously considered that both hieratic and demotic,

were not only alphabetical, "but often also ideographic, like the hieroglyphs themselves, that is, painting sometimes ideas, and sometimes the sounds of a language." (*Lettre*, p. 41)

To test the various possibilities, in December 1821, Champollion developed a hypothesis on the basis of the Rosetta Stone, which is startling in its simplicity. He reasoned thus: If the hieroglyphics were ideogrammatic, and each group stood for one idea or thing, then the number of groups (words) in the hieroglyphic version should be approximately the same as in the Greek text. He proceeded to count the Greek words, and came up with 486. He assumed that the hieroglyphic text would actually have far fewer, given that such a large piece of that part of the stone had been broken off. Yet, on the contrary, he found they were far more, 1419 to be precise. This proved that they could not be ideographic. Then, they must be phonetical. To test this hypothesis, he reduced the 1419 signs into what he considered their elementary traits, and came up with 166. Knowing as much as he did about the alphabets of so many languages in the same region of the world, he knew that it would be highly improbable for an alphabet to have 166 characters. Perhaps, it was a mixed system.

At the time Champollion was working on these ideas, it was a universally held assumption, that the hieroglyphics contained in cartouches from the periods of Greek and Roman rule in Egypt, had been adapted as phonetical signs. In other words, it was believed that the hieroglyphs had no relationship to spoken language, and were merely cult symbols used in esoteric rituals. However, it was believed—and most fervently by Dr. Young-the Egyptians, first under the Greeks and later, under the Romans, had used these symbols as characters, in order to express the names of foreign rulers. Young asserted, in fact, that the Greeks had invented this phonetical use of the signs.

In 1822, Champollion made his breakthrough. Working from excellent reproductions of the Rosetta Stone, which had just been published in the fifth volume of the *Description de l'E-gypte*, Champollion isolated the demotic cartouche with the name of Ptolemy, and worked from it, transposing to the hieratic and the hieroglyphic. He discovered that the hieroglyphic version he came up with, actually corresponded to the hieroglyphic contained in the cartouche of the stone.

Champollion succeeded in deducing the sound values for the signs in the demotic Ptolemy, both on the Rosetta Stone and on another papyrus which had been recently acquired by France. He then compared this to a demotic version of Cleopatra, which had been found on the so-called Casati papyrus, and ascertained that there were several characters in the two names which were similar; this had to be the case, since the two names in Greek also share several sounds (P L T O E).

He hypothesized at this point, that, if the demotic and hieroglyphic scripts were lawfully related, and if the demotic names could be read according to these phonetical correspondences, then the same should be true of the hieroglyphics. In order to test the hypothesis, he required good examples of the two names, in hieroglyphs. On the Rosetta Stone, because of the damage, the only hieroglyphic name was Ptolemy [SEE Figure 5].

Finally, in January of 1822, Champollion was able to test the idea. He at long last came into possession of a copy of the obelisk at Philae, through the good graces of M. Letronne. The obelisk, which had been transported to London, was available to Young years earlier. The Philae obelisk had the hieroglyphic name for Ptolemy [SEE Figure 6], as well as a cartouche with the name of a female, identified in a Greek inscription, as Cleopatra. Pro-



FIGURE 7. Cartouche from Abu Simbel. Champollion hypthesized the sounds R-M-S.

ceeding with his comparative method, he identified the signs the two names had in common, and then deduced the remaining ones. He noticed that, the letter which should be in the position of T, in Cleopatra, was not the segment of a sphere he had seen in Ptolemy, but an open hand. Here, he assumed that this must also represent T, and posited the notion of homophones: that more than one symbol or character could be used to express the same sound (as in English "phonetic" and "fancy").

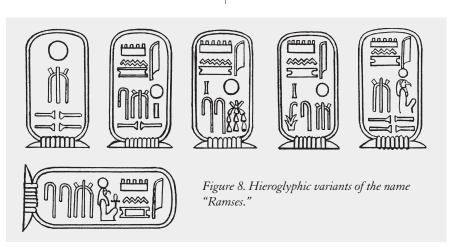
After having discovered the phonetical values in these two names, Champollion used the knowledge acquired, to decipher still more. He used the reproductions in the third volume of the *Description*, which showed inscriptions of other Greek and Roman leaders, and succeeded in deciphering Berenice, Alexander, Philip, Arsinoe, Augustus, Tiberius, Caius, Claudius, Nero, Vespasian, Titus, Domitian, Nerva, Trajan, Hadrian, Antonin, Sabine, and also the surnames for Alexander, NeoCaesar, Germanicus, Dacius, and the title Autocrator.

Jean François had found the key, and used it to open one door after another. Yet, still in 1822, he attributed an ideographic nature to the three scripts, except for names inscribed in the Greek and Roman periods. When, in 1824, he looked back on this conviction, he wrote, in his *Précis*, "I persisted in this false route up to the moment that the evidence of the facts presented to me the hieroglyphic Egyptian writ-

ing from a completely unexpected point of view, forcing me, so to speak, to recognize a phonetical value in a whole collection of hieroglyphic groups, included in the inscriptions that decorate the Egyptian monuments of all ages." (*Précis*, p. 299)

It was in the same year, 1822, that Champollion was confronted with empirical proof which utterly contradicted the assumption, that the alphabetical function of hieroglyphics had first appeared with the Greeks. Through a close associate, the architect Nicholas Huyot, Champollion received drawings of cartouches from the temple of Abu Simbel [SEE Figure 7]. What was unusual about the cartouches, is that they did not correspond to any of the names he had deciphered from the Greeks and Romans. Nonetheless, he proceeded with the knowledge of the phonetical values he had acquired through their decipherment, and recognized in the first name, an S (like the last letter of Ptolemy, in Greek Ptolemaios). The first character in the name reminded him of a sun, which he immediately associated with the Coptic name for sun, Re. He then asked himself whether the unfamiliar character in the middle, which looked like three prongs, might be M, which would yield the name Ramses [SEE Figure 8].

Feverish with the excitement that he was about to make a fundamental discovery, Jean François sought out another cartouche, to test the hypothesis, that the phonetical signs had been used back



as early as the time of Ramses for the names of Egyptian pharaohs. The next name he isolated [SEE Figure 9], displayed two familiar characters, those for M and S. They were preceded by the figure of a bird, which he recognized as an ibis. Remembering the reports of the Classical writers on Egyptian history, including Herodotus and Horapollon, he recalled that the ibis was the symbol of the god known as Thot (or Thoth), who, it was believed, had invented writing, and the arts and sciences. Following the same method he had used to decipher Ramses, he proposed the reading Thot-mu-sis, Thotmes (Tutmoses).

Although this second decipherment of an Egyptian name confirmed his finding, he sought for further proof, this time, in the case of a word *not* enclosed inside a cartouche. His hypothesis at this point was, that the entire system could be phonetical.

The first group he found to work with, was composed of two signs he had identified in Ramses and Thotmes, as representing M and S [SEE Figure 10]. Thinking again in Coptic, he wondered whether this combination could be related to "ms, mis, mise," which is the verb meaning "to give birth." He returned to the text in hieroglyphics on the Rosetta Stone, and found the same group. Then, searching through the Greek text, he found a phase referring to "birthday celebrations." This clinched it.

Overwhelmed by the power of his discovery, Jean François abandoned his room, and ran through the streets, to reach his brother, who worked nearby at the Institut de France. He raced into the room, shouting "Je tiens l'affaire!,"—"I got it!"

What remained, was to present the discovery to the world, and thence, to complete his knowledge of the system as a whole. His first announcement of the breakthrough, came in a paper, *Lettre à M. Dacier*, which he read to the Academie des Inscriptions et Belles-Lettres on Sept. 27, 1822. In it, he cautiously presented his decipherments, but only of the names from the Greek and Roman period. He then asserted, "I am certain



FIGURE 9. Hieroglyphic cartouch with the name "Thotmes."

that the same hieroglyphic-phonetical signs used to represent the sounds of Greek or Roman proper names, are also employed in hieroglyphic texts inscribed far prior to the arrival of the Greeks in Egypt, and that they at that earlier time already had the same representative sound or articulations as in the cartouches inscribed under the Greeks or Romans."

He summarized the principle of the hieroglyphic phonetical system: "One

imagines, then, that the Egyptians, wanting to express, be it a vowel, be it a consonant, be it a syllable of a foreign word, would use a hieroglyphic sign expressing or representing some

object, whose name, in the spoken language, contained in its entirety or in its first part, the sound of the vowel, consonant or syllable that they wanted to write." (*Lettre*, p. 51) Thus, the sign of a sparrow-hawk (which also symbolizes life, the soul) is called "ahe" or "ahi" in Egyptian, and stands for the letter A. In Coptic, the word for mouth is "ro," so this sign stands for the letter R, and so forth.

The complete elaboration of Champollion's discovery came in his 1824 masterpiece, the *Précis du Système Hiéroglyphiques des Anciens Égyptiens*. As he stated at the outset, he would show that the alphabet he had established, applied to "all epochs," and that his discovery of the phonetical values unlocked the entire system. He would work out "the general theory of the hieroglyphic sys-

tem . . . [which] will give us the full and entire understanding of all hieroglyphic texts."

Champollion illustrated, in full, the decipherment of grammatical words, the names of Egyptian kings, the names of private persons (from papyri on mummies), titles, names of pharaohs, and so on. He presented a full alphabet, with signs, their names, and corresponding letters. In each case, he demonstrated the multifaceted nature of the alphabet; a name could be indicated by a symbol (an obelisk for Amman, for instance); or the same name could be represented figuratively (with an image representing the god); or it could be rendered phonetically. He summed it up: "The hieroglyphic writing is a complex system, a script at the same time figurative, symbolic, and phonetical, in the same text, in the same phrase, I would almost say, in the same word." (*Précis*, p. 375)



FIGURE 10. Illustrations of hieroglyphic signs representing M and S. In Coptic, the verb "ms, mis, mise" means "to give birth."

By using his discovery to read all these names from the earliest times, Jean François was documenting the dynastic chronology, that had been reported by Manetho, Herodotus, and Diodorus Siculus. He thus showed that this system had been in use from the Nineteenth century B.C. until the spread of Christianity in Egypt. This, he emphasized, obliterated everything that had been thought over the preceding three hundred years by scholars. However, he added, "men of knowledge, in the interests of truth, will easily sacrifice all hypotheses enunciated thus far, which are in contradiction with the fundamental principle that we have just recognized."

He also demonstrated the unity of the three scripts, and illustrated their use for religious purposes on monuments (hieroglyphics), for religious and scientific works on papyrus (hieratic), and for administrative matters as well as personal records (demotic). All three scripts, he proved, were in general use throughout Egypt, by all classes.

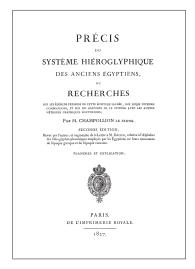
Champollion's works, the *Lettre* and the *Précis*, were the object of massive controversy throughout scholarly Europe. Young led the "English school" which slandered him, while the Humboldt brothers led a large company of scientists in his defense. In 1866, when another bilingual text, known as the Decree of Canopus, was found, his system was put to the test. Using Champollion's method, it was successfully deciphered.

The Secret of Egyptian Art

Champollion went beyond his scientific findings, to explore the implications of this unique system, on the artistic expression of Egyptian civilization as a whole. Unlike Greek art, he wrote, "these arts did not have as their special aim the representation of beautiful forms of nature; they tended only toward the expression of a certain order of ideas, and were intended solely to perpetuate, not the memory of the forms, but that of persons and things." Whether the colossal statue or the tiny amulet, he said, the perfection of form was strictly secondary. Form was "but a powerful means to paint thought." Champollion developed the interesting concept, that unlike the Greeks, who perfected form, and separated imitative arts from writing, "in Egypt, writing, design, painting and sculpture march constantly towards the same portal." Everything flowed into one "art par excellence: that of writing." The great temples, he wrote, were "representative characters of celestial abodes." Further, "this intimate union of the fine arts with the Egyptian graphic system, effortlessly explains to us the causes of the state of naive simplicity in which painting and sculpture always persist in Egypt." (*Précis*, pp. 431-432)

When Champollion finally visited his beloved Egypt, in 1828-1829, he had the opportunity to admire this great art

of writing, and to marvel at the magnificent temples and pyramids, with their statues, bas-reliefs, and inscriptions. The love he had developed for the country and its culture, was only magnified with each new encounter. One of the most moving descriptions from his Egyptian tour, is of the entrance to the library at the temple to the Ramesseum, in which his awe at the Egyptian dedication to language and writing was most enthusiastically transmitted. In his fourteenth letter from Thebes, June 18, 1829, he wrote: "At the foot of the jamb and immediately under the dedication, there are two divinities sculpted, with faces turned towards the opening of the portal, and looking at the second room, which was therefore under their jurisdiction. These two gods are, on the left, the god of sciences and arts, the inventor of letters, Thoth with the head of an ibis, and on the right, the goddess Saf [Sechat], companion to Thoth, who carries the remarkable title of lady of letters and president of the library [literally, the room of the books]. Furthermore, the god is followed by one of his paredri (familiars), who, by his inscription and by a huge eye that he carries on his head, one recognizes as the personification of the sense of sight, while the familiar of the goddess is the sense of



Title page of Champollion's masterpiece, "Précis du Système Hiéroglyphiques des Anciens Égyptiens."

hearing, characterized by a huge ear also drawn above the head, and by the word solem [sedjem] (hearing) sculpted in the inscription; he furthermore holds in his hands all the implements for writing, as if to write what he hears.

"I ask myself, if there is a better way than through such bas-reliefs, to announce the entrance to a library?"

-Muriel Mirak Weissbach

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