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to M. Dacier  
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Relative to the Alphabet of Phonetic Hieroglyphics  
Used by the Egyptians to Inscribe on their Monuments the Titles, Names and Sobriquets of  
Greek and Roman Rulers

By Mr. Champollion, Jr.

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Relative to the Alphabet of Phonetic Hieroglyphics

Sir,

I appreciate the kindness shown me by the Royal Academy of Inscriptions and Fine-Arts by acknowledging my work on Egyptian hieroglyphics and by permitting me to submit my two papers on the *hieratic* (or priestly) form of writing, and on the *demotic* (or popular) form of writing. After such flattering approbation, I dare to hope that I have succeeded in demonstrating that both these two types of inscription are not alphabetical as previously generally accepted, but *ideographs*, like the hieroglyphics themselves, that is to say, they indicate the *ideas* not the *sounds* of the language; and to believe that I have succeeded, after ten years of intensive research, in collecting almost complete data on these two types of inscription, on the origin, nature, form, and number of their symbols and rules of combination, at least those of the symbols which fill the purely logical or grammatical roles, and to have thus cast a firm basis on which to assign a *grammar* and a *dictionary* for these inscriptions used on a large number of monuments and whose interpretation will shed so much light on the history of Egypt. In particular, with regard to the *demotic* inscription, it was enough to recognize it on the precious Rosetta Stone; I am at first beholden to your distinguished colleague Mr. Sylvestre de Sacy, and to the enthusiasm of Mr. Akerblad and Dr. Young, whose first conclusions were drawn from this monument, and it is from this very inscription that I have deduced the series of demotic symbols, which, taking a syllabic-alphabetical interpretation of the *ideographic* inscriptions, demonstrated the proper names of non-Egyptian individuals. Also, the name of Ptolemy was found on this inscription (the Rosetta Stone) and on a papyrus recently brought from Egypt.

It remains for me to complete my work on the three types of Egyptian inscription, and to prepare my paper on basic *hieroglyphics*. I hope that my new efforts will also get a favorable response from your esteemed organization, whose kindness spurs me on.

But in this actual state of Egyptian studies, where artifacts are coming from all sides and are being collected by sovereigns and amateurs alike, and scholars from around the world hasten to report their voluminous research and strain to penetrate the inner secrets of these monumental inscriptions which might serve to explain all the others, I do not believe I need to wait any longer to offer to those scholars, and to you, a short but important series of new facts, which will naturally appear in my paper on *hieroglyphic* inscriptions, and which will undoubtedly save them the trouble that I have taken to establish it, and to avoid serious errors on the diverse ages and history of the arts and general administration in Egypt: for it is the series of *hieroglyphs*, which making exception for the general nature of symbols in this inscription, were endowed with the ability of *expressing the sounds* of the words, and served to inscribe on the public monuments of Egypt the *names* and *sobriquets* of *Greek or Roman rulers* who successively governed there. Many certainties of the history of this celebrated country must arise from this new result of my research, to which I was quite naturally drawn.

A comparison of the *demotic* text on the Rosetta Stone using the Greek text which accompanies it led me to recognize that the Egyptians used a certain number of *demotic* characters to which they attributed the ability of expressing sounds in order to introduce into their inscriptions proper names as well as words foreign to the Egyptian tongue. One can easily understand the absolute

necessity for the use of such a system in ideographic writing. The Chinese, who use an ideographic script, also use a similar method, and created it for the same reason.

The Rosetta Stone introduces an additional system that we call *phonetic*, i.e. indicating the sounds of the proper names of the rulers *Alexander* and *Ptolemy*, queens *Arsinoe* and *Berenice*, and six other individuals, *Aetes*, *Pyrrha*, *Philimus*, *Areia*, *Diogenes*, and *Irene*, and the Greek words ΣΥΝΤΑΞΙΣ and ΟΥΗΝΝ [1].<sup>NOTE</sup>

A papyrus manuscript in demotic form, recently acquired for the King's collection has also given us the names *Alexander*, *Ptolemy*, *Berenice* and *Arsinoe*, similar to those on the Rosetta Stone, and also the phonetic names of the king *Eupator* and the queen *Cleopatra*, and three Greek individuals, *Apollonius*, *Antiochus* and *Antigone* [2].

The reader will have probably noticed, in my paper on the Egyptian demotic script, these foreign names were expressed phonetically using symbols more *syllabic* than *alphabetic*. The significance of each character is recognized and invariably determined by comparing these various names, and from these links comes the alphabet or, rather, a *demotic* syllabary shown in Table I, Column 2.

Once I had noted the use of these phonetic characters in the *demotic* text, I could naturally conclude that since the symbols of the popular script were, as I had shown, borrowed from the *hieratic* (or priestly) script, and then again the symbols of this *hieratic* text are, as I recognized in my various papers, only an abridged representation, a veritable *shorthand* of *hieroglyphs*, this third type of script, basic *hieroglyphic*, must also have a certain number of symbols endowed with the ability of representing sounds; in a word, that there existed side by side a series of *phonetic hieroglyphs*. To ensure the authenticity of this view, to recognize the existence and to even discern the significance of some symbols of this type, it would suffice to have in hand, written in basic *hieroglyphics*, two proper names of previously known Greek rulers, and containing several letters used at the same time in both, such as *Ptolemy* and *Cleopatra*, *Alexander* and *Berenice*, etc.

The hieroglyphic text on the Rosetta Stone, which would have lent itself so fortuitously to this research was not available due to its damage, save for the single name *Ptolemy*.

The obelisk found on the island of Philae, and recently moved to London, also contains a hieroglyphic name Ptolemy (see: Table I, No. 23), (written in the same symbols as on the Rosetta Stone), also enclosed in a cartouche[2], and it is followed by a second cartouche which must necessarily contain the proper name of a woman, a queen Lagide, since this cartouche is completed by the hieroglyphic symbols of the feminine gender, symbols which also, without exception, end the hieroglyphic proper names of all Egyptian goddesses [4]. The obelisk was apparently connected to a pedestal bearing a Greek inscription which is a supplication from the priests of Isis at Philae, to King Ptolemy, to Cleopatra his sister, and to Cleopatra his wife [5]. If this obelisk and the hieroglyphic inscription that it carries were a consequence of the supplication of the priests who in fact are talking about the dedication of an analogous monument, this cartouche of a feminine name could necessarily only be that of Cleopatra. This name, and Ptolemy's, which, in the Greek have a few similar letters, must serve as a comparison of hieroglyphic symbols constituting the one and the other, and if similar symbols in these two names in both cartouches indicate the *same sound*, it must be said that their character is *entirely*

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<sup>NOTE</sup> Notes appeared as footnotes in Campollion's original letter. In this translation they have been collected together at the end of the manuscript.

*phonetic.*

A preliminary comparison that we made also shows that in the demotic script, these two names, written phonetically, employed several characters all absolutely alike [6]. The analogy of the three Egyptian inscriptions in their usual presentation must make us hope for the same recognition and the same connections in these very names written *hieroglyphically*: it was this that confirmed the simple comparison of the cartouche-containing hieroglyphic name of Ptolemy [7] with that of the obelisk of Philae, which, following the Greek inscription, we should consider as containing the name of Cleopatra [8].

The first symbol of *Cleopatra's* name contained a sort of *quarter of a circle*, which represented the letter K, never found in the name of Ptolemy: it is just not there.

The second, a *lion at rest*, which must represent the letter Λ is quite similar to the fourth symbol in Ptolemy's name, which is also a Λ (Πτολ).

The third symbol of Cleopatra's name is a *feather* or *leaf* which represents the short vowel E; we also see the end of the name of Ptolemy - two similar *leaves* which can only be, because of their position, the diphthong AI, from AIOΣ.

The fourth character in Cleopatra's hieroglyphic cartouche, representing a kind of *flower with its stem bent*, corresponding to the O in this queen's Greek name. It is in fact the third character in Ptolemy's name (Πτο).

The fifth symbol of Cleopatra's name, which has the shape of a parallelogram and which must represent the letter Π is likewise the first symbol of Ptolemy's hieroglyphic name.

The sixth symbol corresponding to the vowel of A of ΚΛΕΟΠΙΑΤΡΑ is a *sparrow-hawk*, and, as expected, is not seen in Ptolemy's name.

The seventh character is an *open hand*, representing T, but the hand is not found in the word Ptolemy, where the second letter, the T, is expressed by a *segment of a sphere*, which nevertheless is also a T, because one will see later that these two hieroglyphic symbols are homophones.

The eighth symbol of ΚΛΕΟΠΙΑΤΡΑ, which is a front view of a *mouth*, and which would be the letter P, not found in Ptolemy's cartouche, which indeed it should not be.

Finally, the ninth and last symbol of the queen's name, which must be the vowel A, is indeed the *sparrow-hawk* that we have seen representing the vowel in the third syllable of the same name, the proper name ends with the two hieroglyphic symbols of the female gender; Ptolemy's is another symbol that consists of a curved line, and which equates to the Greek letter Σ, as we shall soon see.

The combined symbols of these two phonetically analyzed cartouches therefore already have provided us a dozen symbols corresponding to eleven consonants and vowels or diphthongs of the Greek alphabet, A, AI, E, K, Λ, M, O, Π, P, Σ, T.

The very likely phonetic assignment of these twelve symbols becomes indisputable, if, in applying these assignments to other cartouches or small circumscribed images containing proper names taken from Egyptian hieroglyphic monuments, you get an easy read, providing some

proper names of rulers, foreign to the Egyptian tongue.

Among the cartouches collected on the various buildings of Karnak at Thebes, and published in the *Description de l'Egypte* (A., t. III, pl. 38), I noticed one of these cartouches numbered 13 [9], made of symbols already mostly following my preceding analysis, and which are in the following order: the *hawk*, A; the *lion at rest*, Λ; a *shallow teacup*, still unknown, the *curved line*, Σ; a *single feather* E or any other short vowel; the symbol commonly called the *water sign*, unknown; the *open hand*, T, *open mouth* P, two *horizontal inward-facing scepters*, also unknown. These letters combined give AΛ.ΣE.TP, and in assigning the *shallow teacup* as K, the hieroglyph for water N, and the final symbol as Σ, you have the word AΛKΣENTPΣ, which is so written, letter for letter, in demotic script, in the inscription on the Rosetta Stone and on the papyrus from the king's collection, in place of the Greek name ΑΛΕΞΑΝΔΡΟΣ [10].

This new name gives us three more phonetic characters, corresponding to the Greek letters K, N, and Σ.

It is easy to justify the meanings we assign to them.

The shallow teacup is a new form of K, already designated in the name ΚΛΕΟΠΙΑΤΡΑ, by a quarter circle. We have seen also that the letter T was also represented by two different symbols, but we should not be surprised by this synonymy and this multiplicity of symbols to express the same sound, among a people whose writing is essentially ideographic.

We can not, indeed, consider the *phonetic* writing of the Egyptians, either *hieroglyphic* or *demotic*, as a system as fixed and as invariable as our alphabets. The Egyptians were used to directly representing their ideas; the expression of sounds was, in their ideographic writing, only a secondary device; and when the opportunity to use it more frequently presented itself, they thought rightly of extending their method of expressing sounds, but gave up on that for their ideographic inscriptions which were consecrated by religion and by their continued use over many centuries. They then proceeded, as was done in circumstances absolutely paralleling the Chinese, to write a word foreign to their language by simply adopting the ideographic symbols whose pronunciation seemed to offer the best analogy with each syllable or element of the foreign word to be transcribed.

You can therefore understand that Egyptians wishing to express either a vowel or a consonant or a syllable of a foreign word, used a hieroglyphic symbol *expressing* or *representing* any object whose name, in the spoken language, contained either in whole or in part, the sound of the vowel, the consonant, or the syllable to be written.

There is also, among the already recognized phonetic hieroglyphs, the hawk, expressing life, or the soul, αφε, αφι, ahe, ahi, or other *birds* in general, in Egyptian φαλητ *halet*, has probably become the symbol for the letter A; that the previously mentioned hieroglyphic *symbol of water*, which in ideographic text, certainly represents the Egyptian preposition *v of*, became a symbol of the spoken letter N; that the *mouth*, in Egyptian πο *ro*, was chosen to represent the Greek consonant P, etc. In the same way we can understand how the sound T was expressed unremarkably, either by the *segment of a sphere*, since this character, in ideographic script, is the symbol of the feminine article or τ *ti* or τε *te*, or by the *open hand*, which indicates τωτ *tot* (*vola, manus*) in the Egyptian language.

It is the same with all the other sounds represented by different characters, as we will soon establish with several further examples. This multiplicity of symbols therefore has no other

genesis than the processes specific to the method just revealed.

Moreover, the demotic characters used to phonetically express proper names, characters we already knew from the inscription on the Rosetta Stone, we find to be nothing other than the *hieratic characters that exactly correspond with the hieroglyphic characters* which we just recognized as phonetic usage.

We saw that the K sound was rendered, in the names and Κλεοπατρα and Αλεξανδρος, by two symbols which differ in form (the *quarter circle* and the *shallow teacup*); but the same pronunciation of these two characters can not be doubted, as the initial symbol of the demotic name of Cleopatra [11] is none other than the hieratic equivalent hieroglyph representing the *shallow teacup* we just thought to be the symbol of the K sound, in the hieroglyphic cartouche ΑΛΚΣΑΝΤΡΣ. Both same-sounding characters must be accepted. We will also find other examples of similar homophones, all by the same reasoning.

As to the second of the hieroglyphic characters that represent the sound Σ in ΑΛΚΣΑΝΤΡΣ, (both *horizontal inward-facing scepters* [12] , which essentially differs from the *curved line* which in ΠΤΟΛΜΗΣ, also represents the sound Σ, the homophony of these two symbols, we dare to say, is indisputable, because these two hieroglyphic symbols *are rendered in hieratic texts by one and the same character*, which you can recognize in the general Table of hieratic symbols, which I introduced last year to the Academy [13] , and how easy it is to confirm by comparing the hieratic script engraved in the *Description of Egypt* [14] , with the great hieroglyphic manuscript published in the same work [15] . This comparison of these two accounts will demonstrate the impartial use of the two symbols for one another in ideographic texts, and comparison of some other manuscripts, such as page 4 of the manuscript of the Royal Library, or page 8 of Fontana's manuscript [16], comparing, the first with columns 87 to 83 pl. 74, and the second with columns 93 to 86 of the same table 74 of the large hieroglyphic manuscript, will also furthermore assign the *hieratic* equivalent of the hieroglyphic symbol representing two inward-facing scepters, a character [17] which is exactly the same as the demotic symbol representing the bent Σ in the words ΑΛΚΣΑΝΤΡΣ, [18] (Alexander) and ΣΝΤΚΣΣ [19] (συνταξις) in the popular text of the inscription on the Rosetta Stone. And lastly as a final proof of the common value of these two symbols, we cite a second phonetic hieroglyphic cartouche containing Alexander's name, carved at Karnac (*Description of Egypt, Antiquities*, vol. 3, pl. 38 No. 15) [20] , in which both Σ of this name are provided by the composite symbol of the *two horizontal scepters*, repeated twice.

We can therefore consider as well-established the *phonetic* interpretation of fifteen hieroglyphic symbols from the three cartouches which we have evaluated.

The phonetic cartouche Ptolemy, was found carved on the ceiling of the great triumphal arch of Karnak in Thebes (*Desc. Egypt, Ant. Vol. 3, pl. 50*), accompanied by the caption *immortal, beloved of Phtah*, in ideographic characters. It is accompanied by a cartouche that is essentially a woman's name, because it ends with the ideographic symbols of the feminine gender, like the previously found hieroglyphic name of the queen Cleopatra. In this new name of Queen Lagide, we can readily recognize, using hieroglyphic-phonetic characters already established, the orthographic name of Berenice ΒΡΝΗΚΣ almost like in the demotic papyrus in the king's collection, and the proper name [21] gives us a new phonetic symbol, that of B, represented by a kind of *hook* [22] , and more new forms of K and of Σ which also appear in several other cartouches.

As for these general variations you should please note that in order to not excessively expand this

letter, which you permit me to send you, I will stop here; note that we will come across them again, as I have carefully included them in the full alphabet, in the last table accompanying this letter. But you can be absolutely sure of the homophony of these various symbols, since each of them will be found in several other proper names, an examination of which will remove any doubts you may have.

Bringing together, then, the phonetic symbols which have been collected individually and which make up the general alphabet, I will show you step by step, and very briefly, according to the Description of Egypt tables, the proper names in phonetic hieroglyphs on those of the monuments of this country that are so well known to us from this beautiful work, thanks to the devotion of our travelers, and to those luminaries who have guided its execution.

Among these names, many belong to the Greek period in Egypt's history.

Thus we have:

1 The name of *Alexander* carved twice on buildings in Karnak. It would have been surprising indeed to not find the name of this conqueror, written on the monuments of Egypt's ancient capital. It is spelled there ΑΛΞΑΝΤΡΣ [24] ) and ΑΛΞΝΤΡΕΣ [25] like in demotic script. This illustrious name fills the entire space in its cartouche. It is unfortunate no one has copied the hieroglyphic captions that precede or follow them; they would have given us the titles and qualifications of the new ruler.

2 The name of *Ptolemy*, common to all the Lagides (Ptolemies). Sometimes it fills the entire cartouche, as seen twice in the sixth line of hieroglyphic text of the Rosetta Stone [26] , at Dendera [27] on the monolith of Qous [28] etc., etc. Sometimes, more commonly, it appears accompanied by the ideographic comment *immortal, beloved of Ptah* [29]; *immortal, beloved of Isis* [30], *immortal, beloved of Ptah and Isis*.

The name carried by the rulers of the Macedonian dynasty, which reads usually ΠΤΟΛΜΗΣ [31] and sometimes ΠΤΑΟΜΗΣ [32] , is almost always preceded by another cartouche that contains special sobriquets for Ptolemy etched in ideographic hieroglyphics, such as **Saviour, Euergetes (Benefactor), Epiphanes (Illustrious), Adelphos (Brother) etc.** I reserve the right to publicize the whole series of these ideographic sobriquets in a special work. I include here only a few phonetic names. However, when the same sobriquet is not, as in previous ones, a simple representation, and when it is actually *a name* borrowed from a *language foreign* to the Egyptians, the same name is then written in phonetic hieroglyphics, and is readable as the name of *Ptolemy*. The reader will soon find two examples of this oddity.

3 The name of Berenice spelled ΒΡΝΗΚΣ seen twice on the ceiling of Karnac's south triumphal arch.

4 One notices three cartouches attached to the bas-reliefs of the temples of Philae[34]; the first, in ideographic script, contains the *beloved Euergetes gods*, etc.; the second the name of *Ptolemy* (ΠΤΟΛΜΗΣ) *immortal, beloved of Isis*, and the third phonetic name ΚΛΕΟΠΑΤΡΑ preceded by the ideographic caption *his sister*: these three small pictures give us the following sets: *The gods Euergetes beloved of the sun*, etc., *immortal Ptolemy beloved of Isis*, and *his sister Cleopatra*, which can only correspond to Ptolemy Euergetes II, and Cleopatra his sister, and his first wife, widow of Philometor.

The obelisk of Philae which refers to the same Euergetes II, also has the name of *Cleopatra* [35] ,

but it is preceded by the two ideographic designations *his wife and sister*. If that means, as we think, the two Cleopatras (Βασίλισση Κλεοπάτρα τη Αδελφή και Βασίλισση Κλεοπάτρα τη γυναίκα) mentioned in the Greek inscription on the pedestal, the hieroglyphic cartouche ΚΛΕΟΠΑΤΡΑ refers to both Cleopatra, daughter of Epiphanes, widow of Philometor, *sister* and first wife of Euergetes II, and to Cleopatra, daughter of the preceding person and Philometor, and second *wife* of the same Euergetes II. Moreover, the name of Cleopatra, who was one of several queens of Egypt, is found very frequently on the columns of the porticoes of Philae, on the corniches of the great temple of Ombos, and on the monuments at Thebes and Dendera [36].

5 The inner frieze of the enclosure of the great temple of Edfu provides us with a long cartouche containing the legend PTOLEMY, *cognomen* ALEXANDER, *immortal, beloved of Phtha* [37]. The name is written ΠΤΟΛΜΗΣ and is separated from the cognomen ΑΡΚΣΝΤΡΣ by an ideographic group [38] corresponding to the Greek word επιχαλουμενος which in agreement with Ptolemais also draws attention to the *cognomen* of *Ptolemy Alexander*. A similar cartouche [39] where name and cognomen are also written ΠΤΟΛΜΗΣ and ΑΡΚΣΝΤΡΣ accompanied by the ideographic captions *immortal, beloved of Phtha*, though with different elements, is carved on the great temple of Ombos.

The reader has probably noticed the change of Λ to Ρ in the cognomen of Ptolemy *Alexander*, while the name of *Alexander* the Great which we have read on the buildings of Karnac carries the letter Λ twice, in accordance with Greek spelling. But the confusion of these two same-source letters, the indiscriminate use of these two letters for each other, should not be surprising especially in ancient Egypt where the confusion of Λ for Ρ or Ρ for Λ seems to have been such that the almost exclusive use of Λ for Ρ basically characterized the third dialect of the Egyptian language, *Baschmouric*, which I continue to regard as the common language of Middle Egypt. Moreover, we find in new phonetic cartouches many examples of the indiscriminate use of these two consonants, one replacing the other.

6 Among the cartouches that members of the Commission of Egypt have traced on buildings in Dendera, there is one [40] that will interest the reader in several respects. The subsequent legend is shown there either phonetically or ideographically: ΠΤΟΛΜΗΣ (Ptolemy) dubbed ΝΗΟ ΚΗΣΡΣ (*young or new Caesar*) *immortal, beloved of Isis*; Ptolemy's name and appellation of *new Caesar* or *young Caesar* applies well to a young prince whose death was as unhappy as his birth. In fact, you must recognize the son whom Cleopatra is so proud of, because Julius Caesar was his father; this child, according to Plutarch [41], carried the name of *Caesarion*, and Cassius Dion [42] the more complete designation of *Ptolemy-Caesarion*; it is certainly the Πτολεμαιος Νεο-Καισαρ of the hieroglyphic cartouche. It is true that the existence of this prince's name engraved in sacred characters on one of the main temples of Egypt makes us suppose it must have been one of its kings; history does not speak of this, but it preserves the memory of his brief reign. Ptolemy-Caesarion was indeed recognized and proclaimed king of Egypt at barely seven years old. He followed two other kings, uncles, just as young, and victims of public upheaval.

It was from the conquering Triumvirate at Philippi that Caesarion received the crown, because his mother Cleopatra had backed them. It is also Cassius Dio who reported it word-for-word [43]. But linked to the fate of Antony, Cleopatra soon after had Octave as her enemy, and the child, Caesarion, often seemed to be the sole reason for the wars which then destroyed the Roman Republic. Anthony, master of Egypt and conqueror of the East, declared the young Ptolemy to be the legitimate son of Julius Caesar, and awarded him the title of *king of kings*, less perhaps to push up his birth and rank, than to push down Octave [44]. He, at the time perceiving Antoine as this infant king said to be the son, more than he, of Julius Caesar, finally managed to snatch their lives away; Cleopatra killed herself, and the ancient Egyptian monarchy was reduced to a



province of Rome.

The passing of Cassius Dion gives us approximately the time that this hieroglyphic cartouche of Ptolemy Caesarion had to be inscribed on the Dendera temple next to that of his mother *Cleopatra* [45], as the crown was given to Caesarion the eleventh year of Cleopatra, the year 40 BCE. The bas-relief of the temple of Dendera is the first known public monument that recalls the name of a young king almost unnoticed in history, and there is no doubt at all that this same *Ptolemy Caesarion* whom we have just described in the two attached cartouches, also carved at Dendera [46] and which, completely phonetic, contain the only words ΠΤΟΛΜΗΣ ΚΗΣΑΣ (for ΚΗΣΑΣ) *Ptolemy Caesar*.

Such are the main names of the Macedonian kings of Egypt, that I found among the engraved hieroglyphic proper names in the *Description of Egypt*. It is easy to feel how the inspection of the same monuments could increase the number.

The reader will probably share too my great surprise when the same phonetic hieroglyphic alphabet applied to a crowd of other inscribed cartouches in the same work will give you the titles, names and sobriquets of the Roman emperors, expressed in the *Greek language* and written with the same phonetic hieroglyphs.

In fact one can read:

1 The imperial title Αυτοκρατωρ - taking up all the space in a cartouche [47], or even followed by the ideographic captions *immortal*, [48] - spelled AOTOKPTP, AOTKPTOP, AOTAKPTP, and even AOTOKATA [49], the Λ being used *baschmourically* (pardon the expression) for P. Cartouches containing this heading are almost always conjoined or related to a second cartouche containing, as we shall soon see, the *proper names* of emperors. But sometimes we find this word all alone in its cartouche. Without doubt, the most remarkable example of this I could cite is the bas-relief carved on the second stone of the circular zodiac of Dendera, the famous monument whose royal magnificence has just enhanced the Ministry of Antiques collection. From the beautiful engraving published in the *Description of Egypt*, we see on the right a large carved, three-dimensional female figure between two long perpendicular columns of hieroglyphs. At the base of the left column is a cartouche [50] which contains only the caption AOTOKPTP. This important part of the monument is not in Paris, the stone was cut to this very point because someone only wanted to remove the circular zodiac part, and so they separated it from a bas-relief most probably connected to it. Anyway, the cartouche which I have just interpreted establishes beyond reasonable doubt that the bas-relief and the circular zodiac, were carved by Egyptian hands under the influence of the Romans. By that fact alone our alphabet acquires great significance, since it simplifies a long asked question, and on which most of those who examined it only offered uncertain and often diametrically opposed opinions. It would have been nice to have a second cartouche attached to the first to have given us, as on many other Egyptian bas-reliefs, the emperor's actual name. But if, in such matters, a guess is permissible, several circumstances led me to believe that this caption by itself could belong either to the emperor Claudius or instead to the Emperor Nero, whose many medals struck in Egypt indeed also carry as the whole legend the single caption ΑΥΤΟΚΡΑΤΩΡ [51]

2 The title of ΚΑΙΣΑΡ or ΚΑΙΣΑΡΟΣ enclosed by itself in its cartouche or following ideographic expressions *immortal*, *beloved of Isis*, is shown separately in buildings of Philae and Dendera [52]. It is spelled ΚΗΣΑΣ or ΚΗΣΑΣ interchangeably.

3 Other cartouches bear the title of *emperor* and of *Caesar* arranged in the following forms:

ΑΟΤΚΡΤΡ ΚΗΣΡΣ , ΑΟΤΚΡΤΟΡ ΚΕΣΡΣ , ΑΟΤΚΡΤΟΡ ΚΗΣΡ, and even ΑΟΤΚΤΡΑ ΚΗΣΡΣ, [53] . But these cartouches are combined with others containing the proper name of the emperor.

4 The cornice of the posterior part of the west Temple of Philae [54] , is decorated with six bas-reliefs each representing a sovereign's head, adorned with the royal headdress called *Pschent* (a hair style whose name the Rosetta stone has preserved for us in Greek text and we have correlated the shape with that in the hieroglyphic text), this figure is seated on a throne, and two standing goddesses are presenting to him an emblem absolutely similar to that held in their hands by military leaders who, on some bas-reliefs from the palace of Medinet Abu at Thebes [55], precede and follow an ancient Egyptian conqueror in a triumphal ceremony. This arrangement reminded me on the spot of the article of judgment worn by priests gathered in Memphis and engraved on the Rosetta stone; an article of authority as presented *in the temples of Egypt, the image of King Ptolemy Epiphanes, in which the image of the main God of the temple would present the insignia of Victory* [56]. I expected somehow to read in both cartouches [57] to the right and left of these bas-reliefs, the name of *Ptolemy Epiphanes*, but in fact one finds the caption ΑΟΤΚΡΤΡ ΚΗΣΡΣ (*Emperor Caesar, immortal, beloved of Isis*), which can only be referring to the Emperor Augustus, whose Greek medals minted in Egypt only show these two very words [58] : and I might note here this similarity, where you will see many other examples, because the authority used to inscribe these captions and the names of the emperors on temples in hieroglyphic writing was certainly the same one that regulated the captions on their Egyptian medals. As to the bas-reliefs of Philae, as they relate to Augustus, they could memorialize his victory at Actium, which for Egypt, became the origin of a new era and was well known.

5 The name of the Emperor *Tiberius* is seen several times on the walls of the west Temple of Philae. Two cartouches together form the following caption: ΑΟΤΚΡΤΡ ΤΒΡΗΣ ΚΗΣΡΣ *immortal* [59], and several others grouped in pairs, are: ΑΟΤΚΡΤΡ ΤΒΛΗΣ ΚΗΣΡΣ *eternal* [60]. The same caption is also repeated nine times on the frieze of the same temple [61] , and is still, almost letter for letter, only a transcript of the Greek caption of the Greek Tiberius medals minted in Egypt [62] .

6 The monuments of Philae also offer two other cartouches side-by-side which contain the caption and the name of Domitian, in these terms: ΑΟΤΚΡΤΡ ΤΟΜΤΗΝΣ ΣΒΣΤΣ, *Emperor Domitian Augustus* [63] . We find captions of this emperor much larger on the buildings at Dendera; they are contained in two cartouches joined together, which read or translate easily as ΑΟΤΚΡΤΡ ΚΗΣΡΣ ΤΟΜΤΗΝΣ (*Emperor Caesar Domitian, known as ΚΜΝΗΚΣ (Germanicus)*) [ 64] . These captions are all consistent with those of Greek medals of that emperor, coined in Egypt.

7 A monument of another kind, an obelisk, so-called in Rome the *Pamphile Obelisk*, also has the phonetic name of *Domitian*, in whose honor it was without doubt carved in Egypt and erected in the capital of the empire. We note, first on the eastern side of this obelisk the ideographic caption *King*, followed by a cartouche containing the name ΚΗΣΡ (*Caesar*), with other symbols whose uncertainty in Kircher's etching, prevents me from hazarding a guess as to their interpretation. The cartouches on the eastern and southern sides contain these words: ΚΗΣΡΣ ΤΜΗΤΙΗΝΣ (*Caesar Domitian*) [65] . Finally, the two cartouches placed near the base of the northern side of the same obelisk form the words ΑΟΤΚΡΤΡ ΚΗΣΡΣ ΤΜΗΤΕΝΣ ΣΒΣΤΣ [66], the emperor Caesar Domitian Augustus.

8 The name of his father *Vespasian* appears in one of the upper cartouches on the same face, including the ideographic expression *which received power from his father* ΟΥΣΠΙΣΗΝΣ [67]; the first four symbols of this cartouche are brought too close together in the Kircher engraving.

9 In the eastern part of the island of Philae, there is a very elegant building, but its hieroglyphic decoration was never completed. From the number of parts completed, are two spaces between the columns one of which has been drawn in detail by the Commission in Egypt [68]. The corresponding cartouches all relate to the emperor *Trajan*. The image of the emperor on foot, making an offering to Isis and Arouéris, is accompanied by two cartouches containing the words ΑΟΤΚΡΤΡ ΚΗΣΡΣ ΝΡΟ ΤΡΗΝΣ ... (*Emperor Caesar Nerva Trajan*) [69] , and the legend ΤΡΗΝΣ ΚΗΣΡΣ (*Trajan Caesar immortal*) [70], enclosed in a cartouche, also finishes the perpendicular column of hieroglyphics carved to the right of the bas-relief. The frieze of the same inter-columniation is adorned with nine small cartouches. The middle one, a little larger than the other eight, supported by two *Uraeuses* or *royal asps*, contains the name of Trajan, ΤΡΗΝΣ, with the ideographic epithet *immortal*. Combined with ones on the right and the left, it produces the following legend: the *emperor immortal, Trajan eternal, Caesar immortal seed of Isis*. Three cartouches to the right of these latter ones, produce the words *Trajan immortal, Caesar Germanicus, Dacicus, immortal*. Finally, the three cartouches to the left left give the caption: *Nerva Trajan immortal, Emperor Caesar immortal, Augustus [71] immortal, beloved of Isis*. The name of Trajan is also found on the great temple of Ombos, two cartouches drawn in the ruins of the monument in effect form the series ΑΟΤΚΡΤΡ ΚΗΣΑ ΝΑΟΑ ΤΡΗΝΣ (*Emperor Caesar Nerva Trajan*), dubbed ΚΡΜΝΗΚΣ ,ΤΗΚΚΣ (*Germanicus, Dacicus*) [72] , which is again, word for word, the legend on the Greek medals of this emperor minted in Egypt.

10 It is on one of the obelisks of Rome, known as the *Barberini Obelisk*, that we find the name of Trajan's successor, Hadrian, who so loved Egypt and left so many memories there. This monolith carried on its main face a large cartouche now completely destroyed, and which, as the ideographic symbols before and after indicated to me, contained the names and titles of the emperor. But the name of Hadrian is fortunately preserved in a cartouche placed in front of the upright image of the prince, making an offering to the god *Phre* (the sun) towards the top of the fourth face of the obelisk. This cartouche, very small-scale on the etching of Zoega, indicated to me very clearly however, nine phonetic hieroglyphs, whose transcription in Greek letters gives ΑΤΡΗΝΣ *Hadrian Caesar* [73] .

11 The reading of this name leaves no doubt about it; if anything, it would become certain, however, by the mere fact that the name of the Empress *Sabina*, wife of Hadrian is also written in phonetic hieroglyphics on the same obelisk. The first face of the monolith in fact contains a series of ideographic symbols expressing the concepts: *likewise his wife, greatly loved*. This series [74] is followed by two cartouches: the first contains in full the name of the Empress ΣΑΒΗΝΑ [75] , followed by ideographic symbols of the feminine gender, as with the names of queens *Berenice* and *Cleopatra*, and also the ideographic caption *immortal goddess, strong or victorious*; the second cartouche, immediately following, contains in phonetic script, the title Σεβαση (Auguste), spelled ΣΒΣΤΗ [76] , and accompanied by the ideographic caption *immortal goddess*. The reader will notice, too, that the two cartouches relating to the Empress are combined, producing the caption Σαβινα or Σαβεινα σεβαση, which is precisely the one on all the Greek medals of Hadrian's wife minted in Egypt.

12 I will end this collection of hieroglyphic names with that of the prince who was simultaneously honored for his letters and his humanity, I mean the pious *Antoninus*, whose name appears repeatedly on the *Triphonium* of Dendera. Two adjacent cartouches show the following legend: ΑΟΤΚΡΤΡ ΚΗΣΡΣ ΑΝΤΟΝΗΝΣ (*Emperor Caesar Antoninus*), captioned *immortal*[77] .

But we still have to take a quick look at the nature of the phonetic system by which these names

are written, for us to form an accurate picture of the nature of the symbols it uses, and also look for the reasons that permit the choice of the image of this or that object, representing one consonant or vowel rather than another.

As for the whole Egyptian phonetic writing system (and we include here under that appellation the popular phonetic and phonetic hieroglyphic writing), it is clear that it is not a purely *alphabetical* writing system, if one's understanding of *alphabetical* is a rigorously representative writing, everything in order, with all the sounds and all *the articulations* which form the words of a language. We see, indeed, the Egyptian phonetic writing, in order to represent the word *Caesar*, after the Greek genitive ΚΑΙΣΑΡΟΣ, often compromises by gathering the consonant symbols ?, ?, K, Σ, P, Σ, without worrying about the diphthong nor the two vowels that Greek spelling stringently demands, and shows us, for example, the proper names ΑΛΕΞΑΝΔΡΟΣ, ΒΕΡΕΝΙΚΗ or rather, ΒΕΡΕΝΙΚΗΣ, ΤΡΑΙΑΝΟΣ, etc., transcripts with all consonants, it is true, but missing most of the vowels: ΑΛΚΣΑΝΤΡΣ, ΒΡΝΚΗΣ, ΤΡΗΝΣ. We can therefore relate Egyptian phonetic writing to the ancient Phoenicians, to writings said to be Hebrew, Syriac, Samaritan, to Kufic Arabic, to actual Arabic; writings that could be called *semi-alphabetic*, because they offer, somehow, to the reader only the skeleton of words, consonants and long vowels, leaving it up to the reader's knowledge to add the short vowels.

The reason as to why the Egyptians decided to use a particular hieroglyph to represent a particular sound requires a bit more explanation: I am forced to go into more precise details for which I ask you in advance to forgive me in favor of the importance of this issue in itself, and perhaps also to the unique results that our investigation might lead.

I already judged that to make *sounds* and clear *expressions*, and thus form a phonetic script, the Egyptians took hieroglyphics representing physical objects or expressing *ideas* of which the name or the corresponding spoken word began with the vowel or consonant that it represented. The link that we will make of the hieroglyphic symbols expressing consonants with Egyptian words expressing the objects these same hieroglyphs represent, remove any uncertainty about the truth of the principle we have just stated, and many more analogies cannot in any manner be just due to chance.

Consonant B is expressed:

1 by a hieroglyph depicting a small vase containing fire, placed on a man's hand, of a man's arm, carved, either on wood or metal, forming the hook shape in which the heroes represented on Egyptian bas-reliefs usually burn incense before the images of gods: the word Βρβε *Berbe*, from Coptic books, corresponds well to this little vase.

2 B is seen on the Pamphile Obelisk as a quadruped, but Kircher's engraving is so neglected that we cannot decide whether this animal is a cow Βαξσι (*Bahsi*), a kid Βααμπε (*Baampé*), a goat Βαρηιτ (*Barêit*), a fox Βαξωρ (*Bashor*), the small quadruped named Βοξι (*Boischi*), or even a jackal Βουξ (*Bönsch*).

Consonant K is depicted as:

1 a *shallow teacup* (a kind of basin), and Egyptian dictionaries give us the words Κελωλ (*Kelôl*) Κελωλι (*Kélolli*), Κνικιδι (*Knikidji*), and Καδι (*Kadji*), all of which all show *vases*, or *basins* for drawing water;

2 By a figure representing either a right angle with string, a sort of triangle, and the word Κοοξ

(Kooh), meaning an angle;

3 By a kind of *hut* or *cabin*, in Egyptian Καλιβι (Kalibi) or a walled compound Κτο (Kto) and covered with a *roof* or *ceiling* Κηπε (KEPE);

4 By a *headdress* or *cap* Κλαφτ (Klaft): it is the ordinary hairstyle of private characters in Egyptian bas-reliefs.

The Λ is indicated by a *lion* or a *lioness* in an attitude of repose. We will find the reason for the choice of this animal to represent the consonant Λ in the Egyptian word Λαβο (Labo) or Λαβοι (Laboi), used in the Coptic texts, with the meaning of Lioness [78]. We will note that the word expressing the idea of *Lioness*, in Arabic Lebouah, and in Hebrew Lébieh, are perfectly similar to the Egyptian word λαβοι (Laboi); we even reckon that the pattern of the regular spelling seems to have been λαφοι (Lafōi) is a only a composite word meaning "*very hairy*," *valde hirsutus*, and it is in this sense that one would also sometimes have applied this name to the bear in the Egyptian version of the holy books [79].

The broken line that one thinks of as representing *water* in hieroglyphic writing, expresses here only the preposition "*of*," in Egyptian v; which is why it has become the ideographic symbol of the sound N. The small teacups which also represent the consonant N, are only these small teacups of *alabaster* found so frequently in Egypt, and which serve to contain fragrant oils Νεξ (Neh); these teacups carry the names of the Greek authors Αλαβαστρος or Αλαβαστρον.

The Greek consonant P is expressed hieroglyphically

1 By the picture of the mouth ρο (Ro).

2 By a *pomegranate* flower ρωαν (erman) or ρωμαω (roman).

Finally consonant T is represented

1 by the picture of a *hand* τoτ.

2 by the ideographic character of the feminine definite article τ (Ti) or τε (Te)

3 or by a *mason's level*, in the Egyptian language τoτi (Tori) or τoτe (Tore) depending on the dialects.

I have no doubt that if we could somehow determine in a certain way the object that represents or expresses all other phonetic hieroglyphs included in our alphabet, it would be very easy for me to show, in the Egyptian-Coptic dictionaries, the names of these same objects beginning with the consonant or the vowels that their image represents in the phonetic hieroglyphic system.

This method, used for the setting up of the Egyptian phonetic alphabet, presents at this point the possibility that we could increase if we wished, the number of phonetic hieroglyphs, without ruining the clarity of their expression. But everything seems to prove that our alphabet contains the greater part of them. We have, in fact, the right to draw this conclusion, since this alphabet is the result of a series of phonetic proper names, engraved on the monuments of Egypt for a period of nearly *five centuries*, and in several places in that country.

As for the vowel symbols of the hieroglyphic alphabet, it is easy to see that they are used one for

another in a rather confusing way. One can only establish at the moment the following general rules:

- 1 The hawk, ibis, and three other species of birds are always used for A;
- 2 The leaf or feather randomly represents the short vowels A E, sometimes O.
- 3 Two leaves or feathers randomly represent the vowels I, H, or the diphthongs, IA, AI.

Everything I have just described on the origin, the formation, and the abnormalities of *phonetic hieroglyphic* alphabet, applies almost entirely to the *demotic-phonetic* alphabet; see the second column of Plate IV which contains the entire series of symbols, drawn from the Rosetta inscription and from the papyrus recently acquired for the king's collection.

Both phonetic writing systems were so closely linked that the *priestly ideographic* system became the *popular ideographic* system, which was only a derivation of it, and with the *pure hieroglyphic* system whence it derived its origin. The demotic letters are, indeed, for the most part, as we have announced, only the *hieratic* symbols of the phonetic hieroglyphs themselves. It will be easy for the reader to recognize the truth of this assertion, by taking the trouble to consult comparative Table of hieratic symbols listed next to the corresponding hieroglyphic symbol, the Table that I presented to the Academy of Belles Lettres over a year ago. So, in essence, there is no other difference between the two alphabets, *hieroglyphic* and *demotic*, only the shape of the symbols, the value and the same patterns of this value remaining constant. Finally, I would add that these popular phonetic symbols only being the unaltered hieratic characters, there could necessarily exist in Egypt only *two* phonetic writing systems;

- 1 the *phonetic hieroglyphic* writing, used on great monuments
- 2 the *hieratic-demotic* script, that of Greek proper names on the middle text of the Rosetta Stone and of the demotic papyrus in the library of the King (*supra*, p 4.), and that someday we will find them used to transcribe the name of some Greek or Roman ruler in rolls of papyrus with hieratic script.

Phonetic writing was therefore used in all classes of Egyptian society, and they used it for a long time as a necessary accessory to the three ideographic methods. When, by reason of its conversion to Christianity, the Egyptian people received from the apostles the alphabetical Greek writing, subsequently they were obliged to write all the words in their native language with this new alphabet whose adoption isolated them from the religion, the history and the institutions of their ancestors; all existing monuments, for this reason, became lost to these new converts and their descendants. The Egyptians, however, retained some customs of their old phonetic writing, and we notice, indeed, in the oldest Coptic texts, in the Theban dialect, most of the short vowels are totally left out and they only occur frequently in the hieroglyphic names of Roman emperors, as series of consonants interrupted at intervals nearly always by some long vowels. This relationship seems important. Greek and Latin authors have given us no formal idea of Egyptian phonetic writing; it is very difficult to even deduce the very existence of this system by squeezing the letter from certain passages where something like this would seem to be very obscurely indicated. We must therefore throw out our knowledge, using historical tradition, of the period when these phonetic scripts were introduced into the pictographic system of the ancient Egyptians.

But the facts speak for themselves enough to allow us to say with some certainty that the use of

an auxiliary writing intended to represent sounds and articulations of certain words, preceded, in Egypt, the domination by the Greeks and Romans, though it seems very natural to attribute the introduction of the Egyptian semi-alphabetic writing to the influence of these two European nations, who for a long time made use of an agreed-upon alphabet.

I base my opinion in this regard on the following two considerations, which will perhaps appear to the reader with a strong enough emphasis to settle the question.

1 If the Egyptians had invented their phonetic writing by imitating the Greek or Roman alphabets, they would have naturally established a number of phonetic symbols equivalent to the known elements of the Greek or Latin alphabets. Now this is not so; and the undeniable proof that the Egyptian phonetic writing was developed in a completely different purpose than to express the sounds of the proper names of Greek and Roman rulers, one finds in the Egyptian transcription of these very names, which, for the most part, are corrupted to the point of becoming unrecognizable; first by the removal or the mix-up of most of the vowels; second, by the perpetual use of consonants T for Δ, K for Γ, Π for Φ; and last by the haphazard use of Λ for P, and P for Α.

2 I am confident that the same *phonetic hieroglyphic* symbols used to represent the sounds of Greek and Roman names, are also used in ideographic texts engraved long before the arrival of the Greeks in Egypt, and that they already had, on some occasions, the same representative value of sounds or articulations, as in the cartouches engraved under the Greeks and Romans. The development of this valuable and decisive fact is in my work on the pure hieroglyphic writing. I could not circumstantiate it in this letter without getting into long drawn-out details.

So I think that *phonetic* writing existed in Egypt at a very early period; that it was at first a necessary part of ideographic writing; and that it was also employed then, as was done after (Persian king) Cambyses, to transcribe (roughly it is true) in ideographic text, the proper names of the peoples, of the countries, of the cities, of the rulers, and of foreign individuals whom it was important to memorialize in historical texts or in monumental inscriptions.

I am willing to say more: it is possible to find in this ancient Egyptian phonetic writing, however imperfect it is in itself, without knowing the origin, at least the model on which the alphabets of the peoples of Western Asia could have been traced, especially those countries neighboring Egypt. In fact the reader will notice

1 that each letter of the alphabets of what we call Hebrew, Chaldean and Syriac carries a significant name, very old names, since they were almost all transmitted by the Phoenicians to the Greeks when the latter received the alphabet from them

2 that the *first consonant or vowel of the name* is also, in these alphabets, the *vowel or consonant that the reading represents* in the creation of these alphabets, a perfect analogy with the creation of the Egyptian phonetic alphabet; and if, as everything shows, some alphabets of this kind are primarily formed with symbols representing ideas or objects, it is clear that we must recognize the people who invented this graphical method, especially this one which particularly uses ideographic writing, that is to say finally, that Europe, which received from ancient Egypt the elements of science and the arts, again owes to it the invaluable benefit of alphabetical writing.

(NOTE: This final (and flowery!) paragraph has been freely translated)

Finally, I wish here only to present a subject resulting from my *phonetic hieroglyphic alphabet*,

which should result in further developments. The illustrious Academy has already given to Europe much in regard to the old world, and my current presentation will further substantiate the history and civilization of the ancient Egyptians. We can finally read the ancient monuments and follow the ancient Egyptian dynasties by comparing the Greek, Roman, and Pharaonic names found in the cartouches. I hope my submission will find favor with the French public, and I once again thank you for accepting my publication.

Sincerely

Paris, 22 September 1822 [80] .

J. F. CHAMPOLLION, Jr.



## EXPLANATION OF TABLES.

Collected here is our interpretation of all the proper names expressed phonetically either in demotic or hieroglyphic form, and depicted in the first three tables.

Demotic names should be read from right to left. Symbols that make up the hieroglyphic names enclosed in cartouches are arranged in two ways:

- 1      Horizontally, in which case they can flow either left to right or right to left.
- 2      Perpendicularly.

In either case, hieroglyphs are often placed in pairs, threes, and so on, shown one above the other.

The general direction of the hieroglyphic symbols forming a proper noun or a caption is easy to understand, and one should begin reading from the side of the inscription to which the heads of animals found in the symbols are turned. This rule is invariable.

Names and phonetic words are transcribed here in small Greek capitals, and the sense of purely hieroglyphic symbols, in italics.

### TABLE I

*Names appearing in demotic form.*

#### INSCRIPTIONS FROM THE ROSETTA STONE

1. ΑΛΚΑΝΤΡΣ (Alexander).
2. ΠΤΛΟΜΗΣ (Ptolemy).
3. ΑΡΣΗΝΕ (Arsinoe).
4. ΒΡΝΗΚΕ (Berenice).
5. ΑΗΕΤΟΣ (Aeetes).
6. ΠΙΡΕ (Pyrrha).
7. ΠΗΑΗΝΣ (Philinus).
8. ΑΡΗΕ (Areia).
9. ΤΗΕΚΝΣ (Diogenes).
10. ΙΡΕΝΕ (Irene).
- 11 ΣΝΤΚΣΣ (Συνταξις).
12. ΟΥΗΝΝ (*Ionian, Greek*).

DEMOTIC PAPYRUSES

13. ΑΛΚΣΝΤΡΟΣ (Alexander).
14. ΠΤΛΟΜΗΣ (Ptolemy).
15. ΑΡΣΗΝ (Arsinoe).
16. ΒΡΝΗΚ (Berenice).
17. ΚΛΟΠΤΡ (Cleopatra).
18. ΑΡΛΟΝΗΣ (Apollonius).
19. ΑΝΤΗΧΟΣ (Antiochus).
20. ΑΝΤΗΚΝΣ (Antigone).

*Names and hieroglyphic symbols*

21. Ideographic symbol of the *feminine gender*.
22. ΠΤΟΛΜΗΣ (Ptolemy) immortal, beloved of Phtha. (Rosetta Stone).
23. ΠΤΟΛΜΗΣ (Ptolemy) immortal, beloved of Phtha.. (Philae Obelisk).
- 23a. ΠΤΟΛΜΗΣ (Ptolemy), immortal, beloved of Isis.
24. ΚΛΕΟΠΑΤΡΑ (Cleopatra). This name is followed by ideographic signs of the feminine gender; see No. 21. (Philae Obelisk).
25. ΑΛΚΣΛΝΤΡΣ (Alexander the Great). Temples at Karnak.
26. ΑΛΚΣΝΡΕΣ (Alexander the Great). Karnak. The letter T is missing between N and P; this omission might have come from the same Egyptian sculptor.
27. Hieratic character corresponding to the demotic and hieroglyphic Σ.
28. ΠΤΟΛΜΗΣ (Ptolemy) taken from the hieroglyphic text of the Rosetta Stone.
- 29 ΠΤΟΛΜΗΣ (Ptolemy), at Dendera.
30. ΠΤΛΟΜΗΣ (Ptolemy), Qus monolith. (Apollinopolis parva).
31. ΠΤΟΛΜΗΣ (Ptolemy). M is expressed by the nycticorax, a species of heron called Mouladj in the Egyptian language.

32. BRNHKΣ (Berenice), followed by ideographic symbols of the feminine gender.
33. BRNHKΣ (Berenice), engraved like the previous one, on the triumphal south arch, Karnak.
34. ΚΛΑΠΤΡΑ (Cleopatra), with feminine symbols (see: 21).
35. ΚΛΑΟΠΤΡΑ (Cleopatra), with the same signs.
36. ΚΛΕΟΠΙΑΤΡΑ (Cleopatra), with the same signs.
37. ΚΛΟΠΤΡΑ (Cleopatra). This name is followed by signs of the feminine gender and with the ideographic title *Goddess*, with a qualification whose signs are incomplete.
- 38 and 39. Hieroglyphic group corresponding to the Greek word *επιχάλσυμενος* also meaning *surnamed*: it is constantly placed between the names and surnames of Ptolemy kings. See Nos. 40, 41 and 42.
40. ΠΤΛΟΜΗΣ (Ptolemy) *surnamed* ΑΡΚΣΝΤΡΣ (Alexander) immortal, beloved of Phtha.
41. ΠΤΟΛΜΗΣ (Ptolemy) *who is surnamed* ΑΡΚΣΝΤΡΣ (Alexander), immortal, beloved of Phtha.
42. ΠΤΟΛΜΗΣ (Ptolemy) *surnamed* ΝΗΟΚΗΣΡΣ (new Caesar), *immortal, beloved of Isis*. Note that the two *feathers* or *leaves* of the surname which express the sound H are placed so as to be pronounced simultaneously and after the N and after the K; other examples of this provision of specific signs can be found in hieroglyphic systems whether phonetic or ideographic. (See No. 71.)
43. ΠΤΟΛΜΗΣ-ΚΗΣΑΣ (Ptolemy Caesar), at Dendera.

## TABLE II

### *Roman imperial titles.*

44. AOTOKPTP (Αυτοκρατωρ, the Emperor.)
45. AOTKPTP (idem).
46. AOTAKPTP (idem).
47. AOTKPTP (the emperor), *immortal*.
48. AOTOKLTA (the emperor); frieze of Dendera.
49. AOTOKLTA (the emperor).
50. AOTKPTP (emperor); this cartouche is carved on the bas-relief which abutted, to the right, the circular zodiac of Dendera.
51. KHΣΛΣ (Caesar), the Λ being used for P.
- 51 a, b, c, d, e, f. Different examples of how the word Καισαρ, or rather its genitive Καισαρος is written in hieroglyphic letters. Here is the reading of these groups in the same order KHΣPΣ, KHΣΛΣ, KHΣPΣ, KHΣPΣ, KΣPΣ, KHΣP.
52. KHΣP AT (for Καισαρ αυτοκρατωρ), *Emperor Caesar immortal, beloved of Isis*.
53. KHΣPΣ, (Caesar), *immortal, beloved of Isis*.
54. KHΣΛΣ, (Caesar), *immortal, beloved of Isis*.
55. KHΣPΣ, (Caesar), *immortal, beloved of Isis*.
56. AOTOKPTA KHΣPΣ, (Emperor Caesar).
57. AOTOKPTOP KEΣPΣ, (Emperor Caesar). The final Σ is expressed here by a syrinx or set of Pan pipes, an instrument named CHBI (*sébi*) in the Egyptian language.
58. AOTOKPTP KHΣP (Emperor Caesar) at Dendera.
59. AOTOKPTOP KEΣP (Emperor Caesar) at Dendera.
60. AOTOKPTP KHΣPΣ (Emperor Caesar) at Dendera.
- 60a. AOTOKPT KHΣPΣ (Emperor Caesar) at Dendera.

### *The Emperor Augustus.*

61. AOTOKPTP- KHΣPΣ (Emperor Caesar), *immortal, beloved of Isis*. Side-by-side cartouches.

*Tiberius.*

62. ΑΟΤΚΡΤΡ-ΤΒΛΗΣ ΚΗΣΡΣ (Tiberius Caesar), *immortal*.
63. ΑΟΤΟΚΡΤΡ-ΤΒΛΗΣ ΚΗΣΡΣ (Tiberius Caesar), *immortal*.
- 63 a. ΑΟΤΟΚΡΤΡ- ΤΒΛΗΣ (ΚΗΣΡ) (Tiberius Caesar) *immortal, beloved of Isis*.
64. ΑΟΤΟΚΡΤΡ-ΤΒΡΗΣ ΚΗΣΡΣ (Tiberius Caesar), *immortal*.

### TABLE III

#### *Domitian.*

65. AOTKPTP (the emperor), immortal, TOMTHNΣ ΣΒΕΤΣ (Domitian Augustus).
66. AOTOKPTOP KHPΣ TOMTHNΣ (Emperor Caesar Domitian), *surnamed* KPMNHKΣ (Germanicus).
67. TOMTHNΣ (Domitian) *surnamed* KPMNHKΣ (Germanicus).
68. TOMHTNΣ (Domitian) *immortal* KPMNHKΣ (Germanicus).
- 68 a. Group, as the ideographic group No. 38, located between the names and surnames of sovereigns. See Nos. 66, 67, 74, 78.
- 68 b. AOTOKPTP KHPΣ (Emperor Caesar), *immortal* TOMTHNΣ (Domitian), *surnamed* KRMNHKΣ (Germanicus).
69. KHPΣ TMHTIMNΣ (Caesar Domitian), *immortal*. Pamphile Obelisk.
70. AOTKPTA (the emperor), *child of the sun, king of kings* KHPΣ TMHTHNS ΣΒΕΤΣ (Domitian-Augustus Caesar). Pamphile obelisk.
- 70a. This pure hieroglyphic caption, carved on the Pamphile obelisk, and which contains the cartouche containing the name of Vespasian, Domitian's father, is found, with the exception of the proper Imperial name, in the tenth line of hieroglyphic text of the Rosetta stone. It signifies: *who has received the throne from ΟΥΣΠΙΣΗΝΣ (Vespasian) his father.*
- #### *Trajan.*
71. AOTOKPTP KHPΣ-NPOA-TRHNΣ ΣΒΕΤΣ (Emperor Caesar Nerva Trajan-Augustus), *immortal*.
72. TRHNΣ KH KHP (Trajan Caesar), *immortal*.
- 72 a. TRHNΣ KHPΣ (Trajan Caesar), *immortal*.
- 72 b. AOTOKPTP KHPΣ (Emperor Caesar) *title of* Trajan *in various bas-reliefs*.
- 72 c. TBPEΣ KPOTHΣ KHPΣ ... KAMNHKΣ AOTKPTOP (Tiberius- Claudius-Caesar ... Germanicus autocrat). Both cartouches carved on the portico of Esne contain the titles and names of the Emperor Claudius. Other captions of the same emperor, carved on the monuments of Dendera, show the name of Claudius more usually written as ΚΛΟΘΗΣ; and it is also found spelled KRTIHΣ. As to the three hieroglyphs completing the first cartouche, they could express ideographically the word Augustus.
73. AOTOKPTP KHPΣ-TPHNΣ ΣΒΕΤΣ (Emperor Caesar Trajan Augustus), *immortal, beloved of Isis*.

74. ΑΟΤΟΚΡΤΡ ΚΗΣ ΝΛΟΑ ... ΤΡΗΝΣ (the emperor Caesar Nerva Trajan) *surnamed* ΚΡΜΝΗΚΣ ΤΗΚΚΣ (Germanicus Dacicus).

75. ΝΡΟΑ ΤΡΗΝΣ (Nerva-Trajan) *immortal*. Central cartouche of the frieze of the between the columns of the east building at Philae. Snakes flanking and support this kind of escutcheon, are *uraei* or *royal asps*.

75. a. ΣΒΣΤΣ (Auguste) *immortal, beloved of Isis*; captions accompanying the cartouche No. 75.

75. b. c. Other ways of writing the caption ΣΒΣΤΣ (Auguste) in phonetic hieroglyphics.

*Hadrian.*

76. ΑΤΡΗΝΣ ΚΣΡ (Hadrian-Caesar), from the Barberini obelisk. The first character can represent the aspirated syllable *Ha* or simply the vowel *A*. Another phonetic name where this character reappears, can only decide the question.

*The Empress Sabina.*

80. This caption, purely hieroglyphic and containing two phonetic cartouches, is derived from the Barberini obelisk and means: Likewise his much beloved wife ΣΑΒΗΝΑ (Sabina), *living goddess, strong (or successful)*, ΣΒΣΤΗ (Augusta), *goddess immortal*.

*Antoninus.*

78. ΑΟΤΟΚΡΤΡ ΚΗΣΡΣ ΑΝΤΟΝΗΝΣ (Emperor Antoninus Caesar), captioned *immortal*.

79. ΑΤΟΝΗΝΣ with an ideographic surname. The first N is missing.

#### TABLE IV.

This table has been divided into three columns.

The 1st contains the letters of the Greek alphabet;

The 2nd, the demotic characters in the popular Egyptian writing which were intended to represent the sounds of words and foreign names;

The 3rd (last), various hieroglyphic symbols which form the phonetic alphabet.

All hieroglyphic or demotic symbols that reflect the consonants of the Greek alphabet, take a virtual syllabic value, when combined among themselves without mixing other vowel symbols. So, for example, the phonetic name Berenice, contained within cartouche No. 32, should be read and transcribed Βε-Ρε-ΝΙ-Κε-Σ. The phonetic symbols of the sounds Β, Ρ, Ν, and those of other consonants Γ, Δ, Λ, Μ, Ν, Π, Σ, Τ, etc., usually represent syllables Βε, Γε, Δε, Κε, Λε, Με, Νε, Πε, Ρε, Σε, Τε, etc. You must have indeed noticed, that almost always, the Egyptians only used in their phonetic names, either single long vowels or diphthongs. Short vowels included in the body of words are almost never expressed, because the symbol for the consonant encompasses them within itself and becomes, for that very reason, a syllabic character.

Symbols for the vowels Α Η Ε Ι are often used interchangeably.

With regard to the hieroglyphic symbols of the vowel Υ and consonants Ζ, Ψ, no proper names so far analyzed phonetically, could allow us to interpret them.
















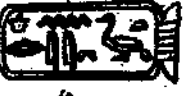











1 כחג/כ	17 כחג/כ	21 כ	27 כ	33 כ	39 כ
2 כחג/כ	18 כחג/כ				
3 כחג/כ	19 כחג/כ	22 	28 	34 	
4 כחג/כ	20 כחג/כ	23 			
5 כחג/כ	21 כחג/כ	24 			
6 כחג/כ	22 כחג/כ	25 	30 	35 	40 
7 כחג/כ	23 כחג/כ	26 	31 	36 	41 
8 כחג/כ	24 כחג/כ	27 	32 	37 	42 
9 כחג/כ	25 כחג/כ	28 	33 	38 	43 
10 כחג/כ	26 כחג/כ	29 	34 	39 	44 
11 כחג/כ	27 כחג/כ				
12 כחג/כ	28 כחג/כ				
13 כחג/כ	29 כחג/כ				
14 כחג/כ	30 כחג/כ				
15 כחג/כ	31 כחג/כ				
16 כחג/כ	32 כחג/כ				

TABLE I

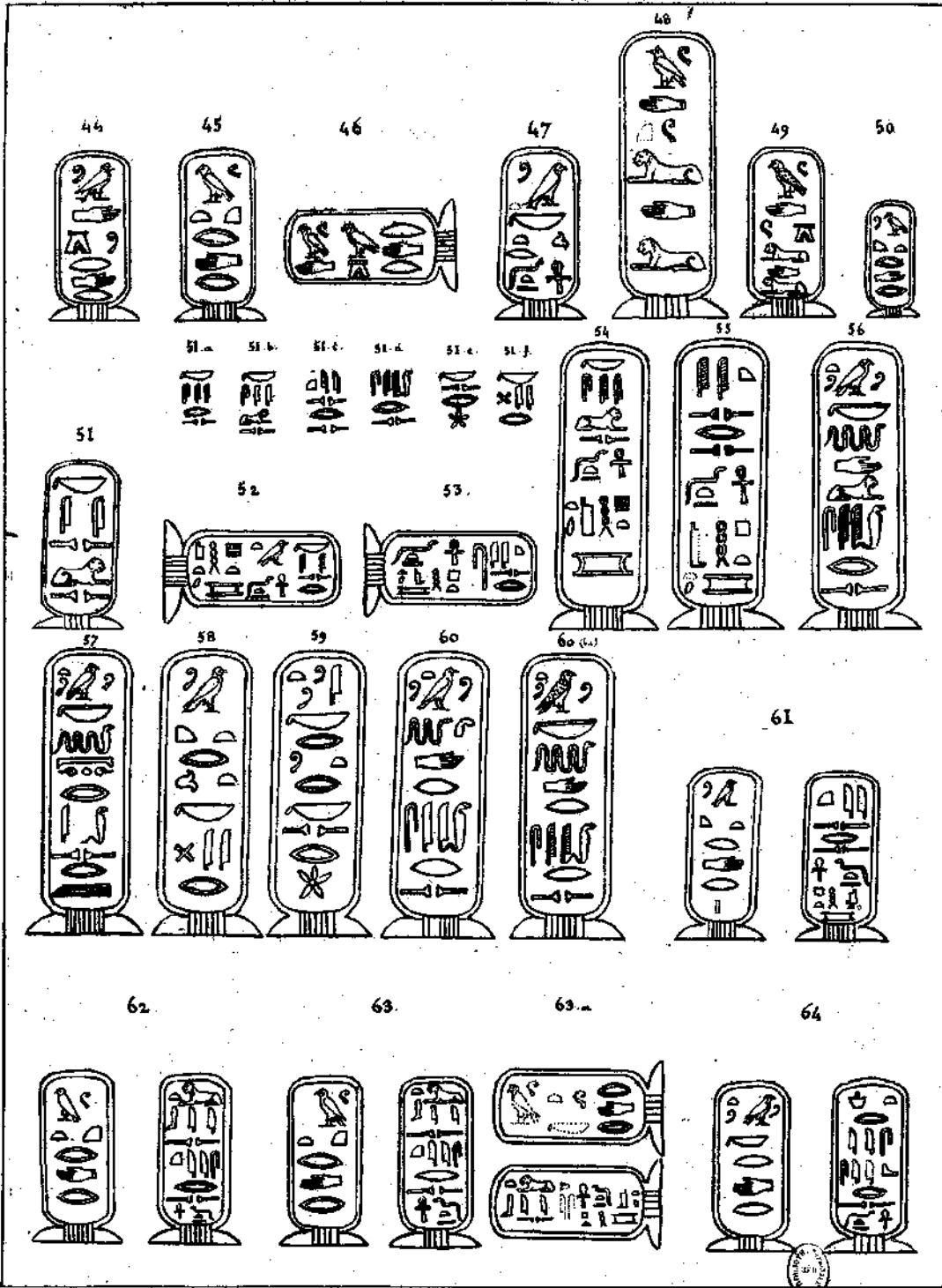


TABLE II

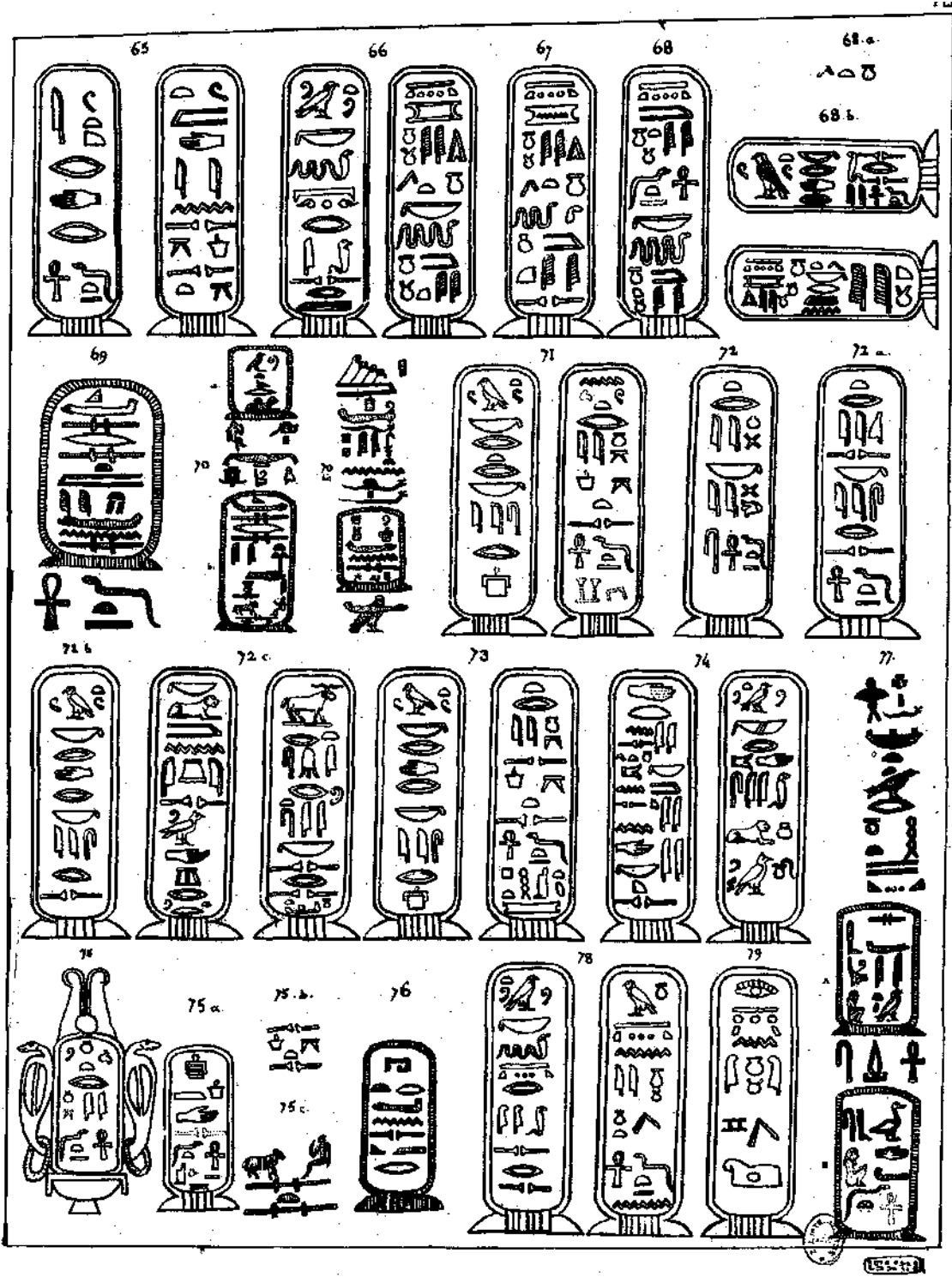


TABLE III



## FOOTNOTES

- [1] See Table I, No. 1-12, and the explanation of the Tables.
- [2] See Table I, No. 13-21. This demotic manuscript is from a number of papyruses in various languages that the King's library just bought from Mr. Cazati, and on which Mr. St-Martin gave an interesting account in the *Scholars' Journal* in September,. According to my interpretation of the protocol of this demotic agreement. It is a public act of from the reign of Euergetes II, and which are named three Cleopatras, *Cleopatra his sister and his wife*, *Cleopatra daughter of the King* (Philometor) and *Cleopatra the mother*. Mr Raoul-Rochette intends to publish this Egyptian manuscript papyrus together with several others from the King's collection. This scholar will be making a real contribution to Egyptian archeology.
- [3] See my *Observations on the Egyptian obelisk of the island of Philae* in the *Encyclopedic Review*, March 1822 issue, and the cartouche from the Rosetta stone inscription, at the end of this monograph Table I, No. 22.
- [4] See Table I, No. 21.
- [5] We are indebted to Mr. Letronne for a scholarly explanation of this Greek inscription published under the title: *Clarification of a Greek inscription containing a petition of the priests of Isis on the island of Plilæ, Ptolemy Euergetes second, copied Philae, by Mr. Catiliaud* in October 1816, read at the Royal Academy of Inscriptions and Fine Arts, Paris, Royal Printing Office, 1822, 8vo. With regard to the two queens named Cleopatra both in the inscription, see, according to Mr. Letronne's citation, *Annals of the Ptolemies*, by Champollion-Figeac, vol. II, page 168.
- [6] See Table I, No. 2. or 14 and 17.
- [7] See Table I, No. 22.
- [8] See Table I, No. 24.
- [9] See Table I, No. 25.
- [10] *Idem*, 1 and. 13.
- [11] See Table I, No. 17.
- [12] *Idem*, Table I, No. 25.
- [13] General Table of hieratic and hieroglyphic symbols compared, 1<sup>st</sup> class, No. 14; 6<sup>th</sup> class, No. 8 and No. 9.
- [14] *Antiques*, vol. II Table. 62, pages 1 and 2.
- [15] *Idem*, Table 74, column 120 to column 104.
- [16] Copy figured a roll of papyrus found in Egypt, published by M. Fontana and explained by

Mr. Hammer, Vienna, Strauss, 1822.

- [17] See Table I, No. 27.
- [18] Idem, Table I, Nos. 1 and 13.
- [19] Idem, Table I, No. 11.
- [20] Idem, Table I, No. 26, as a result of this Memorandum.
- [21] See Table I, No. 32 and 33.
- [22] This is probably the shape of the same sign, which is somewhat analogous to the representation of a basket, that Dr. Young took to mean the name of Berenice in the cartouche that contains it. But this English scholar thought that the hieroglyphs that form proper names could express whole syllables, they were some form of puzzle or rebus, and that the initial symbol of the name Berenice, for example, represented the syllable Βτρ which means *basket* in the Egyptian language. This starting point largely distorted the phonetic analysis he tried on the names of Ptolemy and Berenice, wherein, however, he recognized the phonetic value of four symbols: namely Π, one form of T, one form of M, and that of I; but all of his syllabic alphabet based on these two names only, was quite inapplicable to the many phonetic proper names inscribed on the ancient Egyptian monuments. However Dr. Young did some work in England on the inscriptions of ancient Egyptian monuments similar to that which occupied me for so many years; and his research on the intermediate text and the hieroglyphic text of the Rosetta stone, as with the manuscripts that I showed to be hieratic, presents a series of very important results. See *Encyclopædia Britannica, Supplement*, Vol. IV, para. I. Edinburgh, December 1819.
- [23] It is known that Mr. Jomard is the government commissioner responsible for directing the implementation of this work.
- [24] Description of Egypt, Antiquities, vol. III, Table 38, No. 13. See the end of this letter Table I, No. 25.
- [25] Description of Egypt, idem, Table 38, No. 15, and our Table I, No. 26.
- [26] See our Table I, No. 28.
- [27] Idem, No. 29. Description of Egypt, vol. IV, Table. 28, No. 26.
- [28] Idem, No. 30. Description of Egypt, Antiq., Vol. IV, Table I, # 3, and our Table I, No. 30.
- [29] See our Table I, Nos. 22 and 23, etc..
- [30] Idem, No. 23a. See also Description of Egypt, A. vol. I, Table 43, No. 3, etc.
- [31] See our Table. I, No. 29 and 31.
- [32] Idem, Table I, No. 30.

- [33] Table I, No. 32 and 33. See also Description of Egypt, Antiq. Vol. III, Table 50.
- [34] The design of this bas-relief is found in the rich portfolio of a learned architect, member of the Institute, who will soon delight the public with the important discoveries that he has made for the arts in his travels in the East.
- [35] See Table I, No. 24.
- [36] Idem, No. 34, 35 and 36. See the explanation of the Tables.
- [37] Same Table, No. 40, and Description of Egypt, A, vol. I, Table. 60, No. 9.
- [38] Same Table I, No. 38.
- [39] Description of Egypt, A, vol. I, Table. 43, No. 8. See Table I, No. 41.
- [40] See Table I, No. 42, and Description of Egypt, A, vol. IV, Table 28, No. 15.
- [41] In Caesare, page 731.
- [42] XLVII, p. 345.
- [43] See the *Annals of the Ptolemies*, by Champollion-Figeac, vol. II, pages 343-38.
- [44] Idem, *ibid.*
- [45] Table I, No. 36. - Description of Egypt, A, vol. IV, Table. 28, No. 27.
- [46] Table I, No. 13. - Description of Egypt, A, vol. IV, Table. 28, No. 26 and 25.
- [47] See Table II, No. 44, 45 and 46.
- [48] See Table II, No. 47.
- [49] Description of Egypt, Ant., vol. IV, Table 27, No. 13, etc. , and Table II, No. 48 and 49.
- [50] See Table II, No. 50.
- [51] Zoega, *Numi aegyptii imperatorii*, pages 14 and 22.
- [52] See the explanation of the Tables 51, 52, 53, 54, and 55, and Table. II.
- [53] Table II, No. 56, 57, 58, 59 and 60.
- [54] Description of Egypt, Ant., vol. I.
- [55] Description of Egypt, Ant., vol. II, Table 11.
- [56] Rosetta Stone inscription, Greek text, line 39. Demotic text says the *image of God*, line 23.

- [57] See Table II, No. 61.
- [58] Zoega, *Numi Egyptii imperatorii*, pages 3, 8, etc..
- [59] See Table II, No. 64.
- [60] Idem, Table II, No. 63.
- [61] Idem, Table II, No. 62.
- [62] See Zoega, and Mionnet, description etc., Vol. VI.
- [63] See Table III, No. 65.
- [64] Idem, Table III, No. 66, 67, 68.
- [65] See Table III, No. 69.
- [66] Idem, Table III, No. 70, cartouches a and b.
- [67] Idem, Table III, No. 70a.
- [68] Descript. of Egypt, Antiq., vol. II, Table. 27, No. 2.
- [69] See Table III, No. 71.
- [70] Idem, Table III, No. 72.
- [71] See Table III, No. 75 a.
- [72] Idem, Table III, No. 74.
- [73] Idem, Table III, No. 76.
- [74] See Table III, No. 77.
- [75] Idem, a.
- [76] Table III, No. 77 b. 79.
- [77] See Table III, No. 78.
- [78] Kircher, *Scala magna*, page 164.
- [79] Apocalypse, XIII, 2.
- [80] An extract from this letter was read to the Royal Academy of Inscriptions and Fine Arts, September 27, 1822.