The Napoleonic Survey of Egypt

the Vision and the Achievement

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Napoleon Bonaparte celebrated his conquest of Egypt in 1798 by commissioning a survey of the country's treasures that was published as *Description de L'Égypte*. An army of engravers collaborated with artist-illustrators over a thirty-year period to produce 900 folio engravings of huge proportions depicting the architecture, monuments and antiquities of ancient Egypt together with contemporary views of the country.

Different and more ambitious than anything else at the time — and seldom equalled since — the rich plethora of engravings and accompanying writings compiled by the intrepid French explorers, opened European eyes to the divers splendours of a long forgotten civilization, giving rise to the science of Egyptology and setting in motion cultural influences that are still felt today.

INTRODUCTION

The Napoleonic survey of Egypt — the *Description de L'Égypte* — is one of the great intellectual and artistic achievements of the nineteenth century. This work, no less than an inventory of a nation's culture — nurtured amidst the adversity of war — opened European eyes to the splendours of the monuments and customs of Egypt and gave inception to the science of Egyptology. The great folios of the *Description de L'Égypte* are themselves a monument. They are a monument to the vision of Napoleon Bonaparte, who initially conceived the work, and to the veritable army of artists, illustrators, engravers, printers and publishers who created the magnificent folios.[1] To these should be added the categories of civilians — the *savants* — who accompanied Bonaparte to Egypt; they worked under atrocious conditions, often at great personal risk, to gather the information and source material from which the *Description de L'Égypte* was compiled. This article traces the origins of the French survey of Egypt and outlines the principal achievements of the artist-illustrators as portrayed in the culminating folios published in Paris between 1809-1822.

THE VISION

It is now two-hundred years since the great French armada sailed for Egypt under the direction of its young Commander-in-Chief Napoleon Bonaparte. Not yet thirty years old — and his star still rising to its apogee — on his departure for Egypt, from the deck of his flagship *L'Orient*, he could survey a formidable fighting force of battleships housing thousands of troops and equipment. Thwarted in his attempt to launch an invasion of the British Isles, because of the naval supremacy of the British in the English Channel, Bonaparte had advised the Directory in Paris that France should strike at the sources of Great Britain's wealth by occupying Egypt, thereby gaining advantage in the Mediterranean and, importantly, threatening the trade routes to India. The military campaign was a failure, notwithstanding that certain of its episodes have passed into military and naval history — notably the Battle of the Pyramids and the Battle of Abukir Bay (the Battle of the Nile). It was amidst these events that the Napoleonic Survey of Egypt was nurtured — and it remains the enduring legacy of the French campaign in Egypt.

It is astonishing to reflect that centuries before the mechanical excavation of the Suez Canal, a fresh-water canal, wrought by hand, formerly connected the Nile Delta to a location on the Red Sea near to the present Port of Suez. This waterway, probably conceived in the reign of Pharaoh Sesostris I (20 century B.C.), had long fallen into neglect but a knowledge of its history was possessed by Charles Magallon who was French Consul in Egypt from 1793-1797. It was he who initially drew to the attention of the Directory in Paris the political and economic advantages to France of occupying Egypt and of Egypt becoming a colony of France. Bonaparte — the military genius to whom self-doubt was unknown — elevated by his triumphs in Italy had access to Magallon's report and was immediately seized by the possibilities of an Egyptian campaign. He realized that, with the ancient canal restored, it would be possible for French ships to sail directly from the Mediterranean to the Red Sea, thence to the Indian Ocean and thereby enable the French to contest the monopoly of the British who would otherwise be confined to using the much extended route around the Cape of Good Hope.

The Egyptian campaign was Bonaparte's most romantic military adventure; he found the lure of the country and its ancient civilizations compelling. Bonaparte's mind had been shaped in the Age of Reason and his outlook had been formed throughout the turbulent period of the Revolution. He was himself a revolutionary who inspired his contemporary, Beethoven, to dedicate his *Eroica* Symphony to him — only to have the dedication defiantly removed when Bonaparte was declared Emperor of the French in 1804. Bonaparte, and the small army of savants who accompanied him, prepared for their adventure by taking with them a library of some five-hundred books. These included works from the authors of antiquity such as: *The Histories* of Herodotus — he wrote extensively about Egypt and its customs; the *Historiae Naturalis* (*Natural History*) of Pliny who made observations concerning the pyramids, sculpture and the use of stone for building; and the *Geography* and *History* of Strabo in which he detailed his journey up the Nile. References to these books occur throughout the pages of the folios of text to the *Description de l'Égypte*. The mental outlook of the scholars in the expedition was also shaped,

in some measure, by the writings of European travellers such as: Edward Pococke, the English orientalist who introduced Arabic to the curriculum at Oxford, studied the manners and customs of the Arabs at first hand and wrote a treatise on the pyramids; John Greaves who travelled in Egypt, observed the monuments and published his observations in *Pyramidographia, or a Description of the pyramids of Egypt*; and James Bruce, the first British explorer of the modern era to investigate the sources of the Nile — he published his account in *Travels to Discover the source of the Nile in the Years 1768-73*.

Mention has been made of the Age of Reason and its putative influence on Bonaparte's outlook; this is a point worthy of further comment, albeit briefly. Bonaparte was born in 1769 at Ajaccio in Corsica. This was the era of Denis Diderot and the famed *Encyclopédie* — the celebrated *machine de guerre* that contributed so much to the transformation of intellectual perceptions and institutions throughout France.[2] The *encyclopédistes* — who included such luminaries as Voltaire and D'Alembert — sought to free men from the constraints of myth and superstition in favour of knowledge based on truth and reason. Their ideology was to render the affairs of mankind rational, to make the processes of government democratic and to nurture a society in which justice was dispensed in the most equitable manner conceivable — *liberty*, *equality* and *fraternity* in the words of the credo of the revolutionaries. Bonaparte's mind was shaped by these ideals. He had read Voltaire and Rousseau and, at the age of sixteen — patriotic and Corsican through and through — had written a manifesto, *Lettres sur la Corse*, in support of his native land.

The *Encyclopédie* and the *encyclopédistes* had more than a political and social agenda. The Chief Editor of the *Encyclopédie*, Denis Diderot, had a particular interest in the arts and crafts and the technology of the creation of everyday objects — utensils, implements etc. He was also deeply interested in how ordinary people made and used these things. The avowed intentions of the *encyclopédistes* was to: 'elucidate the true principles of things; record the relationships between subjects; contribute to the confidence and progress of human knowledge; multiply the number of true scholars, distinguished artisans and informed amateurs; and confer advantages to society at large'.[3] That is a remarkable agenda. The point to be made here is that the spirit embodied in these words also permeates the pages of the *Description de L'Égypte*, indeed, the above quotation (derived from the *Preface* to the *Encyclopédie*) could have been the 'mission statement', in today's parlance, of the savants and *philosphes* who accompanied Bonaparte to Egypt. In their search for information and understanding they upheld Diderot's ideals to the full, often, as already remarked, at great personal risk.

Bonaparte's moral justification for invading Egypt was to free the country of its Mameluke oppressors — the formidable Ottoman soldier-leaders who governed the country. Although acting under a specious pretext, the French army could therefore be construed as being one of 'liberation'. Accordingly, one of Bonaparte's first civil acts, on conquering Egypt, was to issue a proclamation:

> *I have come to restore to you your rights and to punish the usurpers ... All men are equal before God. Intelligence, virtue and knowledge alone differentiate them from one another.*

Under the pretext of these high-sounding words, the French army subsequently conquered Egypt and achieved a fragile alliance with the populace. Future military events undermined all this — but these lie outside the scope of this article. We will therefore take leave of Bonaparte and his army and concentrate on the achievements of the men of letters — the savants.

THE ACHIEVEMENT

When established in Egypt, the savants made a detailed study of Cairo just as they found it, still essentially a mediaeval city, its streets thronged with people of diverse cultures and social standing. The linguists discoursed in many languages. The economists circulated amongst the market places and bazaars to study the commerce of Egypt. The physicians observed the health and well-being of the people, studied the processes of plagues and contagion and put forward proposals for the alleviation of sickness and suffering. The artist Nocolas Jacques Conté wandered everywhere to study and record, in the manner of the *encyclopédistes*, the craftsmen at their work. The results of all these labours were the two great folios of engravings titled *État Moderne* — the *Modern State* (of Egypt). At the same time, his colleagues travelled extensively in Upper Egypt (the region encompassing Aswan to Cairo) and Lower Egypt (the Delta region). They recorded everything that was accessible from the river Nile, within the limited time available — this was a constant restraint. They

followed the progress of the Nile northwards, surveying and measuring the sites of the principal monuments. They first journeyed south to the Cataracts, and from there they recorded the temples and monuments in the following sequence: Philae, Elephantine, Esna, Thebes, Luxor, Karnak, Dendera, Memphis and the Great Pyramids. The results of these researches were published in five further folio volumes of engravings titled *Antiquités* (*Antiquities*). The total number of engravings in these two parts of the *Description de L'Égypte* number 601.

In their survey of the ancient monuments distributed along the Nile valley, the French engineers first made detailed topographical surveys of the temple sites. They next recorded the principal dimensions of the structures — to an accuracy of a few millimetres (the metric system was a French invention and the Napoleonic survey was the first large-scale published work to make extensive use of it). In addition, they identified features of particular interest such as fallen columns and large sculptures. To facilitate their work they often had to clear away the wind-blown sand that for centuries had shrouded the monuments. To their delight, they thereby uncovered wall paintings and hieroglyphics still resplendent in their original coloration.

We have said that the French savants adopted the methods of the creators of the *Encyclopédie*. This aspect of their work is best reflected in the two great folios titled *État Moderne* — the *Modern State* (of Egypt). These are, in effect, a portrait of Egypt in the eighteenth century and include scenes from everyday life in Egypt that were contemporary to the eyes of the French artists. As has been remarked, the French illustrators embraced the ideals of the *encyclopédistes* and this aspect of their work is portrayed under the headings: *Art and Trades, Costumes and Portraits*, and Vases, *Furniture and Instruments*.

At Paris, the French engravers transferred the engineers' survey notes and the artists' illustrations into copper-plate engravings. About a hundred engravers worked for the best part of twenty years to achieve the beautiful large-format, hand-printed illustrations that formed the basis of the bound folios of the *Description de L'Égypte*.[1]

CONCLUSION AND EVALUATION

The *Description de L'Égypte* is remarkable for the breadth of its enquiry and for the quality of the work undertaken. Its influence was immediate and far-reaching. One of the greatest achievements of the expedition was the discovery at Rosetta of the famed stone bearing unique clues to the understanding of the Egyptian hieroglyphics. With its decipherment by Jean François Champollion, in 1821-22, the modern science of Egyptology is considered to have its origins. Interestingly, when, in 1839, the French Commission of the Chamber of Deputies was considering granting an annual pension to Louis Daguerre for the 'process [of] fixation of images obtained in the camera obscura', the Commission cited the work of the *Description de L'Égypte* as evidence of the potential benefits of the new Process:

> To copy the millions of hieroglyphics which cover even the exterior of the great monuments of Thebes, Memphis, Karnak and others would require decades of time and legions of draughtsmen. By daguerreotype one person would suffice to accomplish this immense work successfully.

The influence of the *Description de L'Égypte* was soon felt overseas. For example, with the publication of Dominique Vivant Denon's *Voyage dans la basse et la haute Égypte* (Paris 1802 and London 1803), the Scottish painter David Roberts was himself inspired to travel in Egypt (1838) to gather material for his magnificent series of lithographs of the monuments of the Nile Valley published between 1842-49.[1] By way of additional illustration of the influence of the work of the French savants, and also illustrative of the growing nineteenth-century international interest in all things Egyptian, may be cited The Great Exhibition at London of 1851. The North Transept of Joseph Paxton's Crystal Palace paid homage to Egyptian art in the form of a great avenue of sphinxes terminating in giant replicas of two of the seated figures of Ramesses II as found at Abu Simbel — the French themselves did not venture so far south as Abu Simbel. The more enduring influence of Egyptian art and culture in the nineteenth and twentieth centuries has been recently surveyed, splendidly, by Professor James Stevens Curl in *Egyptomania*.

Accompanying this article we present a small selection of engravings to illustrate the visual part of the *Description de L'Égypte*. From even this small sample it can be seen that the achievements of the French savants were truly Olympian. In this context, it is only fitting that we should take leave of the reader by commending their endeavours in the words of the original authors of the *Description de L'Égypte*:

> No other country has been subjected to researches so extended and so varied; no other was more worthy of being the object. The understanding of Egypt interests, in effect, all civilized nations, be it because this country was the cradle of the arts and civilization, be it because it was able to become again the centre of political relations and of commerce between empires. The people who have lived there have left praiseworthy vestiges of its grandeur, of its art and have also made a great effort to elevate, to an immutable character, the works of nature. No other work, in effect, has presented, nor perhaps will present, the drawings of monuments of which the plans, raised by architects and engineers, are the result of comparable [survey] notes, verified and completed reciprocally between them. For this reason, we believe the travellers following us will look vainly to add to the public works on architecture in the *Description de L'Égypte*.

NOTES TO THE TEXT

1. The title of the first edition of the Napoleonic survey of Egypt is: *Description de L'Égypte Ou Recueil Des Observations Et Des Recherches Qui Ont Été Faites En Égypte Pendant L'Expédition De L'Armée Française, Publié Par Les Ordres De Sa Majesté L'Empereur Napoléon Le Grand.* À Paris, de L'Imprimerie Impériale. M.D.CCC.IX.

The first edition is sub-divided as follows:

Antiquités, Descriptions. Text. Two volumes in 26 parts published 1809-1818.
Antiquités, Mémoires: Two volumes with 21 engraved plates, two folding maps, illustrations and tables which accompany the text, published 1809-1818.
Planches, Antiquités: Five volumes containing 419 engraved plates, some coloured, published 1809-1822.
État Moderne, Text. Two volumes published in three folios, portrait, four engraved plates, illustrations and tables which accompany the text, published 1809-1822.
Histoire Naturelle, Text. Two volumes, portrait, folding plate, published 1809-1813.
Planches, Histoire Naturelle. Two volumes published in three folios containing 244 engraved plates and maps, some coloured, published 1809-1817.

The second edition of the *Description de L'Égypte* has the same title as given above but without reference to Napoleon. The following text appears on the title page:
Seconde Édition, Dédiée Au Roi, Publiée Par C. L. F. Panckoucke.
Volume 1 bears the date M.D.CCC.XXI. The text, in 26 quarto volumes, was published 1821-28. The plates were published over the same period in the three same subject divisions, namely, *Antiquités, État Moderne* and *Histoire Naturelle* but with the large-format engravings folded so as to conform to the smaller format and binding of the standard-format engravings.

2. The origins of the *Encyclopédie* are discussed in: Russell, Terence M. *Architecture in the Encyclopédie of Diderot and D'Alembert: The Letterpress Articles and selected Engravings.* Scolar Press, Aldershot 1993. pp. xii, 224. 100 plates

3. The mental outlook of the Editors of the *Encyclopédie* are discussed in *Gardens and Landscapes in the Encyclopédie of Diderot and D'Alembert: The letterpress articles and selected engravings from the Encyclopédie.* Two Volumes pp. xiii, 609. Ashgate publishing. Aldershot July, 1999.

4. The French project, as remarked in the main text, was initiated by Napoleon Bonaparte and progressed under the auspices of Louis XVIII. These, and other circumstances are discussed in: Russell, Terence M. *Description de l'Égypte: The Napoleonic Survey of Egypt.* Ashgate Publishing Limited, Aldershot 2001. Two Volumes pp. xvi, 603. 200 plates (engravings) and Frontispiece.

5. The achievements of the French artist and engraver Baron Dominique Vivant Denon, who accompanied Napoleon Bonaparte on the Egyptian military campaign (1798-1801), are discussed in: Russell, Terence M. *The Travels in Egypt of Baron Dominique Vivant Denon* (in preparation). This work is based on the author's adaptation (with additional translation) of: *Vivant Denon, Travels in Upper and Lower Egypt, In Company with Several Divisions of the French Army, During the Campaigns of General Bonaparte and Published with his Immediate Patronage.* Arthur Aiken. Two volumes, London: T. N. Longman and O'Rees and Richmond Phillips, 1803.

NOTES TO THE PLATES

1 *Frontispiece* to the *Description de L'Égypte*
This engraving adorned the 1809 edition of the *Description de L'Égypte* from which the following translation is derived.

Explanation of the Frontispiece:
The Frontispiece presents a perspective view of Egypt, characterized by the principal monuments with which this country is decorated from the [Mediterranean] Sea as far as the Nile. The frame has the form of an Egyptian portal.

The Portal:
The cornice is decorated with a winged globe [disk], on which is placed a symbolic star. In the middle of the frieze, the Hero and conqueror of Egypt [Bonaparte] is represented in his chariot; before him, the eagle, emblem of the [French] army, strikes down the Mamelukes who flee towards the Pyramids. The Nile, personified [by the terrified recumbent figure at the right], contemplates these feats. The Sciences and the Arts walk in procession with the Hero, who leads them through this country from which they have been so long exiled. The two vertical parts of the frame [portal] depict the trophies of the army and their insignia, composed of [decorative panels in the form of] crowns and medallions, which are inscribed with the names of the principal fields of battle of Egypt and Syria. In the middle of [the decorative panel at] the base is the initial of the Emperor, surrounded by a Serpent — an emblem of his immortality. On each side, the vanquished, formed by different groups [of figures] surrender their arms. At the extremities [the two lower corners], are two Egyptian scarabs [oval decorative motifs], which contain a bee and a star — characteristic symbols of the Emperor.

The Tableau:

In the foreground, along the coast, are Pompey's Column [only partly visible] and Cleopatra's Needle, and the most precious fragments [of sculpture and artefacts] collected in Upper Egypt, such as the planisphere [zodiac] of Dendera, the Rosetta Stone, a papyrus, a capital with leaves of the datepalm, one of the sphinx from Thebes, and paintings from the tombs of the Kings. Beyond them is the Nile, in its course wending from the Delta [upriver] to the cataracts, where one finds the Island of Philae, remarkable for its monuments and the mountains of granite which surround it. Below the cataracts one perceives the Island of Elephantine. On the left [west] bank of the Nile, following its course [north to the Delta] are Edfu, Armant, Esna, Medinet Habu, the colossi of the Plain of Thebes [Colossi of Memnon], the Tomb of Osymandyas [Ramesseum], Dendera, El-Ashmûncin, and the Pyramids. On the right [east] bank, one sees Kom Ombo, the tombs of Eilcithyia [El-Kab], Thebes, Antaeopolis, Antinoë and Heliopolis.

2 The Colossi of Memnon (*Antiquities* Vol. II Pl. 20)
These mighty seated statues are of Amenhotep III near western Thebes and are all that survive at this location of Amenhotep's great temple. They constitute one of the most potent of all Egyptian sculptural remains. Since the time of classical antiquity, they have been a source of wonder and imagery. The Greeks identified the site with Memnon, son of Eos (Dawn) who was slain by Achilles at Troy. His mother removed him from the field of battle where she wept each morning, whereupon her tears were transformed into dew drops by Zeus who took pity on her. The giant seated figures are representations of the king. The relatively diminutive sculpture, at the knee of the nearside colossus, is the king's wife Tiye — the equivalent representation on the Colossus of Memnon (far right in the engraving) has fallen away. It was this colossus that could be heard to emit sounds at dawn — which inspired the composer Franz Schubert to set the following words to music:

Memnon
Inured to eternal silence and sorrow, only once during the day may I speak at the moment when Aurora's lovely purple beams break through the night-born walls of mist. To the ears of men it is music. Because I voice my lament in melody, and in the fervour of composition refine its harshness, they suppose my blossoming joyful.

Me — clutched at by the arms of death, snakes writhing in the depths of my heart, nourished by the anguish of my thoughts; and almost maddened with restless desire.

To be united with you, goddess of the dawn, and far from this vain existence to shine down from spheres of noble liberty and pure love, as a pale silent star.

Johann Mayrhofer

3 Interior of the Great Pyramid of Cheops (*Antiquities* Vol. VI Pl. 15)
This engraving captures, better than any other illustration in the *Description de L'Égypte*, the investigative spirit of the French scholars. The two images shown are scenes from the Grand Gallery in the Great Pyramid of Cheops.

In the left illustration, the explorers have just completed the first stage of the ascent; we see the upper landing and look north — back down to the entrance of the pyramid. In the foreground is the architect Le Père who was responsible for designing and making the five-stage ladder that is held secure by a local guide. Another local man holds a light for M. Coutelle who is about to enter a lower chamber at ceiling level.

In the right illustration, the view is south up the Grand Gallery in the direction of the King's Chamber which housed the royal sarcophagus. The viewer is imagined to be standing in the foreground; an explorer is crawling from the horizontal gallery leading from the Queen's Chamber. Notches can be seen in the ascending masonry structure which may have been required to provide support when the gallery was being constructed. A number of explorers are to be seen making their way up the passage, at the end of which is Le Père's ladder. This has been extended to facilitate a survey of the upper parts of the King's Chamber.

4 Egyptian Arts and Crafts (*État Moderne* Vol. II Pl. XV)
As remarked in the main text, the spirit of the *Encyclopédie* permeates the illustrated folios of the *Description de L'Égypte* that are concerned with portraying the arts and crafts of Egypt. The engraving illustrated here is one of many devoted to these subjects.

Top:
The illustration shows the seated figure of a cotton worker separating cotton threads from a mass of cotton fibre. This was accomplished using an ingenious device in the shape of a bow. The thread was vibrated with a mallet, the action of which caused tufts of cotton to separate from the pile and to compact on the thread of the bow. These were then collected by an assistant.

Middle left — wool spinning:
The wool spinner performed his work crouched on the ground. He created lengths of wool-thread using a weighted spindle that was suspended like a plumb line. A bundle of wool, secured to a stick, was held in the right hand. With the left hand, the spinner extracted strands of wool which were attached to a hook at the top of the spindle. With the spindle oscillating, wool was progressively drawn from the bundle to be twisted into a continuous thread.

Middle right — winding wool onto bobbins
The French artists have taken pleasure in portraying a beautiful young woman winding wool-thread onto bobbins using a simple spinning wheel. She places one foot on the device, to make it steady, and, in a seated posture, takes her weight on her left leg. With her right hand she rotates a wheel constructed from roughly notched pieces of wood, between which criss-cross a length of string. Around this, a cord extends to a bobbin on the end of which the wool is wound.

Lower left — wood turning:
The Egyptians took delight in the use of turnery work which was adapted for use in screened windows (*mashrabiya*). A craftsman is shown turning a spindle on a lathe of basic construction. It consists of two, parallel-headed stocks between which the work being shaped is secured whilst being

free to rotate. The necessary motion is provided by a bowstring. The workman crouches over the lathe, his left hand being used to animate the bow whilst he dexterously operates a gouge with his right hand and makes it stable with his right foot. A weighted iron rod serves as a slide for the gouge, as the spindle is gradually turned.

Lower right — the locksmith:
Egyptian door locks were made from hardwood, often to designs of considerable intricacy and ingenuity. The locksmith worked seated, trimming wood — secured between his feet — with a jackplane. Locksmiths were often asked to attend to a lock that had jammed — which they released using vegetable oil. More commonly, they were called out to open a door when the owner had lost the key.

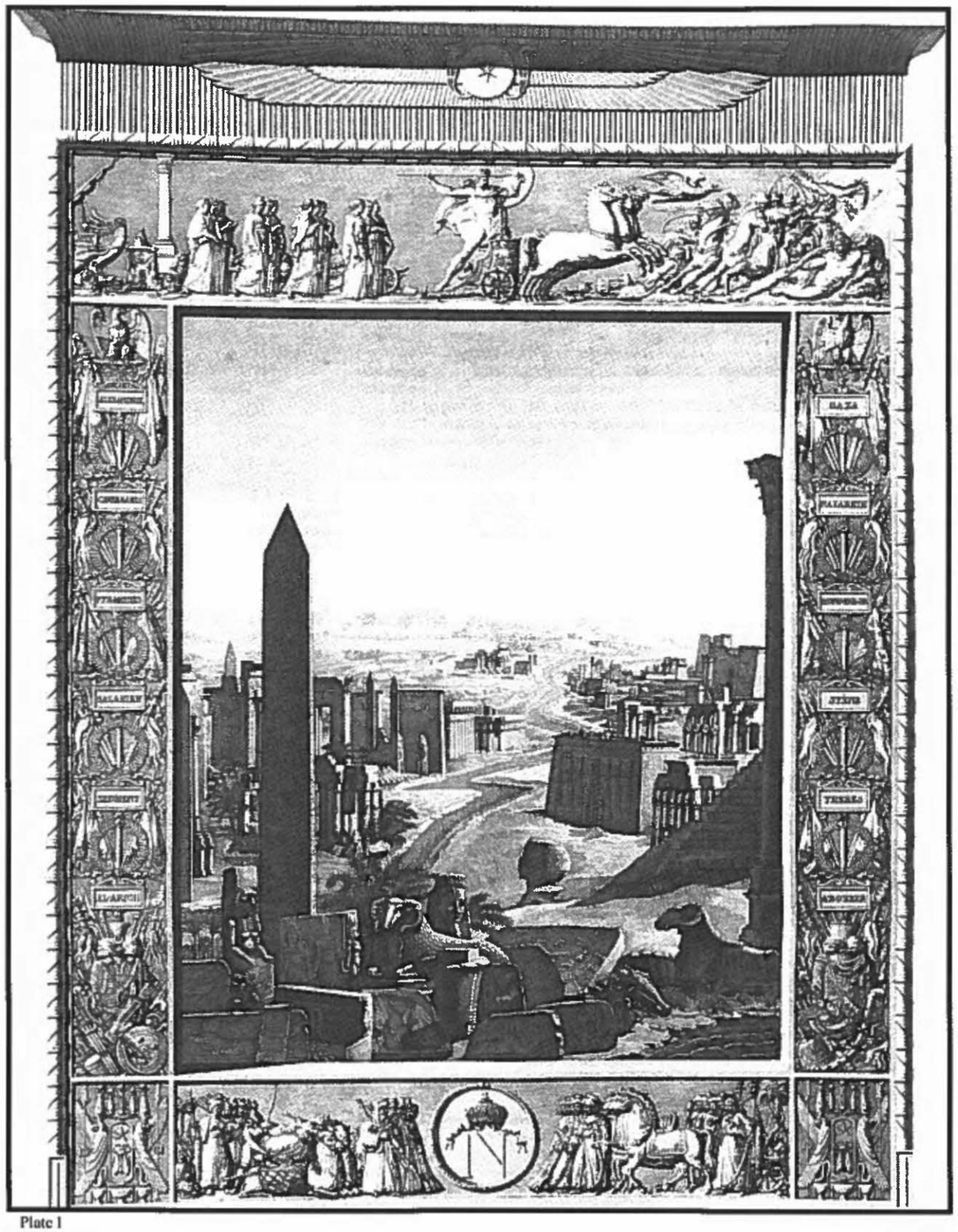

Plate 1

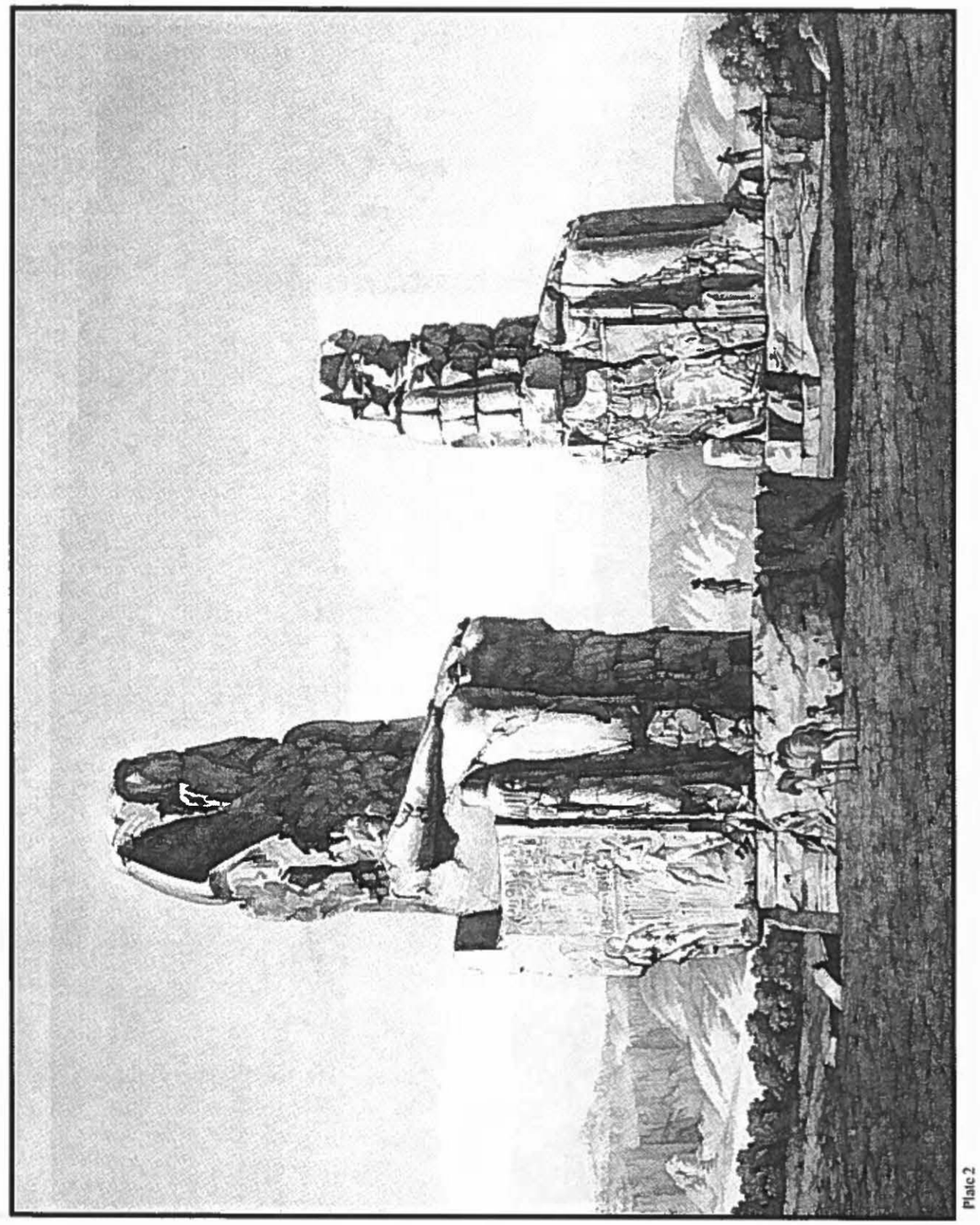

Plate 2

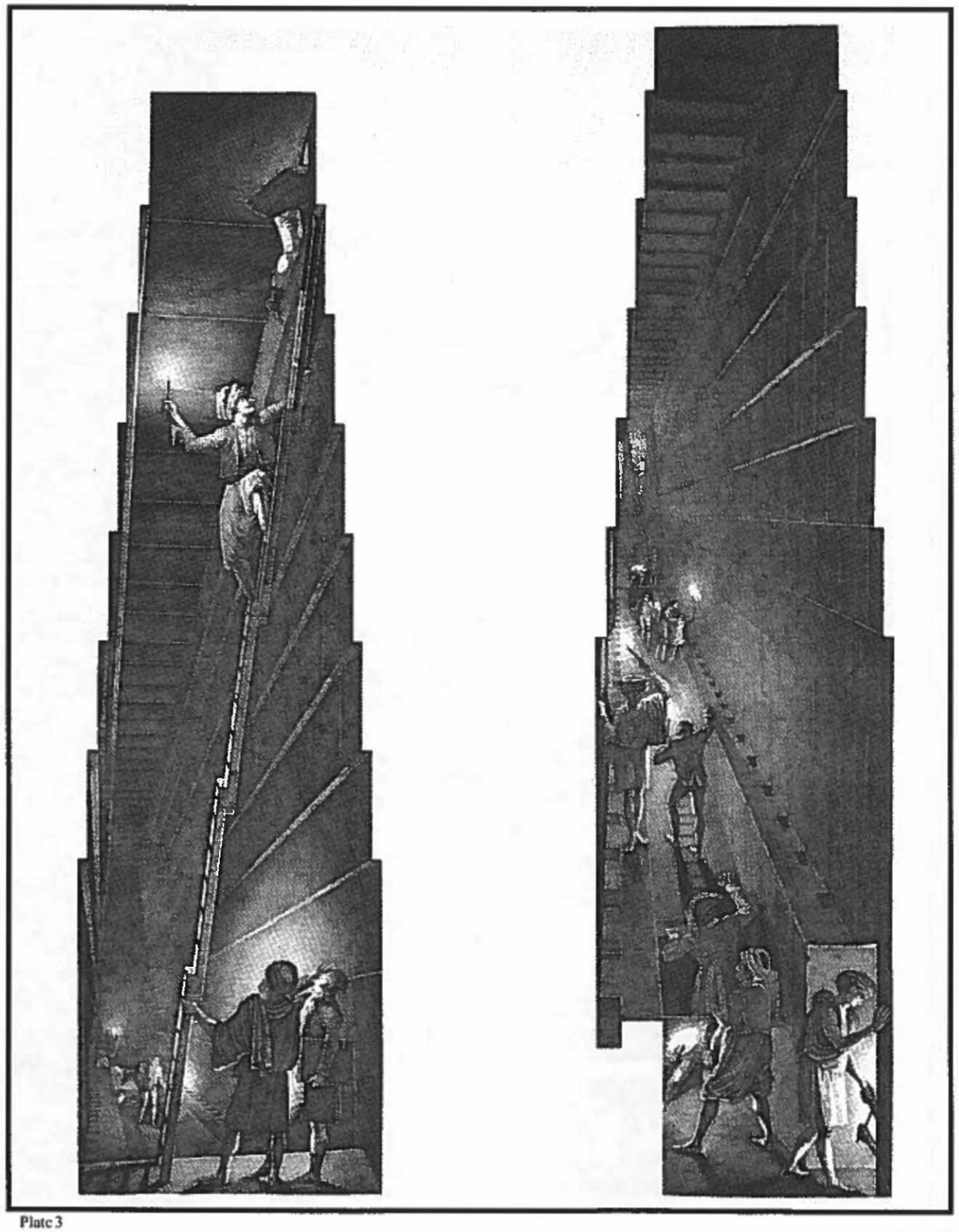

Plate 3

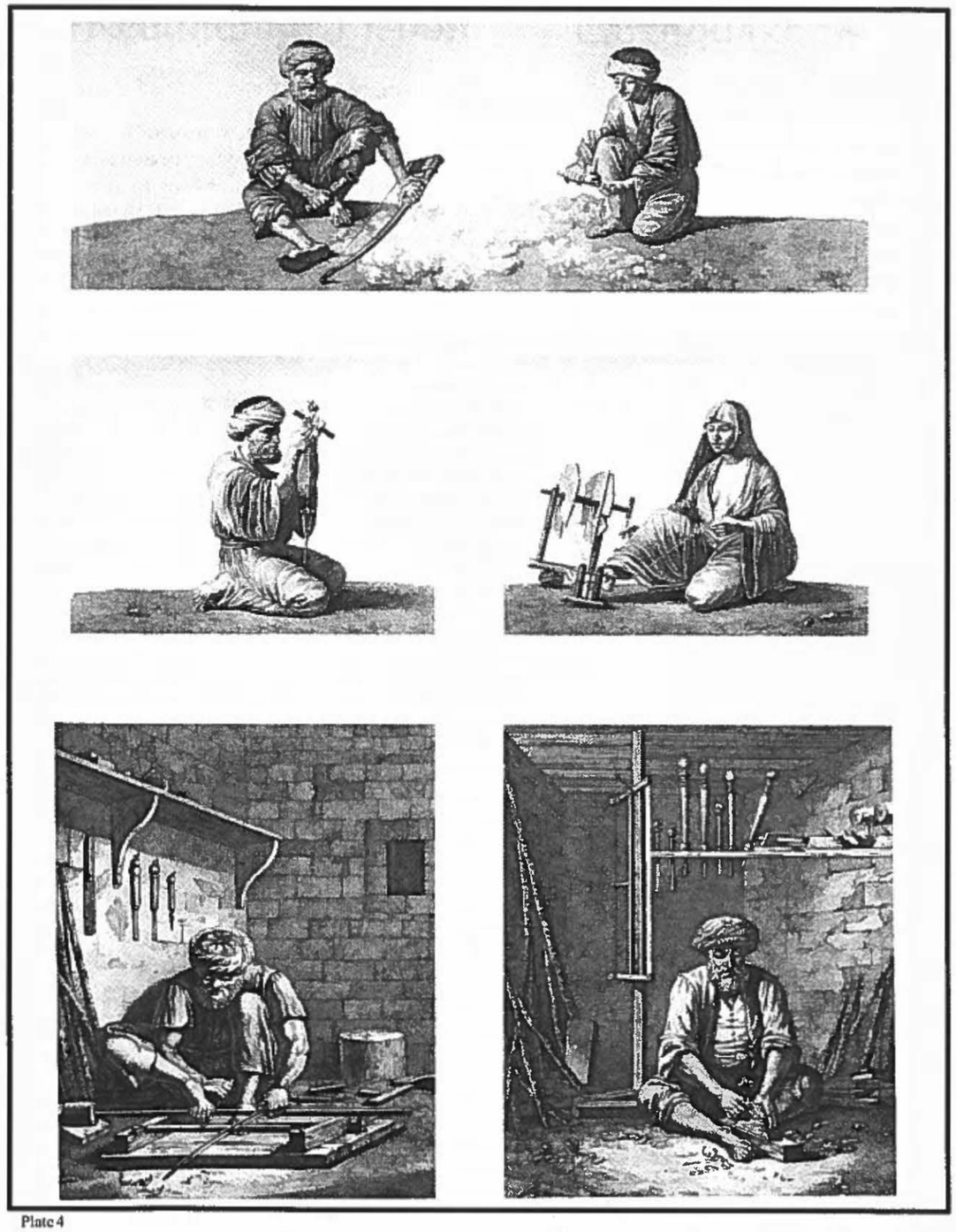

Plate 4