

RIZZOLI

Meaning in Western Architecture

Christian Norberg-Schulz



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Preface

This is a book about architecture. Architecture is a concrete phenomenon. It comprises landscapes and settlements, buildings and characterizing articulation. Therefore it is a living reality. Since remote times architecture has helped man in making his existence meaningful. With the aid of architecture he has gained a foothold in space and time. Architecture is therefore concerned with something more than practical needs and economy. It is concerned with existential meanings. Existential meanings are derived from natural, human and spiritual phenomena, and are experienced as order and character. Architecture translates these meanings into spatial forms. Spatial forms in architecture are neither Euclidean nor Einsteinian. In architecture spatial form means place, path and domain, that is, the concrete structure of man's environment. Therefore architecture cannot be satisfactorily described by means of geometrical or semiological concepts. Architecture ought to be understood in terms of meaningful (symbolic) forms. As such it is part of the history of existential meanings. Today man feels an urgent need for a reconquest of architecture as a concrete phenomenon. The present book is intended as a contribution to gain this end.*

Christian Norberg-Schultz

Oslo, January, 1974

* The theory of space which is applied in the present book is discussed in the author's *Existence, Space and Architecture* (London and New York, 1971). For a general theory of architectural symbolism, see the author's *Intentions in Architecture* (London and Cambridge, Mass., 1963).

Meaning in Western Architecture

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1. Egyptian Architecture

(1) G. Kaschnitz von Weinberg, *Mittelmeerische Kunst* (Berlin, 1965), p. 168.

(2) Mesopotamian architecture did not arrive at an analogous level of abstraction, and the characterizing detail remained a mere application. See, for instance, the articulation of the Kassite Temple of Karaindash from Warka (about 1440 BC). H. Frankfort, *The Art and Architecture of the Ancient Orient* (Harmondsworth, 1954; and Baltimore, 1959), p. 63.

(3) H. Schäfer, *Weltgebäude der Alten Ägypter* (Berlin, 1928), pp. 89 ff. I may also point out that the Egyptians substituted for "south" and "north" "up the river" and "down the river." They characterized the Euphrates as "the preposterous water which flows down when it goes up."

(4) "The whole symbolism rests on the accepted correspondence of things, on an intuitively conceived and perceived connexion between microcosm and macrocosm." M. Lurker, *Symbole der alten Ägypter* (Weilheim, 1964), p. 9.

Introduction

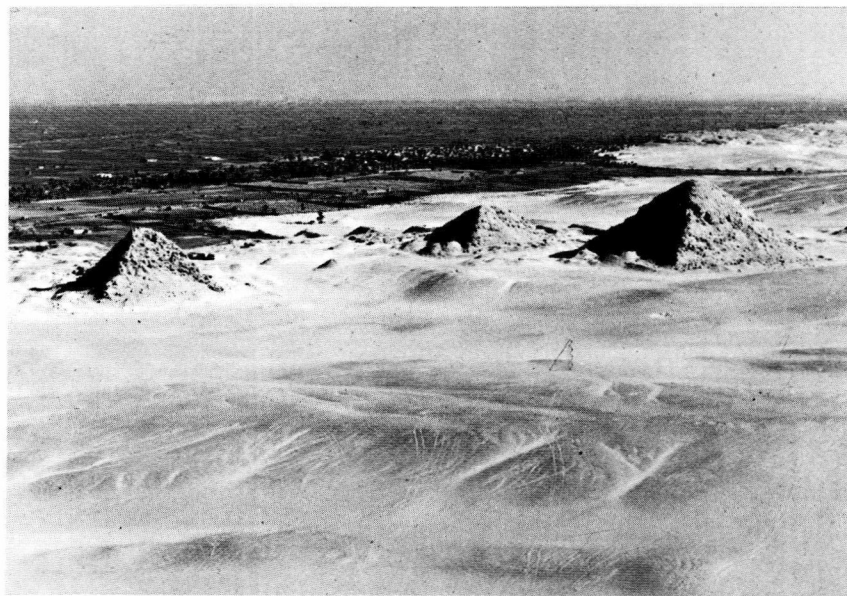
The buildings of ancient Egypt may still be counted among the most impressive constructions in the history of architecture. Megalithic masses and precision of form give them a singular strength and power. Simple stereometric shapes and strict geometric organization prevail, and, although it is possible to see a certain historical development in Egyptian architecture, the basic intentions seem to have been constant during the course of almost three thousand years. These intentions are most convincingly represented by the pyramid, which is generally regarded as the typical manifestation of Egyptian architecture. Its balanced form, appearing as a synthesis of vertical and horizontal forces, and its incomparably massive and solid construction seem to embody a constant, eternal order.

In fact "order" and "constancy" well indicate the basic aim of Egyptian architecture. Stone was selected for its hardness and resistance to decay, and its natural character is enhanced through the contrasts of smooth surfaces and sharp edges. Mass and weight are thereby abstracted so as to become part of a general system of symbolic organization, in which the vertical and horizontal are unified to form an orthogonal space which is basically the same throughout. We may call this "absolute space," and the single building acts as a materialization of it.¹ In achieving this, Egyptian architecture arrived at a level of abstraction which was not attempted by other early Mediterranean civilizations, and it may be considered the first integrated architectural symbol system in the history of mankind.² As such, however, it seems to have had a relatively narrow range of expressive possibilities.

It would be wrong to describe Egyptian space as no more than the static orthogonal coordinate system it might appear to be. A closer look at the monuments shows that as a rule they are axially disposed. Axiality, then, becomes another distinguishing phenomenon in Egyptian architecture. It is particularly evident in the great temples of the

1. Giza. From left to right: pyramids of Mycerinus, Chephren and Cheops. Fourth Dynasty (2723-2563 BC).

2. Abusir. Fifth Dynasty (2563-2423 BC). Aerial view.



New Kingdom, but the pyramids of the Old Kingdom also formed part of a spatial sequence. Although it implies a direction, Egyptian axiality, however, is always enclosed. It does not symbolize a dynamic occupation of the surroundings, but rather seems to represent an eternal state of affairs. Orthogonal and axial organization therefore fulfill the same purpose: the creation of a constant, eternally valid environment.

This general intention, however, did not prevent a considerable variety and richness in articulation and detailing. It is certainly true that Egyptian decoration never threatens the integrity of the general form, and usually it enhances the crystalline quality of the plastic elements, but it may also give the individual building a certain particular flavour. The great themes of the main building tasks could be interpreted anew over and over again, and we may distinguish changes in taste and artistic intent over the long history of Egyptian culture. In fact, it is possible to talk about a *history* of Egyptian architecture because a level of abstraction had been reached which allowed for the concretization of general existential meanings. But rather than manifesting a wish for experiment the development involved was an ever more systematic working-out of the same basic intentions.

Landscape and Settlement

The Egyptian landscape offers a first clue to a better understanding of the basic phenomena indicated above. Hardly any other country has a geographical structure of such simplicity and regularity. On both sides of the long and narrow Nile valley are deserts which put clearly defined limits to man's space. Egypt can therefore be described as a longitudinal oasis with a relatively uniform character throughout. Its climate is dry and stable, and together with the regular flooding of the Nile, it seems to manifest an eternal natural order. Together the basic elements of nature establish a simple spatial structure, with the Nile flowing from south to north and the sun rising in the east and setting in the west. These simple bearings are represented in the

hieroglyph for "world": a section through a valley with the sky above and the transversely moving sun inscribed.³

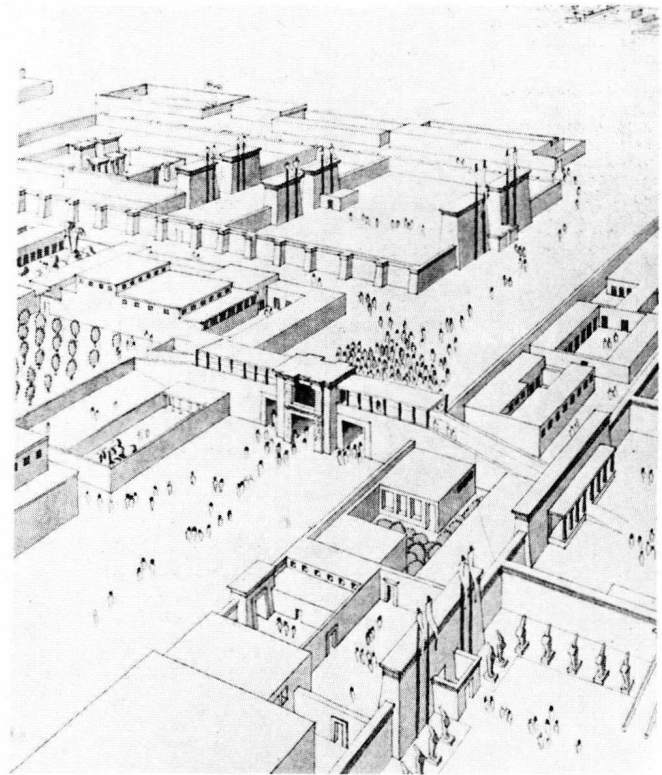
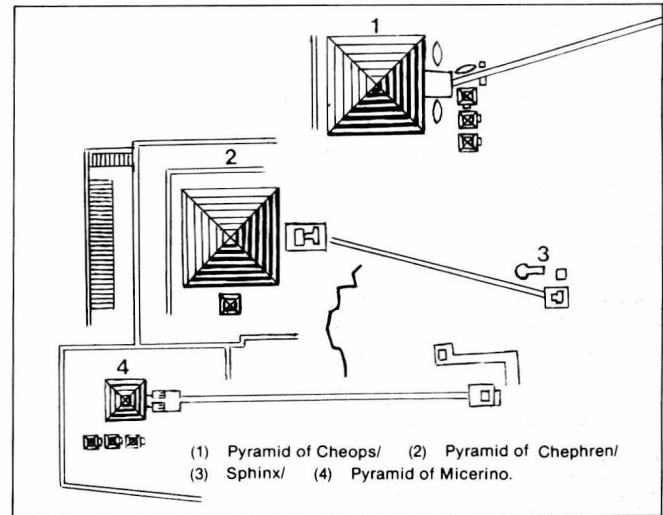
The fields on either side of the Nile were divided to form an orthogonal coordinate system with the river acting as a longitudinal axis. In Upper Egypt this pattern is confined by ranges of mountains, as indicated in the world hieroglyph. In Lower Egypt the transition between oasis and desert is more gradual, although clearly defined. Here we find the great pyramids which were placed to form a long row of artificial mountains parallel to the Nile. From the pyramids long causeways led approximately at right angles down to the river. Even in Thebes the temples form a similar row along the range of mountains, although there are no pyramids but tombs in the mountain itself. We see, thus, how planning and architecture were employed to complete and articulate the natural structure of the country. The purpose was to make visible the spatial structure which gave Egyptian man his sense of existential identity and security.

Within this general structure those places having a special, individual character were from early times ascribed local gods. These gods only played a subordinate role in Egyptian mythology; the primary characters were derived from the more general aspects of nature and human life. Although they have a distinct character, the Egyptian gods were not motivated by individual wishes and caprices, but formed part of an integrated mythological system where each is functionally and symbolically dependent upon the others.⁴ Analogously, the natural elements were conceived as general characters rather than individual places. For instance, the concepts of "earth" and "desert" were abstractions, denoted respectively by the colours black and red.

Thus Egypt's simple geographical structure provided a basis for symbolizing basic existential meanings. In the physical environment these were concretized as axially organized and orthogonally structured enclosures, which were disposed in accordance with the great longitudinal space of the Nile valley. This also holds true for the layout of settlements and towns.

3. Plan of the Egyptian pyramids of the Fourth Dynasty of the Ancient Reign.

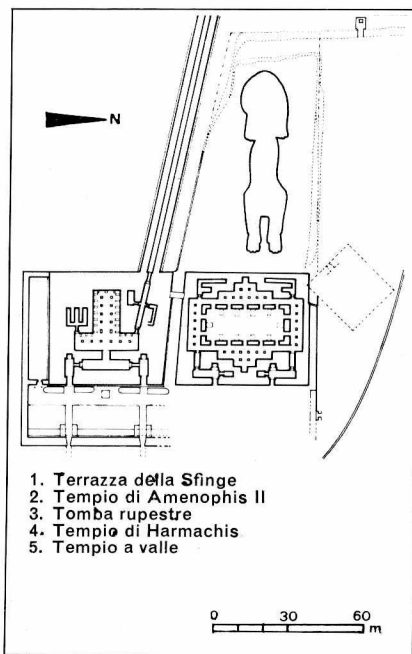
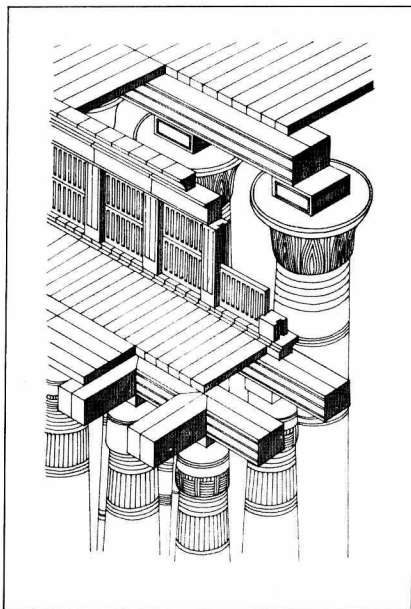
4. Tell el-Amarna. Eighteenth Dynasty (1580-1314 BC). Reconstruction of the central quarter.



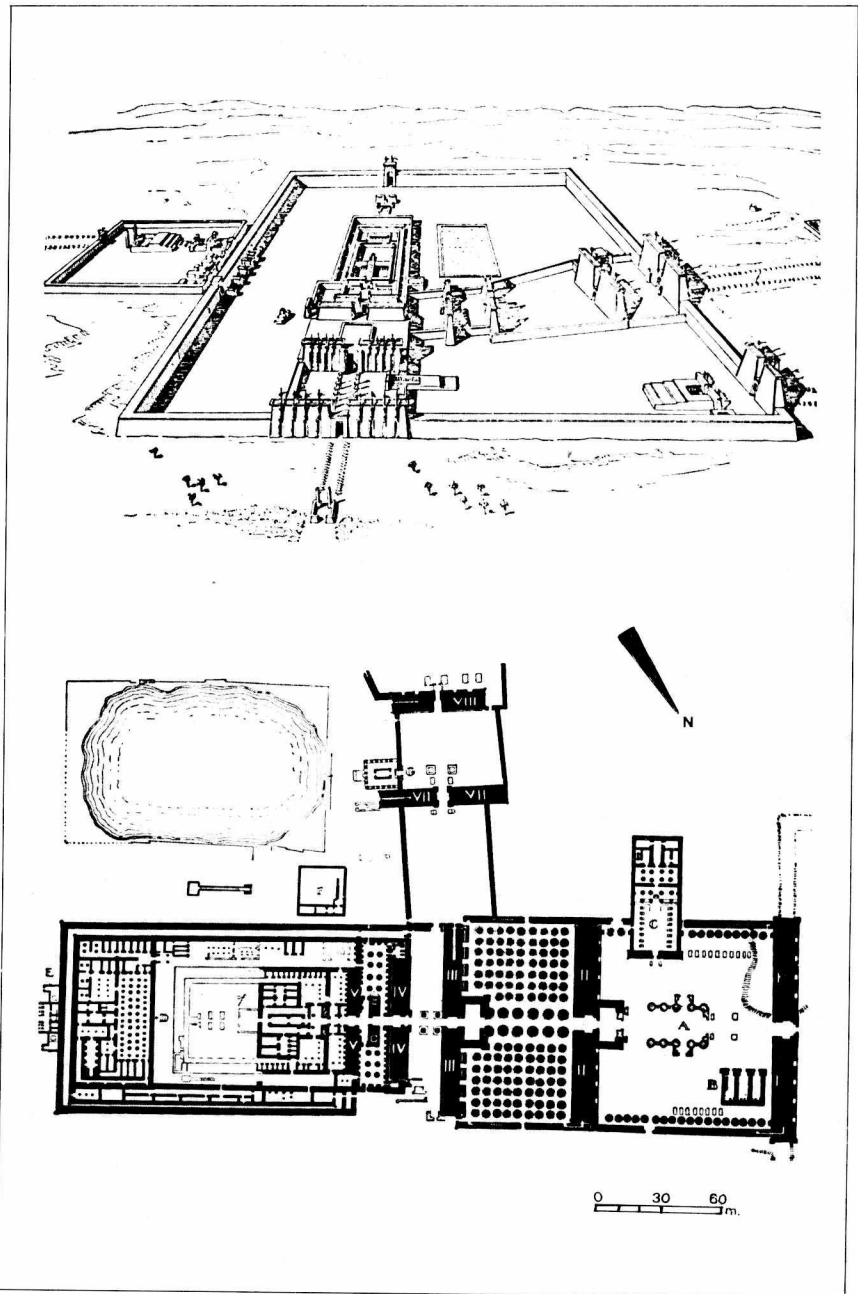
5. Temple of Amon, Karnak. Nineteenth Dynasty (1314-1200 BC). Isometric detail of the hypostyle hall.

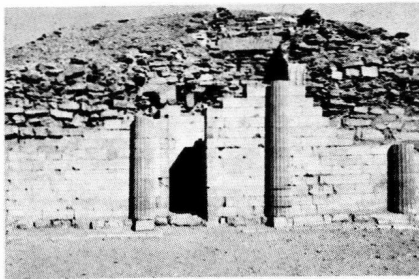
6. Giza.

(1) terrace of the Sphinx (2) temple of Amenhotep II (3) rock tomb (4) temple of Harmachis (5) valley temple of Chephren.



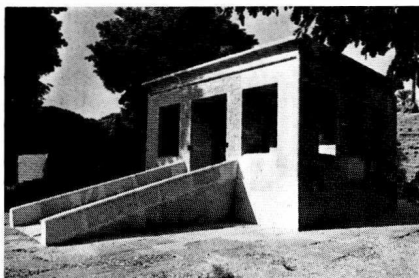
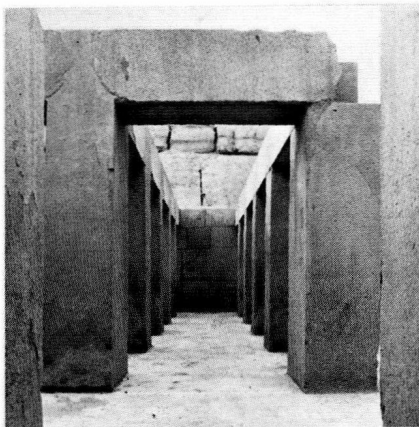
7. Temple of Amon, Karnak. Nineteenth Dynasty (1314-1200 BC). Reconstruction and ground plan.





8. *Administrative building of Lower Egypt, Saqqara. Third Dynasty (2778-2723 BC).*

9. *Valley temple of Chephren, Giza. Fourth Dynasty (2723-2563 BC). T-shaped passageway to the hypostyle hall.*



Building

The wish to present an eternal order in symbolic form implies a necessity to demonstrate the continuation of life after death. Tombs and mortuary temples, that is "houses of eternity," were therefore the primary building tasks of ancient Egypt. We have already seen that the vital order to be concretized was closely related to the structure of Egyptian nature and landscape. The temple repeats the same structure on a smaller scale. As an axially organized and orthogonally structured oasis, it was obviously intended as a direct representation of the Egyptian cosmos. This becomes still more evident in an examination of its monumental gateway—the pylon. The pylon consists of two massive towers with inclined walls, united by a tall door. Over this door, between the towers, is a representation of the sun. The relationship with the hieroglyph for world is evident. As the temples were generally oriented towards the east, the rising sun was seen from the inside between the two halves of the pylon, and the door became the "gate of heaven" through which emerged the shining sun-god and his representative, the Pharaoh.

Basically the plan of the temple consists of three parts—a colonnaded courtyard, a hypostyle hall and a sanctuary—arranged along an axis. In the larger temples there may be two courtyards and two or more halls. Whereas the court is open to the sky and the sun, the halls are covered by ceilings decorated with painted stars. The arrangement of the temple is symbolic. The main hall functioned as a Hall of Appearances where the dweller in the temple-palace came forth among his court. It was usually lit from a central clerestory.⁵ Penetrating into the building the spaces become gradually smaller. The floor rises and the ceiling drops down. Finally, the sanctuary appears as an enclosed cell at the end of the axis, which disappears into a symbolic false door carved in the west wall. We can read this as a representation of the path of life, whose end is not monumental space but rather an eternal return to the origin.

The systematic layout of the great temples of the New Kingdom was prefigured in the pyramid complexes of the Old Kingdom. Here the tomb proper, the pyramid, is preceded by

10. *"White Chapel," pavilion of Sesostri I, Karnak. 1971-1928 BC.*

11. *Temple of Amon, Karnak. Nineteenth Dynasty (1314-1200 BC). Columns of the hypostyle hall.*

a mortuary temple at its foot, containing a hall, a courtyard and a sanctuary with a false door in the west wall. Towards the east a long, straight causeway leads down to the vestibule or "valley temple" on the Nile.⁶ This is another interpretation of the path with the static and absolute mass of the pyramid as the goal. The pyramid may be understood as a monumentalized version of the simpler and more ancient mastaba tomb, which again stems from the more primitive earthen tumulus. In this continuous process of abstraction, the original spontaneous experience of a powerful and durable mass has been symbolized in terms of absolute stereometric relationships.

In general, Egyptian buildings represent a synthesis of four fundamental intentions: the enclosed "oasis," the durable, megalithic mass, the orthogonal order and the path or axis. All these are presented symbolically in Egyptian architecture and together constitute a convincing representation of the Egyptian cosmos. Other buildings, such as dwellings, make use of the same basic forms, although they are applied with less rigour than in the great public tasks.

Articulation

Characteristic means of architectural articulation developed naturally from the wish to represent a highly organized cosmos. Whereas the spatial organization described above symbolizes the general properties of the Egyptian world, other means were used to show that organic and human life also belong to this cosmos. In particular, even from the first dynasties stone architecture is embellished with plant motifs or forms borrowed from lighter wooden constructions.⁷ Two intentions must be distinguished in this connection. As wooden structures usually have a skeletal character, they form an important source of inspiration for the articulation of the originally amorphous mass of clay or stone buildings, and the wish to concretize an orthogonal space must have made an articulation of this kind necessary. But plant motifs were also used because of the wish to give every aspect of life an absolute, eternal form.

(5) The most grandiose example is the great hypostyle hall at Karnak built during the reigns of Ramses I, Sethos I and Ramses II (Nineteenth Dynasty), which measures 103 by 52 metres (338 by 171 feet) and contains 140 columns.

(6) The disposition is well illustrated by the pyramid group at Abusir from the Fifth Dynasty.

(7) E. Baldwin Smith, *Egyptian Architecture as Cultural Expression* (New York and London, 1938), first two chapters.

12. Relief sculpture from an obelisk, Karnak.

13. Temple of Amon, Luxor. 1478-1372 BC.
Colonnade of the court of Amenhotep III.

(8) *Ibid.*, p. 249.

Articulation in general consists in a simultaneous dividing and linking of parts. Any articulate totality has to consist of parts which have a different function within the whole, but which are interdependent rather than independent. Egyptian architecture provides the first conscious and systematic attempt at an articulation of this kind. The different exterior or interior walls of the buildings are separated by mouldings which form a continuous frame, as is well exemplified in the pavilions of Sesostris I and Amenhotep I at Karnak. Here the roof is also interpreted as a separate part by means of a deep cavetto. Although these means of articulation are derived from primitive structures in wood, they have a formal function which goes beyond the simple wish to give them permanence.

Artists of the Old Kingdom developed representative surface reliefs whose aim was to make the actions of men and gods appear as expressions of an absolute, divine order. We might say that the figures do not act on the basis of an individual will, but rather participate in scenes which have a universal, normative character. These reliefs also play a general formal role in the whole. As they always leave the frontal plane intact, a textural effect is obtained which enhances the comprehensive orthogonal structure, rather than dissolving it into a play of light and shadow. Originally the effect was strengthened by the use of colour.

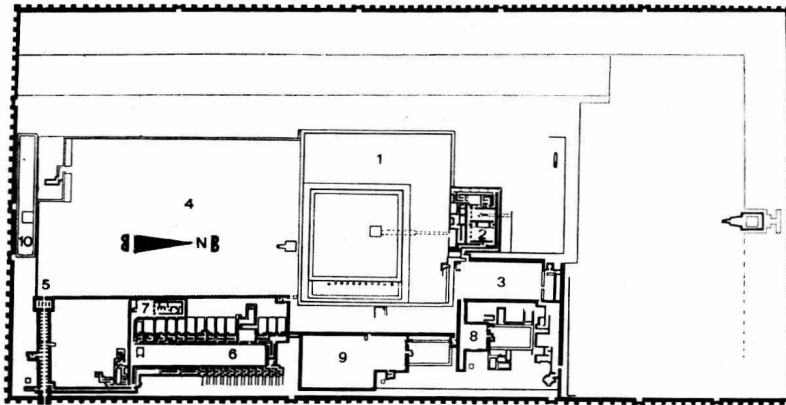
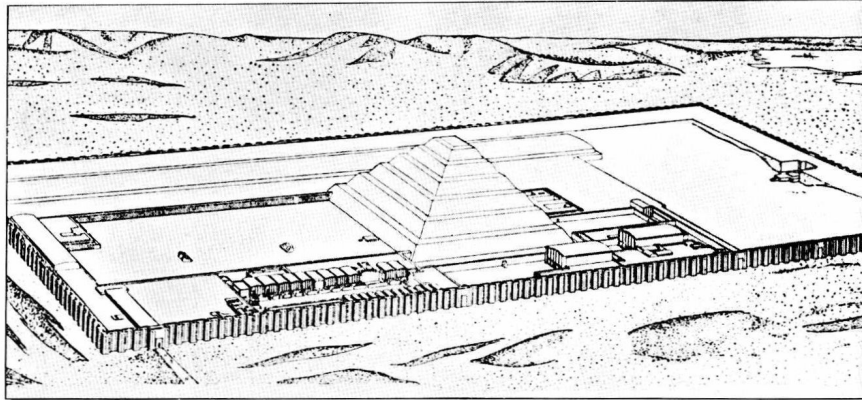
However, the most conspicuous expression of the Egyptian wish for articulation is found in the rich variety of columns. Mostly they are derived from plant forms; there are closed and open versions of papyrus and lotus columns as well as palm columns. Although they played a role as structural members, the columns were primarily "fertility emblems, symbols of the land and of sacred plants which rose out of the fertilized soil to bring protection, permanence and sustenance to the land and its people."⁸ This symbolic meaning was combined with the conception of mass, solidity and size as an expression of durability. In certain buildings there are also simpler structural members, such as pillars or proto-Doric columns, which mainly contribute to make the orthogonal space visible.



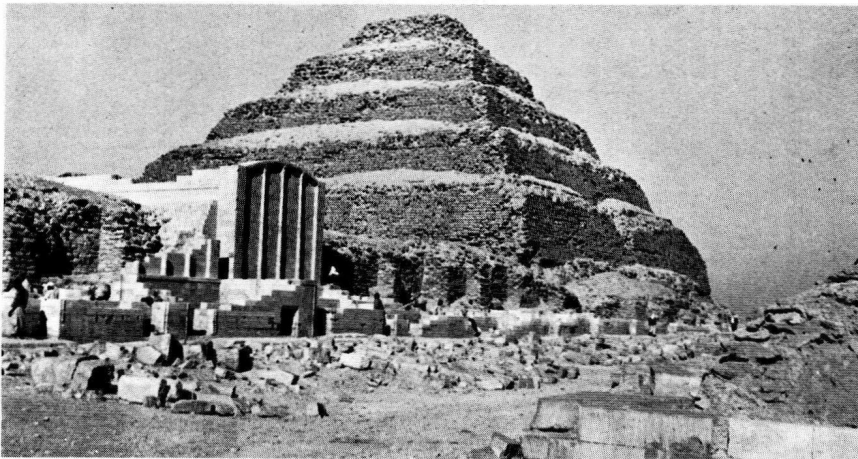
14. Mortuary complex of Zoser, Saqqara. Third Dynasty (2778-2723 BC). Reconstruction.

15. Mortuary complex of Zoser, Saqqara.

16. Heb-Sed court and pyramid of Zoser, Saqqara.



(1) step pyramid derived from mastaba tombs with quadrangular ground plan
(2) mortuary temple of Zoser (3) court with serdab (chamber for statue of the deceased) (4) main court with altar and two B-shaped stones (5) entrance portico (6) Heb-Sed court (7) small temple (8) court in front of the southern palace (10) southern tomb.



Whereas more primitive architectures reveal an immature relationship between the different formal levels such as a mere application of characterizing detail, the Egyptian language of architectural forms possesses a logical coherence from the most comprehensive level down to the articulating details. This coherence is very simple and consists in the general validity of the orthogonal order.

(9) S. Giedion, *The Beginnings of Architecture* (New York, 1964), p. 269.

Saqqara

The great stone architecture of Egypt was born at Saqqara, south of Cairo, where the impressive remains of King Zoser's large mortuary complex from the Third Dynasty (2778-2723 BC) can be found. We even know the name of its builder, Imhotep, who may be considered the first architect in history. But Imhotep was more than an architect; he also was "high priest," "grand vizier," "chief judge," "overseer of the King's records," "bearer of the Royal seal," "chief of all the works of the King," "supervisor of that which Heaven brings, the earth creates and the Nile gives," "supervisor of everything in this entire land," and after his death he was raised to the stature of a god.⁹ Imhotep's position indicates his success in embodying the Egyptian world view in his architecture, as well as showing the importance of the creative individual in history.

The complex at Saqqara consists of an enclosed rectangle measuring 545 by 278 metres (1788 by 912 feet), surrounded by a 10-metre-high (32.8 feet) wall of limestone. Within the precinct there is a rectangular step pyramid, over 60 metres (197 feet) high, and several smaller structures around a number of courtyards. The entrance is situated near the southeastern corner. It leads into a long processional hall flanked by 6-metre-high (19.7 feet) engaged columns. At the end of the hall there is a great court which contains a main altar at the foot of the pyramid. From the processional hall a narrow corridor also leads into the smaller Heb-Sed court which is flanked by rows of dummy chapels. Towards the northeast is situated a "double palace," with two dummy buildings and courtyards in front of them. On the northern side of the pyramid, finally,

17. *Heb-Sed court, Saqqara. Dummy chapel.*

18. *Processional hall, mortuary complex of Zoser, Saqqara.*

(10) *Ibid.*, p. 267.

stands the mortuary temple of King Zoser as well as the small *serdab* chamber which contained his *Ka* statue. The general layout is strictly orthogonal, but it is not organized by means of axial symmetry.

Throughout the complex at Saqqara an abundance of interesting details and attempts at formal articulation can be found. The exterior wall shows a system of major and minor recesses as well as a series of irregularly disposed bastions, which imitate towered gateways with closed, double doors carved on them. The columns of the processional hall resemble bundled reeds and consist of a multitude of convex shafts. In the small temple "T" and the façade of the northern palace, however, we find true fluting. The small temple also has torus mouldings on both corners and a kind of cavetto cornice. The façades of the dummy chapels and palaces are articulated by means of slender engaged columns with papyrus and lotus capitals.

The use of dummy structures indicates the symbolic character of the Zoser complex. The outer walls were probably copies of the brick walls which King Menes of the First Dynasty built around his capital, Memphis, and the two dummy palaces represented the Pharaoh's White House as king of Upper Egypt, as well as the Red House as king of Lower Egypt. Dummy chapels represented the provinces (*nomes*) of the two lands, and were used in connection with the Heb-Sed ceremony which renovated the vital force, or *Ka*, of the King and thus "all those beneficial relations between heaven and earth which the throne controls."¹⁰ Finally the pyramid, as a monumentalized version of the mastaba tomb, made the eternal presence of his *Ka* visible. All the articulating details gave the representations a concrete, pictographic character.

The basic structure of the complex at Saqqara is then a symbolic concretization of the Egyptian cosmos, which through the use of durable stone and orthogonal organization was given "eternal" validity. In addition to this, Saqqara is important to us in that it initiated the history of architecture as the conquest and use of meaningful forms. Here the enclosure, the axial corridor, the vertically oriented mass and the articulated wall

