Pyramidologies of Egypt: a Typological Review

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The pyramids of Egypt, and especially the Great Pyramid at Giza, have long been the subject of speculation. Notably from the mid-nineteenth century to today Western writers have proselytized numerous interpretations at odds with those of specialist scholars, and such alternative ideas have attracted wide if disparate followings. In surveys of Egypt written for a general audience from a traditional Egyptological framework these ideas are often ignored, or are lumped together as 'pyramidiocy'. Here we emphasize the great diversity of models in pyramidologies and suggest two typological frameworks to help understand them. One applies a matrix of their ideological origins and their use of metrical applications. An alternate typology classifies pyramidologies by supposed creators and intended users of the pyramid(s). Most such theories are created by male outsiders to Egypt; they set the subject outside of the broader context of pharaonic architecture and society; they often cite scholarly sources selectively; and can incorporate mutually contradictory arguments. The internet has broadened access to alternative archaeologies, and has served to democratize fantasy.

Pharaonic Egypt has been the subject (or victim) of many 'alternative histories' and 'pseudoarchaeologies' from outside of conventional scholarship (Hornung 2001; Picknett & Prince 2003; Jordan 2006; Derricourt 2011, 103–19). In particular Egypt's pyramids — and especially the 'Great Pyramid' of Khufu at Giza — have been at the centre of a vast range of interpretations, and have been referenced as part of others. Tompkins (1973) gave a detailed but uncritical and partially sympathetic account of these through to the late 1960s, since when the range and apparent enthusiasm for alternate pyramidologies has grown.

Scholars have tended to lump these alternative pyramidologies together (sometimes using the dismissive term 'pyramidiots' to describe their proselytizers). Many standard histories of the pyramids have chosen to ignore them. Edwards (1961) gave them only a brief mention; Fakhry (1961) was equally brief. Lehner (1997) noted only some of the earlier hypotheses — despite, or perhaps because of, the fact that he was first drawn to Egypt by some of the esoteric theories. Tyldesley (2003) gave them no mention; Romer (2007) mentioned only the early ideas. None of these tackle the 'cult' and newer quasi-archaeologies which continue to secure substantial following in print, television and video, and on the Web.

There is, however, a very broad and conflicting (if at times also internally contradictory) range of models in pyramidology, ranging from complex mathematical modelling to the most simplistic and banal fantasies. This article seeks to emphasize the diversity of pyramidologies, identify some of the dominant themes and consider their context, relationship and characteristics. Recognizing and understanding the range and nature of such quasi-historical and quasi-archaeological models, and the range of audiences they attract, may guide scholars and popularizers of scholarly work, in combatting these often influential trends.

Background

Although Pharaonic Egypt had over 120 pyramids, royal and imitation, most alternative models focus on the Great Pyramid of Old Kingdom pharaoh Khufu. The understanding within the Classical world, that the Great Pyramid marked a royal tomb, was echoed in Coptic and Arab Egypt (Lehner 1997, 40–41; El Daly 2003) even if the identity of the king varied. It continued in the European Enlightenment and was confirmed by studies in the modern era, from the nineteenth century onwards. In the meantime some alternative ideas had emerged, often influenced by

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observers' religious beliefs. But the greatest spread of alternative histories has developed alongside (and despite) the growth of modern historic and archaeological knowledge. While these alternate narratives seem almost unlimited (a Google Search produces an astonishing and rapidly growing number of sites that mention a 'mystery of the Great Pyramid'), we can list and attempt to classify some of the main explanatory trends, with examples of their use: we do not attempt here a complete narrative history of the sequence of their emergence.

Is there any real role for a complex explanatory model for Egyptian pyramids? Many observers would see little need for exotic interpretation of the major pyramids since Pliny the Elder's observation in *Natural History* book 36: 'an unnecessary and stupid display of royal wealth', a comment especially redolent after the last 50 years of despots' palaces, mausoleums and follies. The pyramid shape is a reasonably sensible one for a powerful ruler wanting to commission an extremely high monument, whose top is to be used (Chichen Itza, Babylonian ziggurats), or covering a ground-level feature (most Egyptian pyramids have below-ground burial chambers; the Khufu pyramid added internal chambers). If height alone were the aim a column would be sufficient; if internal space was important (as a temple or palace) then vertical enclosing walls are needed. Otherwise choice of materials determine form: using earth provides a cone (e.g. Cahokia or Silbury Hill); using masonry to a regular form requires a pyramid with equal or unequal sides; and the angle of the sides will be influenced by the mechanism available (ramps in the absence of pulleys) for hauling building materials. Hence the pyramid form of monumental structure.

The size of the Egyptian pyramids and their constituent blocks left little room for error and adjustment: this required and motivated high-level mathematical, architectural and engineering skills. Indeed the amount of labour involved in building the pyramids would have made every investment in mathematicians, architects and engineers worthwhile. It has recently been suggested that the scale of the true Old Kingdom pyramids may have been influenced by their visibility from the capital of Memphis, from which vantage point they may all appear to be of similar size (Jeffries 2010). A major public work like a royal pyramid clearly had major impacts on Egypt's economic life, in stimulating economic activity and reallocation of resources: if building projects like this, continuing over many years, were not economically and politically sustainable, they would not have happened.

Some 'alternative' narratives are not interpretations, such as frequent arguments that there are hidden chambers, and the proposal that the Great Pyramid is built of synthetic materials (Davidovits 2008). Others (alive within Egypt as well as outside) may be considered more like 'urban myths' than alternative interpretations: periodic ideas about the pyramids that have not yet gained the status of cult archaeology. For example, the idea that the antiquities administration officials have made discoveries at the pyramids that they have been unwilling to reveal to the public, and even that a secret tunnel links the Great Pyramid to the antiquities administration (Hawass 2001). And tourists find that they are presented with a range of narratives during their visits to Egypt, with those selling information or curios happy to match the perceptions, beliefs and hopes of overseas visitors (Wynn 2007).

Metrical (or mathematical) pyramidologies dominated alternative pyramid hypotheses from the mid nineteenth century until the middle of the twentieth. A core to this was the belief that the Great Pyramid (rarely others) was built by ancient Egyptians (or earlier peoples) to record for future generations their high level of knowledge, encoded in detail in the pyramid's dimensions, angles and orientation. This set of approaches uses the same methodology to reach different (and quite contradictory) interpretations. Essentially measurements of lines and angles are taken, and these or the ratios between them are correlated with numbers and ratios in other sequences or contexts (physical or temporal) to suggest deliberate mapping. This can be done with measurements that have been shown to be inaccurate — such as the Greaves (1646) measurements corrected by Smyth (1864), and the Smyth measurements corrected by Petrie (1883) — or with corrected measurements, while deviations from a required number may be explained by shifts over time or adjustments to these measurements. The manipulation of actual numbers is rather weakened by the tendency of some authors to work with pyramid measurements down to the scale of 1/10,000 inch (or even 1/100,000 inch: Raymond 1978). One scholar, Jean-Pierre Adam, mounted a novel challenge to metrical applications, by demonstrating that the measurements and ratios of a French national lottery ticket booth could be used instead of those of the Great Pyramid (Adam 1988, 212).

A draft typology

The following lists interpretations of Egyptian pyramids which have had some influence or followers in the modern era, with a preliminary classification. We can classify pyramidologies initially by groups which broadly reflect the ideology of those who created them

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(scholarly, traditional religious, neo-religious, secular and new age), and the core methodology applied to support the model: non-metrical or metrical.

A. Scholarly

There are alternative explanations for the pyramid form which have long been repeated in the scholarly literature, often combined or mentioned together.

A1. Stairway to the Gods

The change from mastaba tomb to the step pyramid of Sakkara used a diminishing sequence of mastaba tombs on top of each other to create a stairway for the King to reach the heavens from his tomb, and from which the subsequent design of smoothed sides was adapted (Edwards 1961, 289–90; Lehner 1997, 35).

A2. Benben

The pyramid, though a tomb, symbolized in form the primeval mound that arose from primordial waters and on which a major deity (notably Atum) settled. This form was also represented by the *benben* sacred stone (Edwards 1961, 287–8; Fakhry 1961, 7–8; Lehner 1997, 34–5).

A3. Rays of the sun

The sloping sides of the pyramid represent the sloping rays of the sun which could assist the pharaoh's access to the heavens: the sun god Ra being particularly important to later Old Kingdom rulers (Edwards 1961, 290–91; Lehner 1997, 35).

B. Traditional religious

Many of these reflected continuity and adaptation of traditions between Judaism and Christianity or Judaism and Islam.

B1. Joseph's granary

The Great Pyramid was a granary built by the biblical Joseph for the pharaoh, to store grain during years of plenty against future lean years (Wynn 2007, 79). This was a long tradition through fifth-century Julius Honorius, echoed in medieval Europe by the late twelfth-century traveller Rabbi Benjamin and spread in the influential fourteenth-century *Sir John Mandeville's Travels*. St Mark's in Venice has a mosaic image of this theme.

B2. Hebrew slaves

The idea that the pyramids were constructed by Hebrew slaves in captivity was stated by Josephus (*Antiquities of the Jews*, 2.9.1) and seems one of (continuing) oral tradition more than formal argument. Wynn notes that this belief can still be found today persisting within Jewish communities and even within Egypt (Wynn 2007, 24; 2008).

B3. Mount Ararat

The Great Pyramid was built to symbolize Mount Ararat, because of its importance as the landing place of Noah (e.g. Faber 1819; 1820).

B4. Tower of Babel

The Tower of Babel from *Genesis* is symbolized in the form of the Great Pyramid (or pyramids) (William Osburn in the 1840s, cited by Tompkins 1973).

C. Neo-religious (metrical)

Egypt's pyramids, particularly the Great Pyramid, have long featured with variable importance in mystical para-Christian movements, with especial reliance on the use of specific measurements and ratios.

C1. Chronological prophesy

The measurements of the great Pyramid serve as a divinely inspired chronological sequence of prophesy for events after it was built. There is a wide range of applications of this 'prophesy' model, according to the context and purpose of the writers. Prophesies might include Old Testament events, the birth of Christ, and/or major political events, including the outbreak of the Great War and (to British authors) the power of the British Empire. Robert Menzies advanced a prophetic model in the 1860s (Tompkins 1973, 93–4).

A link between prophecy of secular and religious events lay in the 'British Israelite' movement in works from John Garnier, David Davidson and others (Garnier 1912; Davidson & Aldersmith 1927; Moshenska 2008).

Morton Edgar, a member of the Jehovah's Witnesses, argued in publications from 1910 onwards for six millennia of religious prophesies tied up in the Great Pyramid, 'in which is shown how the Great Pyramid of Gizeh symbolically corroborates the philosophy of the divine plan of the ages as contained in the Holy Scriptures' (Edgar 1924). This met initial approval in official Jehovah's Witnesses publications such as *Watch Tower* but divisions emerged in the movement over his interpretations which were subsequently officially disowned by the movement from 1928.

In conventional religion, protestant Joseph Seiss (1877) saw the Great Pyramid as bringing a Christian prophetic message. The four-volume study *Pyramidology* (Rutherford 1957–72) by the founder of the Institute of Pyramidology advanced the model in great detail for the revelation of Christianity in stone. The more recent writer Peter Lemesurier (1977) com-

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bined a very complex and ambitious interpretation of the architectural elements of the Great Pyramid as a narrative of para-Christian spiritual message with a chronological prophesy of stages for this, past and present. There was thus substantial divergence in explaining the nature of the divine message encoded in the Great Pyramid.

D. Neo-religious (non-metrical)

These interpretations do not rely on complex mathematical calculations and comparisons to argue the case for the pyramids' role.

D1. Mystical knowledge

(i) The Great Pyramid was built by ancient Egyptians as a place to record their high level of knowledge for future generations, but not specifically encoded in the dimensions and orientation. This has been cited by various European religious and semi-religious cults, as part of a general pattern of ancient Egyptian mystic lore: the long tradition of an Egyptian esoteric knowledge ('Egyptosophy') is described by Hornung (2001). It was absorbed within some Masonic traditions of Europe. Alessandro Cagliostro (Giuseppe Balsamo), the eighteenth-century occultist and Rosicrucian, received psychic initiation in the Great Pyramid, and a pyramid is included as a feature of freemasonry in Mozart's *Magic Flute*. It was taken over into some Rosicrucian traditions and formed part of the argument of US Rosicrucian H. Spencer Lewis (1936).

(ii) A variant is that the secret knowledge was of ancient Iranian astral mysteries and the Pyramids were built by Iranians — a view which does not seem to have been adopted by modern Iranians (Uehli 1975; Hornung 2001, 152).

D2. Temple for initiation into mysteries

(i) A number of Western cults who have advanced the idea of ancient revelations and mysteries from Egypt suggested that the Great Pyramid may have served as a functional temple of initiation into these mysteries. The shapes were generally symbolic, or if the details of the pyramid included details of astronomy, prophesy or other scientific knowledge these could be part of the initiation rites. Supporters included the theosophist Madame Blavatsky (1930; Skinner 1875; Brunés 1967).

(ii) A recent variation of this view comes from prominent author Robert Schoch, that the Great Pyramid dates from well before Old Kingdom Egypt and was built to contain and present information used in ritual initiation and training (Schoch & McNally 2003; 2005).

E. Secular (metrical)

A range of interpretations which did not give the role of pyramids a connection with the Judeo-Christian tradition, or make them part of newer cults.

E1. Geographical knowledge

This long-standing model argues that the standard unit and dimensions of the Great Pyramid reflect accurate measurements of the dimensions of the Earth, and the length of the year, either (i) by ancient Egyptians or (ii) by an earlier divinely inspired race, and was built to place these measurements on record (for themselves and future peoples). These were advanced by Edme François Jomard (1829a,b), extended by John Taylor (1864), and echoed by C. Piazzi Smyth (1864) in various works in the 1860s. Petrie's (1883) measurements, accepted by David Davidson to support the same model within a British Israelite framework (e.g. Davidson & Aldersmith 1927), were extended by L.C. Stecchini (Tompkins 1973, 287–382).

E2. Chronological prophesy

A model in which the measurements of the Great Pyramid provide a chronological sequence of prophesy of the future, but without this being specifically tied to a messianic or other Christian agenda, or to a neo-religious cult. This exists primarily as an 'update' of earlier prophetic models (C1) which were written either from a conventional Christian context or within a newer religious movement. Most leading modern authors of alternative pyramidologies discount prophesy. An exception is in the presentations by David Wilcock (2011). Numerous on-line sites, some with a New Age demeanour, support the idea of the Great Pyramid as encoded prophesy.

E3. Mathematical

The primary purpose of the Great Pyramid was in representing mathematical calculations and science derived from these (e.g. Schwaller de Lubicz 1963; Funck-Hellet 1956; West 1979).

E4. Astronomical knowledge (Egyptians)

The Great Pyramid records ancient Egyptian knowledge of the planetary and star systems (Lopez 1950).

E5. Astronomical knowledge (pre-Egyptians)

The Giza pyramids record astronomical observations from a community well before the ancient Egyptians; the 'Orion correlation theory' is a current example of this interpretation (Bauval & Gilbert 1994; Creighton n.d.) with the Great Pyramid a centre for state ceremonies. The leading writer of quasi-history Graham Hancock (1995) has joined Bauval in sup-

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porting the case for an eleventh-millennium BC date of construction.

F. Secular (non-metrical)

F1. Repository of human knowledge

They were built by an ancient pre-Egyptian society as a repository of knowledge to record wisdom now lost: an approach that does not imply this knowledge to be linked to the Judeo-Christian deity. This was an early Egyptian Arab tradition (Edwards 1961, 295). Edgar Cayce (1877–1945) attributed the Great Pyramid to Atlantis but thought the lost records lay nearer to the Sphinx (Picknett & Prince 2003, 180). British mystic Paul Brunton not only accepted the Atlantean origin (though citing no direct evidence) but recorded a conversation with one of the Atlantean high priests during a night he spent within the Great Pyramid during the 1930s (Brunton 1935, 68).

G. Secular and New Age functional

There is a diverse range of recent interpretative models which do not emerge from para-Christian ideologies: some would place themselves firmly in secular contexts although others could be classified as close to New Age cults.

G1. An astronomical observatory

The Great Pyramid was constructed to be an observatory for studying the heavens, using internal passageways and external surfaces (Proctor 1883; Tompkins 1973, 147ff.).

G2. Tool for astrology

The Great Pyramid was a base to record information for specific use in astrological purposes (Proctor 1883; Tompkins 1973, 281–5).

G3. A surveying marker

The various pyramids were designed for use as surveying markers in triangulation for land surveying (Ballard 1882).

G4. A working almanac

The Great Pyramid was a physical almanac, including a sundial, for registering changes in the annual cycle of the year (Cotsworth 1904).

G5. Location for achieving physical change

A centre with specific physical properties, possibly as a source or accumulator of energy or designed to provide a barrier to cosmic rays; blades may self-sharpen inside the Great Pyramid (Tompkins 1973, 277–8, citing Karel Drbal). In some arguments it is any pyramid shape which can have unusual physical properties, and the Egyptian pyramids are just large examples (Flanagan 1973).

G6. Temples for worship

The pyramids were temples for the worship of a supreme deity (de Pauw 1774).

G7. Initiation of pharaoh

Pyramids were places for the initiation and coronation of Egyptian pharaohs (Teichmann 1978).

G8. Location for achieving biological change

The Great Pyramid can prevent biological decay of plants and animals after death. Alternately, it contains bioenergies which can achieve healing powers (Tompkins 1973, 275–6; Dimde 1997).

G9. Landing pad or site marker for alien landings

Various links to uses by the pyramids of past alien visitors, designed for further use in the future, either as a landing or as a navigation marker (Chatelain 1978).

G10. Water pump

The Great Pyramid served as a hydraulic pump using water that was previously nearby (Kunkel 1967; see http://www.linux-host.org/energy/epump.html for an animated model).

G11. Protection from meteorites or earthquakes

The Great Pyramid (or pyramids) was intended to provide ancient Egyptians with protection from falling meteorites or from earthquakes. This argument was advanced by Immanuel Velikovsky (e.g. 1950; 1982), one of the most widely read proselytizers of alternative histories in his generation. A similar argument was hinted by astronomer Chandra Wickramasinghe (2001).

G12. Protection of ancient relics

The Great Pyramid was designed by the ancient Egyptians to protect sacred relics and artefacts, in as yet undiscovered chambers (Alford 2003).

H. Secular and New Age ancillary roles

A number of 'pseudohistorical' and other models bring Egypt's pyramids into their story as ancillaries rather than core to the argument. A complete list could include most theories of an 'esoteric Egypt'.

H1. Atlantis

The pyramids of Egypt were among the great monuments built by the people of the now lost high civilization of Atlantis (Donnelly 1882).

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H2. Extraterrestrial aliens
The Great Pyramid was built by aliens who visited the Earth and were responsible for a wide range of constructions and unexplained artefacts, or for influencing early civilizations to create the pyramids (von Däniken 1969 and other writings; Temple 1976; 2010). In the teaching of the Afroamerican cult leader Malachi York (York n.d.) the aliens built the pyramids for several different roles.

H3. Reptile possession
The Great Pyramid risks use by the reptilian humanoids who control the world; this was particularly dangerous around the millennium. These are the views of influential British conspiracist David Icke (Icke n.d.; Wynn 2008).

An alternative typology: by whom, for whom? Agency and audience

The above classification groups explanatory models for pyramids by two variables: ideological framework and use of metrical data. Both reflect the creator of the interpretation. Standing back, it is possible also to consider and classify by internal structure of each model: *by whom* the pyramids (or Great Pyramid) was built, and *for whom*.

In a clearly argued and complete hypothesis this should be an easy task. But in a number of pyramidologies, the question of agency is not fully defined; and in a wider range the intended users (or audience) can be left ambiguous. This matrix of creator/user is therefore limited, and open to objection by the supporters of different explanatory models.

In Table 1 we have suggested a reclassification of the alternative pyramidologies by suggested builders and intended users. Despite the religious origins of many early pyramidologies, I have been unable to trace any argument that the pyramids were built directly by a deity. Non-human aliens are formally credited with their construction under certain modern models, but these form a minority, in which humans are not seen as the intended beneficiaries.

Most pyramidologies credit the construction of the pyramids (or just the Great Pyramid) either to the pharaonic Egyptians, or to an earlier civilization — Atlantis, Iran, pre-pharaonic Egyptian and unnamed. Given the gap between the vast amount of what we know of ancient Egypt and the claims made by alternative pyramidologies, there is arguably greater consistency in attributing mystic powers or roles of the pyramids to a non-Egyptian source than to the pharaohs; yet this is a minority trend.

A very strong tradition has been the idea that the pyramid builders were recording either knowledge of prophesies for future people, such as ourselves, or an enlightened section of those future societies. With what motivation? Such a model emerged within the learned but still largely religious world of mid to late nineteenth-century Europe. It echoes some of the vision of scientific and missionary endeavours of that context, in which the knowledge emerging in the advanced societies would be shared around the world of their expanding empires.

But in many of these models, especially some of those from recent decades, the builders of the Great Pyramid were recording knowledge for their own purposes, or for the continuance of their own pharaonic society, not the distant future. Critics would, of course, argue that the construction of a reference source using 2.3 million heavy stone blocks shows rather less intelligence than implied by the level of knowledge and wisdom being there encoded. But the same argument can be raised about the supposedly functional uses in which ancient Egypt is supposed to have built the pyramids for a range of practical purposes, some of which (like the water pump) might at first glance be considered a satirical spoof on the world of alternate pyramidologies.

Interpretation, characteristics and other classification of pyramidologies

We have distinguished over 30 pyramid interpretations. Given their diversity of origins, approaches and structures, it would be vast oversimplification to lump together and critique an 'alternative pyramidology' as if these shared their characteristics in common. There are, however, features which apply to several of the approaches, and a few to all of them.

Ideas from outsiders
In medieval Islam (as with early travellers from Europe) there were many guesses and hypotheses about the origins and role of the pyramids. A feature of *modern* pyramidological theories is their derivation from outside Egypt, and indeed outside the Arab or Muslim world. This was true in the nineteenth and twentieth centuries but remains so today according to the former director of Egypt's antiquities service (Hawass 2001). While some attribute the Great Pyramid to ancient Egyptians, several of the outsider perspectives attribute pyramid origins to outsider builders. In the current era the faith of Muslim and Coptic Christian Egyptians may have discouraged blasphemous or fantastic hypotheses, but it remains to be seen if a more secular sector of Egyptian and Arab society will adopt or generate new theories.

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Table 1. *An alternate typology of pyramidologies.*

FOR WHOM? / BY WHOM?	For the builders/builders' civilization	For the future/ourselves
Aliens	G9 Landing pad	H3 Reptilian occupation
	H2 Aliens' monuments	
Pre-Egyptians	D2ii Initiation into mysteries	D1ii Mystical knowledge
	E1ii Geographical knowledge	F1 Human knowledge
	E5 Astronomical knowledge	
	H1 Atlantean monuments	
Ancient Egyptians	A1 Stairway	C1 Prophesy
	A2 Creation mound	D1i Mystical knowledge
	A3 Sun rays	E2 Prophesy
	D2i Initiation into mysteries	
	E1i Geographical knowledge	
	E3 Mathematical knowledge	
	E4 Astronomical knowledge	
	G1 Astronomical observatory	
	G2 Tool for astrology	
	G3 Surveying marker	
	G4 Almanac	
	G5 Physical changes	
	G6 Temple for worship	
	G7 Initiation of pharaohs	
	G8 Biological changes	
	G10 Water pump	
	G11 Protection from earthquakes	
	G12 Protection of objects	
Others	B1 Joseph granary	
	B2 Hebrew slaves	
	B3 Mount Ararat	
	B4 Tower of Babel	

Gender

There are today plenty of women who study, teach and write Egyptology. What is notable is that the proselytizers of alternative histories of the pyramids are still almost all male. This is harder to explain. Perhaps the mathematical modelling reflects a more gendered bias of mathematics. The creation of a cult and its followers in Western societies is largely a male preserve. The theosophist Madame Helena Blavatsky (1831–91) is a rare exception in history. Today Canadian Carmen Boulter (2009), author of a book on feminist consciousness, has advanced a wide range of mystical pyramidologies in her video series *The Pyramid Code*.

Occam grows a beard

It contrast to Occam's Razor (the principle of parsimony in explanation) it should be noted that some pyramidology authors complicate their argument for a particular interpretation by adding statements that relate to a quite different model: e.g. that the Great Pyramid has angles that point to the birthplace of Jesus Christ *and* chronological markers *and* contains the accurate calculation for the value of *pi* (Lemesurier 1977). This serves to emphasize the overall mystery of the issue and power attributed to the pyramid(s). Raymond (1978) gives an extreme example of multiple functions involving length, weight and energy, science and prophesy.

Schoch had suggested an extended succession of uses, from pre-Egyptian ritual to pharaonic astronomical record and sacred space (Schoch & McNally 2005).

One among many

A common pattern of books in the genre conventionally described as 'pseudoarchaeology' is that they seek to strengthen their case by critiquing and dismissing as fantasies other views (thus appearing to be the exception, rational and scholarly) before advancing their own theory as the only valid one. Mystic Paul Brunton (1935, 38–9) noted that the pyramids attracted 'crackpots' before describing his own Atlantean revelations. This remains common in modern pyramidologies (e.g. Schoch & McNally 2005).

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Level of evidence

Use of detailed evidence and scholarly citations can be seen in different models, which reflect the period of writing and the audience to whom the ideas are being presented. Some writers (e.g. Brunton 1935; Lemesurier 1977) were happy to make statements about ancient Egypt with minimal reference to Egyptological literature, or just to make bald statements of fancy as fact. The long tradition of metrical analogy goes into great detail on numbers and ratios as its evidence base. However there is a strong contemporary tradition, found across the 'pseudoarchaeology' genre, of presenting selective citation of scholarly authors, or detailed data which has no direct relation to supporting the core model advanced. This creates the illusion of scholarship and research, which therefore makes the subsequent interpretative argument seem to the critical reader more authoritative and convincing. The academic reader may criticize this approach for selecting only those pieces of evidence that do not directly contradict the author's view. But a similar approach is not hard to find within much scholarly argument as well: selectivity, bias and the search for evidence that supports a predetermined hypothesis.

Out of architectural context

A major feature of many pyramidologies is to take as their subject matter an individual site, out of the context seen by academic scholarship. Most common is to isolate the Great Pyramid of Khufu from the other pyramids and constructions at Giza. Some models, like the Orion correlation theory of Bauval, take the Giza pyramids as a group but consider them separately from all other monuments. A few theorists consider pyramids in isolation from other types of buildings, or address major monuments (pyramids and temples) outside of the contents of Pharaonic society.

This contrasts with an Egyptological model sequence (e.g. Lehner 1997, 16) which saw the Archaic mastaba tomb develop into Djoser's Step Pyramid with each step resembling a smaller mastaba; the smoothing of sides with the Meidum, Bent and Dahshur pyramids, the extension of size to the Khufu and Khafre pyramids at Giza, then the gradual reduction in size of subsequent pyramids until the break in the tradition at the end of the Old Kingdom.

To the critical eye the greatest of many weaknesses in pyramidologies is their isolation of the Great Pyramid from this tradition, and the focus on details of the one monument without the tradition, to the great spread of adjacent buildings involved with the construction of the pyramids or the pyramid complex, or (for those who *do* acknowledge an Egyptian origin) the society that produced it.

The appeal of alternate pyramidologies

This is not the context in which to explore the vast question of why alternative histories and pseudo-archaeologies, in all their broad range, had in the past and continue to have in the twenty-first century such broad appeal to such varied communities. Contributors to the volume edited by Garrett Fagan (2006) contribute to this topic. To some in the nineteenth century, they served to add depth (if unconventional depth) to established religion; in more recent times they serve as a challenge to secular rationality. Unlike the sources of much invented history, the pyramids of Giza present a dramatic physical presence. The enthusiast can visit a mystic and exciting world of a distant past in a real and present place. Lost continents of Atlantis and Mu cannot be visited or seen photographed in books and web sites. The selected rock paintings and engravings used in some quasi-archaeological theories to demonstrate alien visitors are small and remote. But the pyramids of Egypt can be visited, either directly or through film and photographic images. This can bring the modern traveller into the presence of an architectural marvel and in the presence of deep time. If the inevitable sense of wonder can then be extended by a writer (print or web) with a theory as exciting as the visit itself, the temptation to adopt their ideas is substantial.

Democratization of fantasy

Alternative pyramidologies were initially addressed to an educated elite. Some of the arguments developed thereafter were for members of religious and neo-religious movements. The spread of 'pseudo-archaeological' writing through most of the twentieth century was addressed to the expanding book reading public, especially those seeking explanations away from traditional religion or the pragmatic scientific alternatives. Occasionally a book writer would promote their books with a speaking tour or broadcast interviews.

With the growth of the World Wide Web as the primary source of information and the Internet as the primary source of communication in the modern world, dissemination of ideas has become both easier and more interactive. Thus an idea can be advanced in print and on supporting web sites; a web site can post supporting material, new approaches, and links to other writing. It can accumulate feedback, comments, interaction between followers of an idea, aided by Twitter and Facebook and other social networking, alongside blogs from activist individuals. The barriers to entry in the field of pyramidology and other alternative histories have been lowered. It is no longer necessary to be a member of an educated elite or influential

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member of a religious cult to advance views. It is no longer necessary to convince a book publisher with good writing, a stimulating argument and a promise to promote it. Any enthusiast can create a web site, post material on their theories, and develop a following. Of course, so can a scholar wishing to advance their own views, or combat those of others (such as www.badarchaeology.com or www.hallofmaat.com). But information and misinformation have become democratized by the Internet and this may be the biggest change of alternative models.

Afterword

What we call the 'democratization of fantasy' via the Internet is likely to increase rather than diminish the spread of alternative ideas about the past, including Egypt's past and the meaning and origins of its pyramids. Within this vast spread it is inevitable that certain prominent presenters of 'pseudoarchaeological' ideas will maintain a high profile and large following.

Scholarly researchers cannot readily choose to ignore this pattern. They can provide counter arguments, in print, on television and increasingly on the Web. A traveller or a confused student essay writer needs to be able to find engaging and accessible arguments, written without pride or rancour, which contest those of the alternative pyramidologies.

But it is probably fruitless to expect to defeat what might be better called quasi-history and quasi-archaeology (Derricourt 2012): people seek it out for personal reasons. The arguments resemble those between faith and reason, religion and science: people looking for particular kinds of approaches and explanations may not actually wish to evaluate traditional scholarship against intriguing new ideas. Many school syllabi (to the annoyance of traditionalists) now emphasize the evaluation of sources and historiographical bias, more than knowledge of facts: this can only help in the challenge to quasi-history and quasi-archaeology.

A challenge is for the academic study of ancient Egypt, and presentations of its studies for broader audiences, to be constantly innovative, intellectually challenging and stimulating, and maintain wider audiences for these ideas. Despite welcome initiatives, much of the formal academic establishment in Egyptology worldwide has remained more empirical, less self-critical, less theoretically diverse and informed than other areas of archaeology or ancient and world history: what Fekri Hassan (2008) has described as 'a sense of splendid isolation'.

An important series of eight volumes appeared in 2003 under the series title *Encounters with Ancient Egypt*. The editorial introduction to each of these volumes noted as their goal

> the overall attempt to move the study of Ancient Egypt into the mainstream of recent advances in archaeological and anthropological practice and interpretation. … Egyptology has been rightly criticized for often being insular; the methodologies and conclusions of the discipline have been seen by others as having developed with little awareness of archaeologies elsewhere (Ucko 2003, v).

There is room for scholars of ancient Egypt to reassert that there is excitement in challenging ideas, in looking at evidence in new ways, moving in constantly new directions while acknowledging subjectivity. This may not suppress the passions of all those who are searching for ancient mysteries. But it may help provide a strong basis for seeing off some of the unscholarly alternative views which claim Egyptology is narrow, blinkered and stuck in the past.

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Robin Derricourt has a PhD in archaeology from Cambridge and his career has included work as a university lecturer in archaeology, a director of national heritage, and as an archaeology publisher. He holds an honorary position as Associate Professor of History at the University of New South Wales. His recent publications include *Inventing Africa: History, Archaeology and Ideas* (London: Pluto, 2011) and 'Pseudoarchaeology: the concept and its limitations', *Antiquity* 86 (2012).

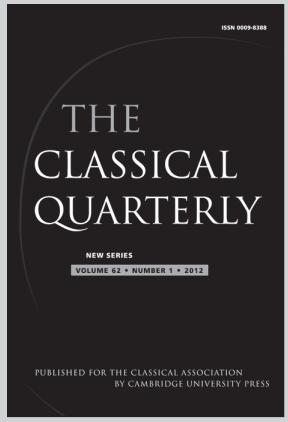
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