



*Annual Meeting  
at the  
University of California, Los Angeles  
April 24-26, 1998*

**PROGRAM & ABSTRACTS**

**THE AMERICAN RESEARCH CENTER IN EGYPT**

**FORTY-NINTH ANNUAL MEETING**

**LOS ANGELES, APRIL 24-26, 1998**

**PROGRAM AND ABSTRACTS**

## **SPECIAL ACKNOWLEDGMENTS**

We would like to extend our thanks to our hosts for this year's meeting at the University of California, Los Angeles: the Department of Near Eastern Languages and Cultures and the Gustav von Grunebaum Center for Near Eastern Studies.

Our special thanks to Antonio Loprieno for arrangements with the university and to Daniel Polz for arranging the panels for the Egyptological section of the program and Irene Bierman for arranging the panels for the Islamicist section of the program. We are also indebted to Lynn Swartz and Jonathan Friedlander, members of our hosts' staffs, who ably supported them in this effort.

We are grateful to Miguel Angel Corzo of the Getty Conservation Institute, Nancy Thomas and the Ancient Art Council of the Los Angeles County Museum of Art and Ben Harer, who graciously invited us to the special events that are making this year's meeting very festive. We appreciate the help of Phyllis Lapin of the Getty staff and Rosanna Zonni of the LACMA staff in putting these events together.

We also appreciate the help of the volunteers from the ARCE Southern California chapter and UCLA who helped with registration and other details so important in running a meeting.

We would like to acknowledge the work of our ARCE staff, Elaine Schapker, Catherine Clyne, and Rebecca Holder, all of whom had a hand in making the annual meeting possible.

*The Cover: 50th Anniversary Logo*

*Design by Claudia Baudo*

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## MEETING HIGHLIGHTS

**Welcome:** Northwest Campus Auditorium  
Friday, April 24, 9:00 a.m.

**Business Meeting:** Northwest Campus Auditorium  
Friday, April 24, 3:30 - 4:30 p.m.

**Keynote Address:** Northwest Campus Auditorium  
Friday, April 24, 4:30 - 5:30 p.m.

**Reception:** Los Angeles County Museum of Art  
Friday, April 24, 6:30 - 7:30 p.m.

**Egyptian Antiquities Project Update:** Robert K. Vincent, Jr., Project Director  
Salon A, Covel Commons Building  
Saturday, April 25, 9:00 - 10:00 a.m.

**ARCE 50th Anniversary Banquet:** Grand Horizon Room (Salon A),  
Covel Commons Building  
Saturday, April 25, 6:30 p.m. (reception), 7:30 - 9:30 p.m. (banquet)

**Board of Governors Meeting:** Presidents Room B  
Sunday, April 26, 8:00 - 11:00 a.m.

**FORTY-NINTH ANNUAL MEETING**

**THE AMERICAN RESEARCH CENTER IN EGYPT  
LOS ANGELES, APRIL 24-26, 1998**

University of California, Los Angeles Hosts:  
Department of Near Eastern Languages and Cultures  
Gustav von Grunebaum Center for Near Eastern Studies

**AFFILIATED MEETINGS**

(All at the Doubletree Hotel except where noted)

Wednesday, April 22, 3:00 p.m. - 9:00 p.m.	Executive Committee
Thursday, April 23, 9:00 a.m. - 1:00 p.m.	Executive Committee
Thursday, April 23, 1:00 p.m. - 5:00 p.m.	Long-Range Planning Committee
Friday, April 24, 7:30 a.m. - 9:00 a.m.	Endowment Committee
Friday, April 24, 9:00 a.m. - 1:00 p.m.	EAP Oversight Committee
Saturday, April 25, 8:00 a.m. - 10:00 a.m. (Private residence)	Development Committee
Sunday, 8:00 a.m. - 11:00 a.m.	Board of Governors Meeting

**PROGRAM**

**THURSDAY, APRIL 23**

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3:00 p.m. - 5:00 p.m.	Advance Registration	Lobby Doubletree Hotel
5:00 p.m. and 6:00 p.m.	Buses depart for Getty Center	Doubletree Hotel
6:30 p.m.	<b>Presentation by Getty Conservation Institute and refreshments followed by free time</b>	Getty Center
8:15 p.m. and 8:45 p.m.	Buses depart for Doubletree Hotel	
8:30 p.m. - 9:30 p.m.	Advance Registration	Lobby Doubletree Hotel

**FRIDAY, APRIL 24**

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Registration will be on Friday from 8:00 a.m. to 3:00 p.m. and on Saturday from 9:00 a.m. to 12:00 p.m. It will take place in the lobby of the Northwest Campus Auditorium on Friday and on the third floor of the Covell Commons Building on Saturday. Both buildings are in Sunset Village on the UCLA campus.

Some conference sessions will be in the Northwest Campus Auditorium, Sunset Village, Friday; others are in Covell Commons Building in the South Bay Room and West Coast Rooms on the third floor. On Saturday and Sunday, all sessions will be on the third floor of the Covell Commons Building in the South Bay Room, the West Coast Room and Salon A.

You will note that the sessions are listed as twenty-five minutes. The traditional twenty minutes is still the allotted time for papers, but five minutes has been built into the schedule for you to go from place to place.

**MORNING**

**9:00 a.m.                      WELCOME: UCLA Hosts                      Auditorium**  
**Terry Walz,**  
**Executive Director, ARCE**

Panel 1: ARCHAEOLOGY I                      South Bay Room

Chair: Stuart Tyson Smith

9:30 Patricia Podzorski (University of Washington, Seattle), "Decorated Ceramics of the Late Predynastic: A Preliminary Report on Methodology and Findings Related to a Study of Regionality in Manufacture and Distribution, and Usage"

9:55 Stuart Tyson Smith (Institute of Archaeology, University of California, Los Angeles), "Wretched Kush: The Archaeology and Ideology of Egypt's New Kingdom Empire"

10:20 Roberta Shaw (Royal Ontario Museum, Toronto), "The New Prehistory Exhibit at the Kharga Museum"

10:45 Dina Faltings (German Archaeological Institute, Cairo), "Foreigners in Buto in the First Half of the Fourth Millennium B.C."

- 11:10 Peter Der Manuelian (Museum of Fine Arts, Boston), “The Slab Stelae of the Giza Necropolis”
- 11:35 Teresa Moore (University of California, Berkeley), “‘In the Mansion of Gold’: Notes on the Reburial(s) of Amenhotep I”

Panel 2: ART I

Auditorium

Chair: Emily Teeter

- 9:30 Gay Robins (Emory University), “Art and Reality in the Amarna Period”
- 9:55 Earl L. Ertman (University of Akron), “Notes on the Construction of the Ancient Egyptian Red Crown and King Sesostri I Offering a Libation”
- 10:20 Emily Teeter (Oriental Institute Museum, University of Chicago), “Female Figurines from Medinet Habu”
- 10:45 Elaine Taylor-Vereb and Earl L. Ertman (University of Akron), “A Visual Dating System for Two-Dimensional Female Figures from Ancient Egypt: Part II”
- 11:10 Laurel Flentye (Institute of Fine Arts, New York University), “The Mastaba of Idu: An Analysis of a Dynasty VI Private Tomb at Giza and Its Relationship to the Royal Mortuary Complexes”
- 11:35 Melinda K. Hartwig (Institute of Fine Arts, New York University), “Institutional Patronage and Social Commemoration in Elite Theban Tomb Painting of the Mid-Eighteenth Dynasty”

### LUNCH

**(Note that lunch/brunch is available all three days in the dining hall of the Covel Commons Building for a \$6.50 coupon. Other restaurants are at least a 10-minute walk. The coupons will be available at the ARCE registration table.)**

### AFTERNOON

Panel 3: OTTOMAN EGYPT

West Coast Room

Chair: Daniel Crecilius

- 1:00 Daniel Crecilius (California State University, Los Angeles), “The Waqf of the Zawiyya of the Amir ‘Isa Agha Çerkis: A Circassian Legacy in Seventeenth-Century Jirje”

- 1:30 Jane Hathaway (Ohio State University), “Duelling Dhu’l-Fiqars: How ‘Ali’s Sword Became a Political Hot Potato in Ottoman Egypt”
- 2:00 Abdul-Karim Rafeq (College of William and Mary), “Opposition of the Azhar ‘Ulama to Ottoman Laws: The Case of Marriage Fees”
- 2:30 Discussion

Panel 4: ARCHAEOLOGY II: FIELD REPORTS Auditorium

Chair: Edward D. Johnson

- 1:00 Diana Craig Patch (Metropolitan Museum of Art), “The ARCE Field School Project”
- 1:25 Josef W. Wegner (University of Pennsylvania), “1997 Excavations at Senwosret III’s Mortuary Complex: *“Enduring-is-the-Throne-of-Khakaure-maa-kheru-in-Abydos”*”
- 1:50 Dawn Landua and Josef Wegner (University of Pennsylvania), “Middle Kingdom Ceramic Studies in the Town and Temple of Senwosret III at Abydos”
- 2:15 Edward D. Johnson (University of California, Los Angeles), “Recent Work at Hierakonpolis: Excavations and Conservation”
- 2:40 Russell D. Rothe (University of Minnesota), “Connections: Multiple Inscriptions by Certain Individuals in the Eastern Desert”
- 3:05 Carol Meyer (Oriental Institute, University of Chicago), “Gold Mining at Bir Umm Fawakhir”

Panel 5: ART II South Bay Room

Chair: Gayle Gibson

- 1:00 Mark C. Stone (Yale University), “The *hnw*-Gesture: Reinterpreting Early Variants and Inferring Patterns of Movement”
- 1:25 Salima Ikram (American University in Cairo), “Hyenas: From Hunters to Hunted?”
- 1:50 Heike Guksch (Ägyptologisches Institut, Heidelberg University), “Imenemhab and the Hyena”



- 2:15 Gayle Gibson (Royal Ontario Museum), “Errors, Omissions and Subversion in Egyptian Art”
- 2:40 Susan H. Auth (The Newark Museum), “Mosaic Glass Faces From Egypt: A Reflection of Ancient Theatrical Performances?”
- 3:05 Craig C. Dochniak (Pima Community College), “Egyptian Early Dynastic Imagery as a Visual Expression of Cyclical Time and the Theoretical Model of Kingship”
- 3:30 BUSINESS MEETING Auditorium**
- 4:30 KEYNOTE ADDRESS Auditorium**
- Charles D. Smith, ARCE President**  
 “A Passion for Egypt: An Illustrated ARCE History”
- 5:30 Buses depart for Los Angeles County Museum of Art
- 6:30 RECEPTION: Los Angeles County Museum of Art**
- 8:30 Buses depart for Doubletree Hotel

**SATURDAY, APRIL 25**

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**MORNING**

- 9:00 EGYPTIAN ANTIQUITIES PROJECT UPDATE Salon A**  
**Robert K. Vincent, Jr., Project Director**
- Panel 6: **ARCHAEOLOGY III: FIELD REPORTS Salon A**
- Chair: John A. Seeger
- 10:00 Donald Redford (University of Toronto), “The So-called Sacred Lake at Mendes”
- 10:25 Charles C. Van Siclen (San Antonio), “Soundings at Karnak—1998”
- 10:50 William E. Gordon (University of California, Los Angeles), “Modern Topographical Mapping of Dra Abu al-Naga”
- 11:15 John Rutherford (California Academy of Sciences), “ARCE EAP/VOK Valley of the Kings Tomb Protection Project Progress Report”

11:40 Mary Ann Pouls (University of Pennsylvania), “New Fieldwork at the Periphery of the Osiris Temple in Abydos: The Temple of Thutmose III”

12:05 John A. Seeger (Northern Arizona University), “The Roman Baths at ‘Abu Sha’ar”

Panel 7: LITERATURE South Bay Room

Chair: Peter F. Dorman

10:00 Robyn Gillam (York University, Toronto), “The Mehy Papers: Text and Lifestyle in the New Kingdom”

10:25 Peter F. Dorman (Oriental Institute), “A Rediscovered Fragment of the Biography of Ptahshepses”

10:50 Gary Greenberg (Biblical Archaeology Society of New York), “Osarseph and Exodus: Literary Reflections in an Egyptian Mirror”

11:15 Gerald Moers (University of Göttingen), “Self-fashioning Identity: The Interplay of Reiteration and Remembrance in the ‘Complaints of Khakheperreseneb’”

11:40 Jasmine Brown and Amanda Post (University of California, Los Angeles), “Occurrences of Osiris in Middle Kingdom Texts”

12:05 Kasia Szpakowska (University of California, Los Angeles), “Night Gallery: The Perception of Dreams in Ancient Egypt”

Panel 8: WORKSHOP: MEDIEVAL CAIRO West Coast Room

Chair: Irene A. Bierman

10:00 Ethel Sara Wolper (University of New Hampshire), “Sufi Building Terminology in the Medieval Islamic World: Egypt and Anatolia”

Jere Bacharach (University of Washington, Seattle), “Medieval Coins and Visual Culture”

James A. Harrell (University of Toledo), “Reuse of Ancient Stones in the Medieval Islamic Buildings of Cairo”

Commentator: Paula Sanders (Rice University)

Discussants: Stephen Humphreys (University of California, Santa Barbara)  
Irene A. Bierman (University of California, Los Angeles)

## LUNCH

### AFTERNOON

#### Panel 9: HISTORY

Salon A

Chair: James K. Hoffmeier

- 1:30 Chris Bennett (University of California, San Diego), “The Gebel Tjauti Sothic Inscription and Late Second Intermediate Period Chronology”
- 1:55 Daniel Polz (University of California, Los Angeles), “Thebes and Avaris: On the ‘Expulsion’ of the Hyksos”
- 2:20 James K. Hoffmeier (Wheaton College), “Egypt and the Other in the Eighteenth Dynasty: An Examination of Egypt’s Foreign Policy in the Levant and Nubia from Ahmose to Thutmose III”
- 2:45 Kristin Thompson (University of Wisconsin), “‘Upon the Southeastern Mountain of Akhetaten’: Some Thoughts on Akhenaten’s Sacred Site”
- 3:10 Lynn Swartz (University of California, Los Angeles), “Worlds Apart: Historicity and Fictionality in Eighteenth-Dynasty Texts”
- 3:35 Kristin Lang (University of California, Los Angeles), “The Hidden Logic of Power: Why Current Models of Collapse Are Inadequate”
- 4:00 Aldo Piccato (University of California, Los Angeles), “Some Observations on the Egyptian Perception of History”
- 4:25 Peter Feinman (Columbia University), “Ramses and Rebellion: Showdown of False and True Horus”

#### Panel 10: LANGUAGE

South Bay Room

Chair: Leo Depuydt

- 1:30 Orly Goldwasser (The Hebrew University, Jerusalem), “Classifiers and Categorization in Ancient Egypt”
- 1:55 Edgar A. Gregersen (Queens College and Graduate Center, City University of New York), “The Generative Analysis of Ancient Egyptian”
- 2:20 Monica M. Bontty (University of California, Los Angeles), “Another Observation on *hp*”

- 2:45 Charles R. Gregorio-Jones (Covina, California), “Egyptian Lexicon Soundex”
- 3:10 Rockwell Townsend (San Francisco), “Written Egyptian History Begins with Narmer as First King of the First Dynasty”
- 3:35 Leo Depuydt (Brown University), “Indirect Proof (*Reductio ad Absurdum*) and Egyptian Grammar: The Case of *sk/jst* and *js*”
- 4:00 Stanley M. Burstein (California State University, Los Angeles), “The Roman Withdrawal from Nubia: A New Interpretation”
- 4:25 Peter Brand (University of Toronto), “Secondary Restorations in the Post-Amarna Period”

Panel 11: WORKSHOP: (RE)CONCEPTUALIZING OTHERNESS: EGYPT,  
EDUCATION, AND CULTURAL STUDIES West Coast Room

Chair: Linnea S. Dietrich

1:30 Linnea S. Dietrich (Miami University), “(Re)Conceptualizing Otherness: Egypt, Education and Cultural Studies—Contemporary Egyptian Art and Its Other(s)”

Lloyd Kropp (Southern Illinois University), “American Transcendentalists and Nature as a Hieroglyph”

Dan Reyes (Miami University), “And other, as other”

5:00 and 5:15 p.m. Buses depart for Doubletree Hotel

6:15 and 6:30 p.m. Buses depart from Doubletree Hotel to return to Sunset Village

**6:30-9:30 p.m. RECEPTION AND BANQUET Grand Horizon Room (Salon A)**

9:30 and 9:45 p.m. Buses depart for Doubletree Hotel

**SUNDAY, APRIL 26**

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**MORNING**

**Panel 12: RELIGION**

South Bay Room

Chair: Maulana Karenga

- 9:30 Maulana Karenga (California State University, Long Beach), "The Ancient Egyptian Concept of 'Serudj-Ta': Contribution to a Modern Environmental Ethics"
- 9:55 Carolyn Routledge (Richard Stockton College), "Parallelism in Ritual Between Official and Non-Official Practice in Ancient Egypt"
- 10:20 Patricia B. Gary (New York University), "Sedeinga and Abu Simbel: Two Cults of Queens in Nubia"
- 10:45 Robert Hughes (University of California, Los Angeles), "A Free-Limbed Osiris from the Tomb of Ramesses VI—Why Is It Significant?"
- 11:10 Thomas M. Dousa (University of Chicago), "Queen of Egypt and Queen of the World: The Image of Isis as a Royal Goddess in Egyptian and Hellenistic Greek Texts"
- 11:35 Geoffrey Graham (Yale University), "Iconography of the Sokar-Osiris Bed During the Graeco-Roman Period"

**Panel 13: SOCIAL HISTORY/FOREIGN RELATIONS**

Salon A

Chair: TBA

- 9:30 Lyn Green (University of Toronto), "Some Comparisons Between Greek and Pharaonic Medical Models"
- 9:55 Stefanie Gaines (University of California, Los Angeles), "The Administrative Title *Whmw*: A Re-evaluation"
- 10:20 Edna R. Russmann (University of California, Berkeley), "Gender Segregation in Certain Late Private Tombs at Thebes"
- 10:45 Edward Bleiberg (The University of Memphis), "Debt, Credit, and Social Solidarity at Deir el Medinah"

- 11:10 Margaret Serpico (Oriental Institute, University of Oxford), “Mediterranean Incense Routes of the Amarna Period: The Transport, Use and Botanical Identity of *Snt*”
- 11:35 Ellen Morris (University of Pennsylvania), “Bowing and Scraping in the Ancient Near East: An Investigation into Obsequiousness in the Amarna Letters”

Panel 14: TOPICS IN EGYPTOLOGY

West Coast Room

Chair: Aidan Dodson

- 9:30 Aidan Dodson (University of Bristol), “Egyptology in Bristol”
- 9:55 Kenneth Lloyd Larson (Los Angeles), “Ancient Mathematical Grid Patterns Superimposed Over the Three Major Pyramids of Giza”
- 10:20 Jonathan Van Lepp (Jet Propulsion Laboratory), “Compositional Structure in Predynastic Pottery Scenes of Egyptian Art”
- 10:45 Raphael Wuest (University of British Columbia), “Stratigraphy, Regional Geological Evolution History and Geotechnical Analysis in the Theban Area, Luxor, Egypt: Implication for Archaeological Investigations of Ancient Egyptian Constructions”
- 11:10 Seamus Chapman (Malaga, Spain), “The Design and Construction Process for the Great Pyramid and Other Pyramids”

Annual Meeting 1998

ABSTRACTS

**Susan H. Auth, The Newark Museum:** *Mosaic Glass Faces From Egypt: A Reflection of Ancient Theatrical Performances?*

Miniature mosaic glass inlays are among the finest examples of the ancient glassmakers' skill. Craftsmen produced these inlays with both Egyptian and classical subjects. They have been found in the cemeteries of Alexandria, and in the Graeco-Roman towns and nome capitals of Egypt. They were also exported to the oases and to the royal burial grounds of Nubia. The most complex and intriguing of these glasses are the face plaques. Egyptian subjects include heads of deities such as Isis and Hathor, while the Graeco-Roman ones represent male and female heads often identified as generic "maenads" and "satyrs." In fact, most of them can be identified as theater masks of specific stock characters in the Greek new comedy. This paper will discuss the identity of these mosaic faces and the implications for theatrical performances in Graeco-Roman Egypt. Also discussed will be the relationship between the makers of mosaic glass with Egyptian and with classical subjects.

**Jere L. Bacharach, University of Washington:** *Medieval Coins and Visual Culture*

Coinage can have multiple functions, one of which is as a carrier of symbolic messages. Dr. Irene A. Bierman's work on the Fatimid bull's eye-style coinage has demonstrated the specifically Isma'ili reading which can be given to that style coinage. Using the methodology she developed, the post-reform coinage of the Islamic Egypt era will be analyzed as a source for art history. Examples from the Ikhshidid, Fatimid, Ayyubid, and Mamluk eras will be illustrated.

**Chris Bennett, University of California, San Diego:** *The Gebel Tjauti Sothic Inscription and Late Second Intermediate Period Chronology*

The Western Desert Expedition, led by John Darnell of the Oriental Institute, has discovered an inscription at Gebel Tjauti, in the Qena Bend of the Nile on a road linking Coptos to Thebes, which records a heliacal rising of Sothis on II smw 20 of the 11th year of an unnamed king. Given the local arcus visionis,

this date corresponds to July 11, 1593/0 B.C., which is a date late in the Second Intermediate Period. The king involved is therefore almost certainly a Hyksos king of the 15th dynasty or a king of the Theban 17th dynasty. If one considers only the raw data for the kings of this period, the set of candidate kings is rather large, particularly for the 17th dynasty, but if the various chronological schema for the period are factored in, then the number of possibilities is much reduced. The three most likely candidates, chronologically, are Seuserenre Khian, Seuserenre Bebi-ankh and Nubkheperre Inyotef. A circumstantial case can be made for each. The location of the inscription suggests that the Nile Valley and the more usual desert roads were insecure or were controlled by a hostile force at this time. This could indicate an expedition by Khian into Upper Egypt, otherwise suggested by an inscription found at Gebelein south of Thebes. We know very little about the activities of Bebi-ankh, but his stele found at Gebel Zeit implies that he controlled the Coptos roadhead. Finally, we know that the Coptos area was a border region for Nubkheperre Inyotef, so it is possible that the inscription reflects his efforts to maintain the control he established over Coptos in his year 3; such activity could also explain why both Nubkheperre and Rahotep engaged in restoration work at the Temple of Min in Coptos. While the internal chronology of the 15th dynasty before Apepi is still very poorly known, there are indications that Khian was Apepi's predecessor, or nearly so. Also, each of the two 17th dynasty candidates are only possible on particular chronological schema. Thus, if the identity of the king could be established, the inscription would be a strong discriminator between various chronological schemes currently being debated.

**Edward Bleiberg, The University of Memphis: *Debt, Credit, and Social Solidarity at Deir el Medinah***

One major criticism of the substantivist interpretation of the ancient economy associated with Karl Polanyi is its tendency to romanticize the social relationships which result from reciprocal and redistributive economic structures. This criticism is based on a misunderstanding of the meaning of the social solidarity which results from these forms of economic organization. Social solidarity is a mechanism for ensuring economic survival, and thus is a rational economic response. It is not necessarily a claim of good fellowship and general harmony in a village. This paper will examine the court case described in P. Turin 1881 A recto 8-9 to illustrate the true meaning of social solidarity created by a complex web of debt and credit among the villagers.



**Monica M. Bontty, University of California, Los Angeles:** *Another Observation on hp*

My topic is the word *hp*, which has been traditionally rendered as “law.” The various renderings of this word will be discussed along with their strengths and weaknesses. I will then present an alternative understanding of this term.

**Peter Brand, University of Toronto:** *Secondary Restorations in the Post-Amarna Period*

Repairs made by the pharaohs of the late Eighteenth Dynasty to monuments vandalized by the agents of Akhenaten are well documented. Surprisingly, however, little effort has been made to understand the technical features of these restorations, and the whole process is largely taken for granted by historians. Little attention has been paid to the largest task which faced the champions of orthodoxy, namely the repair of damaged reliefs featuring Amen-Re and other gods on monuments throughout the land. Between the accession of Tutankhamen and that of Seti I, at least 25 to 30 years had elapsed during which vandalized reliefs were being restored. Extensive repairs to reliefs destroyed by Akhenaten’s partisans were made under Tutankhamen and Horemheb at Karnak, Luxor and elsewhere in the Theban region and throughout Egypt and Nubia.

It is Seti I, however, who is perhaps best known as a restorer of damaged temple reliefs because he frequently marked these repairs with a *smꜣwy-mnw* formula. These texts are generally found in conspicuous locations: along processional ways, on monumental gateways, the lunettes of stelae and the façades of pylons. They are seldom found in the dark recesses and side rooms of the temples. Given that repairs to damaged reliefs had been underway for some two to three decades before Seti’s accession, one may question whether such a large quantity of monumental reliefs remained unrestored at his accession—especially in such prominent locations—as Seti’s renewal inscriptions seem to attest. It is becoming increasingly apparent that many of the restorations made under both Horemheb and Seti I, and in at least one case by Ay, were in fact secondary alterations/usurpations of ones first made under Tutankhamen. It is well known that Horemheb usurped many of Tutankhamen’s monuments and suppressed his memory. This policy, it now

seems, extended to his restorations. These usurpations have generally passed unnoticed because Tutankhamen and Horemheb employed renewal texts only sporadically. This paper will discuss the epigraphic evidence for this phenomenon.

**Jasmine Brown and Amanda Post, University of California, Los Angeles:**  
*Occurrences of Osiris in Middle Kingdom Texts*

“The court that judges the wretch,  
You know they are not lenient,  
On the day of judging the miserable,  
In the hour of doing their task.  
It is painful when the accuser has knowledge,  
Do not trust in length of years,  
They view a lifetime in an hour!  
When a man remains over after death,  
His deeds are set beside him as treasure,  
And being yonder lasts forever.  
A fool is who does what they reprove!  
He who reaches them without having done wrong  
Will exist there like a god,  
Free-striding like the lords forever!”

Instructions to Merikare, Lichtheim (1973)

In this presentation we will follow the transformation of Osiris from a standard god to God, master of the netherworld. We will examine two works of Middle Kingdom literature—*The Instructions to Merikare* and *The Eloquent Peasant*—for both direct and indirect references to Osiris and the afterlife. The dichotomy between the changes in perception of Osiris and the rise of the Middle Egyptian elite will be analyzed in detail. The king no longer held exclusive rights to the afterlife. The new powerful nobles who were increasingly the authors and consumers of the literary works wanted their names remembered as well. Evidence of this change is preserved in the contrast between concepts of the individual in the Pyramid Texts and the Coffin Texts.

**Stanley M. Burstein, California State University, Los Angeles:** *The Roman Withdrawal from Nubia: A New Interpretation*

For over three centuries Roman soldiers patrolled the Dodecaschoenus, the approximately seventy-mile-long portion of the Nile valley between Aswan and Maharraqa that formed the frontier between Roman Egypt and its southern neighbor, the kingdom of Meroe. The Dodecaschoenus was unique among Roman frontiers in that it was a mutually recognized buffer zone between two civilized states, Rome and the Kingdom of Meroe. The stability made possible by this arrangement facilitated expanding cultural and commercial contacts between Roman Egypt and Meroe. Equally important, it made possible a degree of prosperity in the Dodecaschoenus that was unique in that region's long history. The most visible signs of this prosperity are a group of Egyptian-style temples built in the late first century B.C. and the first century A.D. by the Julio-Claudian emperors, such as the great Augustan temple of Mandulis at Kalabsha, that are now the region's only surviving monuments. Less dramatic but equally important evidence of the prosperity of the Dodecaschoenus during the first centuries of the Christian Era is provided by the increase in the number and wealth of the settlements and associated cemeteries found in the region.

The political conditions that made this prosperity possible ended in 298 A.D. when Diocletian ordered the withdrawal of Roman troops from the Dodecaschoenus and established Aswan as the border of Roman Egypt. According to the sixth century A.D. Byzantine historian Procopius, Diocletian took this step because the high cost of maintaining control of the Dodecaschoenus was not matched by its economic value. Demonstrable errors in the details of Procopius' account have induced recent scholars to reject his explanation and to suggest instead that Diocletian merely made official the de facto replacement of Roman authority by Meroitic authority in the Dodecaschoenus. The purpose of this paper is to call attention to epigraphic evidence that tends to support Procopius' account and suggests that the Roman withdrawal from Nubia is best explained by placing it in the context of the general reorganization of Roman frontiers undertaken by Diocletian in the 290's A.D.

**Seamus Chapman, Malaga, Spain:** *The Design and Construction Process for the Great Pyramid and Other Pyramids*

Many have attempted to provide an answer to how the Ancient Egyptians built their monuments. All of these proposals have ultimately been seen as only

theories as each is open to different interpretations by others, or is incomplete in some way. This has left this field open to pseudo-scientists, who exploit the lack of a complete answer and feel free to state that some other superior force was at work, or that these structures contain a special message. The present paper describes in detail:

1. How to construct a large solid stone pyramid to exact dimensions.
2. The complete and exact design process for the Great Pyramid.
3. The complete and exact design process for Khafre's Pyramid, Menkaure's Pyramid and the pyramid at Meidum and how each uses the same system as the Great Pyramid. ("Design process" means every dimension, specification and order of work, used to achieve a planned objective.)
4. The exact dimensional relationships between the three pyramids on the Giza site and how they follow the same formula used in the pyramids themselves.
5. An explanation of how the siting of the internal features of the Great Pyramid fit the design method.
6. An explanation of the purpose of the "scored lines" in the Great Pyramid and why they are visible.
7. An explanation of why the Great Pyramid uniquely has a coincidental relationship with half Pi.

I am able to state: It was the way the Ancient Egyptians formed a right angled isosceles triangle which led to the dimensions of the Great Pyramid and other pyramids and all the relationships between them.

- The Great Pyramid fits within the overall development of pyramid construction techniques and should not be regarded as exceptional, except that it is the largest.
- The Ancient Egyptians could only have discovered the geometry they used because of the special geometric conditions which existed in Egypt at the time.
- The geometry and mathematics used during the Pyramid Age to construct pyramids required only an understanding of the multiplication and division of whole numbers.
- The mathematical concepts necessary were childish but applied with the accuracy of a skilled adult.

**Daniel Crecelius, California State University, Los Angeles:** *The Waqf of the Zawiyya of the Amir 'Isa Agha Çerkis: A Circassian Legacy in Seventeenth-Century Jirje*

Throughout much of the seventeenth century, Jirje was governed by a Faqari faction of Circassian amirs who, through the years, embedded itself deeply into the political, social and economic life of the town it dominated. In the century between roughly 1645 and 1745, this Faqari elite and its Qazdughli successors adorned the seat of the governorate with a number of mosques and other structures, most of which still stand.

The waqfiyya of 'Isa Agha in favor of the zawiyya he constructed on the southwestern edge of Jirje and three subsequent additions he made to his endowment provide insights into the wide range of economic activities in which this mamluk elite was engaged and reveal the close interrelationships among some of the leading members of this group of Circassian amirs.

What is striking about the location of 'Isa Agha's endowed properties is his clear intent to locate his rizqa holdings, his purchases in the area of his zawiyya, and his residential purchases adjacent to properties belonging to the waqf of 'Ali Bey.

His holdings and new purchases on Shari' al-Tafanisa reveal a clear attempt to purchase as much of both sides of an entire block as possible, for this was the place of his own residence and the separate residences of his two sons across the street. It was quite common for mamluks and Ottoman officials to group their residences as closely together as possible for defensive purposes.

'Isa Agha's documents shed light on the activities of a mamluk household in Jirje in the second half of the seventeenth century and offer numerous references to buildings and open plots of land scattered throughout the city. Many of the streets mentioned in 'Isa Agha's waqfiyya, such as Darb al-Tafanisa, al-Dabbaghin, and Sayin al-Din, still exist.

**Leo Depuydt, Brown University:** *Indirect Proof (Reductio ad Absurdum) and Egyptian Grammar: The Case of sk/jst and js*

As a field of learning, geometry is known for its relentless rigor. Egyptian grammar less so. It is debatable whether the type of strictness applied in geometry is attainable in Egyptian grammar. Yet, if there is merit to rigor in

thought, the way in which geometry produces lines of reasoning in perfectly plain English prose by discrete steps of which each requires careful justification should at least be inspiring. One may doubt whether Egyptian as a subject matter or body of evidence lends itself to such rigor. But then, the effort of pursuing this kind of reasoning unconditionally may at least enable us to estimate by how much we fall short of certain ideal standards. The negative balance might better define the limitations of what it is that we can do.

One method of proof in geometry is indirect proof, which shows that A is true because the contrary of A is absurd. Euclid liked indirect proof. Thus, he finds the circle's center by proving that every other point in the circle cannot be (*Elements III.1*). Indirect proof may make it possible to circumvent a certain demand for exhaustiveness in a body of evidence. After all, it could be argued that some data of Old and Middle Egyptian are not yet available in publication or have not been excavated or are lost forever.

This paper expands on a preliminary one (*GM* 136, 11-25). Its argument tries to associate certain properties firmly with *jsf* and *js* by means of indirect proof.

**Linnea S. Dietrich, Miami University, Ohio:** *(Re)Conceptualizing Otherness: Egypt, Education and Cultural Studies—Contemporary Egyptian Art and Its Other(s)*

The emerging academic discipline, Cultural Studies, offers some new perspectives from which to envision both scholarship and pedagogy, indeed knowing and learning in the broadest sense. Cultural Studies is interdisciplinary (cross-disciplinary) and seeks to disrupt the borders between traditional disciplines to form new conceptual frameworks for understanding democratic discourse, contemporary culture in the light of postmodernism, multiculturalism, postcolonialism, ageism, the identity politics of race, gender, sexuality, class, constructing the self within relations of power and knowledge, in the classroom and beyond, and popular culture as a force in contemporary identity.

Applying a Cultural Studies approach to ancient Egyptian art and to the theme "Egypt and the Other" suggests to me an investigation of contemporary Egyptian artists who conceive of Pharaonic art as the Other. Like most contemporary artists, current Egyptian artists are searching for a style, a direction, for formal strategies that can embody their current thematic issues. They are in some conflict—or creative decision-making—about whether to

embrace motifs and styles and techniques from their Pharaonic past, from the art and architecture of Islam, from folk traditions, from the growing presence of a number of styles generally combined into the term "internationalism."

By examining the work of contemporary Egyptian artists (such as Inja Efflatoun, Huda Lutfi, Ramzi Moustafa, Nazli Madkour, for example) we can see how they respond individually to ancient Pharaonic art and how they transform it for their own purposes—or reject it. In turn, this provides a model for contemporary understanding and teaching practices of ancient Egyptian art as a site of speculation, theorizing, and new insights.

**Craig C. Dochniak, Pima Community College:** *Egyptian Early Dynastic Imagery as a Visual Expression of Cyclical Time and the Theoretical Model of Kingship*

Traditionally, the palettes, maceheads, labels and other decorated objects of the Egyptian Early Dynastic Period have been interpreted as purely historical documents, the intent of their imagery to commemorate the major political events of the period. However, the high degree of correlation existing between the subject matter visually depicted on this material and that of the year-names represented hieroglyphically on the Palermo Stone—an historical annal from the Fifth Dynasty—suggests that much Early Dynastic imagery was meant to serve as a dating device, a kind of pictorial year-name, based on the important event or events that occurred within the year. Presumably, such pictorial year-names would have recorded the year in which an object was made and either donated to the temple or included as part of the contents of a royal tomb.

The selection of the historical events referred to in these year-names is not at all arbitrary or even objective, but instead is limited to certain fundamental acts, rites and festivals closely associated with the king. These events were often more symbolic than they were historical and as a whole reflected the theoretical model of kingship as understood during the Early Dynastic Period. It is this symbolic importance of the events referred to in the year-names that explains why much of the imagery used in their pictorial representation warranted the development of a highly standardized iconography. From this theoretical model of kingship, the duties of the king included the unification, protection and expansion of the king's realm—both Earthly and Cosmic; the insuring of the irrigation and fertility of the land; the foundation and dedication of important buildings and temples; and the reaffirmation and magical

rejuvenation of the king's primeval powers as expressed in such festivals as the *Sed*.

The suitability and selection of only a few kinds of events for the naming of a year—along with their inevitable reoccurrence—would have appeared to the ancient Egyptians as a demonstration and reaffirmation of their notion of cyclical time. The effect was that time would have appeared to pass within an orderly framework of regularly occurring activities of the king. Finally, while some of these events may have occurred only once in a king's reign or sporadically, the perception over a period of several reigns would have been that of general periodicity.

**Aidan Dodson, University of Bristol:** *Egyptology in Bristol*

The city of Bristol, western England, has many associations with ancient Egypt. Most prominently, Amelia Edwards, founder of the Egypt Exploration Fund (Society) lived, and is buried, there, but the City Museum and Art Gallery also contains a fine collection of Egyptian antiquities. Some of these derive from Sarah Belzoni, wife of the famous Giovanni, who seems to have had Bristolian connections; this material includes a large set of copies of scenes in the tomb of Sethy I, made by Belzoni and his associates. The museum also holds a considerable amount of material from Flinders Petrie's excavations. Recently the university has begun to teach Egyptian archaeology as part of its undergraduate Archaeology program, and attempts are being made to further raise the subject's profile in the area.

This paper sketches the history of Egyptology in the city, highlights some of the more interesting objects in the museum and discusses briefly the challenges of introducing Egyptology for the first time into a university program.

**Peter F. Dorman, Oriental Institute:** *A Rediscovered Fragment of the Biography of Ptahshepses*

This paper discusses a block fragment in the Oriental Institute Museum that bears the remains of a niched façade and the cartouches of Kings Userkaf and Sahure of Dynasty 5. The block is to be assigned to the mastaba of Ptahshepses at the British Museum (BM 682) and clarifies to some extent the biographical



account of this important official, allied by marriage to the royal family. The original placement of the fragment will be proposed, as well as a tentative reconstruction of the upper portion of the mastaba façade.

**Thomas M. Dousa, University of Chicago:** *Queen of Egypt and Queen of the World: The Image of Isis as a Royal Goddess in Egyptian and Hellenistic Greek Texts*

Worship of the goddess Isis enjoyed great popularity not only in Egypt but also in the wider Greco-Roman world during the Hellenistic and Roman periods, constituting a major point of contact between Pharaonic Egyptian and Greco-Roman religion. The Hellenistic perception of Isis' divine persona is most completely spelled out in a series of Greek hymns, which include both texts found outside of Egypt (such as, e.g., the famous "aretalogy" from Kyme) and within Egypt (such as, e.g., the hymns of Isidorus from Medinet Madi). The contents of these texts have provoked considerable debate about the extent to which the figure of Isis was transformed in the course of her reception into the Greek-speaking world and the extent to which she retained her Egyptian features. Such questions can best be broached by taking into account Egyptian-language sources (both hieroglyphic and demotic) for Isis worship in Ptolemaic and Roman Egypt, which provide us with useful contemporary "native" material for comparison with the Greek hymns. It is the purpose of this presentation to demonstrate, by analyzing a single aspect of Isis' persona in both bodies of texts, namely her connection to kingship, that in the Hellenistic Greek hymns, she retains characteristics found in the Egyptian texts, but with some changes in emphasis that reflect the altered social and political circumstances surrounding her cult outside of Egypt: in other words, the Greek Isis hymns reflect both continuity and transformation in the image of Isis.

Isis' association with kingship is two-fold—she is portrayed both as a ruler (or royal wife) and a patron of rulers—and the presentation examines each of these aspects of her royalty. In regards to Isis *qua* queen, it is shown that both the Egyptian and Greek texts are in virtually complete agreement about the scope of her rule. Both designate her as queen of Egypt and present her as a world-ruler who has command over all the spheres of the cosmos. Here, then, we have a striking example of complete continuity between the Greek and Egyptian views of an image of Isis. The presentation then shows that the situation is more complex in the case of Isis *qua* royal patron. The Egyptian sources strongly emphasize royal dependence upon the good will and protection of Isis. The Greek texts, on the other hand, vary in their view of Isis'

patronage, and this variance is correlated to geographical distribution: Greek texts from Egypt likewise emphasize the ruler's dependence on Isis, while Greek Isis hymns outside of Egypt downplay it and, indeed, claim that Isis' stance towards earthly rulers can be adversarial. This shift in emphasis, it is argued, reflects the socio-political circumstances of the Isis cult outside of Egypt and constitutes a theological response to its new environment.

**Earl L. Ertman, University of Akron:** *Notes on the Construction of the Ancient Egyptian Red Crown and King Sesostris I Offering a Libation*

An analysis of the probable construction methods and materials used to make the ancient Egyptian red crown (Deshret) of Lower Egypt will be discussed citing examples from the time of Kings Narmer through Sesostris I of Dynasty XII. As a postscript, the act of a king offering a libation before the divine, (first seen through the Brooklyn statuette, no. 39.121, of King Pepi I holding *nw* pots) is combined in this presentation with the red crown topic since both of these subjects are shown on the Jubilee Kiosk of Sesostris I, reconstructed in Karnak. Aspects of the history and symbolism of each of these two topics will be forwarded.

**Dina Faltings, German Archeological Institute, Cairo:** *Foreigners in Buto in the First Half of the Fourth Millennium B.C.*

In 1993, the German Archaeological Institute resumed its excavations in Tell el-Farain (Buto) in the northern West Delta.

The hitherto known stratigraphy was confirmed, showing once more two phases of prehistoric occupation (Buto I and II) which belonged to the so-called Buto-Maadi culture. After a transitional layer (Buto IIIa) the late Naqada took over and developed without break into the Early Dynastic.

The new finds reveal the existence of an immigrated group of Palestinians in Buto phase I, i.e., the first half of the Fourth Millennium B.C., belonging to the Beerheba-Ghassoul cultural complex. The people brought their own technology of pottery-production (special tempering, use of rotating device, plastic and color-decoration).

The pottery of the locals still stood in the tradition of the Neolithic and differed in many aspects. But certain conditions made the immigrants give up their

technology so that at the beginning of phase II Buto was a “normal” member of the Buto-Maadi culture. In phase II it started to have contacts with the rest of the Delta which can be seen in an increasing amount of common cultural features shared with other places like Maadi, Tell Ibrahim Awad, Tell el-Farkha. As the Palestinian group from Buto I belongs to the Chalcolithic and the “eastern” connections of Maadi are to be dated to the EB Ia, Buto must be dated earlier than hitherto known.

**Peter Feinman, Columbia University:** *Ramses and Rebellion: Showdown of False and True Horus*

John Schmidt has suggested that a rebellion against Ramses II had occurred during year 17-18 of his reign. Schmidt raised the possibility that Ramses had been forced to curtail his campaign in Canaan due to the threat at home to the true Horus. To counter the challenge by this therefore false Horus, Ramses rallied the Canaanite troops under his command (who had fought with him at Kadesh?) with the promise of land to those armed and equipped for battle. With their support, he prevailed over this rival for the throne.

More recently, William Murnane has written about the challenge to the reign of Ramses posed by a significant but not well-known figure of Mehy. This individual can be characterized as the one person in Egypt whom Ramses despised and sought to eliminate from the historical record. Murnane praises Ramses for having the ability to overcome various obstacles at the beginning of his reign including this one by Mehy.

This paper will consider the possibility that Mehy was the false Horus whom Ramses had to confront militarily in his return from Beth Shan. Manetho also notes a rebellion on the home front against Ramses by a person whom he identifies as the brother of Ramses, precisely as James Henry Breasted first described the figure, who was subsequently identified as Mehy, at the beginning of this century when he raised the possibility of a revolt against Ramses.

This paper will suggest that Mehy had motive, means, and opportunity to challenge the power of Pharaoh a century before such a challenge occurred against Ramses III and less than a century after various machinations during and following the Amarna Period. The Mehy of the love poetry of Egypt does

not suggest a person who would go gently into the night if the path to power required a display of force. The Hittite-Egyptian treaty with its succession and amnesty clauses and concerns should be understood against this backdrop of palace intrigue among both peoples.

**Laurel Flentye, Institute of Fine Arts, New York University:** *The Mastaba of Idu: An Analysis of a Dynasty VI Private Tomb at Giza and Its Relationship to the Royal Mortuary Complexes*

The Mastaba of Idu is located in the Eastern Cemetery of G7000 at Giza and dates to the reign of Pepy I in the Sixth Dynasty. Its subsidiary position to the “core” mastabas of the Fourth Dynasty does not diminish its importance within the historical evolution of the Giza Necropolis. Indeed, the placement of Idu’s tomb at Giza effectively demonstrates his position within the hierarchy of the mortuary cults of the Fourth Dynasty rulers during his lifetime.

The Mastaba of Idu is unusual as its architectural design consists of two open courts with a rock-cut offering chamber. The layout of the courts with added features, i.e., basin and obelisks, derives inspiration not only from the royal mortuary complexes but also from the Sun Sanctuaries of the Fifth Dynasty. The interior decoration of the offering chamber is also significant with a definite thematic pattern set by the jambs of the tomb with east representing life and west the transition to death. The contrast between low relief and rock-cut sculptures on the east and west walls provides an interesting iconographic program. Moreover, the east and west walls parallel architectural and ideological features of the royal mortuary complexes. The south wall with its “viewing” scene brings together symbolic elements, including the family, Hathoric celebrations, and the provision of food offerings for the deceased. In essence, the “other” world and “this” world are brought together on the south wall. The scenes on the interior of the north wall around the doorway are important as they depict the funeral of Idu. These scenes continue the theme of east representing life and west the transition to death. Depictions of the *ibw* structure (purification tent) and the *w'bt* (embalming house) again reinforce the connection to royal structures and archaeological evidence on the west bank at Giza.

An analysis of the Mastaba of Idu in its overall plan and the decoration of its offering chamber demonstrates direct correlation with the royal mortuary complexes of the Fourth through Sixth Dynasties. Both the architectural design and iconography of the mastaba reflect mortuary concepts prevalent in the later

Old Kingdom. These concepts derive not only from the royal complexes but also from the beliefs represented in the Pyramid Texts. The combination of these two factors plus the evolving solar ideology of the Fifth Dynasty provides the architectural and ideological environment in which the Mastaba of Idu was constructed. Thus, it is within this context that the Mastaba of Idu should be assessed and which demonstrates the parallels between royal and non-royal structures. Ultimately, both functioned in the same capacity as “houses of eternity.”

**Stefanie Gaines, University of California, Los Angeles:** *The Administrative Title Whmw: A Re-evaluation*

The aim of this paper is to summarize my extensive study of the ancient Egyptian administrative title *Whmw*, starting from its appearance in the Middle Kingdom up to the end of the Second Intermediate Period. The presently available information concerning this title is limited to the title indexes. There have been some previous commentaries on this title, but they are few and fragmentary. The consensus description today would characterize the *Whmw* as something of a Herald who repeats announcements from his superior, the Vizier. The study I wish to report covers both the particular persons and the duties of the *Whmw* in order to provide compelling evidence of a wider and more important role in an administrative area that today we might call the judiciary.

Beginning with the title indexes, all of the recorded mentions in sources available to me were assembled and analyzed. My research showed the *Whmw* to be an official whose rank was just below that of the Vizier. None of the documents of these periods gives a precise description of the exact function that the *Whmw* exercised. However, it was possible to infer many of the duties of the *Whmw* in a number of different situations that were inscribed or transcribed on various supports. Using the information furnished by these sources it has been possible to piece together a rather detailed description of the principal actions carried out by the *Whmw*.

The bulk of the references available to me were found on stele, which provide the stereotypical funerary formulas, the name of the owner and the title or titles held by the personage at one time or another. However, a close examination of administrative texts, official inscriptions left during expeditions in the mines and quarries, private documentation, and literary texts confirmed not only the

name of the personage and his title, but also details that help explain the role held by the *Whmw* in the Egyptian administration showing how he acts as a link between one of the highest authorities, the Vizier, and other officials of the Egyptian administration.

In spite of the absence of direct information given by the sources of the Middle Kingdom until the Second Intermediate Period on the function of the *Whmw*, it is possible to infer that this position was much more important than of a mere Herald who passed information from the Vizier to others in the administration. The *Whmw* clearly had the power to execute instructions that must have been of considerable importance given that there was only one *Whmw* in the administrative hierarchy and his functions were almost exclusively in what we might call the judicial branch of government.

**Patricia B. Gary, New York University:** *Sedeinga and Abu Simbel: Two Cults of Queens in Nubia*

The Nubian temples at Sedeinga and Abu Simbel built by monarchs of the New Kingdom were erected in a spirit of pious remembrance to favorite and influential queens. Both memorials were constructed in periods of great prosperity and were intended, arguably, to immortalize the idealized life of the deceased that had been lived on earth rather than the existence expected in the afterlife. In general, the reason why kings have cults in Nubia is interesting, but the reason why queens have cults in Nubia is profound. The broad truth is that commemoration of queens, recorded in stone for an eternity, may be a reflection of the roles that particular queens played for their kings' reigns. This paper will discuss pertinent similarities between Queen Tiye and Queen Nefertari, between Sedeinga and Abu Simbel, and will put forth some of the reasons why they had established cults in Nubia.

**Gayle Gibson, Royal Ontario Museum:** *Errors, Omissions and Subversion in Egyptian Art*

Artists often constitute an "other" segment of society, commenting on cultural norms even as they embody them in statues, stele, and decorative objects. Every museum's collection of Ancient Egyptian material provides examples of errors, omissions and alterations: names that do not correspond to adjacent images; figures apparently inappropriate to their context; missing elements. Are these anomalies simple errors, was there a cultic significance, or is there a

subversive element at work? The author believes that in some cases, the evidence suggests an underground, unorthodox comment on the mainstream of Ancient Egyptian religion and society in the work of artists and artisans.

**Robyn Gillam, York University, Toronto:** *The Mehy Papers: Text and Lifestyle in the New Kingdom*

Is the third poem of the Chester Beatty I:C cycle a man-to-man address or is it a woman who speaks? Who is the Mehy hailed in this poem and mentioned in other fragmentary literary contexts? This paper will explore literary artifice and social choice, in the hope of throwing light on the social complexities of cultured, urban life of the later New Kingdom.

**Orly Goldwasser, The Hebrew University, Jerusalem:** *Classifiers and Categorization in Ancient Egypt*

In recent years, categorization systems have been at the center of interest of numerous disciplines, such as cognitive linguistics, semiotics, philosophy and psychology. There is nothing more basic than categorization in the human thought system. Every time we see something as a *kind* of thing, for example—a cat or a giraffe as a kind of animal, or carriages and cars as vehicles—we are categorizing. Whenever we reason about classes of things like furniture, nations, illnesses, emotions, or good and evil, we are employing categories.

The categorization system of a language or culture is a meta-linguistic construct. Thus, it becomes clear that any verbal language or script system which contains clues about those hidden conceptual structures in the human mind, is of particular importance to scholars in this field. Hieroglyphic-Egyptian is one of those systems, and by no means the least prominent.

Among all the writing systems of the world, Egyptian Hieroglyphs exhibit the most explicit system of classifiers, which mirrors complex categorization processes of a civilization long lost. Nevertheless, cognitive linguists and scholars of related disciplines are not aware of this wealth, as Egyptology never dealt with the subject from a theoretical point of view, but solely for practical philological purposes.

The proposed investigation has two objectives:

- (1) For Egyptological purposes, to conduct an exemplary yet detailed analysis of hitherto rather neglected sources of information.
- (2) Simultaneously, to define the Egyptian material and make it accessible to scholars of other fields.

These two objectives are to be materialized through:

- (a) A comprehensive study of the function of individual signs as a means for defining conceptual categories in the Egyptian language and culture. It is planned to investigate in detail the function and meaning of some individual graphemes serving as classifiers.
- (b) Variation and development from the Old Kingdom to the end of the Ramesside period will be studied, and rules of diachronic changes formulated.
- (c) The governing rules of the system as a whole will be studied, its constraints defined. The scientific tools include modern theories of categorization formulated during the last decade. The findings of this part of the research will be studied not only in terms of the hieroglyphic system itself, but also in comparison to other categorization systems, as well as in the light of the universal rules structuring the perceived world.

Preliminary data evolving from this study will be presented.

**William E. Gordon, University of California, Los Angeles:** *Modern Topographical Mapping of Dra Abu al-Naga*

The task of mapping the Theban Necropolis has been undertaken at many different times in the past. However, with a few notable exceptions, most of these efforts are of little assistance to the modern Egyptologist conducting research in the Theban Necropolis.

Today, the Egyptologist has an impressive array of tools at his/her disposal that make surveying and the subsequent mapping of topography and archaeological resources more efficient than ever before. This same technology allows the design and production of a custom map fulfilling the needs of any archaeological project.

In the Fall of 1997, the UCLA/DAI mission in Dra Abu al-Naga embarked on an ambitious new project whose final product will be a comprehensive map and database of all of the topographical and cultural resources within our concession. This map will be the reference for all further work within Dra Abu



al-Naga. During the Fall 1997 season, a significant amount of the concession in Dra Abu al-Naga was surveyed and mapped with an electronic theodolite and computer.

This cartographic product will be an extension of Joseph Dorner's sheets of Al-Tarif. Like Dorner's sheets, the forthcoming map will include all natural and man-made topography in the concession area including representations of tomb entrances and shafts, along with their east-west axes.

This paper will include a short discussion of the mapping resources available to the modern Egyptologist, the mapping project in Dra Abu al-Naga, as well as preliminary examples of the final product as envisioned by the Dra Abu al-Naga Mission.

**Geoffrey Graham, Yale University:** *Iconography of the Sokar-Osiris Bed During the Graeco-Roman Period*

This paper represents a continuation of research which the author presented at the Pennsylvania-Yale Symposium in New Haven, April of 1996 on the Sokar Complex of Sety I in his temple at Abydos. Its purpose is to reconstruct the significance of activities performed in the ancient Sokar-Osiris Feast during the month of Khoiak, utilizing information gleaned from comparable Graeco-Roman Period scenes which tend to more explicitly represent the esoteric episodes of the rites.

The paper will examine the iconography employed in scenes of the so-called "Osiris Bed," as they appear in the Graeco-Roman Period temples at Dendara, Edfu, Hibis, and the Opet Temple at Karnak. Special attention will be paid to the context of these scenes and adjacent reliefs, the flow of activity within their architectural settings, and the identity of the ancient viewers and participants in the rites. Reference will be made to earlier versions of the iconography and ancient textual sources. Moreover, this paper will explore the mythical participants in the rites, attempting to understand the "text, texture, and context," as in an analysis of folkloric literature or performance art.

**Lyn Green, University of Toronto: *Some Comparisons Between Greek And Pharaonic Medical Models***

This lecture will look at previous work done comparing Egyptian and Greek medicine, and place it in the context of newly available translations of texts from the Hippocratic Corpus. Particular emphasis will be placed on the theory of "humours" which is sometimes said to exist in both Greek and Pharaonic medicine.

**Gary Greenberg, Biblical Archaeology Society of New York: *Osarseph And Exodus: Literary Reflections in an Egyptian Mirror***

According to Josephus, Manetho, the third century B.C. Egyptian priest whose history of Egypt has been preserved only in heavily edited copies by other historians, told of a renegade priest named Osarseph, who chased a Pharaoh Amenhotep from Egypt and ruled the country for thirteen years. Manetho describes Osarseph's reign as one of great cruelty and terror, particularly with regard to established religious practices. At the end of the thirteen years, the Pharaoh and his son, "Ramesses also known as Sethos," returned to Egypt and drove the priest and his followers from Egypt.

Egyptologists readily accept that the Osarseph story presents a disguised account of the reign of Pharaoh Akhenaten. Very controversial, however, is Manetho's alleged claim that Osarseph was Moses and that upon expulsion he led his followers to Jerusalem. Since the claims about Osarseph being Moses can easily be separated from the main account without doing any harm to Manetho's story, Egyptologists and biblical scholars usually argue that the Osarseph/Moses connection represents an anti-Jewish slur either inserted into Manetho at a later time or derived from a false account in an Egyptian library.

Because of the controversy over the Moses connection, I believe scholars have failed to recognize that the story of Osarseph and the story of Moses and the Exodus share a great many literary themes and plot devices. Perhaps the most intriguing is the parallel story line about the relation between Moses and the Pharaoh in which the roles have been reversed. In the Osarseph story, it is Moses who is the cruel oppressor, and it is the infant child of the fleeing Pharaoh who is hidden away from Moses but returns later to defeat the cruel king.

Another instance of role reversal concerns the desire to see God. In the Manetho story, Pharaoh Amenhotep desired to see God. His advisors told him he could do this if he rounded up the diseased and leprous Egyptians and drove them from Egypt. His failure to do so caused the gods to turn against him and allowed Osarseph to take command. In Exodus, Moses also desired to see God, and his action, too, led to his own punishment. He appears to have suffered some form of skin disease in connection with his effort to see God. In both stories we find a close connection between the desire to see God, leprosy and punishment.

Another interesting comparison concerns the city where the slaves worked. In Exodus, the Hebrews were forced to work at Pi-Ramses. In Manetho, Osarseph, before his rise to power, asks for permission to have the lepers and diseased Egyptians work with him at Avaris. Both Avaris and Pi-Ramses were the same city.

This paper will look at the various similarities between the Osarseph and Exodus stories and then propose that both accounts drew upon a common Egyptian literary theme, the struggle between Horus and Set for the throne. It will be suggested that when competitors sought to take over the throne, each desired to portray himself as the young Horus persecuted by Set the Usurper. It will be further suggested that the name "Ramesses also known as Sethos" derived from a misunderstanding of the nature of the coregency between Ramesses I and Sethos I and that both Manetho and Exodus place the final confrontation during the coregency of those two pharaohs.

**Edgar A. Gregersen, Queens College and Graduate Center, City University of New York:** *The Generative Analysis of Ancient Egyptian*

Analysis of Egyptian grammar has tended to proceed without reference to the major developments in general linguistic theory. It is a rare work that even employs terminology long established, such as *phoneme* or *morpheme*.

In 1975, the late John B. Callender attempted the first analysis of Middle Egyptian using a variety of the major linguistic paradigm of the twentieth century: generative grammar as created by Noam Chomsky. Callender did indeed employ a number of notions hitherto unused by Egyptological linguists, including underlying sentence, embedding, feature analysis of syntactic categories, cleft sentences—among others.

But his treatment of sentence structure departed from the model of syntax current at the time and simply accepted some entrenched Egyptological ideas without seeing that they went against the whole thrust of the generative model. Some resulting problems are considered here.

**Charles R. Gregorio-Jones, Covina, California:** *Egyptian Lexicon Soundex*

The Egyptian Lexicon Soundex was developed from the American Soundex system used for the 1900 and 1910 censuses in which surnames were coded numerically by sound rather than by spelling. This method facilitated easy reference and recovery of names which entered the English syllabary during the time of massive immigration from Western Europe. The transposition of this system of encoding names and words in the ancient Egyptian syllabary resulted in a coded lexiconal system in which words of internal and external origin could be easily distinguished and identified. The characteristics of the Egyptian lexicon soundex will be explored as well as the distribution, frequency and connotation of Egyptian words as the result of the soundex, which will be demonstrated and subjected to critical analysis. More information about the Soundex can be viewed on the internet at: <http://www.earthlink.net/~arcesc/soundex/soundex1.htm>.

**Heike Guksch, Ägyptologisches Institut, Heidelberg University:**  
*Imenemhab and the Hyena*

In Theban Tomb No. 85, Imenemhab, a military officer of Thutmosis III, shows himself in a small, almost hidden scene in a foreign landscape confronted by a huge female hyena. I will try to re-evaluate this well known scene against the numerous comments by Egyptologists and to put it into a wider context of interpretation.

**James A. Harrell, University of Toledo:** *Reuse of Ancient Stones in the Medieval Islamic Buildings of Cairo*

Many of Cairo's medieval Islamic buildings are richly decorated with columns, wall veneers, and pavements of colorful, exotic stones. These are the "polychrome marbles" referred to by many writers. The masonry frameworks for these buildings are constructed from locally quarried limestone, but the decorative "marbles" are all *spolia* from earlier buildings. The latter include a

variety of Roman structures and, to a lesser extent, Pharaonic temples, Christian basilicas, and other Islamic buildings. The architectural uses to which the stones were put closely follow the Byzantine and earlier Roman practices. Some of the stones were brought from Syria and Palestine where they were taken in the wars with the Christian crusaders, but the great majority probably came from buildings in Egypt.

This presentation reports on the results of a survey of the varieties and sources of decorative stones used in Cairo's pre-Ottoman (mainly Mamluk) mosques, madrasas, and other buildings. Although the plundered buildings that provided these stones are often unknown, the mostly Roman quarries that originally supplied the stones are well known and include sites both in Egypt and throughout the circum-Mediterranean region.

The best and most accessible examples of Islamic buildings in Cairo with a wide variety of decorative stones are the mosques of Sultan Hasan (1356-63 A.D.) and Sultan al-Muayyad Shaykh (1415-22 A.D.).

**Melinda Hartwig, Institute of Fine Arts, New York University:**  
*Institutional Patronage and Social Commemoration in Elite Theban Tomb Painting of the Mid-Eighteenth Dynasty*

This paper will explore the role of institutional patronage through the style, content, and context of painting in the tombs of the religious officials, on the one hand, and those of the military, civil, and palace officials on the other. This talk will also show how the tomb's program of decoration expressed their social and ideological positions. As a 1996-1997 USIA-ARCE fellow, I documented 30 elite Theban tombs from the reigns of Thutmose IV (1419-1410 B.C.E.) and Amenhotep III (1410-1382 B.C.E.), half of which are unpublished. My research focused particularly on the content and style of painting on the back wall of the transverse hall in T-shaped tombs, and in the case of simple one-room rectangular tombs, the long walls. As defined by Dieter Arnold (*Wandrelief und Raumfunktion in ägyptischen Tempeln des Neuen Reiches*. MÄS 2 [1962], p. 128) and more recently by Barbara Engelmann-von Carnap ("Soziale Stellung und Grabanlage: Zur Struktur des Friedhofs der ersten Hälfte der 18. Dynastie in Scheich Abd el-Qurna and Chocha," *Thebanische Beamtennekropolen*. SAGA 12 [1995], p. 127), the scenes on the back wall were the best lit, and the first images to confront the viewer upon entering the tomb.

Analysis of these 30 tombs shows that the images on the back wall served as focal representations and reflect the preferences of two different groups of patrons. Emphasis on stately compositions, traditional subject matter stressing cultic themes and a color palette with strong blues and greens define the painting in tombs of religious officials. Innovative compositions with movement and figural overlapping, subject matter associated with the pharaoh or the patron's career, and earthtoned color palette characterize the painting in tombs of military, palace and civil officials. In terms of style only, the two groups correspond roughly to Arielle Kozloff's "Ornate" and "Impressionistic" painters (Arielle Kozloff, "Theban Tomb Paintings from the Reign of Amenhotep III: Problems in Iconography and Chronology," *The Art of Amenhotep III: An Art Historical Analysis*. Ed. L.M. Berman [Cleveland, 1990], pp. 55-64). The relationship between the patron's institutional affiliation and use of a distinctive style of painting leads to a larger inquiry to be covered briefly in this paper which asks what distinctions, if any, can be drawn between painting content and the ideological and social differences of these two institutional groups.

Finally, this presentation will apply the observations of Jan Assmann on the function of the tomb as a site for the commemoration of the deceased and his social status. The paper will demonstrate that the combination of painting style, content, and context with the function of the tomb's chapel, its decoration, and accessibility as a site for personal cult not only secured the tomb owner's immortality but also linked him to his social position and commemorated that role for the afterlife and posterity.

**Jane Hathaway, Ohio State University:** *Duelling Dhu'l-Fiqars: How 'Ali's Sword Became a Political Hot Potato in Ottoman Egypt.*

My subject is the exploitation of the image of the Caliph 'Ali's sword Dhu'l-Fiqar by two rival political factions, the Fiqaris and the Qasimis, in 17th-century Egypt. Both factions, my research indicates, deployed the image of the sword on their banners; their representations of the sword, however, drew on very different religious and iconographic traditions. The Fiqaris' reverence for the sword stemmed from traditional Ottoman Janissary and Bektashi Sufi devotion to 'Ali. The Qasimis, in contrast, identified with the Zaydi Shi'ite imams of Yemen, who believed that an early imam had used the sword in

battle. The story of how these two traditions came to confront each other in Egypt is linked to the Ottoman struggle for Yemen and, more broadly, to the variety of sword traditions that came together in Egypt's distinctive military culture.

**James K. Hoffmeier, Wheaton College:** *Egypt and the Other in the Eighteenth Dynasty: An Examination of Egypt's Foreign Policy in the Levant and Nubia from Ahmose to Thutmose III*

This paper will examine Egypt's evolving foreign policy in the aftermath of the expulsion of the "Hyksos." While there has been a tendency to focus upon Egypt's actions in western Asia in scholarly literature, historical sources, however, indicate that Nubia was the principal focus of Egyptian foreign policy from the time of Ahmose to Thutmose II. With Thutmose III's accession, circumstances demanded that Canaan and Syria become the preoccupation of Egyptian foreign policy. The sources from this period reveal different policies between Egypt's neighbors to the south and those in the north. This paper will attempt to identify these differences and will offer possible explanations for the bipartite strategy.

**Robert Hughes, University Of California, Los Angeles:** *A Free-Limbed Osiris from the Tomb of Ramesses VI: Why Is It Significant?*

This unusual depiction of Osiris from the tomb of Ramesses VI, KV 9, is as a free-limbed and non-mummified individual. This rendering is an infrequent occurrence in Egyptian history. It represents large changes in Egyptian religion, politics and society at the same time reinforcing some very traditional elements of Egyptian culture and experience.

I will examine the role of Osiris in this particular scene in the entrance to the tomb and contrast it with the more traditional depiction and function of Osiris in this context. I will also incorporate an analysis of this Osiris in relation to both the king and Re-Harakhte. The result of this examination will be a clearer picture of the religious implications of the cult of Re upon that of Osiris during the early Twentieth Dynasty.

**Salima Ikram, American University in Cairo:** *Hyenas: From Hunters to Hunted?*

The hyena is a rather unusual animal to find depicted on tomb-walls, yet hyenas are shown in Old Kingdom tombs, most often in offering or force-feeding contexts. This has given rise to the idea that their domestication was attempted in the Old Kingdom. Hyenas continue to appear sporadically in Egyptian art thereafter, but generally in hunting scenes rather than in offering scenes. The inclusion of the hyena as part of the offerings for the dead has caused speculation regarding the role of the hyena in ancient Egyptian culture and art. This paper explores the changing role of the hyena in Egyptian art from the Old Kingdom to the Ptolemaic Period, and discusses the possible uses of this animal in ancient Egypt with regard to domestication, hunting, and medicine using pictorial, textual, zooarchaeological, and ethnographic evidence.

**Edward D. Johnson, University of California, Los Angeles:** *Recent Work at Hierakonpolis: Excavations and Conservation*

1996 marked the return to the field of the Hierakonpolis expedition after a hiatus of four years following the deaths of Michael Hoffman and Walter Fairervis. The expedition, now under the direction of Rene Friedman and Barbara Adams, also put in full seasons in 1997 and 1998.

The work involves rescue excavations at a large and previously unexplored predynastic cemetery in serious danger of being forever destroyed by a land irrigation scheme. HK43 is one of the few cemeteries at the site with the potential for providing a large number of relatively unlooted graves and important data for population studies.

Preliminary investigations in 1996 suggested as many as 2000 burials, many possibly still intact. The 1997 and 1998 seasons' excavations found many intact and untouched in modern times. Preservation of organic materials, such as matter in linen jar contents, body tissue, hair and bone, was both remarkable and unexpected. Excavations revealed evidence suggesting that in the mid-predynastic period (circa 3500 B.C.) experiments of artificial mummification using resins and linen wrappings were taking place.

In addition to excavations, conservation work has been undertaken in regards to remains of decorated tombs at Hierakonpolis Old, Middle and New Kingdom.



Preliminary work undertaken in the first two seasons has resulted in the approval of a grant from the ARCE/EAP for continuing conservation over the next several seasons affording the opportunity to preserve and document these tombs for the first time.

**Maulana Karenga, California State University, Long Beach: *The Ancient Egyptian Concept of 'Serudj-Ta': Contribution to a Modern Environmental Ethics***

This paper offers a critical examination of the ancient Egyptian concept of *srwd-t3* and explores its usefulness as a conceptual contribution to our modern search for an adequate environmental ethic. The concept reflects a profound moral concern, as its translation reveals, of constantly "restoring the world," making it more beautiful and beneficial than it was inherited. Recognizing that the concept is rooted in a larger philosophical matrix, the paper explores the interrelated ideas which inform the concept and practice of *serudj-ta* and reveal its value in modern moral discourse around responsibility and care for the environment.

At the center of these fundamental concepts which undergird and inform the ethics of *serudj-ta* is the polysemic concept of Maat which links the divine, natural and social and calls for human moral worthiness in each domain. Moreover, Maat has emerged in recent years as the name and philosophical ground of a revived ethical tradition among African Americans concerned with the possibilities of ancient African ethical ideals for modern moral discourse and thus there exists a language and literature useful in pursuing this intellectual project. In addition to a critical discussion of Maat, the paper also treats other interrelated ideas that suggest a framework for an environmental ethic based on the concept of *serudj-ta*. These include the Kemetic concepts of: the interrelatedness of existence rooted in a monistic ontology which argues the unity and continuity of being; the perception of the world as a shared heritage to be approached as a collective resource and cooperative ongoing creation; care and responsibility for the world as a filial obligation as distinct from general concepts of stewardship; and finally, the obligation to do what is useful (*3h*) for the future.

The paper will also deal with the ancient Egyptian conception of the place of humans in the world which points toward neither an anthropocentric conception nor an ecocentric one but rather an "anthropocosmic" one which reflects morally compelling concern for the whole cosmos. Here the paper

engages the creative tension between the Kemetic concept of humans as *sn ntr*, the image of God, and the uniqueness this implies and the parallel concept of the essential sacredness of all existence (*wnnt*) as affirmed in the creation narratives and ethical texts. The solution to the problematic is pursued in the conceptual framework of the monistic ontology grounded in Maat. And it is within this over-arching framework that the ecological principles of serudj-ta ethics are brought forth as a fruitful contribution to modern moral discourse on care and responsibility for the environment. Finally, where appropriate and fruitful, critical comparisons and contrasts will be made between ancient Egyptian ethical thought and that of other religious and ethical traditions.

**Lloyd Kropp, Southern Illinois University:** *American Transcendentalists and Nature as a Hieroglyph*

Studies in Egyptology have touched other disciplines in a number of interesting ways. Their influence upon pop culture, cults, racial politics, and pseudo-science have frequently embarrassed Egyptologists who find that their work has been exaggerated, misinterpreted, or ignored. Even so, there are areas in which Egyptology has had a profound and lasting influence on the "Other" that is worthy of our consideration. One of these is the impact of Champollion's decipherment of hieroglyphs upon the nineteenth-century American literary imagination.

The tension and debate between the linguistic view of hieroglyphs and what might generally be called the Swedenborgian view (Swedenborg's book on the *Hieroglyphic Key to Natural and Spiritual Mysteries* was widely known at the beginning of the century) is interesting and complex. It is one of the many examples in human history of the debate between reason and faith, and in this case the debate became a natural part of the development of the romantic aesthetic in American writers who were torn, as was Hawthorne, for example, between modernism and tradition. On one hand, hieroglyphs were viewed as a language whose vocabulary and syntactic principles were gradually emerging under the scrutiny of linguists. On the other hand, the work of Edward Everett, J. G. H. Greppo, and Sampson Reed moved in quite a different direction. Reed, for example, believed that the translatable language in ancient Egypt is not the important element. The important element is the "Anaglyphs," the secret hieroglyphs that do not reveal themselves to the scientist, but only to the poet and mystic. In his view, it is the mystery that is important. The real truth is always hidden.

In the works of many major American writers of the previous century, this Swedenborgian view of Champollion's work is powerful and real. It becomes an archetypal metaphor which expresses the universal and ancient debate between the material and the spiritual. Just as mystics from late classical times, the Middle Ages, and the Renaissance often saw hieroglyphs as pictures of some deeper reality, so the Transcendentalists saw the hieroglyph as a powerful metaphor. The images of nature, Emerson asserts, are a series of hieroglyphs for the unnameable. Whitman, in *Song of Myself*, speaks of grass as the hieroglyph of what lies beneath. This "doubling," this sense that all things have a second identity or meaning in a world where things are emblems of something beyond things, is a key concept in Transcendental thought. However, the purely literal view of hieroglyphs as mystic symbols was an important opening for cultists, con-artists, and adventure writers who over the years created a pop-culture Egypt that has persisted to the present day.

**Dawn Landua and Josef Wegner, University of Pennsylvania:** *Middle Kingdom Ceramic Studies in the Town and Temple of Senwosret III at Abydos*

This paper discusses the ceramic assemblage of the Middle Kingdom sites which comprise the mortuary complex and town of Senwosret III at South Abydos ("*Enduring-is-the-Throne-of-Khakaure-maa-kheru-in-Abydos.*"). 1994 and 1997 excavations have included assemblage-oriented typological study as well as context-specific analysis of a variety of depositional contexts in the temple and town site.

Focus will be on typological and chronological characteristics of the late 12th-13th Dynasty assemblage from the town site as well as in-situ deposits from the Senwosret III mortuary temple. Preliminary observations on internal site organization as evidenced through the ceramic data will be presented.

**Kristin J. Lang, University of California, Los Angeles:** *The Hidden Logic of Power: Why Current Models of Collapse Are Inadequate*

No country is immune from instability. Wherever you look throughout history, people have responded in remarkably similar ways in the face of economic decline. This is not to say that all collapses are the same. Far from it. No episode is exactly like another. Nevertheless, many of the features of collapse are broadly predictable, and can be seen cross-culturally in nearly every collapse, including Egypt during the late New Kingdom.

The subject of this talk is, however, much broader than the collapse of New Kingdom Egypt. It is an exploration of the hidden logic of power, and how a change in the boundary forces that govern the use of power affects everything else. I believe that shifts in these boundary forces create tremors in social fault lines which alter the balance of power between peoples, shift the incentives for predatory violence, rearrange the way that people think and even the content of their prayers.

There are patterns of collective behavior in every collapse which result from a buckling of the incentive systems that undergird a state. These patterns, while varied, are more than reliable; in a fundamental sense, they are inviolate. Some trends last longer than others and some travel further than others, but the psychological progression through each economic upheaval is always the same. Unfortunately, most existing models of collapse fail to address the buckling of a state's underlying incentive systems. Knowledge of this dynamic is the only reliable basis upon which one can rise above the noise of a collapse and analyze trends independently.

**Kenneth Lloyd Larson, Los Angeles:** *Ancient Mathematical Grid Patterns Superimposed over the Three Major Pyramids of Giza*

In his book, *The Pyramids of Egypt*, British Egyptologist I.E.S. Edwards wrote that a IV Dynasty king named Khufu (better known as Cheops) chose a plateau about five miles west of Giza in Egypt and erected the Pyramid of Cheops (better known as the Great Pyramid). Two later kings of the IV Dynasty, Chephren and Mycerinus, built two smaller pyramids on the same plateau and a short distance south of the Great Pyramid.

My paper concerns the theory that the ancient Egyptian kings and architects used a grid pattern based on mathematical squares so as to position the three major pyramids on the plain of Giza in Egypt. This grid pattern utilized the length of one side of the ancient Pyramid of Cheops (the Great Pyramid) or 755.7 feet. One side of the square plan view can be repeated four times (or  $755.7 \times 4$ ) so as to obtain the measured line of 3,022.8 feet. At the end of this line, a direct 90-degree angle can be extended due west another 3,022.8 feet. A large hypothetical square can be formed on the plain with each side equal to 3,022.8 feet and with a total perimeter of 12,091.2 feet.

From the center of the Great Pyramid's square plan view, a 45-degree angle can be extended due west so as to intersect the southwest corner of the large square.

This 45-degree line can be divided into 14 equal units. At unit six, the architects positioned the Pyramid of Chephren. The Pyramid of Mycerinus was positioned due south of unit 10 and at a site 755.7 feet east and 188.9 feet north of the southwest corner of the large hypothetical square.

The peculiar location of the Pyramid of Mycerinus meant that the significant southwest corner (site E) was left open to the clear blue sky. In my opinion, an ancient record or perhaps the missing topstone of the Great Pyramid might be buried at the southwest corner or elsewhere on the plain of Giza. The average length of the four sides of the Great Pyramid amounted to 755.7 feet; the original height rose to 481.4 feet. The Pyramid of Chephren had a height of 471 feet and length per side of 707 feet and 9 inches. The Pyramid of Mycerinus had an original height of 218 feet and length per side of 356 1/2 feet.

My drawings and color slides will show the Great Pyramid side and plan views, three pyramid sites, the large hypothetical square, and a large circle obtained by the pi value of 1:3.14159265. Indeed, the large hypothetical side view RYG and the large square JANM show the enlarged side and plan views of the basic Great Pyramid. With the grid pattern, the Egyptian architects coordinated the sites of the three major pyramids and used the basic Great Pyramid as a key mathematical site.

**Peter Der Manuelian, Museum of Fine Arts, Boston: *The Slab Stelae of the Giza Necropolis***

Fifteen finely carved tomb stelae from the mastaba tombs of the Western Cemetery at Giza were excavated primarily by George Reisner and Hermann Junker between 1901 and 1914. These examples of the highest form of early Old Kingdom relief sculpture usually provide the only decorated and inscribed surfaces in the tombs in which they were found. Three of the stelae (Wepemnefret in Berkeley, Nefret-iabet in Paris, and Iunu in Hildesheim) even preserve most of their original colors intact, providing indispensable information on Egyptian hieroglyphic color conventions. The corpus is critical to our understanding of artistic and palaeographic development, funerary ritual, and administrative organization of Egypt in the Fourth Dynasty.

While a few of the stelae often appear in general surveys, the entire corpus has yet to be assembled in an in-depth comparative study. This paper will briefly touch on topics such as the status and administrative duties of the slab stelae

owners; archaeological context, relative chronology and necropolis evolution; origins of the stela form (Giza slab stelae versus earlier niche stones); thematic arrangements and development; ancient erasures of selected hieroglyphs; and the enigmatic "linen lists."

**Carol Meyer, University of Chicago: *Gold Mining at Bir Umm Fawakhir***

Until quite recently, archaeological field studies of ancient Egyptian gold mines, mining, and ore reduction techniques have been almost totally lacking, this in spite of Egypt's reputation in antiquity as a prime source of gold. Recent surveys by the Oriental Institute of the University of Chicago have mapped in detail the entire main settlement of a 5th to 6th century Byzantine/Coptic gold-mining community at Bir Umm Fawakhir near the Wadi Hammamat, documented fourteen outlying clusters of ruins of the same date, carried out specialist studies of the geology and ceramics, and, in the 1997 season, investigated the mines and ore reduction techniques more closely. Three periods of mining are attested at Bir Umm Fawakhir and in the nearby Wadi el-Sid: late New Kingdom, Coptic/Byzantine, and modern. The oldest mines are opencast trenches following the quartz veins. Associated finds and pottery are sparse, but the latter appears to be New Kingdom, an attribution supported by a large sherd dump on the other side of the wadi and perhaps by the Turin Papyrus. The Byzantine/Coptic town has been the focus of most of the survey and mapping efforts, but at least five mines datable to the 5th to 6th century or earlier have been identified near the wells and ancient settlement at Bir Umm Fawakhir. These mines bore into the mountainside for as much as 100 meters. The latest period of activity occurred in the 1940's and 50's. The workings are either extremely deep shafts or excavation and crushing of the whole mountainside. Ore samples were collected from two of the ancient mines and from Wadi el-Sid, manually crushed to powder, and vanned to separate the heavy metals. The low grade of the ore and the extremely fine grinding required indicate that a very large labor force would have been required to obtain any gold at all. A small sample of the ground ore under a SEM yielded electrum. Thus the ancient refiners could have extracted both gold and silver from the ore. Given the complicated associated minerals such as pyrite, chalcopyrite, and galena, it would, however, have required far more sophisticated refining techniques than panning alluvial gold.

**Gerald Moers, University of Göttingen:** *Self-fashioning Identity: The Interplay of Reiteration and Remembrance in the "Complaints of Khakheperreseneb"*

Until very recently, the *Complaints of Khakheperreseneb* was a text well known but little studied. Nevertheless, its prologue is one of the most outstanding pieces of literature that has survived from Ancient Egypt. Thus it gives the only example of an explicit literary criticism as well as an historical consciousness rarely attested in texts before the New Kingdom (Vernus). By discussing the concepts of reiteration and remembrance which are well known also from other contexts in Egyptian culture, the text not only unveils literary production as a reiterative intertextual enterprise, but also connects this field with the field of cultural identity, at the center of which stands the concept of memory. It is exactly this connection that pinpoints the role of literature in Egyptian society. It gives insight into the process of the construction of cultural (or national) identity via literature and the continuous maintenance of this self-fashioned identity in literature, as can be seen, for example, in the discussion of the authors' role in the catalogue of classics in Chester Beatty IV.

**Teresa Moore, University of California, Berkeley:** *In the Mansion of Gold: Notes on the Reburial(s) of Amenhotep I*

The location of the original burial of Amenhotep I has been a matter for perennial controversy. Two tombs at Dra abu el-Naga, KV 39, and Theban Tomb 320 (the "*Cachette Royale*") have all been proposed as the "horizon of eternity" of the divine patron of the Theban necropolis; a site at Dra abu el-Naga remains the leading contender. Once buried, however, the king was not left to rest in peace. A tomb painting at Deir el-Medina, as well as the style of the coffin in which his mummy was found, suggests that the royal burial was refurbished during the Nineteenth Dynasty, perhaps as a sequel to Horemheb's reorganization of the royal necropolis. Although his tomb was reported undamaged in the Abbott Papyrus, dockets on the king's coffin record two restorations by order of Pinodjem I and Masaharta, demonstrating that this happy state of affairs had lasted no longer than two generations. On the basis of an enigmatic inscription on the coffin of Butehamun, it has been suggested that the well-known necropolis scribe took part in the latter ceremony. Finally, the position of Amenhotep I within TT 320 indicates that he was moved once

again under the Twenty-second Dynasty. This paper will summarize the peregrinations of the royal mummy and examine the connections between Butehamun's private funerary text and the fate of the deified Amenhotep I at the end of the New Kingdom.

**Ellen Morris, University of Pennsylvania:** *Bowing and Scraping in the Ancient Near East: An Investigation into Obsequiousness in the Amarna Letters*

The vassal leaders of Syria-Palestine in the Amarna period employ a highly standardized greeting formula in their letters to the Egyptian court. The writer invariably designates the intended recipient, states his or her own identity, and describes an imagined prostration before the letter's recipient. Within this general framework, however, the rulers composed their greetings in such a manner that much information is conveyed about the status of their polity within the Egyptian empire. In this paper the variant levels of obsequiousness displayed by the vassal rulers will be examined in light of the political realities of Egypt's conquest and control of Syria-Palestine. Certain formulae, it will be argued, may even provide information concerning different types of treaties, real or implicit, negotiated between Egypt and its neighbors to the north.

**Diana Craig Patch, Metropolitan Museum of Art:** *The ARCE Field School Project*

In 1989, ARCE began planning a program to provide Egyptian Antiquities inspectors with an in-depth experience in field archaeology by excavating a site alongside people trained in up-to-date archaeological methods. Development of the project continued over the next five years, and in 1994 funding was acquired through the Egyptian Antiquities Project of the American Research Center in Egypt, Inc. under its grant, "Restoration and Preservation of Egyptian Antiquities" (Grant No. 263-0000-G-3089-00), from the United States Agency for International Development (USAID). On June 16, 1995, the first season of the ARCE Field School began. That year sixteen students excavated at Memphis in a trench located just outside the southeast corner of the Ptah temple enclosure wall. Three teams of students were under the direction of six supervisors, three Egyptian and three American, all of whom had been trained under the American field school system. A director, assistant director, and a photographer completed the staff that season. The staff in 1996 and 1997 included a draftsman/artist, a ceramicist, and a registrar.



The program of an ARCE Field School season includes four weeks of excavation and a week of analysis of the pottery and small finds recovered during the season. In addition to field work, inspectors attend a series of lectures on archaeological methods designed to provide them with more detailed information on both material and problems encountered during excavation as well as those procedures not required in the Memphis excavation. Lectures are encouraged to develop handouts. Thus, the inspectors have a booklet of information to take with them at the end of the season. After the five weeks are finished, each inspector who completed the program is given a certificate of attendance and a bag of tools to use in future archaeological work. The program has proved successful. Every student that has attended a field season has completed it, and many students have requested the opportunity to attend a second season. Those individuals who were invited back have clearly demonstrated a strong dedication to the modern principles of archaeological excavation.

The three seasons of excavation at Memphis have taken place in a trench originally begun in 1990 by the Supreme Council of Antiquities. Our work has exposed more of several large mudbrick structures with limestone entrances that were probably residences. Excavation in a nearby area uncovered layers of fill containing large amounts of pottery, tools, and animal bone, all of which point to a local settlement and not specifically temple-related activity. These layers are Saite and Persian in date while the fill and associated small granaries found directly above are clearly Ptolemaic and contain a significant quantity of Greek imports.

**Aldo Piccato, University of California, Los Angeles:** *Some Observations on the Egyptian Perception of History*

Connection between the concrete historical reality experienced by the Egyptian civilization and the structure and development of their perceptions of history:

One of the basic aims of this research is to show how the different (and sometimes even opposite) ideas that the Egyptians had about history had been affected and determined by the history itself in which they lived. More precisely, it is suggested that every significant political, cultural and social change determines by itself a (re)consideration of the "historical" processes, a new interpretation of the relationships between past, present and future, setting up a new point of reference in the temporal dimension, and therefore affecting the general interpretation of the past (and of history). In the Egyptian

civilization, three topical moments are here individuated: the creation of the Pharaonic state; the passage from the Old to the Middle Kingdom; the Ramesside Age.

Overview:

1. The Formative Period and the Old Kingdom
  - The Creation of the Pharaonic state and its implication. The myth of the state and the ritual conception of history.
  - The first "source" of the Egyptian historical thought: the Annalistic as the expression of the state.
  - The second "source" of the Egyptian historical thought: the private autobiographies as the expression of the individual.
2. The First Intermediate Period and the Middle Kingdom
  - The restructuring of the Egyptian society and the development of new forms of expression (royal stelae, court literature, etc.). Combination of the two sources.
3. The Ramesside Age.

**Patricia Podzorski, University of Washington, Seattle:** *Decorated Ceramics of the Late Predynastic: A Preliminary Report on Methodology and Findings Related to a Study of Regionality in Manufacture and Distribution, and Usage.*

A series of late Predynastic (Naqada III) mortuary ceramics primarily from two Upper Egyptian sites were examined for evidence indicative of regional production and distribution, changing modes of production, and shifts in usage. Materials from the northern cemetery at Ballâs and the cemetery of El Ahaiwah southeast of Abydos were used as test set for a larger-scale study of N'aqada III decorated ceramics. The ceramics from these cemeteries, which were excavated by G.A. Reisner and A.M. Lythgoe between 1899 and 1901, are housed in the Phoebe A. Hearst Museum of Anthropology of the University of California at Berkeley.

Evidence for variation in production possibly indicating regional sources was based on details in the execution of vessel form, decorative technique, motif repertoire and design structure. Evidence for interpreting changing modes of production was based on physical attributes of the ceramics, particularly vessel form, and design form and structure.

From analysis of the ceramics it seems likely that craft specialization existed in the production of some of the pottery found at these sites. It also seems apparent that there were changes in the organization of production from the Naqada II to the Naqada III. The decorated ceramics appear to exhibit a decrease in the amount of time expended on planning and execution of the designs, although the quality of the fabric and vessel manufacture were apparently consistent with earlier production. Lack of time investment is also evidenced by a marked decrease in the amount of design space utilized, the execution of some of the designs themselves, and the general decrease in the complexity of the motif repertoire. Taken together, these changes may indicate that the labor of un- or less-skilled workers was introduced, at least in part, into the production cycle of ceramics.

While results are still preliminary, there is evidence indicating that the decoration of ceramic vessels, if not the vessels themselves, were subjects of local variation between the two sites. Although clearly belonging to the same tradition, details of decoration and innovation differ notably between north Ballás and El Ahaiwah. For example, a preference for oblique orientation of wavy line decoration was observed at El Ahaiwah, while horizontal or vertical orientation dominated the corpus from north Ballás. At least in the recovered sample, decorative innovation was more common at El Ahaiwah than Ballás. Similarities and differences in design motif selection and organization will be discussed as well as the available evidence on usage.

**Daniel Polz, University of California, Los Angeles: *Thebes and Avaris: On the "Expulsion" of the Hyksos***

According to ancient sources both Egyptian and non-Egyptian (e.g., the two Kamose stela, later textual evidence from the times of Hatshepsut, Flavius Josephus), the rule of the Hyksos kings was always perceived as an oppressive, unrightful rule of foreigners over Egypt. Even in modern Egyptological terminology, the clashes between the Upper Egyptian "kings" of the 17th dynasty and the Lower Egyptian Hyksos "kings" of the 15th dynasty are often interpreted as "wars of liberation," a liberation from oppressive foreign rule, that is. However, some of the contemporaneous monuments in Upper Egypt seem to point to quite a different interpretation.

This paper will mainly focus on the political situation in Upper Egypt during the 17th dynasty, on the basis of textual evidence from various sources. An attempt will be made to re-evaluate the prevailing interpretation of the "wars of liberation," which laid the foundation of the New Kingdom.

**Mary Ann Pouls , University of Pennsylvania:** *New Fieldwork at the Periphery of the Osiris Temple in Abydos: The Temple of Thutmose III*

The discovery of a previously unknown temple structure built by the Eighteenth Dynasty king Thutmose III at the periphery of the Osiris temple in North Abydos presents a rare opportunity to examine ritual practice related to a major Egyptian temple complex. The relief program and the unusual architectural form of the small structure reflect its specialized function within the context of the Osiris cult at Abydos. Intact archaeological deposits associated with the structure are also a rich source of new information about cult activity at the site during periods for which there had been little previous evidence. Archaeological research at the site has contributed significantly to our understanding of the development of the Osiris temple periphery over time and of the relationships which existed between elements of the built environment of North Abydos.

This paper will present data gathered during the systematic archaeological investigation of the area south of the Osiris temple in North Abydos which the University of Pennsylvania Museum-Yale University-Institute of Fine Arts, New York University Expedition carried out in 1996 and 1997. Research focused on the southern periphery of the Osiris Temple temenos, defined on the north by the boundary of the Osiris temple enclosure, with its temple and associated cult structures, and bounded to the south by the extensive mortuary field of the North Cemetery. The primary aim of our fieldwork was to bring new archaeological evidence to bear upon the following issue: how did the area adjacent to a major state-sponsored temple develop as an important locus of both royal and private cult activity in the context of an ancient Egyptian sacred center?

Selective excavations begun at the site in 1996, after the completion of an intensive topographic and archaeological survey of the site, exposed the remains of a relatively small temple structure datable to the reign of king Thutmose III. In addition to the *in situ* inscriptional material preserved on the standing limestone walls of the structure, a large quantity of fragments bearing finely carved and painted relief have been recovered during the course of

excavation. The quality of the relief carving and the intricate painted detail which the relief fragments display testify to the importance of the small Abydos temple and align it with the best artistic tradition of the reign. These fragments provide a wealth of information about the original relief program and the function which the structure was designed to serve. The highly specialized nature of the small Thutmose III temple is also reflected in its unusual architectural form. A sequence of intact, stratified surfaces and archaeological deposits which accumulated above the Eighteenth Dynasty floor level of the structure has also enabled us to investigate the evidence for its utilization over a very substantial period of time, extending even into the Ptolemaic period.

**Abdul-Karim Rafeq, College of William and Mary:** *Opposition of the Azhar 'Ulama to Ottoman Laws: The Case of Marriage Fees*

Shortly after the Ottomans conquered Syria and Egypt (1516-17), they imposed court fees (*resm-i 'arus*) on the drawing up of marriage contracts. The Syrian 'Ulama called the fees an innovation and characterized their application as a *fitna* (civil strife) in Islam.

In Egypt, the Azhar 'Ulama were more vehement in opposing the fees which were implemented by the Ottoman Chief Hanafi judge in late 1521. The fees were principally intended to increase the revenue of the court. The marriage fee for a virgin bride (*bikr*) was set at sixty *nisfs* (a local silver coin) and for a woman marrying a second time (*thayyib*) at thirty *nisfs*. Part of the fee was to go to the presiding judge, part to the witnesses, and the remaining portion was handed over to the *wali* of Cairo (apparently the chief of police). Representatives of the *wali*, accompanied by troops, sat daily at the residences of the four judges to enforce the fees. The old practice whereby deputy-judges drew up marriage contracts at the gate of the *Salihyya* School was abolished. Only the four judges, representing the four Sunni legal schools, and seven deputies for each judge, one deputy for each day of the week, were allowed to contract marriage and divorce acts.

The fees cut into the income of the local judges, their deputies and the witnesses. To protest the fees, the people stopped marrying and divorcing. Protesters called the Ottoman law of marriage, locally referred to as *al-yasaq al-'Uthmani*, as the law of infidelity (*yasaq al-kufr*). About one hundred of the Azhar 'Ulama appealed to the governor of Egypt on 7 December 1521 to repeal the new marriage fees because they contravened the *Shari'a* and the Prophet Muhammad's tradition. The Prophet, the Azharites maintained, used to draw

up a marriage contract for a silver ring or for the recital of a verse from the Qur'an. Facing increasing opposition, the Ottoman Chief Hanafi judge reduced the fees but did not abolish them.

Opposition to the marriage fees and to other court fees was not caused only by the reduction of the income of the local 'Ulama. What was really at issue was the clash between Ottoman laws imposed from above and Islamic Shari'a as practiced for centuries in the Arab lands.

**Donald Redford, University of Toronto:** *The So-called Sacred Lake at Mendes*

The excavations of the Mendes expedition for 1997 concentrated efforts on a clear depression in the center of the mound at Tel er-Rub'a which has long been identified as a sacred lake. While this feature clearly constituted a body of water in antiquity, its sacral nature remains in doubt. We were able to ascertain its dimensions, to trace its circumvallation, and to pinpoint the date of its falling into disuse. In addition to this, almost all excavation units within the lake produced figurines in abundance, while buildings adjacent to the lake yielded masses of Phoenician crisp ware and East Greek imports. Units sited on the north side of the lake cast welcome light on the nature of the Ptolemaic temenos wall.

**Dan Reyes, Miami University, Ohio:** *And other; as other*

*Other, what are you without your own other other, without some self?  
Other, the mother of all western inventions of the self.*

Our questions, those of what (or who) are Egypt's Others, are, it seems to me, necessarily relational ones. Ancient Egypt's location at the threshold of our notions of Western historical exegesis poses peculiar interpretive challenges. As historical/cultural intelligibility is negotiated, there arise instances in which intention and evidence cannot easily or practically be isolated from one another. In our engagements with this historical material record, in our amendments, recitations, and commentaries, we tell stories both of ancient Egyptian culture and of our own self-conception. In our teaching and exchanges within academic discourse, might we explore ways in which this ambiguity may enrich rather than confound our relation to this past?

This interest in the performative aspects of our enterprises, their immediateness and implications in our present, carries with it certain implications for the privilege of the disciplinary object's traditional central position. My point here is not anti-historical so much as omni-historical—that history cannot be bracketed off as elsewhere. We return to time-honored questions concerning our uses for and of history: "Why is it that we wish to understand what transpired in a far-off time and place?" There are a variety of good and valid answers to this question, though I would like to suggest that in most of these, in our meaningful motives, there is something personal and immediate include in what we see as being at stake.

Through all this a question remains: how might interdisciplinary academics, interested in visual culture, literature and the humanities come to talk with historians and archaeologists of ancient Egypt? Our concerns here center on how understandings and curiosities about Egyptology might be made to figure productively in the educational venues which we facilitate outside this more specialized venue. For me, the question of how Egyptian history might be made to lend itself to helping us envision (and affirm) alternative ways of being is key.

Egyptology (almost in advance of itself) has historically effectively represented "otherness," though likewise, in mainstream venues, this otherness is rather generalized, vague and absolute. Ancient Egypt often marks the unfathomably different, sometimes sympathetically as a clearinghouse of or repository for mysteries, though also derogatively as a pre-western, precivilized ethical modality (despite all evidence to the contrary). Knowledges developed and uncovered by archeologists are indispensable, though questions of application and use remain less clear-cut than the evidential methodology would suggest. I wonder, in this sense, how we might not only uncover, but re-animate this heritage—to breathe not only meaning but life back into the corpse?

It is in this spirit that my colleagues and I have proposed facilitating a dialogue on dialogues of Egyptology. To this dialogue, we hope to bring our experiences, both successes and frustrations, in employing Egyptian scholarship in our teaching. We are hoping other conference/session participants will likewise share their experiences and perspectives on advantageous uses of this disciplinary locus.

In a recent article in *JSSEA* 1993 [1996] 23, 63-74, Alwyn L. Burridge argued that Akhenaten suffered from a condition known as Marfan's Syndrome. The author bases her arguments on a literal interpretation of the rendering of Akhenaten's figure in art. Since Akhenaten's mummy has never been found, we cannot know whether or not his artistic image bears any resemblance to his appearance in life. Nevertheless, it is possible to refute Burridge's claims on the basis of the art alone since, for instance, the king's lower leg is shown as short in relation to the rest of the body, not elongated as it should be in Marfan's Syndrome. In addition, the range of variation among the king's images means that they cannot all be taken as literal renderings of his appearance.

In contrast to Akhenaten, the mummy of Tutankhamun survives, revealing that the king had an abnormally large head in length, breadth and height. When we look at his images in art, we find that although some show an unusually high head, perhaps reflecting his appearance in life, others do not. There is thus no simple relationship between the king's actual appearance and his images. There are, however, other images in art that closely resemble the shape of Tutankhamun's actual head—the statue heads of Akhenaten's daughters, which are both long and broad. There has been much argument over whether their shape was purely an artistic innovation or whether it had a basis in reality. Given the fact that the princesses and Tutankhamun were almost certainly (half-)siblings, it is possible that they shared similar head proportions and that the images of the princesses were based on reality. Since the head of the mummy found in KV 55 also resembles that of Tutankhamun, we can postulate that the owner, probably Ankhkheperura Smenkhkara, was also a sibling or half-sibling of Tutankhamun and the princesses.

If Tutankhamun, the mummy in KV 55 and the princesses all shared a genetic abnormality, the simplest hypothesis is that they received it from the same source, one of their parents. The wigs and crowns worn by Akhenaten and Nefertiti normally conceal the shapes of their heads. Nevertheless, the tendency to depict Akhenaten with a narrow face suggests that, if his image bore any resemblance to how he actually looked, his head was not noticeably broad. By contrast, the few representations of Nefertiti wearing the close-fitting cap crown depict her with a head similar in shape to the heads of her daughters. If the anomalous head shape came from Nefertiti, it would mean that not only the princesses but also Tutankhamun and Smenkhkara would have been her children.



In conclusion, although some aspects of Amarna art may have a basis in reality, without the living subject it is impossible to tell how closely any image relates to actual appearance or how much of that image is due to artistic interpretation. One should therefore be very wary of reading the visual evidence literally.

**Russell D. Rothe, University of Minnesota:** *Connections: Multiple Inscriptions by Certain Individuals in the Eastern Desert*

The 1998 field season marked the sixth year of the University of Minnesota, Duluth Egyptian Eastern Desert Expedition. During the last six years, aside from the work we have done on ancient mineral exploitation in the Eastern Desert, we have found nearly 200 previously unpublished inscriptions. We are putting these inscriptions as well as their geographical positions into a GIS driven database. The positions include the lat/long from our field GPS receiver and the names of the wells or wadis in which the inscriptions occur. As the size of our database increases we are able to make observations about the spatial distribution of certain names and titles. To the degree to which we are able to date these inscriptions, we are able to see the spatial distribution of travelers during certain time periods. This in turn can help us understand the patterns of travel and resource exploitation and how those patterns changed over time. This presentation concerns itself with a few individuals whose names and titles are known to us from several locations in the Southern Eastern Desert. One of them, one Intef, is known along only one route and nowhere else (so far). It is these inscriptions that led to the discovery of the route which I walked between the Nile and the Red Sea in February 1996.

Not all of the inscriptions are so neatly delineated, however. Sa-Amun, for example, is known to us from as many as a dozen widely separated locations. It is quite possible that these inscriptions represent more than one person of that name, but all are scribes and that title and name almost certainly date these inscriptions to the New Kingdom. (For a discussion of the title 'scribe' as a dating tool, see our article in the 1996 issue of JARCE.)

One Kar, who claims to be the nomarch of the Horus Nome, (one of three such people known to us with that title), is known to us from his Sixth Dynasty tomb at Edfu. He is also known to us from two locations in the Eastern Desert. The other two nomarchs are also probably Old Kingdom. The reason for the presence of these high ranking officials in the desert is one of many unanswered questions discussed in this paper.

**Carolyn Routledge, Richard Stockton College:** *Parallelism in Ritual between Official and Non-Official Practice in Ancient Egypt*

In recent analyses of ancient Egyptian religion it has been common practice to make a sharp division between official practice (that of the king and priests in state temples) and non-official practice (that of non-priests anywhere). While this bipartite division of religious practice has produced important insights, it has obscured any unity that might have existed across ancient Egyptian religion. This paper examines one possible linkage between official and non-official practice: parallel ritual practices in royal rites and popular rites in temple and funerary religion during the New Kingdom. For example, the widespread performance of rites such as offering water, the veneration of ancestors, and “the opening of the mouth,” among others, indicates that ritual in ancient Egyptian religion was often inclusive rather than exclusive.

**Edna R. Russmann, University of California, Berkeley:** *Gender Segregation in Some Late Private Tombs at Thebes*

Ibi and Ankh-hor, both of them Great Stewards of the Divine Consort of Amun during the Twenty-sixth Dynasty, were both fathers of offspring born within wedlock. However, the reliefs and inscriptions in their large tombs at Thebes (TT 36 and 414, respectively) contain neither representations nor direct mentions of their wives. This omission was recorded in the publications of these tombs fifteen years ago, but has received little attention since. No one seems to have noticed that this is only the most noticeable part of a broader pattern in which daughters were also excluded, as were all other family members of the opposite sex—with one important exception. The decoration of other late tombs at Thebes shows the same pattern of discrimination among family members, according to their sex. These tombs were made for married (or formerly married?) persons in the service of the Divine Consorts. At least two belonged to women, who had previously borne children.

It remains to be seen whether this single-sex pattern was limited to the retinue of the Divine Consorts of Amun, in Twenty-sixth Dynasty Thebes. Whether or not this is the case, the evidence for female ownership of tombs based on professional status outside of marriage, and for a gender-based determination of which family members would be acknowledged within the tomb, would seem to

challenge some current assumptions about Egyptian society. They also suggest new avenues for research, in such well trodden areas as the nature of marriage; professional aspects of religious life; the prerequisites for tomb ownership; and the symbolic, as well as real, values of various family relationships.

**John Rutherford, California Academy of Sciences:** *ARCE EAP/VOK Valley of the Kings Tomb Protection Project Progress Report*

The Valley of the Kings in Egypt contains approximately eighty known tombs or starts of tombs, of which more than twenty reveal evidence of the burials of ancient Egypt's rulers. During the centuries since the first tomb was cut into the Valley's rock cliffs, infrequent but severe rains have flooded many tombs, staining painted reliefs and destroying columns and partitions by swelling and shrinkage of saturated expansive rock underlying several tombs. The most recent flooding episodes occurred on October 8, 1994, on November 2, 1994, and a less severe flood in May 1995. The November flood in particular damaged several royal tombs.

On May 29, 1996, the American Research Center in Egypt entered into a Subgrant Agreement with the California Academy of Sciences to perform an evaluation of the tombs in the Valley of the Kings, Egypt and recommend measures to protect the tombs from flooding. An international team composed of Egyptologists, conservators, geologists, hydrologists, surveyors, photographers, architects, engineers and researchers worked in the Valley of the Kings during the spring and early summer of 1996. Team members spent the rest of 1996 recording field data for a preliminary draft report summarizing results of the initial field work. The team issued the Preliminary Draft Report to ARCE in January 1997.

This paper summarizes the organization and tasks of the project and presents a few important guidelines governing the selection of tomb protection measures for final evaluation. A table presents the results of a tomb evaluation questionnaire that we used to establish priorities for tomb protection. The paper includes historic and recent data on tomb temperature and humidity readings.

**John A. Seeger, Northern Arizona University:** *The Roman Baths at 'Abu Sha'ar*

Ruins of a late Roman fort were found at 'Abu Sha'ar on the Red Sea coast of Egypt. Excavations at the site were conducted by a University of Delaware team. Work during the final season included the bath installation outside the fort.

The source of water for the baths and fort was an artesian well. Water was distributed through a subsurface closed-pipe system. Three basins (piscinae) were located within the bath area. The largest is semicircular in shape and built of kiln-fired brick. Two smaller rectangular basins retain much of their original plastered surfaces.

The exterior walls of the bath-building were constructed of stone cobbles. Interior walls were made of kiln-fired brick. Maximum preserved height of the interior walls is about 1.5 meters. Two of the rooms can be identified as the caldarium and tepidarium. These rooms were heated by a hypocaust system. Floors consisting of large gypsum slabs were supported from below by an open structure. Heated air flowed in the supporting structure and up through flues (tubuli) embedded in the walls. An arched furnace opening (fornix) was found outside the building.

Many fragments of flat clear glass were found during excavation of the bath-building. These fragments were probably from glazed windows that would have provided both lighting and radiant heating. Recent studies have shown glazed windows were used in Roman baths in many parts of the empire.

**Margaret T. Serpico, University of Oxford:** *Mediterranean Incense Routes of the Amarna Period: The Transport, Use and Botanical Identity of Sntr*

Although Punt has long been recognized as an important source of the scented gum-resins used by the ancient Egyptians, Mediterranean aromatics were also highly valued. Their significance has recently been emphasized by the discovery of over 120 Canaanite amphorae filled with resin on the Late Bronze Age shipwreck found off the southern coast of Turkey at Ulu Burun. Further confirmation of the importance of Mediterranean resins has now emerged from the current Egypt Exploration Society excavations at Tell el-Amarna. As a result of a study of over 350 pottery sherds with resin adhering from this site, much new information on the use of resin in Egypt, its internal distribution,

and importation, has come to light. Examination of open bowls with resin adhering has confirmed their use as incense burners and the high percentage of examples of Canaanite amphorae with the same resin points strongly to an industry centered in Syria/Palestine. Study of the clay fabrics used in the manufacture of these jars indicates a correlation between this commodity and two specific fabrics. This relationship could be particularly useful for archaeologists in Egypt and elsewhere in the Mediterranean, where these jars are also common. Translations of the hieratic inscriptions on the amphorae, which mention *sntr*, offer insight into the transport of the resin and are especially interesting in view of the material from the Ulu Burun shipwreck. An identification of the botanical source of the resin has now been provided through analysis by gas chromatography/mass spectrometry (GC/MS), and again confirms a likely Syro/Palestinian origin. Collectively, the evidence suggests that a major resin industry was active in that region during the Late Bronze Age, and that *sntr* played an important role in Mediterranean trade networks involving Egypt at that time.

**Roberta Lawrie Shaw, Royal Ontario Museum:** *The New Prehistory Exhibit at the Kharga Museum*

The Royal Ontario Museum and the Dakhleh Oasis Project have recently installed a modest display of prehistoric artifacts found in the Western Desert. This exhibit features material dating from 350,000- 4200 years ago. The Kharga Museum supplied the cases, the Dakhleh Oasis Project the artifacts, and the Royal Ontario Museum the support material which was produced in Toronto. Five experts from the DOP provided the intellectual content for the project manager, R.L. Shaw. Installation was carried out by R.L. Shaw, A.J. Mills and the staff of the Kharga Museum. The benefits and constraints in terms of the logistics of this project will be discussed.

**Stuart Tyson Smith, University of California, Los Angeles:** *Wretched Kush: The Archaeology and Ideology of Egypt's New Kingdom Empire*

Barry Kemp argues that the dramatic expansion of Egypt's New Kingdom empire was driven by a sense of mission to spread Egyptian culture. He sees ideological statements glorifying conquest and depictions of the pacification of the foreign "other" as the key to understanding imperial policy, in particular the dramatic Egyptianization of Nubia. Yet, recent archaeological discoveries in Upper Nubia reveal a very different imperial policy to the Lower Nubian

acculturation strategy, while the ideological message remained the same for all Nubians. In a similar way, Lower Nubian princes are represented in the costume and attitude of the Nubian "other" during the "Presentation of Inuw," even though their families had been Egyptianized for generations. These apparent contradictions between the ideological message and the political and social realities revealed by archaeology can be resolved by contextualizing the sources that Kemp uses to establish a theological imperative for conquest and acculturation. These texts come predominantly from state monuments and other sources closely connected with the king and kingship. They were designed to convey a strong message of royal legitimization often divorced from the practical functioning of the empire. This legitimizing message was conveyed through large- and small- scale monuments, art and ceremonies to a broad range of Egyptian society.

**Mark C. Stone, Yale University:** *The hnw-Gesture: Reinterpreting Early Variants and Inferring Patterns of Movement.*

Funerary offering scenes in Old Kingdom mastaba tomb chapels of the IVth and Vth Dynasties show what are widely accepted to be early variant representations of the *hnw*-gesture. These variants, of which there are three forms, have been taken as literal illustrations of specific postures in a sequence of movements for which a fourth pose—the characteristic *hnw*-gesture—is the common iconographic résumé.

While the identification of these variants with the standard *hnw*-gesture remains unchallenged, it must now be pointed out that the prevailing literal interpretation has overlooked two important factors. The variants, when grouped together by type, show a clear diachronic progression in their distribution, strongly suggestive of an evolution in their configuration and usage. At the end of the Vth Dynasty, the standard *hnw*-gesture—already in use from at least Dynasty III in other, mainly royal, contexts—completely replaced these variants. The second factor rests with the interpretation of ancient Egyptian artistic conventions employed for the translation into two-dimensional images of the human body's poses and movements. Together, these observations yield a new logically consistent alternative explanation of the evidence.

The governing feature central to this discussion originated in the first variant type where the (here only symbolic) gesture of invocation made strictly with the right arm reduced the options available to the artist for configuring the figure's

left arm that portrays the physical activity of *hnw*. This gesture appears as it does because the artist, in looking for a solution that would work for figures facing either direction, was limited to rotating the left arm's pose forward. The left arm that appears to hold a fist before the face or forehead thus actually represents an arm held out to the side of the body: a correlate with the pose shown in the third variant and also the standard gesture where the near arm is raised behind the figure. In the latter types, figures facing opposite directions are mirror images of one another; the near shoulder and its arm are always rotated backward. The invocation gesture was dropped in the second and third variants, along with left-right correlation, but the attitude of the left arm was retained being always associated now with the far arm.

Rather than being sequential postures which lend themselves to a reconstruction of the whole movement that they depict, these several and otherwise entirely discontinuous variant gestures form a set of images linked only as differing modes of representation for a single activity.

An overview and point-for-point explanation of the evidence will support the new interpretation. Adding briefly to this, an observation on the crossarmed gesture that is found in other contexts with, and in direct opposition to, the *hnw*-gesture will provide another clue to the movements of *hnw*.

Finally, the patterns of motion that may be inferred for *hnw* from available evidence will be outlined and two Middle Eastern gestures known from Iran will be introduced for comparison as possible modern analogs.

**Lynn Swartz, University of California, Los Angeles:** *Worlds Apart: Historicity and Fictionality in Eighteenth Dynasty Texts*

The Amarna Letters are textual sources of paramount importance for most studies of Egypt's Levantine policies, providing handles by which historical situations in the 18th Dynasty Egypt and the Levant can be grasped. Like other texts—such as the Annalistic Inscriptions of Thutmosis III—from which "direct" historical information is traditionally gleaned, the Amarna Letters can be fruitfully interrogated through the lens of literary theories of fiction—especially those which define the construction of described worlds. Such a study allows the events and tropes which appear in the letters to be nuanced and critiqued, thereby producing a more unified understanding of the letters and the underlying historical realities.

**Kasia Szpakowska, University of California, Los Angeles: *Night Gallery: The Perception of Dreams in Ancient Egypt***

Previous analyses of ancient Egyptian dreams have concentrated on their mantic or divinatory function, while the use of dreams in Egyptian literature, religion, and daily life has largely been glossed over. Some of the reasons for this may be that texts dealing with dream interpretation such as the "Dream Book " are more widely known than many of the other dream-related texts, and indeed some of them have been discovered and/or published only recently. Also, Egyptology in the past has tended to focus on "historical" texts, (to the neglect of everyday texts such as letters), and on theological texts emphasizing the more esoteric royal religious beliefs, as opposed to the more practical "magico-medical" texts. And finally, it has been only recently that the value of studying Egyptian texts within a literary context as such, without this emphasis on "historical" documents, has become acceptable. This has resulted in the oft-repeated belief that, to the Egyptian, the dream was a purely divinatory or oracular tool, that dream divination was prevalent throughout Egypt's history, and that indeed Egypt was the earliest civilization to practice this form of divination. Yet regardless of its mantic role, the dream in ancient Egypt was multivalent and can be approached from a variety of levels.

Based on the largely textual evidence, I will highlight some of these alternate roles that dreams may have held in Egypt. These will include the use of dreams as a literary device, their relationship with the phenomenon of personal piety, the question of bad dreams and nightmares, and the function of the dream as a bridge between this world and the Other world.

**Elaine Taylor-Vereb and Earl L. Ertman, University of Akron: *A Visual Dating System for Two-Dimensional Female Figures from Ancient Egypt: Part II***

Two-dimensional female representations can be categorized by time period in order to assist in dating images that have no text or provenance. This paper will continue the study presented at the ARCE conference in Ann Arbor, Michigan in searching for the visual criteria and "norms" for dating ancient Egyptian female body types. The evidence gathered this summer from the Valley of the Kings and outlying areas of Luxor, as well as familiar datable examples, will be analyzed and placed into the established chart of five body types. The larger scope of samples, as well as the subdivision of some body



types, will hopefully substantiate the validity of this visual dating system. A dating of the images from the block from Tod, which started the initial study of these forms, will be discussed, as well as the new images gathered during the 1997 season.

**Emily Teeter, Oriental Institute Museum, University of Chicago:** *Female Figurines from Medinet Habu*

More than 80 examples of female figurines were excavated at Medinet Habu in the 1920s and 1930s. These materials, most of which were divided between the Egyptian Museum, Cairo and the Oriental Institute of the University of Chicago, represent types well known from Thebes and elsewhere. Of considerable interest are other forms which are not otherwise attested, and which will be proposed as being Third Intermediate Period developments of the standard New Kingdom types. These represent non-idealized full-figured females with short, rounded hairstyles rather than the New Kingdom tripartite wig. The back of some examples is decorated with a pattern of vertical stripes in dark red and yellow pigment. Other forms from Medinet Habu are even more abstracted, with greatly exaggerated sexual characteristics, while yet another distinct type omits all non-sexual elements including head and arms. A representative selection of these materials will be shown and a typology continuing from the work of G. Pinch (*Votive Offerings to Hathor*, Oxford 1993), will be proposed. It is hoped that this paper will encourage other museums to reexamine their collections for comparable examples.

**Kristin Thompson, University of Wisconsin:** *"Upon the Southeastern Mountain of Akhetaten": Some Thoughts on Akhenaten's Sacred Site*

Through most of the history of Amarna studies, discussions of the site of Akhetaten have tended to focus largely on its northern and central portions, which appear to have contained, respectively, the royal family's principal residence and the main Atenist temples. These areas also happen to include the best- preserved buildings, those whose functions are most discernible. The southern portion, long associated primarily with a single enigmatic and now lost building, the Maruatenu, has been widely assumed to occupy a subsidiary position as a possible recreational zone.

There is growing evidence, however, to suggest that the southeastern area of Akhetaten was a crucial part of the king's overall conception of the plain as a sacred site.

Many authors have proposed that one influence on Akhenaten's choice of the plain of Akhetaten may have been a wadi-opening in the eastern cliffs resembling a giant natural *akht* hieroglyph. That wadi is universally assumed to be the Royal Wadi, toward which the Central-City temples are roughly oriented. However, another natural feature which has received almost no comment, the Great Wadi in the southern part of the site, is an equally plausible candidate as Akhenaten's possible inspiration and the origin of the site's ancient name. Indeed, viewed from the southern plain, the Great Wadi is more symmetrical, even, and curved and hence bears a greater resemblance to an *akht* hieroglyph than does the Royal wadi.

Whether or not such a feature influenced Akhenaten's choice, the Egypt Exploration Society's recent confirmation that the southern area contained four separate temples, all tentatively identified as sunshades of royal Amarna women, would seem to show that this portion of the site had a sacred significance well beyond what has previously been assumed.

Similarly, Akhenaten's decision to deliver the Boundary Stele Proclamations at the southeastern mountain further indicates that area's crucial position, as does the later speech's reference to Akhetaten "beginning" at that spot. Nine of the fifteen known stelae are in fact clustered within the southeastern portion of the cliffs. Other passages from the Later Boundary Stele Proclamation further indicate the southern zone's important place in Akhenaten's view of the entire site. Indeed, that proclamation, as well as the shape of the area enclosed by the stelae whose placements it discusses, hint that he may have conceived of the area defined by the Boundary Stelae as a giant natural temple created by the Aten.

**Rockwell Townsend, San Francisco:** *Written Egyptian History Begins with Narmer as First King of the First Dynasty*

A new seal-impression, recovered from the tomb of Qa'a at Abydos by the DAIK under the direction of Dr. Gunter Dreyer (MDAIK 1996), lists eight Horus kings in sequence, from Qa'a back to Narmer. Manetho's First Dynasty also lists eight kings, beginning with Menes, legendary founder and first king, and ending with a name corresponding to Qa'a.

If Narmer was not Menes, there must be another king from the First Dynasty whose name is not on the newly discovered seal. But this king could not be buried at Abydos, and there is no evidence for such a king elsewhere: no tomb, no name, nor any serekhs.

Manetho describes Menes as "illustrious" (E). Taking the Great Palette as but one item, a "demystified" statistical survey of contemporary written evidence from Dynasty 0 and the early First Dynasty still supports this description for Narmer. Manetho says that the second king, Athothis, built the Royal Palace ("Basileia") at Memphis. This accounts for his representation (as Horus Aha) on seals from the earliest tombs at Saqqara. Narmer's name is not attested there. Such a reading of Manetho accords with the facts given by the contemporary evidence.

While not a king-list in the later formal sense, as an original contemporary document this new seal is of great significance. It is a cult-list of kings from the royal necropolis at the end of the First Dynasty, and it is impossible to imagine that subsequent lists would not look back to its established sequence, however garbled and confused the sequence might become.

Therefore the evidence given by this new seal-impression is unequivocal: written Egyptian history begins with Narmer, who must be considered to be Menes, the legendary founder and first king, of the First Dynasty.

**Jonathan Van Lepp, Jet Propulsion Laboratory:** *Compositional Structure in Predynastic Pottery Scenes of Egyptian Art*

There has been a tendency to view the compositional structure of predynastic pottery scenes as a haphazard construction. This belief seems unfounded. While it might be improper to claim that predynastic pottery scenes are organized according to Pharaonic registers, it does appear that they are arranged on a horizontal linear alignment.

In certain Amratan interior pottery designs there is a quadrilateral demarcation of the surface plane. These motifs dividing pictorial scenes into separate fields seem to have developed an artistic notion which evolved into a horizontal linear arrangement of the compositional elements. This might have been stimulated by the movement of pottery scenes from the interior circular constraints of the bowl to the outside of the vessel where there was a greater available area for pictorial rendition. The larger surface for artistic expression apparently

required greater compositional arrangement which seems to have been made with the assistance of horizontal lines used as guidelines for a more organized approach to pictorial representation.

The apparent organization of the pictorial scene into a compositional structure may have been due to the intrinsic need of the artists to show order, but more likely it is a reflection of a society developing into a functioning civilization. In such a cultural context, effective communication is paramount.

While the delineation of compositional elements into horizontal rows is not according to the precepts of registers later established in the Pharaonic period, they do seem to be the embryonic beginnings of this codification.

**Charles C. Van Siclen, San Antonio:** *Soundings at Karnak—1998*

This is a report on the January 1998 season in an on-going search for the foundations of a building complex originally constructed by Amenhotep II in the court between the Eighth and Ninth Pylons at Karnak. The architectural remains were re-used in the so-called Edifice of Amenhotep II located between the Ninth and Tenth Pylons, but the exact plan and location of the original buildings have not yet been established. Soundings during previous years have as yet been inconclusive. The site was "cleaned" in antiquity, and 25/26th dynasty debris often lies directly upon Middle Kingdom remains. Foundation trenches from the New Kingdom structure of Amenhotep II which were cut into Middle Kingdom debris may still survive.

**Josef W. Wegner, University of Pennsylvania:** *1997 Excavations at Senwosret III's Mortuary Complex: "Enduring-is-the-Throne-of-Khakaure-maa-kheru-in-Abydos"*

The 1997 season at South Abydos included excavation of three areas: (1) continuation of 1994 work on the mortuary temple of Senwosret III, (2) excavation of part of the king's tomb enclosure and (3) excavation of the town site connected with the Senwosret III mortuary complex.

Having completed excavation of the temple center in 1994, the 1997 work on the mortuary temple focused on the temple magazine area, rear external part of the temple, as well as the area in front of the temple pylon. Connecting with the pylon a covered causeway extends into the cultivation. Massive deposits of

temple pottery and seal impressions provide new evidence on the temple's economic and administrative organization. Deposits connected with one or more festivals were found in front of the temple pylon with sealings associating the event with veneration of the royal ka.

In the town site, excavation revealed a large residential complex akin to the mansions at Kahun although significantly larger in size. Some 2000 new sealings from the town provide detail on the administrative organization and officials associated with the town and temple. Sealings associated with the large residential building permit its identification as the residence of the *Haty-a*/mayor of the town and chief official of the Senwosret III mortuary foundation. Institutional sealings excavated in 1997 name the mortuary complex as: "*Enduring-is-the-Throne-of-Khakaure (Senwosret III)-maa-kheru-in-Abydos.*"

**Ethel Sara Wolper, University of New Hampshire:** *Sufi Building Terminology in the Medieval Islamic World: Egypt and Anatolia*

This paper is an inquiry into the role of building terminology in medieval Islam. As the paper will show, the dominance of epigraphic studies in the history of Islamic art has made it hard for scholars to "see" many Islamic buildings as multi-faceted institutions. Simply, in an attempt to simplify and standardize medieval institutions, modern scholarship has made it more difficult to recognize the complex nature of the relationship between medieval institutions and their audiences.

The inscriptions on Sufi buildings in medieval Egypt and Anatolia identify these buildings variously as ribat(s), makan(s), khanqah(s), zawiya(s), and dar al-sulaha(s). Seljuk and Mamluk chroniclers often use other terms for the same building. In fact, during this period it was not uncommon for three different terms to be used for the same structure. This use of multiple terminology was widespread enough to be noted and commented upon by contemporary writers.

In contrast to previous studies on building terminology in the Islamic world, this paper assumes that there was a reason why a single building was often referred to by a different label in building inscriptions, historical chronicles, endowment deeds, Sufi biographies, and travel accounts. By using a combination of archaeological data and archival information from Sufi buildings in sections of two medieval cities, Cairo and Tokat, it will address some of the unresolved issues put forward by recent studies on building terminology. By addressing the large and dynamic audiences who saw and

wrote about these buildings, the paper strives to further probe the relationship between not only Sufi buildings and their varied audiences but, between all medieval Islamic institutions and the societies that defined them.

**Raphael A.J. Wuest, University of British Columbia:** *Stratigraphy, Regional Geological Evolution History and Geotechnical Analysis in the Theban Area, Luxor, Egypt: Implication for Archeological Investigations of Ancient Egyptian Constructions*

Thebes West has been the site of numerous archeological and geological investigations. Although the geotechnical behavior of rocks is crucial for reconstruction or restoration investigations, most of the geological studies were focused on the stratigraphy. Little attention has been given to geotechnical and tectonic analysis. This paper presents new data and interpretation of stratigraphy and geological evolution as well as the first comprehensive geotechnical assessment of rocks of the Thebes Mountains and implications for future archeological work in the area.

In the Luxor area, Lower Tertiary deposits of the Thebes Mountains consist of marine calcareous sediments of three main types, shales, marls and limestones of the Esna Shale Formation (Fm), and the Thebes Fm (further subdivided into Members I to IV). Most ancient Egyptian tombs in the Valley of the Kings are located in Member I or in the Esna Shale. The Temple of Hatshepsut has its foundation in the Esna Shale and its top in the lower part of Member I.

Rocks of the Thebes Mountains were deposited in pelagic (Esna Shale Fm and lowermost part of Thebes Fm) and shallow (upper part of Thebes Fm) marine environments on a carbonate platform of a broad epicontinental sea in Paleocene to Eocene time (56-46 Ma). Planctonic production rate was high.

After southward Eocene regression, the Thebes Mountains were uplifted at the end of the Oligocene due to incipient Red Sea rifting. This uplift caused the break-up of the flat-lying marine deposits, producing a NNW-SSE trending graben system, which can be seen in the Valley of the Kings.

The desiccation of the Mediterranean during the Messinian (6.5-5.3 Ma) led the Nile River to incise Upper Cretaceous to Lower Tertiary sediments producing a deep Nile Valley (800m at Luxor) throughout Egypt. Subsequent erosion filled up the Nile gorge and large debris fans descended from the Thebes Mountains.

The Esna Shale contains 70% clays, whereas marls and limestones of the Thebes Fm have 10 to 40% clay minerals. Other minerals include carbonates, quartz and anhydrite. The clay fraction of the Esna Shale comprises illite/smectite mixed-layer, with high swelling capacity, and palygorskite and sepiolite (non-swelling clays). Sepiolite and palygorskite are most abundant in the Thebes Fm, with subordinate amounts of kaolinite and illite/smectite mixed-layer clays.

Water soluble salt contents in surface rock samples are low in the Esna Shale (0.6 to 1 wt-%), and high in marls of Members I and II (4,3 to 6,2 wt-%). The Esna Shale has a high content of anhydrite (fracture and crack fillings, and concretions). Total porosity in the Esna Shale is 15%. Member I porosity varies between 15 and 35%.

High contents of mixed-layer, swelling clays, and moderate porosities in the Esna Shale make it particularly susceptible to expansion deterioration by swelling resulting from excessive use of water or flash floods. The New Resthouse in the Valley of the Kings is a vivid example of this. Soluble salt leached from highly porous Thebes Fm rocks can enhance artifact destruction, e.g., the tomb of Nefertari from discovery until restoration.

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