

OI NEWSLETTER - FIRST TUESDAY - DECEMBER 1999

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UNITS

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FRONT OFFICE / Joan Curry

Everyone is invited to the Christmas party, Friday, Dec. 10. 1999 in Gene Gragg's office. The party will begin at 3:00 PM and continue until it is over. Wonderful food and beverages will be provided. You may bring your own Holiday special of cookies, candies, etc. Please let Joan <jcurry@babylon-orinst.uchicago.edu> know if you will be bringing children, how many, and their ages.

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COMPUTER LAB / John Sanders

Most of November was spent setting up the enlarged and improved Computer Lab in its new surroundings, Room 202 (the former Museum Education room). It is still a bit cluttered because it is also serving as my office until later this week when renovations to Room 205 (Prof. Golb's former office) are completed and I can move my office materials there. Then the Lab will have much more space to operate in, two additional computers (one PowerMac and one Windows 98 machine), and a not so frigid temperature.

Y2K patches continue on pace, as does the switch of all Macintosh computers using LocalTalk into ethernet connections by the Jan. 1, 2000, university deadline.

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MUSEUM / Karen Wilson

Since the last newsletter, museum staff have made significant progress on both modifications to the Joseph and Mary Grimshaw Egyptian Gallery and plans for the Persian Gallery.

Working with the Egyptological faculty, we have reviewed all text panels and label copy for the Land and People and Writing sections of the Egyptian Gallery. A new introductory panel to the gallery, discussing the history of the collection, how it has been shaped by the research of Oriental Institute scholars, and how it continues to be used by researchers and research projects is being written, as are panels describing the work of the Coffin Texts project, the Demotic Dictionary, and the Epigraphic Survey. At our last meeting, we began working on a rearrangement of the Funerary Beliefs section in order to stress the two functionally different groups of artifacts found in this part of the gallery: those that would have been situated in the above-ground, public portions of the tomb, and those that would have been found in the burial chamber (or would have been used to prepare the body to be placed in that chamber). These changes will begin to be fully incorporated into the gallery over the next two months.

I had invited anyone at the OI who was interested to attend a meeting on November 18 to discuss plans for the Persian Gallery, and about a dozen individuals chose to do so. We discussed how to arrange the gallery thematically and decided to concentrate on the results of Oriental Institute excavations and their contributions to

our knowledge of ancient Iran. This will give us sections on Tall-i Bakun, Chogha Mish, Flights Over Iran and The Holmes Luristan Expedition, Persepolis, Naqsh-i Rostam, and Istakhr. We will also display our significant collection of purchased Lursitan bronzes and the Achaemenid gold and talk about the difficulties of dealing with purchased, as opposed to excavated, collections. I am aiming to have a preliminary selection of most of the objects for the gallery by the end of this month so that John Vinci can begin to work on a design, and I will be inviting everyone to a second meeting some time after the holidays.

In late November, I spent some time in Washington, D.C. and had the opportunity to visit the Sackler and talk to staff members there about their experiences in receiving and mounting Treasures from the Royal Tombs of Ur. The exhibition, as they have installed it, is truly a knock-out and is proving to be the most highly attended exhibition the Sackler has ever hosted. The experience made me even more excited about having the exhibition here this coming fall and we need to begin to prepare for both the virtues and drawbacks of becoming that popular.

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PUBLICATIONS / Tom Urban

The authors of all but two of the forty-two contributions to the *Wente festschrift* (SAOC 58) have returned their page proofs. We hope to have this volume in press before the end of the year but note that an index still has to be completed.

The authors of *Persepolis Seals* (OIP 117) returned their page proofs, and work has resumed on this title.

Page proofs were sent to Carol Meyer for *Bir Umm Fawakhir 1993 Preliminary Report* (OIC 28).

Work is pretty far along on Emily Teeter's *Scarabs [and such] from Medinet Habu* (OIP 118), but less so on the Darnells' *Theban Road Inscriptions* (OIC 29).

News & Notes #164 was prepared and sent to press; some of the halftones were prepared for press electronically in house as part of our continuing effort to reduce costs and improve quality.

We note fondly that a review of Markus Hilgert's _Dreheim Administrative Documents_ (OIP 115) appeared in JAOS 119/3 (1999): 522 ff.

We are finalizing details for the printing and binding of CAD R and reprinting of CAD S.

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RESEARCH ARCHIVES / Chuck Jones

During November and early December the preliminary work began on the Research Archives renovation project made possible by funding from The Elizabeth Morse and Elizabeth Morse Genius Charitable Trusts.

Electricians installed wiring conduit in the 4th floor attics, in the "fan room" in the basement, and - lowered from above in a boatswain's chair - in the vertical pipe chase next to the elevator shaft. They have made a lot of progress in preparation for the closing. They will be pulling wire into the conduits from the second floor panels (adjacent to the classrooms), on Wednesday, December 8th, but will complete this task before 8 AM that morning.

The Research Archives will close at 5 PM on Friday December 10th. The contractors expect the project to take five weeks. We therefore plan to reopen on January 17th. If the project moves faster than planned we will reopen earlier. During this time the collections and facilities (including such things as books, photocopiers, and printer) will be unavailable. I will be working as usual, and can be reached by phone and e-mail and perhaps also by walking to my office.

We are progressing with the installation of the Research Archives catalogue on the Web server. We plan to complete the installation shortly. Any among you who would like to participate in testing it and in passing along comments and suggestions should contact me and I'll let you know how to access it immediately.

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PROJECTS
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ARCHAEOLOGICAL COMMITTEE OF THE UNIVERSITY OF CHICAGO:
WORKSHOP. RIVERS OF BABYLON

Here is a preliminary schedule for the workshop for the weekend
10th-12th December. Titles of the presentations will be made
available later next week.

Preliminary Schedule, Workshop. Rivers of Babylon
Friday 10th -Sunday 12th December Lasalle Room in the basement of
the Oriental Institute

Fri. 10th	9:30	Coffee, etc.
	10:00	Chair M. Gibson, Introducing G. Gragg for Welcome, and T. Wilkinson, Scope and Agenda
	10:30-12:00	R. McC. Adams presentation, discussion
	12:00-1:30	Lunch
	1:30-4:30	Gasche, Verhoeven, and Cole, plus discussion
	4:30	Retire to Christmas party
	7:00	Dinner at Reza's Restaurant

Sat 11th	9:00	Coffee, sticky buns
	9:30-10:15	J. Armstrong, plus discussion
	10:15-11:00	E. Stone, plus discussion
	11:00-11:15	Break
	11:15-12:00	P. Steinkeller plus discussion
	12:00-1:30	Sandwich lunch
	1:30-2:15	C. Reichel plus discussion
	2:15-3:00	B. Richason plus discussion
	3:00-3:15	Break
	3:15-4:00	Wilkinson plus discussion
	4:00-5:00	Gibson, Summation and Discussion of future action

Sun 12th	10:00-1:00	Coffee, sticky buns GIS and remote sensing sessions (informal)
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Discussion of publication plans

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DIYALA PROJECT / Clemens Reichel

The silence from the Diyala Project is largely due to the fact that we are all still a bit jet-lagged and overwhelmed from the field seasons at Hamoukar and Yemen. By now we have more or less scraped the dirt off our boots and found ourselves back into work. Despite a 100% absence of the core team of the Diyala Project between late August and early November, our restless volunteers have continued their work for us, so quite a bit of progress can be reported.

Here is a brief summary of our activities since June 1999: From July to September we enjoyed the help of Lamia Khalidi and Jennifer Benedict, who drew a large amount of the pottery from the Diyala excavations. The pottery types had been published by Delougaz in OIP 64, but many of these drawing are simplified and numerous inaccuracies have been noted. Thanks go to both Lamia and Jennifer for their outstanding work.

Joyce Weil, who already scanned all the available photographic prints of Diyala objects in the Museum Archive, has been scanning the negatives of the excavation pictures at the negative scanner in the University's Digital Media Lab. Upon our return we found an enormous amount of work done and the number of new scans is still going up every week. Joyce must be working and walking with the speed of light since none of us have actually seen her since we got back from the field. So Joyce, if you read this, stop working for a moment and drop by at our office; I promise we'll treat you for lunch.

In the past year Betsy Kremers has skillfully photographed over a thousand unpublished Diyala objects, including weights, jewelry, mace-heads, and various kinds of tools. Since September she has been photographing tablets from Tell Asmar that so far have not been studied or otherwise documented. So far she has photographed about 100 tablets; the negatives were scanned and put on CD's by a professional lab. We just got the first 400 pictures back and I am pleased to say that their quality is outstanding. Well done, Betsy.

Richard Harter, who has been scanning 35 mm negatives for us since 1998, is currently marking up architectural plans in display screens. By clicking on a locus on the computer screen we are not only able to display a list of all the objects from a findspot but also the photographs that were taken of it in the field and which Joyce Weil has been scanning recently.

As for the main suspects: Colleen Coyle has returned to her work on the weights from the Diyala excavations. Having completed her analysis she is now updating and revising the data entry and it looks as if she will be done in due course. She is already scouting out which object categories to work on next. In September our new PowerMac G3 and two 18 GB external hard drives arrived, which allow us to store all of our images on them - a big and welcome change from the twenty or so Jaz cartridges we used up to now! Since I got back from Syria I have been busy with the inevitable musical chair game that involves shifting data around and keeping programs working at the same time. For obvious reasons, I can report relatively little recent progress on my dissertation on the tablets and sealings from Tell Asmar. I anticipate a gigantic energy burst and some free time over Christmas to put me back on schedule for a defense in June 2000. Inshallah.

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EPIGRAPHIC SURVEY / W. Raymond Johnson

November began on a bright note with the arrival of epigrapher Hratch Papazian after his successful PhD dissertation proposal defense, and my departure for Memphis, where I am 'loaned' each season to the Egypt Exploration Society for a few days of salvage epigraphy at the partially submerged Ramesses II Ptah chapel. Former CH Librarian (and dear friend) May Trad and I flew back to Luxor together a few days later, and May stayed with us a night before continuing on to the site of Hierakonpolis for a week of fieldwork with University College London's Barbara Adams. The beginning of November also saw the arrival of Finance Director Moataz Abo Shady's wife Dalia and their two-month old son, Seif, probably the youngest staff member CH has ever seen. Dalia has taken over many of the Administrator's duties, and the whole family is a most welcome addition to the house.

Hratch's return boosted the epigraphy at the small Amun temple at Medinet Habu, and in mid-month artist Carol Abraczinskas also returned, further swelling the ranks of epigraphers and artists hard at work in the bark sanctuary and ambulatory of the core Eighteenth Dynasty temple. On November 15 Debbie Darnell finished her last day of work for the ES and will now devote full time to her and husband John's Desert Survey Project. Drs. Briant and Karin Bohleke are now in charge of the CH library, and Briant has also begun his training as epigrapher. On the 22nd conservator Veronica Paglione joined the MH conservation team and is now assisting Adel and Lotfi Hassan with the cleaning of the painted reliefs and ceilings of the southern sanctuary chambers of the small temple.

The cleaning and examination of Holscher's debris in the first chamber of the small temple sanctuary continued in earnest through the entire month and is in its final recording phases now prior to complete refilling. The cleaning, coordinated by Egyptologist Tina Di Cerbo, revealed many more fragments of the buried colossal granodiorite dyad of Thutmose III and Amun than we ever expected to find, including major sections of the base of the statue, which will greatly facilitate restoration later. Cleaning also revealed a half dozen large paving blocks along the north and east sides of the chamber not recorded by Holscher, angled down toward a medieval pit which Holscher's men had followed when they cleared the chamber, which was used as a convenient repository for the unwanted statue fragments. We have recovered all of the pottery and granodiorite fragments, in a range of sizes, from Holscher's backfill, and are in the process of cleaning them now. Yarko Kobylecky has been carefully documenting all stages of the process, now assisted by archivist Ellie Smith, who arrived back at CH the day before Thanksgiving. Helen and Jean Jacquet, also recently returned, are proving to be valuable consultants, particularly in regard to the pottery being found. I will report more fully on our findings in next month's Newsletter.

Thanksgiving was a small but festive affair this year. Guests included friends and colleagues Barbara Mertz, Dennis Forbes, George Johnson, Nick Reeves, Susanne Bickel, Lyla Brock, and UCLA archaeologist Mohsen El-Sayid (working with Nick Reeves in the Valley of the Kings). CH cooks Tayib and Ibrahim truly outdid themselves with two huge turkeys, heads intact, decorated with vegetable garni, little chef's hats, and tin-foil bowties. (The creativity in the kitchen sometimes takes one's breath away).

The beginning of the month saw some changes among our local Supreme Council of Antiquities officials. Dr. Mohamed Nasr is now Acting Director of the Luxor Museum. Sabry Abdel Aziz is now General Director of Luxor Antiquities, and Mohamed El-Bially is now Director of West Bank Antiquities. All of these colleagues are also good friends, and the transition has been a smooth one, I'm pleased to say.

Visitors to CH this month have been many and varied, and included the new DCM to the American Embassy, Reno Harnish and his wife Leslie; David Kurtzer, son of American Ambassador Daniel Kurtzer; Lisa Giddy, gathering data for the EES Egyptian Archaeology Bulletin; and a large group of Fulbright alums. Barbara Adams and her crew, in Luxor for some R&R, came to dinner on the 14th, and Nigel Strudwick and his crew, including John Taylor from the BM, are in town to resume their Theban Tomb documentation project.

As I reported in last month's newsletter, Luxor is awash with visitors, and tourism is at an all-time high. This is wonderful for Egypt, but it often makes our work more difficult, since we are documenting what is now a major tourist site. The last week has been unusually pleasant however, since almost all of the more than two hundred tour boats which usually cram the Nile banks for several miles along the Luxor waterfront, have been obliged to moor south of Esna on account of the low water. The Luxor riverbank hasn't been this peaceful in 15 years, and we are savoring every minute of it, since we are told that all the boats will be back within the week!

Best wishes and holiday greetings to you all, from all of us here in Luxor.

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INDIVIDUALS
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PETER DORMAN

Peter Dorman traveled to Fayetteville, Arkansas, November 10-12, to give two presentations as a Robert L. Stigler Lecturer for 1999 at the University of Arkansas: a workshop on epigraphic method in

general, given to faculty and students, and a more public lecture on ceramic artisanship and the symbolism of the potter's wheel in religious texts of the New Kingdom and Ptolemaic period. Hosted by the Department of Anthropology and the King Fahd Middle East Studies Program, he was also given a tour of the current projects of the Arkansas Archaeological Survey (one of the most active in the U.S.) and the Center for Advanced Spatial Technologies-not to mention a quick look at the brick-and-brownstone residence of Bill and Hillary Clinton. Go Hogs!

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WALTER KAEGI

Walter Kaegi lectured on "The Muslim Conquest of Amida/Diyarbakir and Edessa," in a conference on *Historic Armenian Cities and provinces: Tigranakert/Doyarbekir and Edessa/Urha/Urfa*, Saturday, 13 November, University of California at Los Angeles.

He published an entry "Heraclius" in *Late Antiquity: A Guide to the Postclassical World*, edited by G.W. Bowersock, P. Brown, O. Grabar (Harvard University Press, 1999) p. 488.

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MARK LEHNER

We have a week left before we break for Ramadan, the Muslim month of fasting, for Christmas and New Years, Hanukkah, and the turn of the third millennium AD. So it seems like a good time to sum up what we have learned from our excavations about the pyramid community that built the world's largest buildings in the third millennium BC, including the Great Pyramid, unsurpassed in size until this century.

Through a tremendous effort begun in mid-October by John Nolan and Mohsen es-Sayyad, with Mohammed Musilhi on the big red frontloader and his brother Adel in the big white dump truck, the help of our Inspectors Ahraf Abd al-Aziz and Mohammed Sheeha, all our staff and workers, we have removed the overburden over the entirety of our Zone C. There remains some of the last sand over the middle of the Zone - that amount that the workers clear by hand. The result is an open area, 70 m N-S by 80 m E-W. It corresponds

almost exactly, thanks to David Goodman, to the Zone C in our last AERAGRAM map, except that it takes in about 10 m of Zone W. We will begin moving farther into W tomorrow, to get a start on the post-holiday work. And what, in sum do we have in Zone C?

[NOTE: our 5 x 5 m squares are referred to by letter and number, so that east-west rows are letters, north-south columns are numbers. So, for example, we can speak of the whole L-row, or 6-column; that row and column intersect as square L6].

We now have broad horizontal exposures of the last phase of Fourth Dynasty architecture in the four corners of Zone C. In the northwest corner we have the large 20 x 20 m excavation square - sixteen 5 x 5's - that we opened in 1998, calling it by the distinguished scientific nomenclature, TBLF ("the Big Leap Forward"). In the northeast corner we have the large expansion in the area of our 1997 square MN20, an expansion heroically kicked off by John Nolan on Thanksgiving day. In the southeast corner we have the bakeries that we found in 1991, attached to the outer corner of a 1.5 meter-thick mudbrick wall and, inside that corner, the curious troughs and benches, ankle-high, carefully paved with marl desert clay. A lot of fish bones alongside these low and long benches suggested to us they were somehow used for processing fish. (So I could use the phrase, "loaves and fishes.") Also in the SE corner we found evidence of copper working in squares D17 and D17x. In the southwest corner in 1997-98 we found in squares D8,D9,E9, a structure similar in some ways to houses in New Kingdom "workers villages."

Now, we have connected, the northwest and southwest corners of Zone C, TBLF and D8-D9-E9. This has revealed that the large TBLF galleries, defined by L-shaped walls about 1.5 m thick, are doubled, with another set on the south. The southern set is much more badly deflated, probably by water running off the central wadi at Giza, not long after the site was abandoned. Nonetheless, we have practically the full length of the southern set, whereas the TBLF galleries run into the 6 m-high wall of modern overburden. The southern galleries are 35 m long. It turned out that the "workers house" in D8-D9-E9 is nestled into the southern end of one of the galleries. Each gallery is about 4.60 m wide. The northern end of the southern galleries, like the southern end of the northern (TBLF) galleries (how's that for confusing!), seems to be filled with dark ashy soil. (Remember we are scraping to get the wall outlines and, with some exceptions, saving intensive excavation for later). There seem to be almost no

cross walls between the 1.5 meter-thick walls (or 3-cubit walls) that define the southern galleries (jaded team members have suggested they are ancient bowling alleys). That is, until the far southern ends, where we find complex room structures, including the "workers house" that we excavated down to floor levels in D8-D9-E9 in previous seasons. To the east of that "worker's house", in squares of rows D-E-F, columns 10-11-12, the ancient deposits give up the outlines of walls easily after a light scraping and brushing of the surface. Here the walls were preserved at considerable height (it is the area between here and TBLF that was washed out - possibly due also to the fact that the walls were not so dense, hence they were more readily deflated).

There may be five double galleries altogether. If so, this may be of interest to Egyptologists, because there were five phyles into which work gangs and priests in pyramid temples were organized (phyle is actually the Greek word for "tribe"; the Egyptian word, something like "zaa", was written with the hieroglyph of a cattle-hobble - a rope with loops tied to the legs). The five phyles each had a particular name (such as "Great", "Fresh" or "Green", "Little Ones"). Some Egyptologists have suggested that five magazines in certain pyramid temples (like that of Fifth Dynasty pharaoh, Ra-neferet) were related to the five phyles. We are not sure if there are five galleries. So far we have four. It depends on whether a big wall we are now finding in square D7 - the farthest west we have gone, indicates a fifth gallery. And, of course, there could be more galleries to the west making more than five).

Now the two sets of galleries together would be (if TBLF is like TBLF-south) 75 meters long. Huge! 35 meters doubled equals 70, but it is certain that the two sets are separated by a corridor, road, or street that is exactly 10 ancient Egyptian cubits wide (5.25 m). The potential importance of this "road" is just beginning to dawn on us, as we have been myopically focused on one 5 x 5 m square after another. For me the 'dawning' went something like this over just the last three days.

In my last dispatch I wrote how Mohammed Musilhi's loader ate away the wall of modern overburden separating our northwestern TBLF area from our northeastern MN20 area. In the MN20 area we were finding a building with thick mud walls that made a corner. Attached to this corner, on the east, we found two bakeries with a ground plan just like the bakeries we found attached to the corner of

the thick wall in 1991 in the southeastern corner of Zone C. Early this week, the workmen moved east from TBLF, opening two 5 x 5 m squares. Because of these squares, we now think the TBLF galleries do not continue farther east than the gallery in the 12 column. In squares L12-L13 we found a southeastern corner to the TBLF set of galleries, a corner formed by 1.5-m thick walls (or 3-cubit walls). By now you might have noticed that we seem to be getting a series of corners to big thick mudbrick walls, with bakeries attached on the outside of these corners. Each bakery has the ground plan of those we found in 1991.

At sundown on Tuesday night I took myself away from my close-up mapping of the wall traces in 5 x 5 m squares, put my glasses back on (OK, OK, maybe it IS time for bifocals! Geeez I hate to get 'em). I walked up onto the towering section of overburden standing like a dense curtain along the north edge of Zone C. Looking down at the whole, I could see all of our big open areas where we have, by scraping or by excavation, recovered the ancient architecture I described in the previous paragraphs. I had been reading a book by British Egyptologist Stephen Quirke, entitled *The Administration of Egypt in the Late Middle Kingdom*. Quirke describes the operation of a palace, its comings and goings, of the Late Middle Kingdom, based on two papyrus documents (Papyrus Brooklyn 35.1446 and Papyrus Boulaq 18). Among many fascinating insights, he draws a schematic ground plan of a palace, based on the texts which are his data. The palace proper sits in the middle of a big enclosure. From the Residence, a central road or way leads down to a kind of dock or loading place on the water front. Inside the enclosure, surrounding the Residence, is the Per Shena (literally, "the house of shena"). Egyptologists are not completely certain of the meaning of this term, its range and limits, but they know it pertains to production and labor, particularly for making bread and beer (and the pottery, granaries, and other structures that support baking and brewing). So looking down on our big square open area, Zone C, I saw we had storage and production and bread baking on all sides - or in all corners, and a big unexplored sandy area smack in the middle.

Wednesday we put our entire workforce on blazing a trail through sandy layer still covering this central area, along the L-row, and on line with the eastern side of our road between TBLF and TBLF south. As we removed the sand cover, the compact surface of the ancient mud mass made another slope downward, descending into a depression. Open court? Columned hall? Well, no, lots and lots of

pottery fragments, looking like a discard yard (many, many, many bread molds!). When we connected up with Nolan's expansion of the MN20 area, we found yet another corner to that block of massive mudbrick walls in MN20. This was a southwestern corner (the corner Nolan found at Thanksgiving was the southeast corner). Here, again, there is one, possibly two bakeries attached to the exterior of the corner. With the bakery attached to the corner of the TBLF galleries that we had found at the other end of the trail blazed along the L-row (in squares L13, M13), we have turned again to imagining different blocks of buildings, each with its own set of bakeries. The largest building block would be the great double galleries, which take up the full western third of Zone C.

Yesterday, Mohsen es-Sayyad rejoined our mission, returning from his work in the Valley of the Kings with Nick Reeves's expedition. He is pushing northward in the sand-covered central area of Zone C, removing the last sand layer, and scraping down 5 x 5 m squares looking for walls.

Clearly (!), when we get it all sorted out, it will give us much to think about as to how the Egyptians of the pyramid age organized their labor (we are certain this phase dates to the end of the Fourth Dynasty, but I forego giving the reasons here). I know it probably seems hard to follow, but the pattern is slowly emerging in a 1:100 map of Zone C on my drafting table.

Late Wednesday Lisa Giddy, editor of Egyptian Archaeology, the magazine of the Egypt Exploration Society, visited the site. She offered many insightful comments and observations. As we stood some 30 feet over the site, high upon the overburden on the north side of Zone C, Lisa suggested we think about the "road" between the galleries as a major organizing element of the site. At 5.25 meters, it seems too wide for a roofed corridor (we've found no column bases or other evidence for supporting a roof). It runs east-west, possibly east as far as the MN20 area, maybe all the way to the edge of the flood plain of that time. On the west, the road disappears into the immense overburden covering Zone W. Somewhere under there, it may turn 90 degrees, and run, Lisa suggested, straight to the 7 m-high gate in the center of the gigantic stone Wall of the Crow. This wall, 200 meters long, and 10 m high if it were not more than half buried, is one of the principal features of the site that prompts us to consider the possibility of a royal residence somewhere south of it. 4,600 years ago, on the other side of that gate, one would have been

in full view of the Valley Temples of Khafre and Menkaure, and the harbors or flood basins that may have allowed ships and boats to come close to these temples and to the foot of the Giza Necropolis, bringing, perhaps, produce from provincial estates to be processed in our galleries.

We have learned a great deal in our 6-week pilot season. I cannot emphasize too much what a tremendous opportunity it has been to pull together our previous seasons of excavation on this site. We owe this opportunity to Ann Lurie's inspiration, encouragement, and support, and to our other staunch supporters: David Koch, Bruce Ludwig, Jon Jerde, Robert Lowdermilk, Matthew McCauley, Fred and Suzanne Rheinstein, Sandford and Betty Sigoloff, Victor and Nancy Moss, Glen Dash, David Goodman, Marjorie Aronow, and Don Kunz. I owe a special thanks for this pilot season to David Goodman, who surveyed a forest of grid-square stakes, all to an "accuracy of a gnat's eyelash", and to Bob Lowdermilk, who gave us valuable consulting on our loader and truck hauling operation.

None of our work would have been possible without the extraordinarily generous assistance of the Supreme Council of Antiquities and the Giza Inspectorate. I am pleased to carry out this research as part of a long collaboration with Dr. Zahi Hawass, Undersecretary of State for the Giza Pyramids. I would like to thank Mr. Ahmed el-Hagar, Director of the Giza Pyramids; Mansour Radwan, Chief Inspector; Inspector Mohammed Sheeha, and Ashraf Abd al-Aziz who has skillfully supervised two of our excavation squares. I owe a special thanks to Mr. Abd al-Hamid, Chief Engineer of the SCA at Giza for his assistance with the equipment for moving the overburden without which we could not carry out our survey and excavation. A hearty thanks goes to Mohammed Musilhi for his skillful use of the front loader.

We are honored to carry out our research with the sponsorship of the Harvard Semitic Museum and the Oriental Institute of the University of Chicago, for which I would like to thank Larry Stager, Gene Gragg, and the faculty of the departments of Near Eastern Languages and Civilizations of those institutions. Our research is administered by Ancient Egypt Research Associates, Inc. (AERA). I owe much to AERA board members James Allen, Jon Jerde, George Link, Bruce Ludwig, and Matthew McCauley for their constant support and advice.

Considering how much more we know now about our site than we did 6 weeks ago, we look forward to the long winter-spring season (Jan. 15-May 30) when we will push on to the north and west, toward the Wall of the Crow, lying like a whale, half submerged in a sea of overburden.

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DONALD WHITCOMB

Islamic Archaeology in Hama

The Directorate General of Antiquities and Museums in Syria recently held a conference in the city of Hama, entitled "Middle Syria from the Sea to the Steppe." The intention was to depart from the dominating interest in salvage campaigns along the Euphrates and explore archaeological activities in western Syria. While subjects proceeded chronologically from prehistory and Bronze Age interests, treatment of the Islamic archaeology was instructive for the state of this field in Syria (and indeed elsewhere in the Near East).

The first panel of lectures on Byzantine and early Islamic sites was chaired by Dr. Fawwaz al-Krasyeh, the recently appointed Director General of Antiquities of Jordan. This began with a dual presentation of the German and British teams' research at Andarin/Androna in the desert west of Hama. In a very limited time slot, Christine Strube and Marlia Mango presented the architectural, stratigraphic and contextual situation for this large Byzantine complex. Unfortunately Marie-Odile Rousset was not present to continue with the Islamic phases in this region.

Prof. Glen Bowersock presented a new analysis of the history of Chalcis during the late Roman and Byzantine periods. Though the subject was by chance, it fit well into subsequent papers on the history and archaeology of Chalcis and Qinnasrin. These papers by Claus-Peter Haase and Donald Whitcomb presented the argument for the site of Hadir Qinnasrin being the true location of the early Islamic city, replacing the Classical Chalcis.

The story of Islamic archaeology was left incomplete as one noted the absence of papers for the German excavations in Aleppo citadel (with impressive ceramic collections) and the British excavations in the citadel of Homs in recent years. Likewise it was disappointing

not to have a presentation of the Islamic levels on the citadel of Hama, recently brought to publication by Peter Pentz' Hama, fouilles et recherches 1931-1938, vol. 4, pt. 2: The finds of medieval architecture (Copenhagen, 1997). Happily, the new museum in Hama, which benefited from the efforts of Ingolf Theusen and Peder Mortensen, includes a fine presentation of Islamic artifacts from Hama.

Islamic history took more attention with papers on Aleppo and Salamiya, and a fine series of papers on Hama itself. These focused on Hama's urban structure and commerce and climaxed with a spirited account of Abul Fida, the scholar and governor of Hama in the fourteenth century by Walid Qunbaz. One exemplary paper was on the citadel of Maara by Mahmoud Hreytani, which included a computer reconstruction of the citadel by Omar Hallaj. This was important as a demonstration of computer simulation to guide excavations and as a tool for historical preservation. This latter subject was also addressed by Michele Piccirillo for mosaic preservation and by Faraj al-Ouch for architectural restoration, both subjects of vital concern for archaeological remains in modern Syria. A catalogue of the new Hama museum and abstracts of all the conferences papers are available in the Research Archives.

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TONY WILKINSON

Fieldwork in Fall 1999 in Syria and Yemen

Syria

From early September until the beginning of October I was in Syria, visiting Don Whitcomb's new project at Qinnasrin, undertaking geoarchaeological studies around Tell Brak, and making a brief visit to Hamoukar, Mac Gibson's site in NE Syria. In addition I was able to briefly participate in the Hama conference, which was hosted by the Syrian Department of Antiquities, and concerned the archaeology of central and western Syria.

Although only two weeks were spent at Brak, it proved to be an enjoyable experience, camping out by the now legendary dig house. I had one assistant, Walton Green a post-graduate student from Cambridge, who provided very capable help especially in recording

stratigraphic sequences and drawing artifacts collected from the sections. We did no site survey whatsoever, which therefore freed our hands to concentrate on the formation of the landscape features in the immediate area of Tell Brak and to get to grips with the wadi geomorphology.

On October 1st I flew via Cairo, to San'a to prepare for the 1999 season of the Dhamar Project. After returning to Chicago from San'a, I flew to the ASOR conference in Boston to present at a special session dedicated to the archaeology of southern Arabia.

Yemen

The 1999 field season ran from October 7th until November 12th 1999. As in 1998 as many as three teams were working in the field at the same time, each of which worked on a specialized study or operation. As usual we conducted a general survey of the region (conducted by T.J. Wilkinson and Krista Lewis, University of Chicago, and Ali Sanabani); this year special efforts were made to re-record sites visited in the first season in order to improve our record of those sites. In addition efforts were made during general survey to visit as many obsidian source areas as possible in order to find out more about the patterns of distribution of this important economic resource (conducted by Colleen Coyle, University of Chicago). Second, a major effort was made to record as many South Arabian inscriptions as possible (by Joseph Daniels and Khalil Zubeiry; see below). Third the important Bronze Age site of Hammat al-Qa was surveyed using a total station laser theodolite so that every building and ancient agricultural feature was recorded (by Christopher Edens [University of Pennsylvania] and Glynn Barratt [University of Birmingham, UK]. To our knowledge, this detailed program of mapping has provided the first complete plan of a Bronze Age town within Arabia. Finally, soundings were made at Hammat al-Qa (DS 101), Bronze Age Hawagir (DS 293: both with Mark al-Taweel, University of Chicago and Mu'ammar al-'Amry) and Himyarite al-Miqta' (DS 322A) by Krista Lewis and Ali Sanabani. Of these excavations, those at Hawagir were conducted in cooperation with the University of Dhamar, specifically with the help of Dr. Gemal Idris, and those at al-Miqta' were conducted in cooperation with the office of the Director of Antiquities Muhafadhar Dhamar in conjunction with its director Ali Sanabani. We also took the opportunity to analyze in greater detail the artifacts recorded from

the 1998 field season, specifically the pottery and lithics from Ribat 'Amran (DS 226) and Kharraib (DS 227 and 228).

Because as many as three teams were in the field at once, we had three representatives (Ali Sanabani, Khalil al-Zubeiri, and Mu'ammār al-'Amry), all of whom are to be thanked for contributing enormously to the success of fieldwork. Considerable gratitude must especially go to officials of the General Organization of Antiquities and Museums, especially Drs. Yusuf Abdullah, and Ahmed Shujar, and to Ahmed Shemsan, for help and advice before and during the season.

Archaeological Survey

A total of 22 sites were recorded in 1999, which brings the total number of sites to 322 since the first season in 1994. The 1999 sites ranged in date from Neolithic (DS 314 and 319) to Islamic (Dhawran). In addition 21 sites recorded in previous seasons were re-surveyed in order to provide more detailed descriptions of their locations, dates of occupation, and ceramic finds. Revisited sites were DS 3, 10, 11, 14, 15, 17, 20, 39, 52, 54, 64, 103, 132, 133, 134, 135, 136, 138, 179, 181, and 189B.

Part of the survey included a detailed study of sites at or near obsidian sources in order to trace the process of manufacture of obsidian tools or their raw materials prior to their distribution. This work is being conducted in conjunction with trace element analysis of obsidian (to be conducted at the Smithsonian Analytical Laboratory, Washington, D.C.) so that obsidian found on sites both within the Dhamar area and beyond can be traced to its source. These analyses will eventually enable us to describe patterns of ancient obsidian trade as early as the Neolithic period. Sites that appear to have been involved to a significant degree in the manufacture of obsidian tools, or raw materials for export, include sites DS 301 and DS 179. In addition an obsidian source below the village of al-Asakirah within Jebel Isbil was sampled for analysis. Tentatively, the Bronze Age site of DS 301 located to the SW of Jebel al-Lisi appears to have been involved in the manufacture of obsidian tools. On the other hand, DS 179, located between the villages of al-Darb and Suna'a, appears to have been heavily involved in the manufacture of stone cores, primarily during the Iron Age and Himyarite periods. Preliminary analysis of obsidian from this source suggests that sites as far away as Wadi Jubbah received some of

their obsidian from this source. We have requested permission to export small chips of obsidian for additional analyses.

In order to provide data to complement the architectural and inscriptional study (by the American Institute of Yemeni Studies) of the great mosque at Dhawran, we undertook a brief survey of Dhawran. This former capital of Yemen can now be seen to fall into two basic components: first a Himyarite (and probably earlier Islamic) fortified lower town and citadel, and second the upper, probably seventeenth century and later, site of Mutawakkil's capital. The Himyarite lower town is situated on the lower slopes of the hill and in addition to its monumental fortification wall of massive stone masonry, this site yielded Himyarite pottery from the fill that underlay the paving of the old mosque. The upper town can be seen to consist of the great mosque and associated buildings, the numerous houses, occupied into the 1980s, and the Himyarite fort, again equipped with a massive stone fortification wall.

The town plan and agricultural installations of Hammat al-Qa'

A high priority for the 1999 season was to map the important Bronze Age site of Hammat al-Qa (DS 101) located between the villages of Aylam and Aqm in Hada. This site, occupied mainly during the late third and early second millennium BC, was discovered in 1995, and was briefly excavated in 1996 by C. Edens and J. Pearce. The 1999 survey consisted of the mapping of individual building walls using a total station theodolite. This work, conducted by Glynn Barratt and Christopher Edens, produced a detailed plan of buildings over the site. Buildings were clearly denser in the eastern half of the site, and were more widely spaced farther to the north west. Interestingly settlement, apparently of Bronze Age date, extended beyond the outer wall that formed a distinctive feature across the plateau from NNE to SSW. However, we now know that the site extended well beyond this outer wall, and that this extension may pre-date the more concentrated and denser town that developed within the main town to the SE.

A second stage of survey was the detailed mapping of individual buildings, stone by stone, across the entire hilltop, both within and outside the enclosure wall. This work was completed at a scale of 1:250 to show a dense array of buildings, streets, an outer wall, some gateways, and some later features that appear to comprise later occupation and perhaps some small field plots. Because the outer fortification wall of the site extends to the NW of the town wall that

crossed the plateau top, it appears that during at least part of the Bronze Age, a walled settlement extended across the entire 5-6 ha of the hilltop.

In addition to the main occupied areas of the town and the NW town area, ancient agricultural features such as ancient terraced fields, threshing floors, and small buildings were mapped. This exercise has provided abundant data on the agricultural economy of the Bronze Age settlement that supplements the brief excavation of the fields in 1996.

Soundings at Hammat al-Qa

Two soundings were placed within the main town of Hammat al Qa. The first, Operation 6, was placed near the main southern part of the town wall to investigate the history of this wall; the second (Operation 7) was positioned within an open space towards the center of the town to determine whether this open space was originally an area of buildings, or was actually later cleared to form fields. Excavations demonstrated convincingly that below the surface this area had once been an area of buildings because this sounding could be seen to contain a NW-SE wall and abundant building rubble.

Operation 6 showed that there appear to have been two phases of construction to the town wall. The first was probably in the Bronze Age, but this conclusion needs to be tested in future seasons. There followed, after a period of abandonment covering part of the second millennium BC and probably the entire first millennium, a phase during which angular gravel was used to build up a platform over the earlier town wall. After this a second wall of large rough tabular orthostats was placed over the earlier wall and gravel platform. Himyarite pottery from locus 13, which formed the phase of construction of the gravel platform, suggests that this later phase of wall construction took place during the Himyarite period or perhaps somewhat later. However we do not know at present whether this later phase of rebuilding was a major feature or merely surrounded part of the site.

Soundings at Hawagir

The large Bronze Age site of Hawagir (DS 293) is located on the east side of the Qa Jahran about 1 km SW of the village of Shanadhib. It was discovered in 1998, but because the site was located on the edge

of the plain within an area of modern fields, it was not clear to what extent the surface scatter of building rubble and Bronze Age pottery actually reflected the true area of the site. Because this site, measuring some 15 ha area, is considerably bigger than any other site of its period in the highlands it was felt that soundings in the site would help demonstrate its true size, and furthermore, whether or not occupation levels and perhaps architecture still remained at the site after several centuries or millennia of cultivation. We were fortunate therefore to have forged a short joint excavation with the Department of Archaeology and Ancient History at Dhamar University. This project, with the considerable help of Dr Gemal Idris of Dhamar University and about ten of his students, enabled us to place four 2 x 3m soundings in the northern part of the site.

Although Hawagir is indeed a large Bronze Age site with some remains of in situ Bronze Age deposits, many of the archaeological remains within the modern fields appear to have been disturbed by a combination of plowing, the construction of terraced fields, and in the worst case (Operation 4), bulldozing. Nevertheless we now know that stratified Bronze Age deposits are present, and if the site is going to be investigated in future, we would expect the best results to come from small undisturbed areas between the existing fields.

al-Miqta

This small site (DS 322) was located about 1 km east of Hawagir. It was found to the east of an inscription on a rock face which noted the construction of a temple. Because the nearby site was about to be destroyed by a local landowner, it was decided to place a sounding within the site in order to describe and date the function of the building and to suggest a function of the site.

Excavations which were conducted by Ali Sanabani for the muhafadhar of Dhamar, and Krista Lewis, revealed that this low mound consisted of rubble overlying well-preserved and deep walls. The western trench encompassed the main part of a room floored with rough flag stones. This room yielded abundant evidence of occupation including a considerable amount of domestic pottery, and numerous quern stones and stone weights. The eastern trench appears to have included part of an outer wall of the building, together with a buttress and perhaps a secondary support wall. Both areas yielded a significant quantity of Himyarite pottery.

This building contained a significant amount of debris that appears to be the result of domestic rather than ritual activities, and it is therefore possible that it was simply a house or farmstead. Tentatively from the pottery it can be suggested that this site was occupied during the late first millennium BC, or perhaps the beginning of the first millennium AD. We hope to gain more information on the date of this site by exporting a small amount of charcoal for C-14 analysis.

Epigraphic material by Joseph Daniels

Although a number of inscriptions have been noted and recorded in a preliminary fashion during earlier field seasons no detailed studies had been made until the 1998 field season. At that time, several inscriptions were recorded by Prof. Dr. Norbert Nebes, providing a valuable picture of the administration and construction of water supply systems. During the 1999 field season, several new inscriptions, graffiti, and rock art, were recorded by Joseph L. Daniels (University of Chicago), furthering our knowledge of the religious substratum in the Dhamar region during the pre-Himyarite and Himyarite periods. A complete list of these inscriptions is available in the Dhamar Project archives.