# iowa archeological society

# NEWSLETTER



Vol. 47 No.1

Issue 161

Spring 1997

# SPRING MEETING LOCATION SET!

The 1997 Spring meeting of the Iowa Archeological Society (IAS) will be at the Four H camp near Luther, IA., and near the Iowa Arboretum. The dates are April 18 through 20, 1997. More details will follow in a separate mailing.

This is south of Boone, southwest of Ames and northwest of the greater metro area of Des Moines. Motels are located in these cities and one is located in Perry. Also dormitory facilities at the Four H center will be available.

In the meantime, while scanning the new array of seed catalogs and dreaming of other springtime activities, take a few moments to consider possible activities for the meeting. Should workshops be offered, if so what kind? Should a particular process be demonstrated? Is there a particular topic to be addressed? What would you like to do or see? Probably a tour could be organized to various archaeological sites in the area.

The banquet will be at the Four H facility. Plans for a banquet speaker are being firmed.

Iowa State University's VEISHEA celebration will be that same weekend. Various Open Houses are scheduled, including that of the ISU Anthropology Department in Curtiss Hall.

#### Contact any of the following:

Joe Tiffany	Shirley <b>Schermer</b>
Dept. of Anthropology	OSA
319 Curtiss Hall	Eastlawn Bldg.
Iowa State University	Iowa City, IA 52242-1411
Ames, IA 50011-1050	319-335-2400
515-294-1108	
Sheila Hainlin	David Swinehart
1434 44 St	2506 Timber Drive
Des Moines, IA 50311-2415	Cedar Falls, IA., 50613
515-279-5315	319-296-4002 (day)
	319-277-0610 (eve)
	319-296-2874 (Fax)

# GET OUT THE DRAWING BOARD!

The IAS Board has been considering the possibility of adopting a new logo for the Society. The Board invites members to submit entries for a new design. Entries should be put forward by June 30, 1997. This will allow the Board to study the designs at the summer meeting, probably in July.

The art should be sent to: IAS President Dave Swinehart 2506 Timber Drive Cedar Falls, IA. 50613 or Fax to 319-296-2874

# Iowa Archeological Society Treasurer's Report, February 8, 1997

Submitted by Linda Forman

1. Current U. of Iowa Community Credit Union account totals:

Savings \$13,062.95

Checking \$1,400.06

Total \$14,463.01

The Current total balance represents a decrease of \$802.57 since the last treasurer's report was filed (11-2-96).

2. Income sources:

Memberships, subscriptions, back issue sales	\$5,809.00
Interest from credit union accounts	\$ 84.05
Total	\$5,893.05

3. Expenditures:

University of Iowa account:

Newsletter, misc expenses. \$1,452.83 University of Iowa account: Journal expenses: \$4,489.70

Post office bulk mail account \$720.00 Postage stamps \$60.00

Copy cost (renewal notices) \$48.83 Reimbursement to Dave Swinehart for

postage and telephone expenses \$23.59

Total: \$6,794.95

- 4. Funds allocated for McKinney site analysis (see minutes of 11-2-96 membership meeting) have not yet been expended, pending word [received since printing of this report] from Eric Hollinger on accounting specifics.
- 5. Total 1996 income amounted to \$11,961.56, while expenditures for the year totaled \$12,110.58. A breakdown of these figures by category is appended to this report.

# 1996 IAS INCOME AND EXPENDITURES

ANNUAL EXPENDITURES		FIELD SCHOOL			
		Field School Support	1,527.00	(1,350)	
PRINTING*			Scholarships		
Newsletter	1,073.07 <sup>a</sup>	(900)			
Journal	4,502.98 <sup>t</sup>	(2,800)	AWARDS		
Mailing labels	165.94	(65)	Plaques	14.60	(50)
Membership cards	48.83	(15)			
Membership brochures	125.00	(225)	OTHER		
Copyright fees			Iowa Archaeology Wk (50		(500)
UI Publications fees	408.69 <sup>c</sup>		Fees	15.00	
			Telephone	48.17	
PHOTOCOPYING*	PHOTOCOPYING*		Board meetings	16.67	
Meeting notices	117.50 <sup>d</sup>	(175)			
Field school notices	86.90 <sup>d</sup>	(150)	TOTAL	12,110.58	(10,350)
Renewal notices	88.58	(75)			
Back issue order forms	20.00 <sup>d</sup>		ANNUAL	INCOME	
Misc OSA photocopies	55.68 [30	.83]e			
			DUES		
POSTAGE*			Student	63.00	(98)
Newsletter	469.15 <sup>a</sup>	(320)	Regular	5,130.00	(4,395)
Journal	718.62	(600)	Household	1,062.00	(1,134)
Late jrnls, back issues		(250)	Sustaining	725.00	(650)
Meeting notices	873.69	(430)	Institution	1,140.00	(1,160)
Field school notices		(250)			
Renewal notices		(300)	BACK ISSUE SALES	1,004.00	(400)
Correspondence		(50)			
			INTEREST INCOME		
POSTAGE			Savings account	271.27	(180)
USPS permit	85.00	(85)	Checking account	19.29	(20)
Bulk account	568.17 <sup>f</sup>				
Stamps/postage	200.79		ANNUAL MEETING		
			Registration	584.00	(600)
ANNUAL MEETING			Banquet	396.00	(600)
Room rental	110.00	(75)	Field trip fee		(200)
Speaker's expenses	201.40	(300)			
Refreshments	111.50	(100)	FALL MEETING		
Name tags, supplies		(20)	Registration		(250)
Banquet meal	382.50	(600)			
Field trip bus/van	100.00	(200)	FIELD SCH FEES	1,527.00	(1,350)
FALL MEETING			OTHER		
Room rental		(75)	Contributions		
Speaker's expenses		(100)	Certification Fees	40.00	(75)
Refreshments		(100)	<u> </u>		
Name tags, supplies		(20)	TOTAL	11,961.56	(11,112)
PUBLICITY		BALANCE OF INCO	ME OVER		
T-Shirts			EXPENDITURES	-149.02	(762)
Caps		()			. /

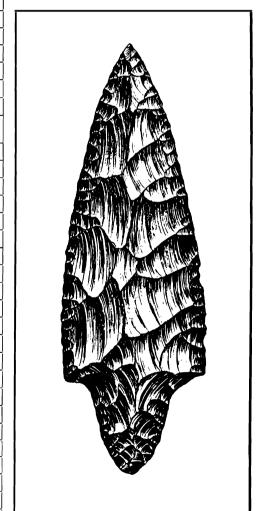
Based on April 1996 budget estimates. Actual income/expenditure figures are to the left; figures in parentheses are estimates.

# NOTES

\*Primarily University of Iowa account expenditures

<sup>a</sup>Five issues: Winter '95–Winter '96
<sup>b</sup>Includes printing cost and office expenses
<sup>c</sup>Includes both processing and postage
<sup>d</sup>University of Iowa copy center cost
<sup>e</sup>Bracketed figure is actual expenditure, incorporating credit for billing error
elsewhere

fPaid to account; not yet expended



Points shaped like this are often found on archaeological sites in Iowa. They are 2000–2500 years old.

# Search for Observatory

By George Horton

A current team archeo astronomy project is underway at Toolesboro. The goal of this team is to locate a Hopewellian astronomical observatory. This task is near impossible, the earthworks we are searching have been erased by time, erosion and cultivation.

We are basing our research on an 1841 map sketch by a Mr. Newhall. This is an eight mound grouping with a center opening and a large earthwork in an octagonal shape. In 1970 there was a very clear aerial photo of a large circle about 200 yards behind the mound group to the west. At this time, this photo is missing.

By placing these two bits of data together we came up with a fifty acre circle-octagon earthwork pointing toward the eastern horizon. Two of this style earthworks are known in Ohio. These have been proven to be solar and lunar observatories.

For the last three years, I have been on the Louisa Co. site, for seasonal summer and winter solstices and the vernal and autumnal equinoxes. I have been very pleased with the photos and sky alignments.

This past summer aerial photos were taken but very little data resulted from this fly over. The use of black and white infra film and the hot dry conditions proved not the way to go.

SUN RISE

We will try again at a later date to find the conditions that produced the 1970 photo.

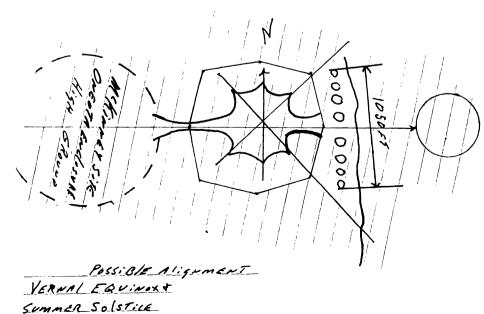
Our work at Toolesboro has had pit falls and pay offs. On the plus side the standard length of measure on the Ohio earth works is 1050 feet. William Green, OSA, measured the same distance on the principal mound group at Toolesboro.

This past summer the University of Illinois had a field team doing Oneota research on the McKinney site. Leader Eric Hollinger has informed me, while remote sensing, that what seems to be a large wall was found. Dr. T. Stocker who worked on early sky sites in Ohio in the 1970s feels we are on the right track.

The Hopewell were farmers, they had a need for an accurate calendar.

By watching the heavens, they could control planting and harvest. Their shamans and leaders used the movements of celestial bodies for ritual and ceremony. Here in Iowa, the work at Gast Farm will give us more insight into these remarkable people. The secrets of the Toolesboro earthworks still remain hidden.

My special thanks to Phyllis McKinney and Mr. Hayes (land owners); pilot John Tiffany; photographer Mike Schotterback; Astronomers Mike and Doug of Cedar Rapids Astronomy Club; Lynn Alex, Steve Lensink and Bill Green of the OSA; and to Bradley T. Lepper Archaeology Curator of the Cino Historical Society.



# FIELD WORK OPPORTUNITY!

# VACATION AT VANDERBILT VILLAGE?

The Corps of Engineers, Omaha District, will conduct its 15 volunteer dig August 2 through 10, 1997 at Vanderbilt Village on the Missouri River in northern South Dakota near the state line.

The earth lodge site is about 600 years old. Artifacts have been identified as being of the Extended Middle Missouri tradition which is thought to be about 1350 to 1400 AD. Erosion and vandalism threaten the village site composed of house depressions and cache pits.

It is thought that occupation was short and the site relatively unencumbered with subsequent building or other changes. Study of the site could provide a look at a single point in time.

Free camping for volunteers will be offered at West Pollock campground, but showers are available.

A fee campground is available in the city of Pollock.

A third option is at the Indian Creek campground which includes showers and additional services.

Further information may be obtained by writing to the Corps of Engineers Archeological Project. The Director is Edward Brodnicki.

U.S. Army Corps of Engineers Omaha District 215 North 17th Street Omaha, NE 68102-4978

# NATIONAL PARK SERVICE OFFERS WORKSHOP

A workshop on Low Altitude Large Scale Aerial Reconnaissance for Cultural Resource Management is being offered May 13-22, 1997, at San Juan College, Farmington, New Mexico. For more information contact: Steven De Vore, National Park Service 12795 West Alameda Parkway PO Box 25287 Denver, CO 80225-0287

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# **NEW BOOK!**

Who owns the past? How much can we learn from artifacts? When did humans first enter North America? Who were the first North Americans? What can we know about them?

The way we treat the past speaks volumes about who we are at the present which is why Sharman Apt Russell's new book When the Land was Young: Reflections on American Archaeology, (Addison-Wesley: 1996; \$23.00) has garnered great interest from advance reviewers who have universally praised this unique book.

Stitching stories of our land -- from the villages of the Hohokam people who lived in Arizona thousands of years ago to the intricate geometric works left in Ohio by the Hopewell Indians -- together with the techniques and personalities of modern American archaeology, Russell offers a rare perspective on the world of archaeology, the nature of time, and the evolution of our species.

As Russell explains, American Archaeology is caught between the discipline of science and humanities as those in the field debate whether ancient sites should be seen as sources of data OR as nonrenewable resources that should be left intact. Should we excavate and run the risk of desecrating Native American ruins or should we walk away from true science and our desire to take things apart to learn more?

Addison-Wesley 170 Fifth Avenue, New York, NY 10010 212-463-8440

Other books by Russell:

Kill the Cowboy: A Battle of Mythology in the New West, and Songs of the Fluteplayer: Seasons of Life in the Southwest. Both books are offered by Addison-Wesley

# IAS BOARD MEETS: Iowa City, July 20, 1996

- I. Call to Order: The meeting began at 1:15 pm. Welcome of new members Julie Plummer and Michael Heimbaugh. Present: Hirst, Lillie, Plummer, Schermer, Slattery, Tiffany. Absent: Burkhart, Carlson, Helgevold, Howe, Miller, Sellars, Schott, Swinehart.
- II. Secretary's Report: Howe (absent). Minutes of the last meeting approved with no changes. Moved by Tiffany, seconded by Green.
- III. Treasurer's Report: Forman. Current balance in University of Iowa (UI) Credit Union savings: \$13,533.91. Current balance in UI Credit Union checking: \$1,757.16. Total: \$15,291.07. This is an increase of \$3,536.35 over the report of 4/20/96, the result of additional memberships and subscriptions (1,379.47), field school fees from the McKinney site excavations (\$1,436.00), annual meeting and banquet (\$629.00), interest from credit union accounts (\$70.88), and the certification program

(\$30.00). Forman noted that the McKinney fees would be eventually returned to the University of Illinois, except for memberships and accumulated interest. Expenditures since 4-20-96 total \$1,164.74, and include \$830.40 for the annual meeting expenses, \$200.00 for postage, \$103.61 for various board member postage and phones, \$20.33 for overpayments of subscriptions and \$10.40 for photocopying charges. The Treasurer's report was approved, moved by Tiffany, seconded by Anderson.

IV. Fall IAS meeting: Green and Tiffany reminded people that the meeting will be held in conjunction with the 54th Annual Plains Anthropological Conference, at the Holiday Inn in downtown Iowa City. The Plains Conference begins Wednesday evening October 30th, and ends Saturday noon, November 2nd, and all sessions will be open to registered IAS members and others.

Tiffany reported that the IAS will likely have a special session on Saturday, although the conference schedule has not yet been determined. If they wish, IAS members will be able to come for just the day on Saturday, with a special rate for them.

Green and Lillie reported that the University of Iowa Collections Coalition will have a symposium on curation methods, including an informal session to answer curation questions and a walking tour of the museums on campus. Green reported that there will be several field trips available on Saturday afternoon, including the /Coralville Reservoir and Linn County rockshelters; Iowa City historic sites: Southeastern Iowa mound groups, including Malchow; and a geoarchaeological field trip into the Mississippi River valley. These field trips are open to IAS members, and will include a box lunch and transportation. Green said a mailing describing the conference and the IAS's role in it will be sent out by the end of the summer. Hainlin said a note on the conference will be in the newsletter.

V. Publications: Newsletter: Hainlin reported that the next Newsletter will include a short article by Rich Fishel, and should be out shortly.

Special Iowa Archaeology Week Newsletter. Forman reported that the special Newsletter to be published by the IAS for Iowa Archaeology Week will include a letter from Dave Swinehart and a visual timeline of 13,000 years of human existence in Iowa. It will be published by the end of August, and be four pages in length and in color. The Newsletter is primarily for non-IAS members, for use as a marketing tool for Iowa Archaeology Week.

Journal: HIrst reported that the Journal will go to the printer about September 1, for a publication date of mid-October. It will include the Perry Creek Reservoir report of the Larson and Lawrence Vondrack sites by Dale Henning, and shorter reports by Dennis Miller, John Hedden, Rich Fishel, Robert Boszhardt, and Tim Weitzel and Bill Green, as well as current abstracts and book reviews.

VI. Standing Committee Reports: Chapters: Anderson reported for Helgevold that the results from the questionnaire were very slim. He said that his general observations from the exercise, besides that people don't fill out questionnaires, included that the membership would like to see more contact between the IAS and the Chapters. People like the field schools, and the publications coming on time. They would like more hands-on activities at the IAS meetings, such as workshops. Good speakers are essential. There were many positive comments on last year's Iowa Archaeology Week. Tiffany suggested that the IAS set up a Speaker's Bureau to line up speakers on a regular basis. Green said the chapters

could get together to trade information on speakers and other events at the chapter meetings.

Membership: Lillie reported that the final notices sent to people after the April meeting garnered enough subscriptions to pay for the cost of printing and mailing, and well beyond. There are 476 members of the IAS to date, one more than 1995's year-end total. She said there were almost 100 non-renewals from last year, or about a 20% turnover rate.

Meetings: Hainlin reported that she is discussing holding the Spring IAS meeting jointly with the Quad Cities Chapter, who meet with the Illinois Association for the Advancement of Archaeology.

Tiffany suggested that we might in the future meet jointly with the professional archaeologists, the Association for Iowa Archaeology. Unfortunately, the AIA has resolved to meet the first weekend in June, while I AS bylaws require an earlier date.

Before the two associations can meet at the same time, the policy of one must change, meaning it will be at least two years no matter which association changes. The Board expressed a willingness to discuss a change in the IAS bylaws to permit a joint meeting.

Suggestions for future meeting places included Augustana College in Rock Island, the Putnam Museum in Davenport, and the Grout Museum in Waterloo. Hainlin will contact the President of the IAAA to see about arranging a joint meeting in April.

Hainlin also reported that the meetings committee lost two members this year (Gourley and Johnson). Tiffany and Heimbaugh volunteered to complete the committee, which now consists of Chadek, Hainlin, Heimbaugh, and Tiffany.

VII. Old Business: SAA Publish Education Committee: Schermer reported that the Society for American Archaeology network of educators is active. This is a network consisting of one education coordinator in each state, who keeps in touch with the others to share ideas. Anyone in the state who has an education project underway or in progress should contact her.

Schermer said that a \$5,000 grant was obtained this year from the Iowa Science Foundation by the Linn County Conservation Board and the OSA to revise and publish an activity guide and build activity kits for use at Wickiup Hill Outdoor Learning Area. The results of this grant are to be reported at several education conferences.

Hirst reported that she and Schermer had been exploring the possibility of CD-ROM publishing, combined with the World Wide Web site, as a way to broaden the accessibility of archaeological information. A pilot project placing the works of Charles R. Keyes onto CD-ROM is under consideration.

Green reported that the two IAS field schools look to be a great success this year. The McKinney site excavations are presently ongoing, and they are being held in conjunction with a college-credit course at the University of Illinois. The OSA Lange site excavations in northwestern Iowa are the first two weeks of August.

Tiffany suggested that an opportunity to combine forces with the county extension offices exists at Iowa State. He has been working with the 4-H clubs, at the 6,7, and 8 grade level to hold archaeology camps, at their request. Ideas for possible camp activities include survey of state properties.

County-wide surveys and/or local site steward programs: Green thanked IAS members for filling out the questionnaire. He reported that the response to this idea has been enthusiastic but limited, and that the program is on hold until people's interest can be properly gauged.

Lillie suggested that teachers' workshops and the site steward program could be coordinated to gather more interest; Green replied that the organizational logistics would make this difficult. Green said that the IAS chapters could coordinate with the Department of Natural Resources to conduct systematic surveys on the state parks, for a few weeks or weekends every year.

Schermer suggested that a pilot project, to show people how to do it, would be a useful thing, and Green suggested that perhaps Lacey-Keosauqua park in Van Buren county or Backbone State Park would be a place to start.

Iowa Archaeology Week: The theme for IAW this year is "13,000 Years of Iowa Culture." Green reported for Tim Weitzel, the organizer for IAW. The calendar has 52 special events listed, but only two of the six IAS Chapters have events scheduled.

Green showed working copies of the poster, and said that it will go to the printer within the next week. Funding for printing 5,000 calendars and the poster and presentation costs for this year comes from the IAS, the AIA, the State Historical Society, and, for the fourth year in a row, the Iowa Humanities Board. The IHB has rarely funded any activity for four years in a row, a reflection, Green believes, of the success of Iowa Archaeology Week. Tim asks that the IAS Chapters take a larger role in IAW, and consider scheduling events in their parts of the state.

IAS nomination of Iowa Archaeology Week as outstanding IHB project for 1995: Schermer reports that this \$1,000 award will be presented to the winner in late August or early September.

VIII. New Business: Honorary Lifetime Membership: Schermer suggested that it might be time to have an Honorary Lifetime Membership category, for people in the organization who have made substantial contributions to Iowa archaeology over the period of their lives.

Such a membership would include waiving membership and subscription fees, and perhaps field school fees as well for the balance of the honoree's life. The Board agreed that this might be a good idea. Suggestions for appropriate honorees include people who have been in the organization for 40+ years, amateurs who win or have won the Keyes/Orr award, and other persons of merit.

Schermer reports that there are six individuals who have been in the organization for more than 40 years, and 12-13 non-professional members who have won the Keyes/Orr award in the past.

The bylaw change will be considered at the fall Board meeting, and brought up to the membership in the Spring. A committee of Lillie, Plummer, Schermer, and Tiffany will work up a draft bylaw change, to be sent to Board Members later this year. Also to be discussed is the financial impact of creating such a category.

Sustaining household membership: Forman brought up the possibility of creating a Sustaining Household Membership, as a logical extension of the member/sustaining member/household categories.

Other funding possibilities: Schermer, Lillie, and others suggested that the IAS should consider allowing people to contribute to special funds, such as teacher workshops, field school scholarships, radiocarbon dates, education funds. Hainlin remarked that we should look into the tax deductibility of these contributions. The Board agreed that it would like to seek out ways of increasing funding possibilities. Green pointed out that existing income levels could already support field school scholarships and possibly site stewardship grants.

The meeting adjourned at 3:30 pm.

Submitted by Donna Howe, IAS Secretary.

# **CHAPTER NEWS**

# Southeast Iowa Chapter

Southeast Chapter Newsletter Editor Karen Stickels described the October meeting which involved a road tour led by Archaeologist Anton Till.

Anton was the tour guide and showed members where to get chert for flint knapping [near Bonaparte], clay for pottery-making [near Farmington], and where to get a great lunch [this location was not revealed].

Down the road they visited a site near Pittsburg where surface pottery fragments were found. The trip ended with inspection of mounds at Lacey-Keosauqua State Park

The November meeting continued the recording of sites discovered last summer during Chapter Field trips in the area.

For more information on the Chapter and its activities contact:

Bill Anderson

Box 51

Richland, IA 52585

Chapter dues are \$10.00 annually for individuals or \$15.00 for family memberships

Tel. 319-456-3911

# Central Iowa Chapter

Doug Jones, in November, gave a presentation on the uses of the plant chenopodium and possible horticultural alternatives in a prehistorical context.

In January, Linda Forman of the Office of the State Archaeologist, led members thoughts far, far south into the warmer climate of the Maya.

Linda is to be especially commended because she ventured west through the aftermath of a formidable winter storm.

A tour of the archaeology lab at Iowa State University led by Professor Joe Tiffany was on the agenda for February.

Elections followed.

Plans are underway for a joint meeting in May of the chapter with the Iowa Jewish Historical Society with Professor Emeritus David Gradwohl giving a presentation.

#### Contact:

Sheila Hainlin 1434 44 st Des Moines, IA 50311

515-279-5315

Or

Barb Weber 631 Boon Webster City, IA 50595

515-832-2147

#### Northwest Chapter

The November field trip to the Willow Creek Nature Center near Ocheydan was postponed due to an ice storm.

Northwest Chapter meetings are generally held on the third Sunday afternoon of each month, except for December, when no meeting is scheduled. All meetings are open to the public.

# Contact:

Dale Gifford 910 Cherry Cherokee 51012 712-225-3432

# FINAL MEMBERSHIP COUNT FOR 1996

Robin Lillie, Membership Secretary submitted the following figures at the February 8, 1997, IAS Board Meeting.

Active Members	342
Family Members 59	
Sustaining Members	29
Student Members 9	
Institutional Members	57
Exchanges	6
Lifetime Members	11
Total (including 85 new members)	513

#### Previous Years:

1995:	473
1994:	363
1993:	361
1992:	294
1991:	256
1990:	327
1989:	373

The previously listed numbers may be compared to a high of about 550 in the early 1980s as remembered by Dick Slattery and Joe Tiffany.

The 1997 membership count totals 354 (including 18 new members) as of February 6, 1997.

Active		212
Family		46
Sustaining		24
Student		8
Institution		47
Exchanges		7
Lifetime	10	
Total		354

# FIELD SCHOOL ALERT!

Dickinson State University, in cooperation with the US Forest Service, plans to conduct a wilderness anthropological field school in Idaho's Payette National Forest [in the middle of the state] from June 29 to July 18, 1997. The project will involve site testing and evaluation of a 19th Century Chinese mining encampment.

For more information contact:

Dr. Samuel L. Couch

Assistant Professor of Geography and Anthropology

Department of Social Sciences, Dickinson State University, Dickinson, ND

58601

Or visit the field school website at:

http://www.dsu.nodak.edu/~scouch/field\_school/fs.html

Tel: 701-227-2114

Or toll free: 800-279-HAWK

Or fax: 701-227-2006

# **OSA NEWS**

A SPECIAL SECTION OF THE IOWA

ARCHEOLOGICAL SOCIETY NEWSLETTER

#### RESEARCH SPOTLIGHT

The Office of the State Archaeologist was well represented at a poster session held in conjunction with the third annual Women in Research Day, which took place February 20 in the John W. Eckstein Medical Research Building on the University of Iowa campus.

Women in Research Day, sponsored by the U of I's Women in Science and Engineering Program, focuses attention on women in the sciences and related disciplines, spotlighting the variety of projects on campus involving women researchers and offering opportunities for women from various disciplines to interact with and learn from one another. The displays prepared by OSA participants illustrated the diverse research interests of office personnel and the ways in which recent technological advances have enhanced the sophistication of archaeological analysis.

K. Kris Hirst presented a poster entitled "Gold in Them There Hills: Archaeological Resources on the World Wide Web," which illustrated how archaeological research has benefited from recent developments in the computing world, specifically the increase in the computing power of desktop machines and the international access to resources through by the World Wide Web, facilitating integration of data in ways never before possible.

Shirley Schermer and Robin Lillie presented a poster entitled "Technological Applications in the OSA Burials Program," which graphically illustrated how such techniques as radiography, CT scanning, scanning electron microscopy, and tomography have enhanced the ability of archaeologists to evaluate and document human osteological remains.

Linda Forman and Jill Robinson presented a poster entitled "NAGPRA Documentation of the Charles R. Keyes Archaeological Collection," describing the development of a relational database to store and integrate an array of highly varied information about specific burial sites and the artifactual and osteological remains that those sites have yielded.

Susan Snow presented "Diet, Health, and Environment at the Dickey General Store: A View From the Outhouse," describing how analysis of artifacts and organic materials recovered from a nineteenth-century outhouse has provided more information than simply dates of occupation.

Cindy Peterson presented a poster entitled "Archaeology and Geographic Information Systems (GIS)." Cindy's colorful graphic display illustrated well the technological theme underlying and unifying all of the OSA presentations. The text of her presentation is reproduced here:

In 1995, the Office of the State Archaeologist conducted an archaeological survey along the North Raccoon River Greenbelt in Dallas County, Iowa. A total area of 18 square miles was encompassed within the project area, 5 percent of which was subjected to survey.

Several Geographic Information Systems (GIS) models had previously been created for the South Raccoon River Greenbelt. The GIS raster database included data on land cover, soils, elevation, and significant plant, animal, historic, archaeological, geologic, and hydrologic sites. This South Raccoon River Model was applied to the North Raccoon River, and a preliminary predictive model of archaeological site locations was generated for the new study area.

Archaeologists then surveyed areas along the North Raccoon which were classified as both high and low potential by the preliminary model. Twenty-five sites were newly recorded by the archaeologists. This new data was entered into the GIS model by Paul Anderson at the Department of Landscape Architecture, Iowa State University, in an effort to refine the North Raccoon River model.

The GIS descriptive modeling compared characteristics of the 25 archaeological sites newly recorded in 1995 with those areas found to contain no sites. Measures of cumulative percentage, significance, frequency, cumulative percentage, chi square, and areal correspondence revealed that the largest differences between known sites and non-sites were in their proximity to steam confluences, proximity

to stream valleys, soil landscape position, and historic vegetation.

GIS predictive modeling used logistical multiple linear regression techniques to identify areas along the North Raccoon River Greenbelt with high probabilities of additional archaeological sites. Results of three new models were compared using measures of mean, significance, cumulative percentage, percentage correctly classified, and improvement over chance. The most successful model classified areas with a 46 percent improvement over chance. Known sites correctly classified as high potential was 79 percent; 68 percent of non-site locations were correctly classified.

Final results indicated that 33 percent of the 18 square mile study area has a high potential for containing archaeological sites. Predictive models help locate additional archaeological sites and aid landscape planning and management. The North Raccoon River Greenbelt GIS model will aid the Dallas County Conservation Department to protect the various cultural and non-cultural resources of the river valley.

Already, the Conservation Department has utilized the GIS predictive model to alter the zoning of a planned residential development. In an area which was specified as high potential for archaeological sites, a developer was planning to build one home per acre, for a total of approximately 60 homes, on land that had previously been zoned for agriculture. The Conservation Department demonstrated to the Dallas County Zoning Commission that the potential for archaeological deposits was high in this area. The zoning commission mandated an archaeological survey of the area: four archaeological sites were newly recorded within the planned development. The developer was allowed to proceed, but zoning was changed to one home per five acres, reducing the adverse impact to archaeologically and environmentally rich areas. Also, new information about prehistoric settlement along the Raccoon River was generated by the survey.

The posters prepared for Women in Research Day will be displayed at the IAS annual meeting in April, so members can appreciate for themselves the diversity and sophistication of the research undertaken by OSA's women archaeologists.

# IMPORTANT NOTE FROM: ROBIN LILLIE IAS Membership Secretary:

Dear IAS Members,

You have already received one renewal notice for 1997, mailed to you in November 1996. Many of you have responded already Thank You.

This is just a reminder that the Spring Newsletter will be your last issue unless you get your dues in soon. Just fill out the form below and send it in to me. Thanks, everyone, and stay warm!

Renewal for 1997: NAME	
ADDRESS	
ZIP	
MEMBERSHIP T	YPES
VOTING MEMBER:	
Active \$15 Family/Household Sustaininlg	\$18 \$25
NON-VOTING MEMBER:	
Student (17 years or less) Institutional	\$ 7 \$20
Make checks payable Archeological Society and send to: Iowa Archeological Society 303 Eastlawn Building University of Iowa Iowa City, IA 52242	to: Iowa

# NATIONAL PARK SERVICE OFFERS WORKSHOP

A workshop on Non-Destructive Investigative Techniques for Cultural Resource Management on May 5-9, 1997, is being offered at the Fort Scott National Historic Site, Fort Scott, Kansas.

For more information contact: Steven De Vore, National Park Service 12795 West Alameda Parkway PO Box 25287 Denver, CO 80225-0287

# **CALENDAR**

April 2 - 6, 1997 - The 62nd Annual Meeting of the Society for American Archaeology will be held at the Opryland Hotel, Nashville, TE.

April 18 - 20, 1997 - Iowa Archeological Society Annual Meeting will be held at the Four H Camp near Luther, IA, and the Iowa Arboretum.

June 4 - 7, 1997 - A Symposium on Bison Ecology and Management in North America will be held at the Holiday Inn in Bozeman, MT., to provide a forum for information and discussion on utilizing various disciplines to understand and manage bison in North America.

For information contact:

Bison Symposium Montana State University 235 Linfield Hall Bozeman, MT 59717 Tel: 406-994-3414 **November 14-18, 1997** - The Plains Conference will meet in Boulder, Co.

October 13-17, 1998 - The Plains Conference will meet in Bismarck, ND.

1999 - The Plains Conference will meet in Sioux Falls, SD.

2000 - The Plains Conference may meet in Lincoln, NE

#### ANNUAL MEMBERSHIP DUES

#### **VOTING:**

1. Active \$15 2. Household \$18 3. Sustaining \$25

#### **NON-VOTING:**

1.Student(under 18) \$7 2.Institution \$20

#### SEND DUES TO:

Treasurer, Iowa Archeological Society c/o Office of the State Archaeologist, Eastlawn, University of Iowa, Iowa City, IA 52242-1411

The Iowa Archeological Society is a nonprofit, scientific society legally organized under the corporate laws of Iowa. Members of the Society share a serious interest in the archaeology of Iowa and the Midwest.

The Newsletter is published four times a year. All materials for publication should be sent to the editor: Sheila Hainlin, 1434 44 St., Des Moines, IA 50311-2415. 515-279-5315.

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