

## BUCHANAN SITE: Findings Summarized

RESULTS OF THE THIRD SEASON OF FIELDWORK (1987) UNDER THE COLLABORATIVE RESEARCH AGREEMENT BETWEEN IOWA STATE UNIVERSITY (ISU) AND THE INSTITUTE FOR THE HISTORY OF MATERIAL CULTURE (IHKM), POLISH ACADEMY OF SCIENCES

By John Bower  
Iowa State University

### INTRODUCTION

The agreement mentioned in the title of this report was formalized by the participating organizations in 1984. It established a long-term, cooperative archaeological research program focused on comparative studies of late Pleistocene and early Holocene hunting-gathering cultures in Poland and the United States. In addition, the agreement stipulated that fieldwork should be performed on opposite sides of the Atlantic in alternate years beginning with a field season in the U.S. during summer, 1985. Thus, in 1985, reconnaissance and test excavations were conducted in Iowa and Illinois. The second season was devoted to excavating two sites in Poland during summer, 1986. In 1987, the project returned to the U.S. in order to excavate an Archaic site (13SR153) near Ames, Iowa. This report summarizes the results of excavations at 13SR153 (the Buchanan site) between June 11 and July 17, 1987.

### EXCAVATIONS AT THE BUCHANAN SITE (13SR153)

The 1987 excavation campaign at the Buchanan site was accomplished by a team composed of the following personnel: the co-directors of the collaborative

research projects, Drs. Michal Kobusiewicz (IHKM) and John Bower (ISU); two graduate student field supervisors from the ISU anthropology program, Michael Portwood and Wendy Smale; and 17 students enrolled in the 1987 ISU Archaeological Field School.

The Buchanan site is located just outside the northeastern limits of the city of Ames, Iowa. It consists of a small side-wall valley along the left bank of the Skunk River filled with alluvial sediments, colluvial deposits and organogenic material of Holocene age. On the basis of evidence from geological trenches dug during summer, 1986, by Julieann Van Nest (University of Iowa geology graduate student) and the collections of Dave Ballard (an avocational archaeologist) representing more than a decade of search, we expected to recover data concerning Middle and Late Archaic occupation of the valley.

Three grids were laid out for excavation. Two of them (grids A and C) were adjacent to Van Nest's trenches, which had been excavated in alluvial sediments exposed by channel erosion. The third (grid B) was placed on a small alluvial fan on the floor of the valley that was not cut by the modern channel.

The goal of the Grid A excavations was to reach a 6000 yr B.P. (Middle Archaic?) occupation represented by a hearth exposed in one of Van Nest's trenches. A total of 16 square meters in the grid was excavated to various depths, with maximum penetration to about 250 cm. below the surface.

The Grid B excavations were aimed at searching for a concentration of cultural material in both the horizontal and the vertical dimensions. This was accomplished by digging a checkerboard pattern of 23 one-meter squares to depths ranging from 60 to 270 cm below surface.

The goal of the Grid C excavations was to reach a (Late?) Archaic horizon exposed at about 140-180 cm. below surface in a trench dug by Van Nest. A total of 10 square meters in the grid was excavated to various depths, with a maximum penetration of 200 cm below surface.

### RESULTS OF THE 1987 EXCAVATIONS

In Grid A, the top 60-80 cm of soil contained abundant faunal remains of Late Woodland age, as indicated by associated finds of cord-roughened, grit tempered pottery. Since cultural material is generally very scarce in these levels, the Late Woodland occurrence at Grid A is interpreted as a food-processing station. Although limited numbers of artifacts and bones were found at various levels below the Late Woodland occurrence, including levels at least 40 cm below the 6000 year-old hearth, no major Archaic occupation horizon was exposed in Grid A.

The uppermost 70 cm of soil contained abundant faunal remains of Late Woodland age, as indicated by both pottery and projectile points. However, unlike Grid A, the Late Woodland material consisted almost exclusively of artifacts and fire-cracked rock, with negligible quantities of associated bone. Thus, the occurrence is interpreted as a habitation area. Several additional occurrences were exposed in deep excavations in two squares, including a very rich occupation horizon at 255-270 cm below surface and a slightly less rich one at about 180 cm below surface. Since none of the lower occurrences exhibited pottery, they are believed to be of Archaic age; this will be checked by <sup>14</sup>C analyses of charcoal from the occurrences. The two (presumed) Archaic occupation horizons have excellent organic preservation, and thus merit extensive excavation in future.

The top 70 cm of deposit at Grid C contained a Late Woodland component generally similar to the Grid A occurrence, with limited numbers of artifacts and abundant faunal remains, though the bone assemblage was less varied and rich than at Grid A. Two additional occupation horizons were revealed, one in sands and gravels at a depth of about 140-180 cm and the other in a grey, silty loam immediately beneath the sands. Both horizons yielded abundant chipped stone artifacts, bone, shell and macrobotanical material (nuts, wood, bark, etc.), and neither produced sherds. The absence of pottery and the typology of projectile points from the lower occupation horizons strongly suggests that they are of Archaic age. Again, 14C analyses of charcoal will serve to test this interpretation.

It is evident from the results of the 1987 excavations at the Buchanan site that it contains precisely the kinds of technological and subsistence information needed for the collaborative research projects. Thus, further excavation of the Buchanan site is planned for summer, 1989.

Photos by John Bower



View at the Buchanan Site.



Field School participants.

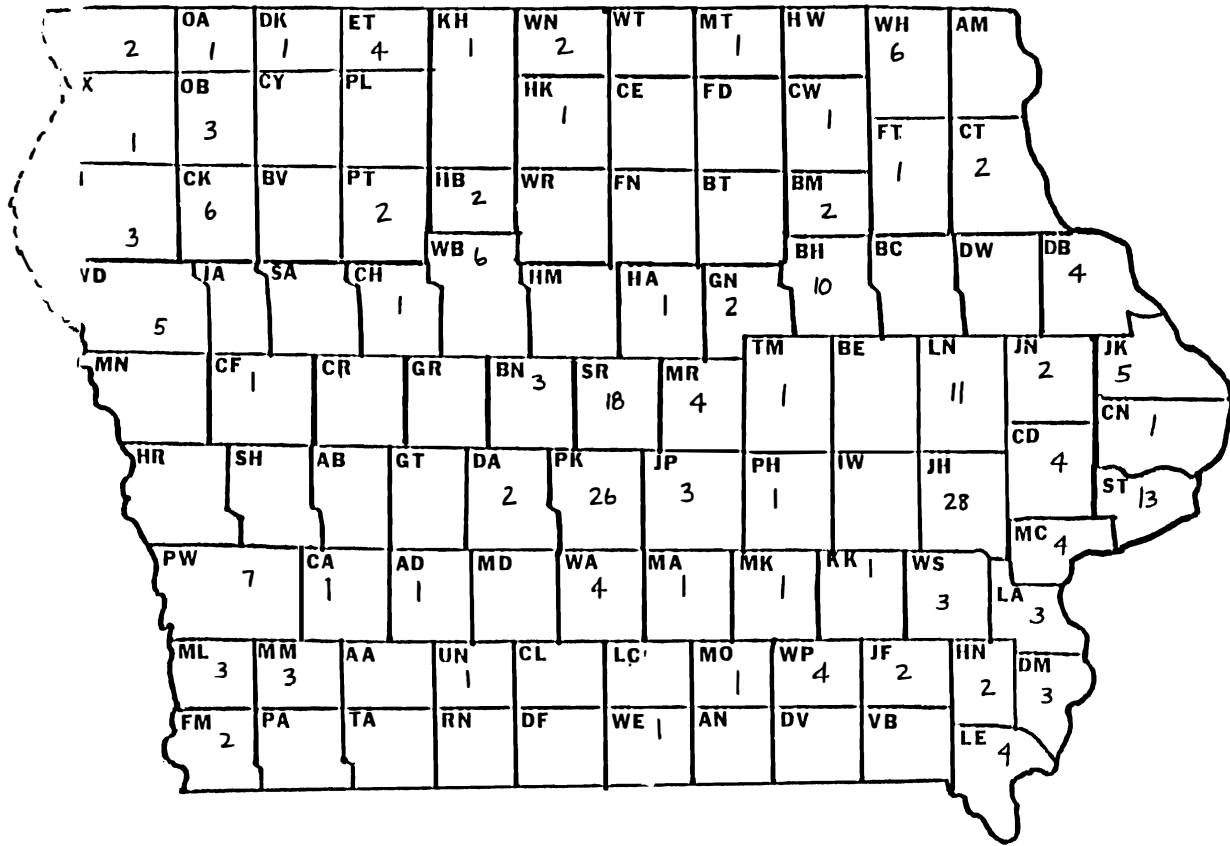


from l. to r.: Michal Kobusiewicz, John Bower, Michael Portwood, and Wendy Smale.



# FALL MEETING, MEMBERSHIPS

Iowa locations of IAS members.



## SOCIETY MET IN COUNCIL BLUFFS

President Ferrel Anderson welcomed about 30 people attending the IAS fall meeting Oct. 10-11 in Council Bluffs. The program included an update on the Blood Run site. Steve Lensink reported that the Attorney General's office estimates that title problems should be resolved within a couple months. Also he reported that Shirley Schermer and Dale Henning have finished the '85-'86 report on Blood Run. Kris Hirst described freshwater musselshells found at Glenwood Sites. Loren Horton led us through changes in Euro-American mortuary practices. Yvonne Chadek reviewed three books, including one on plants used by Native Americans. Steve Lensink summarized findings from last summer's excavations at the Frerich's site (13DK12). Ferrel Anderson described a historic Sauk village site in Rock Island, IL. Bertrand Museum Curator Leslie Peterson related assorted preser-

vation problems some of which are experimental.

After the papers were given the Board conducted a short meeting at which time Debby Zieglosky provided information on the membership of the society. [#See editor's note]

An excellent dinner was provided by Iowa Western Community College. Afterwards Marsha Gallagher, a Joslyn Art Museum Curator, gave a faced-paced presentation on Carl Bodmer's one American visit. It was rich in descriptive material and seasoned with humor.

# The map and membership lists on this page and the following page are presented for your information. Also they provide food for thought regarding the future of the Society. Perhaps during the coming quiet winter weeks, and as memberships are renewed, constructive and productive thoughts will occur regarding the continuing good health of the society. If, as has been suggested, a healthy base is about 500 members then we need to apply ourselves to the problem of adding

them. Plan to share your ideas at the 1988 annual meeting in Davenport next April.

Best holiday wishes are extended to all members. Consider giving gift memberships!

Noteworthy on the map are the counties with no members. Also of interest is the central Iowa area with numerous members but no chapter. Records show the following chapters: Charles R. Keyes Chapter, Iowa City Quad-Cities Chapter, Davenport/Rock Island

Central Chapter, Fort Dodge Northwest Chapter, Cherokee Paul Rowe Chapter, Glenwood Southeast Chapter, Ottumwa Not all of these are currently active.

### Memberships in 1987:

- 420 members
- 296 active members (including 92 from out-of-state)
- 77 institutional members [\*See list below]
- 18 family/household members
- 11 sustaining members
- 10 life members
- 8 student members

# BLACK PIGMENT TOUCHY

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Public libraries in Iowa which have institutional memberships include: Ames, Bettendorf, Boone, Cedar Rapids, Clinton, Council Bluffs, Davenport, Des Moines, Fort Dodge, Gilmore City, Iowa City, Madrid, Sheldon, and Woodward.

Wayne State University  
Wichita State University  
Western Illinois University  
Wisconsin Historical Society  
US Corps of Engineers  
University of Uppsala, Sweden

## \*Institutional member list:

Augustana College, Rock Island  
Ball State University  
Briar Cliff College, Sioux City  
University of California - Berkeley  
University of California - Riverside  
Canada Museums of Civilization Ottawa  
Carnegie Museum of Natural History  
Center for American Archaeology, Kampsville  
Cornell University  
Dickson Mounds Museum  
Effigy Mounds National Monument  
Grinnell College  
Hamburg Museum for Mankind, Hamburg, Germany  
Harvard University  
Illinois State University  
University of Illinois  
Indiana University  
Iowa Illinois Gas and Electric  
Iowa State University  
University of Northern Iowa  
University of Iowa  
Iowa Bureau of Historic Preservation  
State Historical Society of Iowa  
State Library of Iowa  
Iowa Wesleyan College  
University of Kansas  
University of Kentucky  
German Archaeological Institute, Bonn  
Library of Congress  
Los Angeles Public Library  
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Memphis State University  
Minnesota Historical Society  
University of Minnesota  
Mississippi State University  
University of Missouri  
Museum of the American Indian  
Nebraska State Historical Society  
University of Nebraska  
State University of New York -Binghamton  
Pennsylvania State University  
University of Pittsburgh  
Putnam Museum  
Sanford Museum and Planetarium  
South Dakota Archaeological Research Center  
Southern Illinois State University  
Southwest Museum, Los Angeles  
Syracuse University  
University of Texas  
University of Toronto  
University of Virginia  
University of Washington

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## EXPLOSIVE "ROCKS" FOUND IN COLLECTION

By John C. Whittaker  
Dept. of Anthropology  
Grinnell College

William Charles French, like many other residents of Iowa, collected projectile points and other artifacts from Indian sites in the state. In the 1930s he corresponded with Ellison Orr, and maintained his interest in prehistory until he died in 1969. In 1986 his son, Clyde French, showed me his father's collection, and later brought me some unusual "rocks" which he had found in sorting and packing it. These were four lumps of dull black material, about an inch in diameter. They appeared to be small water washed pebbles, but were soft, about as hard as blackboard chalk, and rubbed off on the fingers. Clyde noticed them because they were also unusually light. The specimen I examined most closely was 35mm by 25mm by 8mm (1 3/8" by 1" by 1/4") and weighed 5.5 gm (1/5 oz).

I assumed that they were a pigment, and indeed the piece I tested easily made a thin black paint when rubbed on a wet surface. But it still seemed odd, and more so when I touched it to my tongue. The taste was not like an ordinary rock, but sharp and bitter. Out of idle curiosity I sent a piece to Steve Williams, a Texaco geologist who has been analyzing material from a Southwestern site for me, and received this response:

"The black pigment from Iowa was the most interesting of all! Based upon the Energy Dispersive X-Ray Spectrometer, it is chemically composed of sulphur and potassium. However, the EDS does not measure oxygen, nitrogen, or carbon. If you add a little water to the pigment and let it dry you can see crystals growing on

the edges of the dried spot. I suspect the material you tasted was this soluble salt, a potassium salt. The black pigment looks like charcoal under the microscope. What we have is charcoal, sulphur, and a potassium salt (KNO<sub>3</sub> = saltpetre, or niter), the ingredients of gunpowder!"

This is not a naturally occurring mixture, but I tried a further test. I ground a piece in a mortar and pestle and applied a match. The results were so spectacularly convincing that I had to repeat the trick for friends. Somewhere, somehow, Mr. French had collected a few lumps of gunpowder. It could possibly have reached its present pseudo-pebble form as a result of having been buried in a container such as a powder horn, and subsequently weathered. Mr. French's collection includes a few historic artifacts. The gunpowder could have come from the same sites, Indian or Euro-American. As there is no provenience information, we cannot even be sure of this, and this archaeological gunpowder is more a curiosity than anything else, but perhaps if we are alerted it may be recognized in better documented situations in the future.

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## HIRST DIGS IN AT OSA

Kris Hirst began work March 1987 as a survey archaeologist for the Highway Archaeology Program at the Office of the State Archaeologist. She received a BS in education in 1978 from Illinois State University, and an MA in anthropology in 1985 from the University of Iowa. Her thesis was based on surface-collection results from 26 sites in Van Buren County, Iowa. She has done extensive fieldwork in several areas, including Mexico and New Mexico, and has concentrated on work in Iowa, Illinois, Wisconsin, and Michigan. She is currently analyzing Glenwood locality freshwater mussel shells for a joint research project within the OSA.

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Iowa Academy of Science meets April 21-23, 1988, in Ames.

# CEMETARIES INVESTIGATED

## SOCIAL CHANGES REVEALED THROUGH ETHNOARCHAEOLOGY

By David M. Gradwohl and Hanna R. Gradwohl  
Iowa State University

During the summer of 1987 we initiated an ethnoarchaeological study of the six Jewish cemeteries in Des Moines. This project, which we anticipate will last several years, parallels a similar study we recently conducted in Lincoln, Nebraska. The results of our research in Nebraska are presently in press as a chapter in a book entitled *Persistence and Flexibility: Anthropological Studies of American Jewry*, edited by Walter P. Zenner, and published by SUNY Press, Albany, New York. The investigative model we are employing in Des Moines is adapted from the one we used in Lincoln. It combines archival research, oral history, interviews concerning extant burial customs, and a field recording of all gravestones in the cemeteries.

Jewish peddlers and merchants are documented as among the settlers in Des Moines during the late 1840s and 1850s. During the 1860s, if not before, there were enough Jewish families in Des Moines to gather for religious observances -- particularly on the occasion of special Holy Days, especially the observance of gatherings during those years were typically in homes or in rooms at various business establishments. During the 1870s and 1880s in Des Moines, the number of citizens of Jewish faith continued to grow. Following a pattern which can be seen in many cities across the United States, a social and geographical polarity among Jews in Des Moines developed on the basis of specific national origin and particular theological orientation. The Jews from Western Europe (Germany, France, Alsace-Lorraine, Austria etc) followed the principles and rituals of Reform Judaism, a liberal movement which began in Europe during the late eighteenth and early nineteenth centuries and was brought to fruition in the United States between the 1860s and 1880s. Curiously enough, most of these Western European Jewish immigrants settled in Des Moines' "Westside." Most of the Jews from Eastern Europe (Russia,

Poland, the Baltic countries etc) adhered to the traditional beliefs and ceremonial practices of Orthodox Judaism. Upon arriving in Des Moines, they took up residence in Des Moines' "Eastside" for the most part.

The first incorporation among the Jews in Des Moines was the establishment of the Emanuel Burial Association in 1870. A cemetery was established at the northwestern edge of the city's Woodland Cemetery. Although this cemetery was founded by the Reform Jews in Des Moines, it served for nearly 15 years as the burial ground for Jews of various intra-denominational persuasions throughout central Iowa. In 1884, an Orthodox Jewish cemetery was established on the Eastside, at the corner of Delaware Avenue and Easton Blvd.

The presence of two separate cemeteries by this time reflects the increasing polarization within the Jewish community. Temple B'nai Jeshurun was founded by the Reform Jews in 1873. In 1879 the Emanuel Burial Association officially merged with B'nai Jeshurun congregation. Meanwhile, Des Moines' Orthodox Jews formed the B'nai Israel Synagogue -- subsequently known as the Children of Israel Synagogue -- in 1876; and they established the previously mentioned Eastside Orthodox cemetery in 1884. One faction within the Children of Israel Synagogue felt that the organization was too liberal and, henceforth (in 1885), they founded Beth El Jacob Synagogue, the most Orthodox congregation in Des Moines. By 1901 another faction within the Children of Israel Synagogue believed the organization was too Orthodox. So they founded Tifereth Israel Synagogue which embraced Conservative Judaism, a movement which evolved essentially in the United States as a middle-of-the-road compromise between Orthodox Judaism and Reform Judaism. Tifereth Israel subsequently established a cemetery adjacent to the Des Moines Glendale Cemetery. Soon after, three other sections were developed by the Order of Brith Abraham (a benevolent mutual aid association), Beth El Jacob Synagogue, and the Children of Israel -- whose Eastside cemetery was eventually closed because of space limitations and other factors. Today, the four Jewish sections at Glendale are referred to jointly as "Jewish Glendale."

These sections are owned and maintained by the Jewish congregations, not the city.

To date, more than 3,000 gravestones have been preliminarily recorded in the six Jewish cemeteries. A *separate record sheet* is filled out for each monument (large vertical or horizontal memorial) and marker (small flat horizontal memorial). Of particular interest is the language of the epitaphs (English, Yiddish, Hebrew), references to Jewish holidays and death dates in the Hebrew calendar, Jewish symbols (the Star of David, menorah or candelabrum, Torah scroll etc), and insignia of the Kohanim (High Priests) and Levites (Temple Attendants). The preliminary data are being fed into the computer for correlational analysis. Meanwhile a complete translation of Hebrew and Yiddish epitaphs is planned in addition to a photographic documentation of the gravestones.

We can already predict some of the same patterns we observed in Lincoln. In the Reform cemetery, almost all inscriptions are in English; there are few references to Jewish holidays or death dates in the Hebrew calendar; few stones have any kind of Judaic symbols; there are no insignia of the Kohanim and Levites -- priestly castes whom the Reform Jews disavowed in their theological platforms adopted in the latter half of the nineteenth century. Most of the gravestones in the Orthodox cemeteries, however, have some Judaic identity in terms of general symbols, insignia or epitaph references to the Kohanim and Levites. Most of the Orthodox gravestones have inscriptions in Hebrew (or occasionally Yiddish). Oftentimes some epitaphs in English co-occur on these stones. We have subjectively observed that these various factors have a "mixed" association in the cemetery of Tifereth Israel Synagogue. We predict such a situation will be statistically verified on the basis of the intermediate theological position of Conservative Judaism.

Ultimately these data show a nice association of material culture with non-material or cognitive domains. They also demonstrate some factors of culture change along with the maintenance of ethnic group distinctiveness and -- even more interesting -- variations on an intra-group dimension.

# REMEMBER THE DUES!

## FOR YOUR INFORMATION:

The OSA staff, as of Oct. 12, 1987, consists of:

Acting State Archaeologist: Steve Lensink

Research Archaeologist: Bill Green

### OSA Support Staff:

Linda Vesely

Marty Kurth

Bob Burchfield

John Cordell

Deb Ziegrowsky

### OSA Burials Program:

Alton K. Fisher

Shirley Schermer

Transportation Project Director: Carl Merry

### Transportation Archaeologists:

Kris Hirst

Mark Mehrer

Mike Perry

### Transportation Support Staff:

Jane Austen

Patti Capaccioli

Mara Soloway

Stephen Brown, Des Moines  
Tom Busby, Huxley  
Roberta Eirinberg, Rock Island, IL  
Donald Etzy, Sioux City  
Aliene Flewelling, Remsen  
Robert Foulkes, Rock Island Ill.  
Teddy Fujan, Worthington Mn.  
William Gehlken, Illinois City, IL  
Kristin Greene, Moline IL  
Dylan Hayes, Ames  
Dan Higginbottom, Maxwell  
Kris Hirst, Iowa City  
John Holdefer, Ft. Madison  
Steven Hoth, Burlington  
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Ronald Kuntz, Des Moines  
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Michael Williams, Coralville  
Jacob Willig, Martelle  
Ronald Wilson, Cedar Falls  
Donald Young, Mt. Pleasant

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The Iowa Archaeological Society is a non-profit, 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 mid-west.

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.

**REMINDER: It is time to pay 1988 dues.**

## ANNUAL MEMBERSHIP DUES

### VOTING

1. Active - \$10

\$7

2. Household - \$17

3. Sustaining - \$25

4. Benefactor - \$250 minimum

### NON-VOTING

1. Student (under 18)

2. Institution - \$10

### SEND DUES TO:

Debbie Ziegrowski

310 Haywood Drive

Iowa City, IA. 52240-1051

## New IAS Members In 1987

Gaylord Archer, Moline, IL

Carol Arndt, Hartley

Russell Baldner, Calmar

Jack Beebe, Central City

Arlin Boer, Iowa City

Janet Bradley, Moline, IL

Kip Bradley, Bellevue

Arthur Brandenburg, Maquoketa



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