Newsletter of the *Iowa Archeological Society*

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Then and Now

Amana Indian Fish Weir, 1950 (right) and Today

Photograph of the Fish Weir, F.W. Kent, 1950s. Amana Colony Society Archives.

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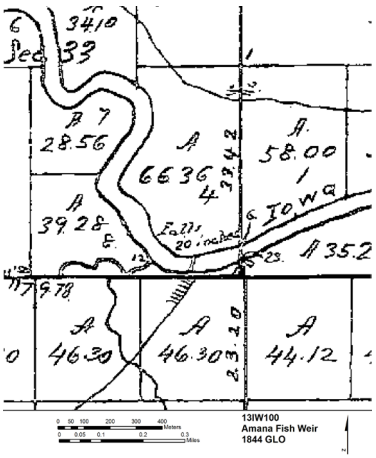
The Disappearance of the Amana Indian Fish Weir (13IW100)

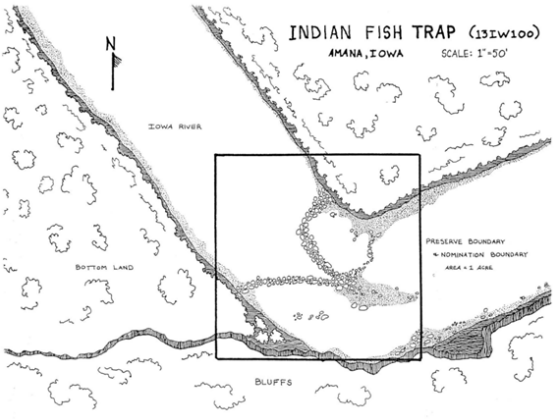
William Whittaker

The 2012 drought allowed archaeologists to revisit the Indian Fish Weir along the Iowa River near Homestead, one of the Amana Colonies. There have been no confirmed sightings of the fish weir this century and it was hoped that it would re-emerge with the low water.

The fish weir, first documented on a 1844 Government Land Office map, was a V-shaped stone dam built to funnel fish into one spot where they could be netted, speared, or hooked. The exact age of the weir was unknown, but similarities to other Indian weirs suggested it was built in the prehistoric or protohistoric period by Indians; its proximity to historical Meskwaki Indian villages might mean that it was built by, or at least used by, the Meskwaki. Historically it was also called the Indian Fish Trap and the Amana Fish Weir. Lane Shields of the Office of the State Archaeologist has done a lot of research into the history of the fish weir and is a good resource for information about the history of the weir and its documentation.



The weir has not been seen in about a decade. Most people, archaeologists included, assumed that the weir was hidden under high water, although there was speculation that the flood of 2008 destroyed it. I asked members of the archaeological community for any recollections of the dam or photographs, and the last photo I could find was from October, 1999. No one reported seeing the dam this century.



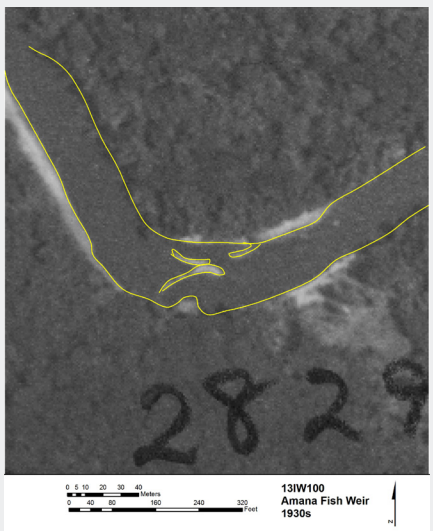
Official map of the Indian fish weir, Oct. 1987, part of the Holne National Register Nomination, drawn by Oehl.

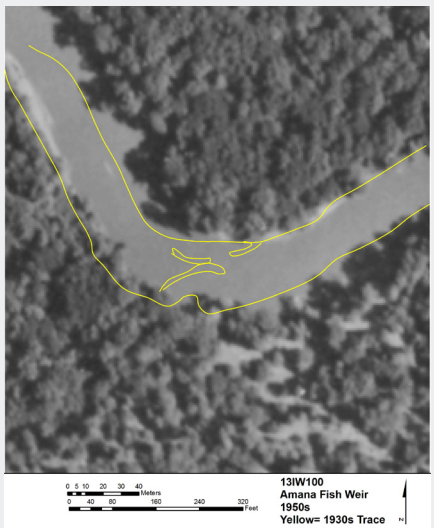
Photographs of the weir reveal changes in the landscape over time. Comparisons of F.W. Kent's photo of the 1950s with Richard Slattery's and Duane and Jill Miller's photos of the weir during the 1988 drought show the mouth and south arm of the weir were becoming attached to the south bank of the river by 1988. The north arm appears to be extended farther north in 1988. While it is possible that this north extension of the north arm is newly exposed portions of the weir, it is more likely that this is rip-rap that stood along the north bank of the river. Slattery's 1988 photo is most revealing, showing the river channel north of the north weir, and the line of stone,

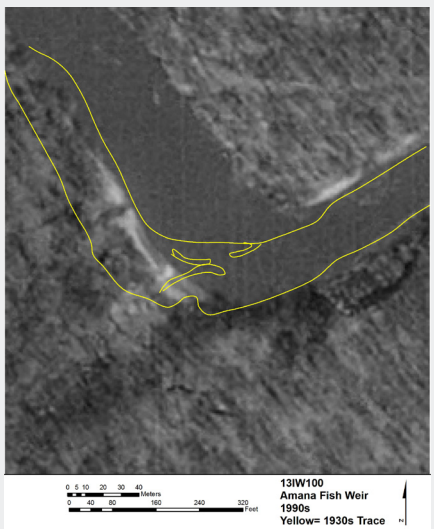
Aerial Photograph Timeline

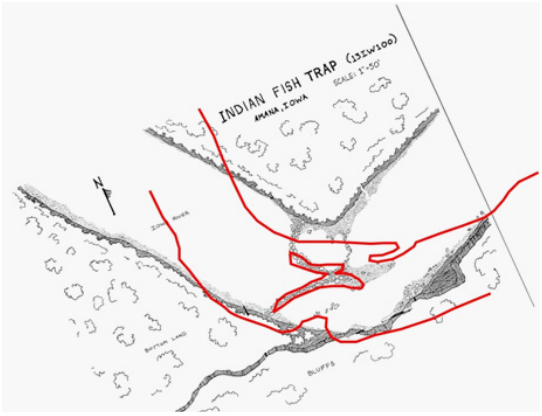
The 1930s aerial is the only known aerial photograph that shows the fish weir. In the maps below it is traced in yellow and compare with later aerials with same georeference.

1930s **1950s** **1990s** **2002**









1987 map, reoriented with north at top, outline of 1930s aerial fish weir superimposed in red (see below). Shows that river is shifting north, and that the orientation and alignment of banks in 1987 sketch is suspect.

when higher water volume and flow rate caused the river to settle into new channels and meanders. The main channel of the river shifted north of the weir, and ran over the north arm extension. The shift in the river can be seen by tracking a conspicuous landmark boulder on the rip-rap extension of the north arm that, over time, becomes closer to the south bank than the north bank. The last known photo, from 1999, appears to show only the north arm rip-rap extension, and what appears to be a gap at the north end of the extension.

A series of aerial and satellite photos beginning in the 1980s confirm that the river shifted away from the weir. Aerial and satellite photos exist from the 1930s, 1950s, 1990s, 2002, 2005, 2006, 2008, 2009, and 2010. These have been georeferenced and are shown below, with the location of the fish weir traced in yellow, as determined from the 1930s aerial, the only one that shows the weir clearly.

In the 1950s the river was slightly north of its current position, but the weir would have been still

Fish Weir, continued on page 4

probably rip-rap, curving back towards the south bank. In Oehl's official site map of 1987, this route north of the river was not shown.

The last known photograph of the V-shaped portion of the weir was made in October of 1988 during a drought. All later photos show only the north arm extension.

This shift of the river to the north was likely accelerated after the flood of 1993,

Composite photo, 2012, showing Iowa river and estimated location of weir marked in yellow. Facing west-southwest.

2006 **2009** **2010**

Fish Weir, continued from page 3

centered in the river. Superimposing the 1930s aerial on the 1987 map reveals that the river had shifted farther north, still, but the weir was still centered on the river. Sometime in the following year a gap opened up north of the north arm and this can be seen in the Slattery photo.

In the 1990s the south arm becomes merged with the south bank. During the high water of the first decade of this century, the weir probably would not have been visible on the ground, but using the overlay of the 1930s aerial, we can speculate about the sequence of events. The north arm touches the south bank in 2002. By 2005, both the north and south arms of the weir are incorporated into the bank. By 2006, which was a comparatively dry year, both arms were apparently silted over and covered with vegetation. By 2010, the river had drifted well away from the weir.

On August 3, 2012, members of the OSA and the Iowa Valley Resource Conservation and Development investigated the location, using GPS points of the suspected location of the weir. On this trip from the OSA were Lynn Alex, James Collins, Mary De La Garza, Melody Pope and Bill Whittaker. Peter Hoehnle and three others represented the Iowa Valley RC&D. We confirmed that the river had shifted farther north from the bluffs. We followed the GPS to the predicted location of the buried fish weir. The area had been built up by silt so that it was about five feet above the river. The predicted north arm of the weir was a foot or two higher than the area to the immediate north, in a linear ridge, and the vegetation was different, in addition

Disappearance Timeline

1950s

Photograph of the Fish Weir, F.W. Kent, 1950s. Amana Colony Society Archives. Facing north. Note the north arm is comparatively short. Main channel flows south of the weir's mouth.

October 1988

This Oct. 1988 photo by Richard Slattery is the most revealing, facing north, showing that the river now cuts north of north arm. This happened within the past year, compare with the Oct. 1987 map. A large pool has formed north of the weir. This arm extension is likely rip-rap from the old north bank. This is the last known photo of the V-shaped weir segment.

July 1988

Photo by Bill Green, July 1988. Note the extensive rip-rap extending from the north arm of the fish weir. Note the large rock in the center of the rip-rap. Red circle around landmark boulder.

August 1988

Photo by Duane and Jill Miller, August, 1988. Same basic angle of the Kent Photo note that more of the north arm is exposed. The mouth of the weir is becoming connected to the south bank. Main channel flows north of the weir's mouth, possibly north of the north arm.

to the reed canary grass that covered the entire area, taller weeds grew along the expected weir location. Probing the area in a nonsystematic fashion with a 4-foot tile probe encountered no rocks, meaning that if the weir was here, it is likely to be deeper than four feet, probably closer to the five or so feet down to the elevation of the river.

Summary

The Iowa River began drifting slowly north away from the weir between the 1930s and 1950s. After the Coralville Dam was built, the area probably flooded more often, and the construction of the I-380 and State Highway 965 bridges probably worsened the flooding. By the 1980s, the river had shifted farther north, exposing more of the north arm and a long segment of rip-rap. Between Oct. 1987 and Oct. 1988, a new channel formed north of the north arm. The river began to silt in the V-shaped weir, leaving only the north bank rip-rap exposed. The V-shaped weir was last photographed in 1988, and the northern rip-rap was last photographed in 1999. The high water of the first decade of the 2000s obscured views of the rocks. Aerial photo comparison indicate the weir was completely absorbed into the south bank by 2005 or 2006. A site visit during the drought of 2012 indicated the weir location is far from the river, probably covered by five feet or more of silt. The fish weir is probably intact and well-preserved, but deeper coring may be needed to confirm this.

Sincere thanks to all who helped document the fish weir's past and present, including Lynn Alex, James Collins, Mary De La Garza, Bill Green, Lanny Haldy, Peter Hoehnle, F. W. Kent, Duane and Jill Miller, Melody Pope, Lane Shields, and Richard Slattery.

October **1999**

Photo from OSA archives, October 1999. Same orientation as the previous, facing west, river is drifting to the north, exposing gap at the north end of the north line of stone. This line of stone may actually be rip-rap along the old north bank. The V-shaped weir is close to, or covered by, the south bank. This is the last known photograph of the weir. Red circle around landmark boulder.

August **2012**

2012, facing west, the higher clump of vegetation in a line conforms to the expected GPS location of the north arm of the weir. The clump of tall weeds in the center is the approximate location of the mouth of the weir.

January **1989**

Photo by Duane and Jill Miller, January 1989. This shows mostly the north arm, facing west, same position as previous Green photo. The stones seen are probably rip-rap along the old north bank, the actual V-shaped weir is underwater. Red circle around landmark boulder.

August **2012**

Facing west-southwest. Predicted north arm of weir aligns with the line of vegetation on the center of the floodplain. Estimated location of fish weir marked in yellow.

Joe Artz Retires from UI

By John Doershuk

Joe Alan Artz, long-time Office of the State Archaeologist staff member, retired from the University of Iowa effective March 1. Joe started at OSA in 1989 with the Highway Archaeology Program (HAP), having worked previously as an archaeologist in Kansas (where he earned his M.A. degree) and in North Dakota on a variety of contract- and grant-funded projects.

As part of the HAP staff Joe had the chance to work on projects in many parts of Iowa and became increasingly interested in geoarchaeological issues including landscape evolution, site formation processes, and the preservation potential of different sediments. In 1999, Joe launched a major initiative at OSA by taking over the reins of the Iowa Site File and literally ushering it into the 21st century by securing grants to digitize the data and create a GIS-based Internet access system called I-Sites.

In both its public and professional versions, I-Sites revolutionized access to information about Iowa archaeological sites. Although it reduced the number of archaeologists trekking to Iowa City to visit OSA, enhanced access to the Iowa Site File has increased the quality of archaeological consulting. Joe successfully developed other geospatial initiatives during his tenure at OSA and project teams he organized and managed tackled projects like improving the South Dakota guidelines for conducting geoarchaeological investigations and assisting the State of Minnesota with projects utilizing LiDAR technology to discover, document, and preserve burial mounds.

In post-UI retirement Joe remains active with his research efforts in Portugal with Katina Lillios of the UI Anthropology Department and in the Plains/Midwest region having teamed up with EarthView Environmental, Inc., a consulting firm based in Coralville, Iowa. You can contact Joe at joe@earthviewenvironmental.com.

Joe Artz, 2009, at Fort Madison searching for the battlefield

Shirley Smith Turns 100

Our beloved NWIAS member and retired treasurer Shirley Smith turned 100 years young on January 16th. She is one of original founding chapter members of the NWIAS. Though not as active in the chapter as she once was, Shirley keeps up with the latest chapter news and keeps us on our toes. For those that are not familiar with Shirley, she and her late husband, Chuck, have been avid supporters and explorers in Iowa archaeology for several decades. Anyone involved in northwest Iowa archaeology eventually crossed the paths of Shirley and Chuck. Happy Belated Birthday, Shirley, from all of your IAS friends!

Courtesy of the NWIAS.

Marshall "Mac" McKusick

1930-2013

One of the pillars of Iowa archaeology, Marshall "Mac" McKusick died May 2, 2013, after many years of poor health. Mac served as Iowa State Archaeologist from 1960 to 1975, and was a professor of Anthropology at the University of Iowa from 1960 to 1996. Mac was a dynamic archaeologist, he was involved in excavations at, or publications about, many of Iowa's most famous sites, including Broken Kettle, Hartley Fort, Turkey River Mound Group, Fort Atkinson, Fort Madison, Mines of Spain, and Wittrock.

He is survived by his wife, Joye, several children, and grandchildren. A full obituary will run in a future issue.

Photo: McKusick at the Fort Madison excavations, 13LE10, pointing at original paving stones, 1965.

2012 Financial Report

Account Balances as of January 1, 2012:	
Certificate of Deposit (matured 03/18/2012)	$1,138.61
Checking	$6,153.89
Savings	$3,178.12
	$10,470.62
Account Balances as of December 31, 2012:	
Certificate of Deposit (matures 2/20/2015)	$1,166.71
Checking	$4,171.47
Savings	$3,730.39
	$9,068.57
Net Gain or Loss (-) since January 1, 2012	**-$1,402.05**

Income - January 2012 to December 2012:	
Certifications	$20.00
Interest dividends	$37.37
Meetings (Spring and Fall 2012)	$1,305.00
Memberships	$9,282.00
Research and Education Fund Contribution	$540.00
Sales (Journals, Patches, Pins, Royalties)	$301.13
	$11,485.50
Expenses - January 2012 to December 2012:	
2012 Lithic Materials Workshop (caterer)	$150.00
Archaeology Outreach 2012	$2,000.00
IAS Membership Brochure	$376.55
Journal Volume 58 (2011)	$3,737.42
Keyes-Orr Award	$17.62
Meetings (Spring and Fall 2012)	$1,312.01
Newsletters (3)	$2,833.56
Office Supplies	$404.68
Postage	$1,650.71
Printing	$405.00
	$12,887.55

Respectfully submitted by,
Alan Hawkins
IAS Membership Secretary/Treasurer

What's the Point?

Daniel Horgen

Discovered: Lyon County, Iowa

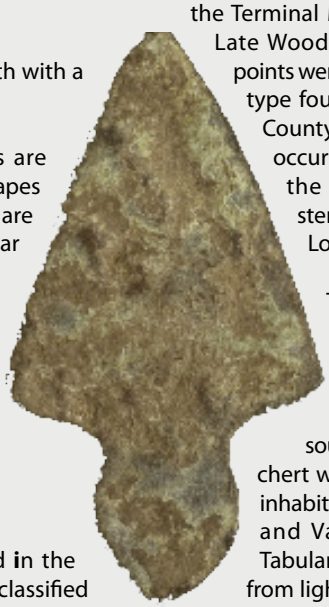
Measurements: 1 inch in length with a maximum width of ½ inch

Notes: These types of points are represented in many diverse shapes and sizes. In most cases, they are almost invariably found at or near the surface.

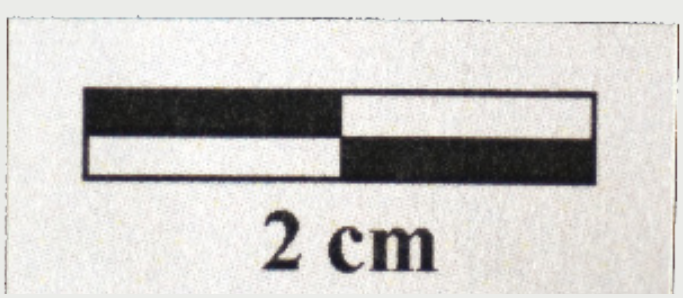
Send your responses to Daniel G. Horgen at daniel-horgen@uiowa.edu. Answers will be listed in the next issue of the Newsletter.

Last Issue's Point:

The projectile point illustrated in the last issue of the Newsletter is classified as a Steuben. Robert Carlson, Joe Tiffany, and Jim Zalesky submitted the correct response. Steuben projectile points date from the Terminal Middle Woodland to the Early Late Woodland (A.D. 100-500). Steuben points were named by Dan F. Morse for the type found at the Steuben site, Fulton County, Illinois. These types of points occur in high frequency throughout the Midwest. Similar expanding stemmed projectile points include Lowe and Bakers Creek.



The raw material type is heat-treated Warsaw Tabular chert. This type of raw material is commonly found within the Skunk River Valley in southeastern Iowa. Warsaw Tabular chert was utilized by most prehistoric inhabitants in Henry, Jefferson, Keokuk, and Van Buren Counties. Warsaw Tabular chert generally ranges in color from light to medium gray. The cortex is chalky and is usually cream to white in color. The texture is generally considered to be medium to medium fine. Warsaw Tabular chert generally produces a dark gray color with a pink or reddish cortex when heat-treated.



References:

Morrow, Toby
1984 *Iowa Projectile Points.* Special Publication of the Office of the State Archaeologist. The University of Iowa. Pg. 52-53.

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1963 *The Steuben Village and Mounds. A Multicomponent Late Hopewell Site in Illinois.* Museum of Anthropology, University of Michigan, Anthropological Papers 21.

Montet-White, Anta
1968 *The Lithic Industries of the Illinois Valley in the Early and Middle Woodland Period.* Anthropological Papers No. 35. Museum of Anthropology, University of Michigan, Ann Arbor.

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2013 Annual Spring Meeting Highlights

A nice turn-out for the meeting held at the beautiful, historic Higdon Administration Building on the Graceland University campus in Lamoni. Local historian Alma Blair discussed the history of Lamoni and the university.

President Don Raker was the recipient of this year's Keyes-Orr Award, presented by Mike and Nancy Heimbaugh, in recognition of his many years of service to the society as a board member, president, faithful volunteer, and teacher.

Above and Right: We visited Mark Boswell's newly completed earthlodge replica, located just north of Lamoni in the afternoon. Mark did a wonderful job building and furnishing the lodge with the kinds of materials that would likely have been used in prehistoric times.

Membership Information

Contact Alan Hawkins, IAS Membership Secretary, at The University of Iowa, Office of the State Archaeologist, 700 Clinton Street Building, Iowa City, Iowa 52242-1030.

Membership Dues

Voting	
Active	$25
Household	$30
Sustaining	$35
Non-Voting	
Student (under 18)	$14
Institution	$35

Newsletter Information

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 Editor, Lauri Chappell, University of Iowa, Office of the State Archaeologist, 700 Clinton Street Building, Iowa City, Iowa 52242-1030. Email: thewillow301@gmail.com. When submitting articles, please provide text, captions, tables, and figures separately. All digital photographs should be at least 300 dpi at full size. Graphics, if supplied digitally, should be high-resolution tiff or eps files. A special thank you to Jenna Reynolds for designing the newsletter.

IAS Website

http://www.uiowa.edu/~osa/IAS/index.html