Louisiana Archaeological Society

NEWSLETTER

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COASTAL ENVIRONMENTS, INC., BATON ROUGE, LOUISIANA 70802

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FROM THE EDITOR

This marks the third and final Newsletter for 1987. In it are some important announcements concerning the upcoming 1988 annual meeting. Please take careful note of these so that you can get your plans made to attend. There is not much time, as hotel reservations need to be made before January 15.

L. A. S. ANNUAL MEETING

The 1988 L.A.S. annual meeting will be held at the Bossier City Hilton Inn from Friday evening, January 29, through Sunday morning, January 31. David Jeane and other members of the North West Chapter have been able to obtain excellent facilities at little cost to the L.A.S.

The hotel is holding a block of 75 rooms for the meeting, with room rates of $39.00 for single occupancy, $44.00 for double occupancy, $49.00 for triple occupancy, and $54.00 for quad occupancy. However, your reservation must be in by January 15 in order to be certain of getting a room. Please use the enclosed reservation card, which is sent directly to the hotel, to reserve your room.

Also enclosed in this Newsletter is a registration form and notice of call for papers. Please fill it out and mail it to Donald Duncan, Program Chairman. Please note, as well, that there will be a book room available for those of you who wish to sell publications. In order to estimate space, your intentions need to be noted on the registration form.

In regard to the meeting itself, the following is a preliminary schedule of events:

Friday, January 29 - Registration and check-in during the afternoon and early evening. Executive Committee Meeting at 7:00 pm at the hotel. Hospitality room get-together at 8:00 pm at the hotel.

Saturday, January 30 - Registration and book sales during the day. Contributed papers in the morning in the hotel meeting room. Lunch between 12:00 and 1:00 pm. At 1:00 pm Dr. Dan Flores, Professor of History at Texas Tech University will present the keynote speech. Dr. Flores is a leading expert on the history of the Red River Valley, and is particularly knowledgeable about the Freeman-Custis Expedition and other early explorations of the river. His presentation should be most interesting. Continuation of papers between 2:00 and 4:00 pm. The annual L.A.S. business meeting will take place between 4:00 and 5:00 pm. There are several important topics to be discussed and the election of officers for 1988 and 1989. In the evening the North West Chapter will host a wine and cheese party at the Louisiana State Exhibit Museum located nearby in Shreveport.

The *NEWSLETTER OF THE LOUISIANA ARCHAEOLOGICAL SOCIETY* is published three times a year for the Society by Coastal Environments, Inc., Baton Rouge. Send all notes, news and other communications to: Richard A. Weinstein, Editor, Coastal Environments, Inc., 1260 Main Street, Baton Rouge, Louisiana 70802. Unless otherwise indicated, opinions stated herein are those of the Editor and do not necessarily reflect Society policy.

For those of you who have never been to the museum, this is a fine chance to view the displays with your fellow society members.

Sunday, January 31 - Book sales continuing in the morning. Continuation of papers until about 11:00 am. Meeting will adjourn about 11:00 am to allow everyone sufficient time to return home in the afternoon.

Please make every effort to attend, as a fine time should be in store for all. And, please, send in your room reservation card and meeting registration form as soon as possible.

EXECUTIVE COMMITTEE MEETING

All members of the Executive Committee are hereby notified that there will be an L.A.S. Executive Committee Meeting on Friday evening at 7:00 pm at the Bossier City Hilton Inn, to be held in conjunction with the annual meeting. There are several important topics up for discussion, so please try to attend.

LETTERS TO THE EDITOR

The following letter was received in response to the editor's invitation in the last Newsletter (Vol. 14, No. 2) for anyone knowing why archaeologists use the metric system of measurement to share their ideas with the society.

Dear Editor,

The Metric System is an orderly system of measurement of length, weight, volume, temperature, and other scientific measurements, based on the number ten. It is used worldwide in scientific and mathematical calculations.

The contrasting "English" System was developed during the Middle Ages, and was based on the king's arm length (the yard), the king's foot length (the foot), the king's thumb length (the inch), etc., and has been used in English-speaking countries.

Desiring to be more a part of the world-wide economic system, former British possessions, including the U.S., are moving more rapidly to the use of the Metric System, abandoning the "English" System.

Respectfully submitted,
Mercedes Cuccia
Delta Chapter

MINUTES OF THE EXECUTIVE COMMITTEE MEETING

Fontainebleau State Park
October 16, 1987

Reported by
Janet Carrigee
L.A.S. Secretary

An impromptu Executive Committee Meeting was held at the L.A.S. Field School at Fontainebleau State Park. Present were:

President - Richard Weinstein
Vice-President - Reca Jones
Secretary - Janet Carrigee
Newsletter Editor - Rich Weinstein
Baton Rouge Chapter Rep. - Dennis Jones
Visitors - Joe Manuel and Jack Moore

Richard Weinstein called the meeting to order. There were no previous minute available.

Rich reported that the new Treasurer, Linda Church, was working hard trying to get the books in order. Brian Duhe, past Treasurer, failed to turn in a Treasurer's Report at the last Executive Committee Meeting, so no information on current L.A.S. finances is available.

Rich suggested that all money and papers be transferred from Brian Duhe to Linda Church immediately. It was stated that the deadline for this action be no later than the end of October. Question was raised that if this material is not turned over to Linda Church, what action should be taken? This is something to consider in the future.

Rich recommended that all future Treasurer's Reports include: type of account, bank in which account is located, and how much money is in each account.

Janet Carrigee reported that the ballots for the proposed By-Law changes had been counted; seventeen in favor, none opposed. The proposed changes were approved.

Rich, as Newsletter Editor, reported that 350 copies of the last Newsletter (Vol. 14, No.1) had been printed at a cost of $161.86.

Postage for mailing 267 copies was $22.00. Total cost of the Newsletter was $183.86.

Rich also noted that the 1984 Bulletin will be printed soon, and should be out before the end of the year. The new Bulletins have a different type and look good. In fact, if all goes well, the Bulletins should be available for distribution at the annual meeting in January.

Old Business:

How to raise money for the L.A.S.? Rich suggested that either the old ad-hoc committee of Rich Weinstein, Linda Church, and Bob Neuman become active, or a new ad-hoc committee should be formed to take its place. The current means of raising money being dues and publication sales. Joe Manuel raised the possibility of another raffle. Rich suggested trying to sell more L.A.S. publications at other state meetings. Perhaps someone should be appointed to go to different meetings to sell publications. L.A.S. could possibly pay some of their travel expenses. Rich will see how well the publications sell at the Southeastern Archaeological Conference in November in Charleston, South Carolina. [Editor's note: $446.00 was collected from both publication sales and membership dues during the three days at the conference.]

New Business:

Future of the Field School. Do we want to continue the Field School? Rich noted that Debbie Woodiel said all State Parks in Louisiana are available for future Field Schools. Reca Jones said that this is something to consider for next year's school.

There being no further business, it was planned to hold a scheduled Executive Committee Meeting at the L.A.S. Annual Meeting in January, 1988.

QUARTZITE

By
Paul V. Heinrich
Baton Rouge

Within Louisiana, it appears that the prehistoric inhabitants made little usage of quartzite in the manufacture of artifacts. For example, in their study of the microflint industry at Poverty Point, Webb and Gibson (1981) noted that only 11 percent of the total microflint tools recovered from the site consisted of quartzite. The local quartzites and associated gravel cherts were only preferred for the production of microflint tools. The larger tools, such as projectile points, consist solely of chert. The quartzite probably came from pebbles and cobbles present within Quaternary deposits that outcrop within 20 to 30 miles of the site (Webb and Gibson 1981).

The use of quartzite at the Eagle Hill site in Sabine Parish was small, but persistent, in the Paleo-Indian through protohistoric occupations (Gunn and Brown 1982). By occupation, 0.1 to 0.3 percent of the total lithic material recovered consists of quartzite. The quartzite artifacts consist mostly of flakes and debris, and a few quartzite tools, including a purple fluted point (Gunn and Brown 1982:Pl. 8). These artifacts consist of local quartzite from the Catahoula Formation. The fluted point may consist of quartzite from either the local Catahoula Formation or the Uvalde Gravel in northeastern or east-central Texas.

Very little currently can be said about the variable use of quartzite by the prehistoric inhabitants of Louisiana. Within the state, the analysis of the lithology of lithic materials has only been sporadically done for individual sites, survey areas, and particular tool types. Considerable work needs to be done before the regional and temporal trends concerning the prehistoric use of quartzites can be determined.

Types of Quartzite

There exists many misconceptions as to what quartzite is and how it is defined. The confusion concerning quartzite results from the fact that material called "quartzite" consists

of two very different rock types. This paper will try to clear up this confusion by discussing the character, formation, and regional sources of these types of quartzite.

Traditionally, the term *quartzite* was defined as a granular rock that fractures through its constituent grains, rather than around them. Quartzite fractures through its constituent grains because they are tightly bound together by either pressure welding and silica cementation, or by metamorphic interlocking and suturing of the grains. Thus, there exist two types of quartzites. They are *sedimentary quartzite* and *metamorphic quartzite* (Pettijohn et al. 1973:169).

Sedimentary Quartzites

A sedimentary quartzite is a sandstone or siltstone that is so tightly cemented by silica that it breaks through its constituent grains rather than around them. Typically, the sand or silt in a sedimentary quartzite will consist of more than 90 percent quartz. The sand consists of single, rounded crystals of quartz and sand-size grains of chert, chalcedony, quartzite, and other quartzose rock fragments. Loose sand and friable sandstones may have the same composition, but lack the physical properties of quartzite (Pettijohn et al. 1973:214-216).

Sedimentary quartzite is formed by the filling of voids between the grains of sand or sandstone by silica. Either amorphous or microcrystalline silica can fill the voids between sand grains and cement them together. Unlike other materials, the silica will bond itself chemically and mineralogically to the silica of the quartz grains within the sand (Cook 1987). Furthermore, where individual grains touch each other, pressures both bind and weld individual grains together to form a material that behaves as a solid, uniform mass of silica. This behavior produces the conchoidal fracture when broken (Ebright 1979:169-170; Pettijohn et al. 1973:214-215). The same bonding occurs in silt-size sediment that forms very fine-grained sedimentary quartzites.

Various types of silica can cement sand and silt to form sedimentary quartzite. The sedimentary quartzites found in Louisiana and Mississippi are cemented by amorphous silica (opal) (Ambuehl 1979:122-126). In the Dakota and Cloverly Groups and Morrison Formation of the Rocky Mountain region, the sedimentary quartzites are bound together by microcrystalline silica.

Welding of the individual grains by pressure and geochemical processes can also be important. Preliminary petrographic examination of scattered samples of sedimentary quartzite by this author indicated that the degree to which a piece of sedimentary quartzite breaks with a conchoidal fracture appears to be partially related to the degree and abundance of welding between its sand grains.

Another term used for sedimentary quartzite is *orthoquartzite*. It was first used by Tieje (1921:295) for granular rock that fractured through its constituent grains. However, contemporary geologic usage has redefined orthoquartzite as any sandstone that consists of more than 95 percent quartz sand, regardless of whether it breaks through its grains or not (Pettijohn 1957:295; Pettijohn et al. 1973:168). As a result, not all orthoquartzites are sedimentary quartzites. Therefore, orthoquartzite is an improper term to use for these rocks as it refers to the composition of a rock rather than its physical properties.

Sedimentary quartzites occur within the east-west trending belt across central Louisiana. This belt represents the outcrop of the Catahoula Formation as mapped by Sneed and McCulloh (1984). The sedimentary quartzite occurs as lenses within beds of medium to coarse-grained, moderately well-sorted sandstone (Ambuehl 1979; Heinrich 1986).

Similarly, in west-central Mississippi, outcrops of the Tallahatta Formation contain sedimentary quartzite. It occurs as hard, concretionary masses within lenticular beds of medium to fine-grained, well-sorted sand enclosed by mudstones and claystones (Ambuehl 1979).

Preliminary work by the author indicates that there exist distinct differences between these sedimentary quartzites. First, the Tallahatta Sedimentary Quartzite is finer grained and much better sorted than the Cata-

houla Sedimentary Quartzite. Second, the Tallahatta Sedimentary Quartzite contains grains of glauconite that the Catahoula Sedimentary Quartzite lacks. The glauconite appears as scattered black to dark green grains in hand specimens. Finally, the sand of both quartzites consists of different types of quartz.

Sedimentary quartzite occurs in adjacent parts of Texas and Arkansas. It occurs as gravel in the Reklaw Formation of northeastern and east Texas. It also forms thin beds in the lower Wilcox Group of east-central Texas, northeastern Texas, and southwestern Arkansas (Stephenson 1953). Finally, it occurs as gravel within the Uvalde Gravel and high terraces of the Trinity River within northeastern Texas (Crook 1987; Perttula 1984).

Metamorphic Quartzite

The second type of quartzite is metamorphic quartzite. It is a quartzite formed from the metamorphism of sandstone. Metamorphism has crushed, deformed, and recrystallized the former sandstone into an entirely new granular rock. The sand cement of the former sandstone has been replaced by interlocked and sutured grains of quartz. All trace of the former sand grains and associated cement has been obliterated (Ebright 1979:169). Metamorphic quartzites have also been called *metaquartzites* or *paraquartzites* (Pettijohn et al. 1973:168).

Sources of metamorphic quartzites can be found within Louisiana and adjacent Texas. The gravels found within the Quaternary deposits of Louisiana contain a small, but constant percentage of metamorphic quartzite (Fisk 1939). Metamorphic quartzite of various colors, especially purple and reddish brown, is abundant in the Uvalde Group. The Uvalde Group covers many upland divides within east-central and northeastern Texas, including the upper Sabine River drainage. (Byrd 1971; Perttula 1984).

Conclusions

The group of rocks commonly called "quartzite" contains two classes of rocks of very different origin. One group, the sedimentary quartzite, resulted from the binding of quartz-rich sand or silt by silica cementation, and the welding of individual grains. The other group, metamorphic quartzite, resulted from the transformation of a sandstone into an entirely new rock by metamorphic processes.

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CHAPTER REPORTS

Imperial Calcasieu Chapter
Reported by
Harry Tanner

Officers for 1988 include the following:
President - Harry Tanner
Vice-President - Mark Wentz
Treasurer - Gordon Wooster
Secretary - Bonita Burton
Program Director - Buddy Spiller
L.A.S. Representative - Harry Tanner

North West Chapter
Reported by
Donald Duncan

On Tuesday, November 24, the chapte was treated to a presentation by Sonja Webb on her work this past summer at the Smithsonian Institution in Washington, D. C.

UPCOMING MEETINGS

French Colonial Historical Society

The French Colonial Historical Society will hold its fourteenth annual meeting on May 4-8, 1988, in Natchez, Mississippi. Proposals for papers and/or sessions on any aspect of the French colonial experience, and requests for information should be sent to Dr. Patricia Galloway, Program Co-Chairman, Mississippi Department of Archives and History, P.O. Box 571, Jackson, MS 39205.

1988 Mid-South Archaeological Conference

The 1988 Mid-South Archaeologic Conference is scheduled for the weekend o June 4-5 at the Executive Inn in Paducah, Kentucky. The Wickliffe Mounds Research Center, Murray State University, will host the conference.

The 1988 conference theme will be "Trade and Ceramics in the Late Prehistoric." To some extent, this will be a reprise of the Paducah Ceramics Conference, with a wider geographic base and more participants. Tentatively, we expect to keep Saturday afternoon open for a hands-on workshop/discussion of the ceramics. We hope the conference participants will bring type collections with them for direct comparison and discussion. Saturday morning and Sunday will be scheduled paper sessions.

On Saturday evening, the Wickliffe Mounds Research Center will host a reception and barbecue. We think that our colleagues who have not seen the site in a year or more will be pleased with the changes in the interpretation program and the physic facilities.

For comments or other information, please contact:

Kit W. Wesler
Wickliffe Mounds Research Center
P.O. Box 155
Wickliffe, KY 42087
(502) 335-3681

Archaeological Wood Symposium

A five day symposium will be held in Los Angeles in September 1988, in conjunction with the 196th National American Chemical Society Meeting. Topics will include: structure of dry and waterlogged wood, the aging process, physical and chemical properties of archaeological wood, microbial degradation of lignocellulosic materials, treatments for dry and waterlogged wood, weathering and protection, gluing of archaeological wood, long term storage and display, and potential treatments of archaeological wood based on chemical modification of cell wall polymers. The final half day of the symposium will be devoted to a discussion of future research needs and directions.

Sponsors include: American Chemical Society, Division of Cellulose, Paper and Textiles; Campbell Center for Historic Preservation Studies; Canadian Conservation Institute; Conservation Technology Group, Conservators of Cultural Property; Forest Products Laboratory, USDA; The International Council of Museums, Committee for Conservation; The International Institute for Conservation of Historic and Artistic Works; Pan-American Biodeterioration Society; and the Washington Conservation Guild.

There is still room on the program for a few research talks. Titles should be sent for consideration for inclusion in the program. For further information, please contact:

Dr. Roger M. Rowell
USDA, Forest Products Laboratory
One Gifford Pinchot Drive
Madison, WI 53705

The Caddo: Past, Present, and Future
The 30th Caddo Conference

The 30th Caddo Conference will be held on March 11, 12, and 13, 1988, at the Dallas Hilton, Dallas, Texas. Two days of symposia and individual presentations are planned. The participation of archaeologists, ethnologists, historians, ethnohistorians, and representatives of the Caddo Tribe is anticipated.

Symposium ideas and abstracts for associated papers should be submitted as soon as possible and no later than January 20, 1988. Abstracts for individual papers must be submitted no later than February 15, 1988. Abstracts should be typed and no longer than 150 words. Please note any specialized equipment needs. Presentations will be limited to 25 minutes, unless included in a special symposium format.

The Dallas Hilton is located at Mockingbird and Central Expressway, and will provide meeting space and rooms at the reasonable rate of $39.00 per day. A separate room will be available for book sales or displays. Please indicate a need for space by February 15, 1988.

The conference will be jointly sponsored by the Dallas Archeological Society, Geo-Marine, Inc., and North Texas State University. Abstracts and requests for additional information should be sent to:

Duane Peter
Program Chair
Geo-Marine, Inc.
815 Throckmorton, Suite 306
Fort Worth, Texas 76102