

ICOM COMMITTEE FOR CONSERVATION WORKING GROUP ON WET ORGANIC ARCHAEOLOGICAL MATERIALS NEWSLETTER NO. 23 SEPTEMBER 1992

NEWS FROM THE COORDINATOR

One of the tasks of a coordinator is to see to it that her/his working group does follow its working programme. This I do by having asked Molly Horvath to arrange our next WOAM meeting in South Portland in 1993, where all those who in 1991 obliged themselves to undertake certain investigations/research/work will bring forward their results and experiences.

The next task is to establish a certain amount of communication between the members of the working group. This I do by not hindering Tom Daley to produce and distribute one marvellous newsletter after another.

The third task is to function as an intermediate between the Committee for Conservation and the working group. This I do by sitting on the Board of the CC and letting out to the group only what I think they must know!

Here are a few such bits of information:

CALL FOR PAPERS

The ICOM Committee for Conservation will hold its 10th Triennial Meeting in Washington, D.C. from 22-27 August 1993. Authors wishing to submit papers to be considered for presentation at the Meeting and for publication in the Washington Preprints should obtain Instructions to Authors from:

Preprints Editor
c/o Conservation Analytical Laboratory
Museum Support Centre
Smithsonian Institution
Washington, D.C. 20560
USA
Tel: (301) 238-3700
Fax: (301) 238-3709

The deadline for papers is the 1st of December, 1992. A list of the Committee's Working Group Coordinators is available on request for those who are uncertain to whom their papers should be submitted.

I should perhaps stress that it is important for all prospective authors to submit the papers to me by the 1st of December, 1992 at the latest. I will not be able to deal with papers received after that date.

DIRECTORY BOARD NOTES ON THE WASHINGTON MEETING

The Washington 1993 Triennial Meeting will take place at the Sheraton Washington Hotel. The meeting is being organized for the moment, taking into account replies to questionnaires from delegates at the Dresden meeting. It is to be a combination of individual Working Group Meetings and Plenary Sessions. The latter, however, will be reduced in number and the emphasis will be on the appeal of the subject and quality of presentation. In fact, the quality of presentation - also the presentation of papers in the various Working Group Sessions has been a major point of criticism among the replies to the Dresden Questionnaire. Earlier disapproval with the quality of papers included in the Preprints was met with the introduction of a Review Committee for the Dresden Preprints. This review system will be revoked for the Washington Preprints under the name of Preprint Committee. Coordinators will be required to edit and rank papers from their Working Group. The Preprint Committee is responsible for the final selection of papers to the Preprints. Not least for reasons of limited printing space in the Preprints, obviously not all papers will find their way to the Preprints. However, if papers are rejected for inclusion in the Preprints, the authors should nevertheless attend the meeting and give their papers in the Working Group or as a Poster Session.

As for deciding where to give your paper in South Portland or in Washington, I refer to what I wrote in the last Newsletter(22).

DIRECTORY BOARD NOTES ON THE ICOM GENERAL ASSEMBLY IN QUEBEC (LETTER FROM THE CHAIRMAN)

The conference will take place from 19-26 September, 1992 in Quebec City, Canada. The Committee for Conservation will meet from 14:00 - 17:30 on Tuesday, 22 September in the Hilton Hotel. The title of our programme is "Restoration or Destruction" and will concern the ethics and dangers of taking objects from museums to use in their original function. For example, the playing of old musical instruments or the use of sacred objects in rituals. The topic has relevance to ICOM as a whole and should make an impact and encourage debate. To facilitate this we are choosing just 4 or 5 good speakers who will be introduced by a Moderator. Following the talks a "Provocateur" will summarise and lead the discussion. In addition to the formal programme, tours of the Centre de Conservation du Quebec and the storage areas of the Musee de la civilisation have been organized. Working Group and Interim Working Group Coordinators are invited to meet with the Directory Board on Wednesday, 23 September at 09:00. Further details will be provided regarding location. The Committee will likely have a publications stand at the conference in Quebec.

Following the meeting in Quebec City there will be several post conference tours, including one to the National Capital Region of Ottawa and Hull where the various National Museums of Canada are located. An interesting and enjoyable programme of social events and professional visits is being organized for delegates who wish to visit the National Capital Region. We hope that you and your Working Group colleagues plan to be at Quebec 92 and later visit the National Capital Region.

Best Wishes to everybody from you Coordinator

Per Hoffmann
German Maritime Museum
0-2850 Bremerhaven
GERMANY
Fax. (471) 4820755

News From The Candy Shop

The participants of the European Laboratory Network "Sucrose Project" (see Newsletter no. 21) met in Cartagena, Spain, 11-14 June, most amiably hosted by

the Centro Nacional de Investigaciones Arqueológicas Submarinas. The centre comprises a museum exhibiting finds from a series of underwater archaeological campaigns, as well as the impressive replica of a roman trading vessel, and is beautifully situated on the bay of Cartagnena - worth a visit. The workshop was held to discuss the results of the project in which 4 laboratories had each treated a series of waterlogged woods with sucrose, employing identical treatment procedures. Twenty three woods were tested, hardwoods and softwoods in various states of degradation.

Our results were only to some extent in agreement with reports in the literature: with a treatment solution of 50% (glg) sucrose, as recommended, the stabilization achieved, varied considerably. Anti-shrink-efficiencies (ASE) for cross-sections were measured from 13-200%! It could not even be established whether heavily degraded or slightly degraded wood was generally better stabilized.

It was, however, established that the sugar-treated woods were less attractive to termites than non treated woods. A clue to explain this was given in the form of excellent scanning electron microphotos presented by Carmen Perez de Andres and Uwe Noldt, which seem to show the sucrose deposited on the lumen side of cell walls as an amorphous (glassy?) layer rather than crystals filling the lumen.

A small series of 6 woods was treated with sucrose solution with a final concentration of 70%. These samples were stabilized much better. ASE values for cross-section area shrinkages of -2% to 9%.

These results prompted us to continue the project with a new series of wood types to be treated with 70% sucrose solutions. We hope that these experiments will give results that are more consistent and easier to interpret with regard to wood species and states of degradation. Apart from termites, ants will be tried on the treated woods and the electron microscopical investigations will be continued.

Results are sure to be presented at WOAM 93. Hopefully we will then have a better understanding of how to produce dimensionally stable "candied wood".

Per Hoffmann

NEWS FROM THE USA

The New York State office of Parks, Recreation and Historic Preservation is currently planning an Archaeological Collections Curation Field School during the summers of 1993 and 1994. A laboratory equivalent to the standard digging field school, this program will offer academic training and experience for students and paraprofessionals in curation and preventative conservation issues when dealing with archaeological materials. We expect each course to last two weeks, perhaps having two sessions per summer. During the course students will learn the theory and gain practical experience in curation issues by helping to assess remedial curation needs of a Revolutionary Era military site collection. They will also learn to develop and test an automated inventory system, survey for conservation problems, and practice developing a packing system for storing the materials to archival standards.

There are, however, no specific dates or details at this point. Anyone who may be interested should contact Nancy Demyttenaere and she will add them to a mailing list.

Nancy Demyttenaere
Archaeological Conservator and Collections Manager
New York State Office of Parks, Recreation and Historic Preservation
Bureau of Historic Sites
Peebles Island, Waterford,
New York
12188 USA

THE SPRING POINT MUSEUM, MAINE, USA

The extreme clipper Snow Squall has been the focal point for two documentation projects in 1992. The first is the comprehensive inventory and complete catalog of all of the associated artifacts that were recovered during the five excavations from 1982 - 1987.

This project updated and expanded the field catalog system and allowed me to view every artifact we had. The information for approximately 1600 artifacts was entered into a custom designed IBM-clone database using Paradox 3.0 software.

The second project was an intense 3 month drafting project which resulted in the documentation of Snow Squall's lines,

body plans and axonometric view of the bow section. Various parts of the vessel which were recovered separately were accurately placed back into their position on paper. Bill Bayreuther, Executive Director of the Spring Point Museum, Molly Horvath, Conservator, David Switzer, Snow Squall Project Director, Nicholas Dean, Maritime Historian, associated with the Spring Point Museum joined Dale Waldron, Architect and Karl Bodensiek, Intern, from the Historic American Buildings Survey/Historic American Engineering Record of the National Park Service for this summer's research.

The following explains some of the process:

HISTORIC AMERICAN ENGINEERING SURVEY SNOW SQUALL DOCUMENTATION PROJECT AT THE SPRING POINT MUSEUM, SOUTH PORTLAND, MAINE, USA

This past spring, I was honoured to be awarded the Sally Kress Tompkins Internship for Maritime Recording, but what this entailed did not become clear until my arrival at the Spring Point Museum on June 8, 1992. The task of measuring and drawing the remaining structure of the clipper ship Snow Squall appeared to be, at the least, extremely daunting. Although this sentiment has somewhat abated, the Snow Squall project has proven to be a formidable challenge, requiring a heavy dose of ingenuity together with a fair amount of basic head scratching.

While my associate, Dale Waldron, and I are both veterans of summer projects for the Historic American Engineering Record (HAER), neither of us had undertaken a maritime project of any kind in the past. Dale's assignment last year was with the California Citrus Heritage Project in Riverside, California, documenting packing houses, citrus groves and canals; mine was in Pawtucket, Rhode Island, drawing the eighteenth-century wood-framed Slater Mill--two very disparate projects.

The techniques employed for visually recording buildings and engineering sites are rather different, to say the least, than those used for floating (as well as formerly floating) vessels. Standing structures generally are rooted to the earth in a consistent, straight and level manner. Ships, on the other hand, are three dimensional structures that contain few parallel surfaces, let alone straight lines. Thus, documenting the construction of a ship necessitates the use of a process that is often very involved between the time of the initial measurement-taking and producing the

finished drawings.

Our responsibilities to the Snow Squall recording project are to produce a set of drawings that adhere to strict HABS/HAER graphic standards, and to aid the Spring Point Museum in its ongoing archaeological and conservation efforts. The finished drawings will act as accurate visual representations of the vessel's present condition. The need for these efforts is keenly felt by the museum staff and others interested in furthering the research on Snow Squall's past, and will be used as a tool for long-range planning for her future.

While HABS/HAER documentation does not normally include archaeological sites and artifacts, Snow Squall represents an important piece of physical evidence relating to mid-nineteenth century ship construction. In effect, the remains of the ship are an archaeological artifact, albeit a rather large one, and the problems in accurately recording her components can be seen as similar to those encountered on a disturbed stratified archaeological site.

The process of taking measurements from an existing site, be it ship or building, is essentially a progression of steps. We first needed to record the overall dimensions and form before we could place the smaller elements in their true relationships to one another. This systematic procedure helped to save time, as well as to avoid the possibility of errors caused by unnecessarily complicated field measurements.

In the case of Snow Squall, her overall condition and disposition presented certain difficulties that we had to address before each phase of the process could commence. She lies, listing to port with her keel running downhill, enclosed by a structure which was constructed around the steel cradle that carried her home from Port Stanley, The Falkland Islands, in 1987. We therefore had to develop a strategy for taking her measurements (under these less than ideal and somewhat restricting conditions) before the whole process could begin.

The first phase of the measuring process was the "lifting of lines," which resulted in a series of drawings that show the contours of the ship's hull. To achieve accurate measurements it was crucial for us to have constant reference planes from which to work. These are generally horizontal (level) and vertical (plumb) planes. For the lines of Snow Squall, we established a

level line fore and aft along her keel as a base horizontal plane. The vertical plane in this direction, however, created more of a problem, owing to the twenty-six degree list to port at the stem. We took advantage of this lean by using it as the plane at which we established a longitudinal section. Next, we set up a series of plumb vertical lines at "stations" along the keel that cut across the ship from side to side, or "athwartships." We used fluorescent orange surveyor's stape for these stations as a way to plot the vertical lines without applying markers or tags directly to the hull's surface, as it is important to have measuring planes clearly denoted for accuracy and for later reference.

We then created horizontal planes at intervals of one-and-a-half feet, beginning at the keel base line, which became a set of flat slices through the ship called "waterlines." We transferred these points from station to station starting at the vertical stem station, using a low-tech but highly effective tool: a water level. A water level is simply a length of clear plastic tubing nearly filled with water. By holding the ends of the tube upright, a horizontal plane can be transferred at any height or distance, even around corners, because the fluid level at either end of the tube will remain constant with itself--hence, "water level,"

With these planes in place, the hull was now prepared for the measuring process itself. Our intent here was to measure out from the waterline marks on each station to a reference staff set in line in close proximity. This staff is a ten-foot length of one-inch by four-inch birch with small nails protruding from the face at one-foot intervals. For rigidity it is backed with another piece of one-inch by four-inch birch to which are attached two legs that can be adjusted and tightened for stability. We recorded the shape of the hull by taking the distance from two separate points on the staff (using the nails as bases) to each waterline mark. We entered these measurements in a table and used them to plot the station's curve by triangulating the positions of the marks at the various waterlines and then connecting the points. We maintained consistency from station to station by carefully recording the location of the staff in relationship to the base horizontal plane, both along the length of the keel and in terms of the staff's relative height and angle.

For the documentation of the inboard surface, we placed the staff in a bracket fastened to the aft end of the rider keelson, which forms the inner backbone of the hull. Like the angled plane used in the outboard measurements, we

inclined the staff in complement to the lean of the keelson, twenty-two degrees here at the aft end, clearly indicating a twist of the ship. We stretched a level centerline, with a measuring tape slung underneath, from the inner face of the stem aft to the staff. When we had transferred the stations used in the lines-lifting process inboard, measuring commenced.

At each station, we strung a measuring tape athwartship and fastened it taut at the highest possible point, allowing almost all measurements to be taken at points below the line. We located these points, which were primarily the seams of the ceiling planks and corners of the keelson, by using a measuring rod with a level attached, recording the height of the rod and the point at which it intersected the top line.

With the preliminary drawings underway, it has become apparent that these recording techniques have offered a high degree of precision in providing the data necessary to draft accurate scale drawings of the existing condition of Snow Squall. With the completion of the final drawings, it will be more feasible to analyze and reconstruct her original construction lines, as well as to have a permanent visual record of her present state.

Karl Bodensiek
Sally Kress Thomkins
Intern for Maritime Recording

To date, the final architectural drawings have been inked and the final text is being hand lettered onto the drawings. We are very pleased with the results of this project.

Molly Horvath
Conservator
Spring Point Museum

**ICOM-WOAM '93 SPRING POINT CONFERENCE
THE 5TH TRIENNIAL MEETING
AUGUST 14 - 20TH, 1993**

The Spring Point Museum staff and WOAM coordinators warmly welcome you to Portland, Maine, USA, for the 5th triennial meeting of the Wet Organic Archaeological Materials working group. Surrounded by water on three sides, Portland is a scenic peninsula city. The renovated waterfront area is called the Old Port Exchange. Let the cobblestone streets and gas lanterns lead you through this

area to the many boutiques, art galleries, pubs and restaurants. There are several museums in Portland alone! Explore whale watching, deep sea fishing, camping or hiking, or white sandy beaches. In August temperatures can reach 90/ F during the day and drop to 60/ F at night. Bring your swimming suit for a refreshing dip into the 65/ F ocean! The conference site will be the Sonesta Hotel located in the heart of the downtown area. Portland is a beautiful city with something for everyone.

Travel arrangements (please read this carefully)

We were unable to receive an airline discount for the WOAM meeting; however, we do have information concerning the ICOM-CC meeting that many of you can take advantage of. The ICOM-CC meeting dates are from August 21 - 29th, 1993 and will be hosted by the Conservation Analytical Laboratory in Washington D.C. The following arrangements are quoted from their travel company:

"Conventions in America is the official travel company for ICOM-CC and will guarantee the lowest fares on any airline. American Airline is offering a 5% discount when travelling to ICOM-CC' s meeting. Some restrictions apply, and travel dates must be between August 17 - September 2, 1993.

Win a free trip!! Conventions in America customers automatically become eligible to win two free round-trip tickets for travel worldwide. You must call their 800 number to become eligible. (drawings held bi-monthly)

To make your reservations, call Conventions in America at 1-800-535-1492, ask for Group #640. You will also receive free flight insurance of \$100,000 and dream vacation vouchers including free airfare to exotic destinations like Hawaii, the Bahamas and Mexico (ask agent for details). If you call American directly at 1-800-433-1790, refer to Starfile #S0183V7.

Call today! 1-800-535-1492 -- Group #640.
Reservation hours M-F 6:30 am - 6:00 pm / Sat 8:00 am - 2:00 pm Pacific Time (24 hour toll free message line)"

This means that if you are going on to the ICOM-CC meeting and book your airline travel on American Airlines directly or through Conventions in America you are eligible for the 5 % discount flying from Maine to Washington D.C.

and back to your home (continental USA), providing your travel is completed by September 2, 1993. In addition you are eligible for the drawing for two free world-wide tickets.

The Sonesta Hotel is offering registered guests free parking in the adjacent garage and free shuttle service to and from the Portland International Jetport. A courtesy telephone near the baggage area will connect you directly to the Sonesta Hotel to summon your shuttle.

CONFERENCE SCHEDULE

Saturday, August 14, 1993

On Saturday, early arrivals can check into the hotel after 3:00 pm. Unwind and enjoy both the panoramic view of the harbour and the hotel's hospitality for an hour of complimentary domestic beer, and inexpensive liquors or mixed drinks in the "Top of the East" lounge from 5:30 - 6:30 pm. Many fine restaurants are within walking distance of the Sonesta Hotel... explore and relax at a leisurely pace.

Sunday, August 15, 1993

For those of you who are in town and wish to tour some of the most popular destinations in Maine, we have arranged an optional luxury motorcoach tour. In the morning we will depart from the Sonesta for a tour of Kennebunkport, a classic New England coastal village with a sparkle of elegance. A row of Victorian and Federal mansions, built in the 18th and 19th centuries by sea captains and wealthy merchants stand impressively along the road leading into the village. One of the homes looks like a large wedding cake, icing and all! We'll also enjoy a lovely drive along Maine's famous rockbound coast including a drive past President George Bush's -Summer White House- (occasionally this road is closed for security reasons). Other highlights include Kennebunk Beach and the classic fishing village of Cape Porpoise. We will have time for lunch, browsing and picture taking in Dock Square, described as -a town square even Walt Disney could not have designed better. - Our second destination is the City of Portland, the most populated city in Maine. Our tour will include a drive by such highlights as the Longfellow House, the Portland Observatory, the working waterfront, the Portland Museum of Art and the retail/restaurant section known as the Old Port Exchange. We will make a stop at the Museum at Portland Head Light, one of the oldest

lighthouses in the country. We must have a minimum of 25 people to make this work, 44 people maximum.

9:00 am Pick up group at Sonesta Hotel
10:00 am Arrive in Kennebunkport for tour of area
11 :30 am Group has free time in "Dock Square"
1 :00 pm Depart Kennebunkport for Portland
1 :30 pm Tour of Portland and stop at Portland Head Light
3:30 pm Tour ends at Sonesta Hotel

Cost: \$17.00 per person. Register on the conference sheet.

Sunday evening there will be a conference registration early check-in and hors d' oeuvres with a cash bar from 8:00 - 9:00 pm in the Portland Room of the Sonesta Hotel. Come and check in, bring your family and enjoy the company of new and old friends.

Monday, August 16, 1993

Guests of the Sonesta Hotel can enjoy a complimentary hot breakfast in the "Sand Dollar Cafe" from 7-11:00 each morning. Conference registration check-in will be set up in the lobby. Conference welcome will begin at 9:00 am, followed by papers. There will be mid- morning and mid afternoon coffee and tea breaks each day. Lunch is on your own and there are many places nearby to enjoy. We anticipate the papers ending about 5:00 pm. There will be a cash bar set up in the ballroom at 6:30, followed by a banquet dinner at 7:30 pm: choose Roast Prime Rib of Beef or Chicken and Bay Scallops on your conference registration sheet. The Portland Folk Club's professional group "Roll and Go" will present a program of Sea Music. Hoist a beer and sing along!

Tuesday, August 17, 1993

Complimentary breakfast will be served in the " Sand Dollar Cafe" from 7 - 11:00 am. Papers will begin at 9:00 am, with coffee breaks mid-morning and mid-afternoon. Lunch is on your own in one of the many places nearby. Papers will continue until approximately 5:00 pm. Take the evening to enjoy Portland at your leisure.

Wednesday, August 18, 1993

Complimentary breakfast will be served in the "Sand Dollar Cafe" from 7 - 11:00 am. Papers will begin at 9:00 am, with coffee breaks mid-morning and mid-afternoon. Lunch is on your own in one of the exotic places nearby. Afternoon papers will end early at 3:30 pm. At 4:00 pm transportation will be provided to the Spring Point Museum for an informal good old Maine picnic and visit to the conservation laboratory and Snow Squall Project.

Transportation back to the Sonesta Hotel will be provided at 7:30 pm. A bus trip is immediately available for those wishing to go to Freeport, Maine, for a little shopping spree. Freeport is a factory outlet capital, with over fifty stores of all varieties, including L. L. Bean (the outing store with a trout pond inside... honest). Excellent bargains can be found. We will leave Freeport about 10:30 pm.

Thursday, August 19, 1993

Complimentary breakfast will be served in the "Sand Dollar Cafe" from 7 - 11:00 am. Papers will begin at 9:00 am. Lunch will be served at the hotel (Garden Salad, Tomato Basil Chicken, Sliced Fruit Assortment), followed by a round table discussion leading into the end of the conference and time for a farewell drink together. People can informally go out to dinner together.

Friday, August 20, 1993

The optional Friday fun is a group trip to House Island in Casco Bay for a traditional Maine lobster feast and historical tours. The bus will leave the Sonesta Hotel at 9:30 am. If necessary, luggage can be checked with the bellman or brought to a (free) secure wharveside storage area. We will have a narrated harbour tour by private boat on the way to House Island. Once on the island we will tour the island and civil war era Fort Scammel. We will have a traditional Maine Lobster Bake, with salads, corn on the cob, blueberry cake, a choice of lobster or steak and coffee and tea and a special couple of beers brewed for us by the Maine Ale and Lager Tasters (M.A.L.T.) home brew beer club! Recreational facilities are available and there are accommodations for us on the island in case of rain. We will leave the island at 2:00 pm, and the bus will pick us up at the wharf and return us to the Sonesta Hotel. Those with overnight reservations can relax and enjoy Portland's many attractions at their leisure. Those leaving for ICOM-CC's

meeting will depart accordingly. The House Island optional Friday fun trip will cost \$50.00 (US) each. Make your menu selection on the conference registration sheet.

SPECIAL NEEDS

If you have special dietary or other needs, please indicate on your conference registration sheet and we will do our best to accommodate.

CONFERENCE REGISTRATION FEE AND REFUND POLICY

The conference registration fee is \$ 300.00 (US) per person for payments postmarked no later than July 14, 1993 and goes up to \$350.00 (US) per person after July 14. This price includes a copy of the ICOM-WOAM 93' Spring Point Museum Conference Proceedings once they are printed. Student price is \$200.00 (US). Walk-in registration will be accepted at the Conference, but there is D.Q. guarantee that meals and special events will be available for late registrants.

REFUNDS:

If you are unable to attend, seventy-five percent of your conference registration fee will be refunded only if your request for a refund is received by the Spring Point Museum (by mail, telephone or fax) by 5:00 pm [local time] on Thursday, August 19, 1993! Payments for meals and special events cannot be refunded.

CONFERENCE DETAILS

For those of you who will be bringing family members there is an additional conference meal ticket available at \$82.00/person which will allow your significant friend to join you for hors d'oeuvres, all coffee breaks, the banquet dinner and the formal lunch.

Those of you planning to bring your family and looking for vacation ideas can contact the Convention and Visitors Bureau of Greater Portland at
305 Commercial Street,
Portland, Maine 04101
Telephone: 1-207-772-5800
Fax: 1-207-874-9043

If you think you will attend, please drop us a postcard

with your name and how many people you plan to bring. We are interested in having a general head count as soon as possible. Send to:

Molly Horvath
Conservator
Spring Point Museum. at SMTC
Fort Road
South Portland. Maine 04106 U.S.A.

Telephone and Fax: 1-207-799-6337

CALL FOR PAPERS FOR THE WOAM CONFERENCE

As soon as you have decided to present a paper at our meeting in South Portland, Please inform me about the title, even if it is only a preliminary one, so that I can put together the programme. This should be not later than 15th May, 1993.

By the 15th of June, 1993 I need a summary of not more than 200 words. These summaries are to be handed out at the conference.

Deadline for the receipt of print-ready manuscripts is the 16th of August, 1993 the first day of the conference.

Please send your manuscript to me: the earlier the better, For details about the form of manuscripts, please take from the following "Guidelines",

Per Hoffmann, Deutsches Schiffahrtsmuseum
2850 Bremerhaven, Germany
Tel: (49) 471.482070
Fax: (49) 471. 48207.55

Guidelines For The Preparation Of Camera-Ready Manuscripts For The Proceedings of Our WOAM 93 Conference

Language:
Papers must be in English

Content:
Manuscripts should not have been published elsewhere

Summary:
Please include a summary of not more than 200 words to precede the main body of the text.

Figures:
For the photo-printing process envisage for the production of the proceedings you can place line drawings and graphs directly in the text.

Black and white photographs. are reproduced best if you send 13 cm x 18 cm copies and leave the spaces in the text where they are to be placed. Please number the photographs on the back and the places where they shall be placed. You can print the legends to them in the manuscript. The publisher will reduce the photographs to the size you have planned and indicated by the free spaces in the text.

Printing:
Remember that the photo-production technique never improves the appearance of your manuscript. Therefore, it is vital that you use clean and clear types, as black and brilliant as possible.

Single spacing of the lines has proved to be better reading than 1 1/2 spacing and it requires less paper!

Deadline:
August 16, 1993, I must have the manuscript in hand. This is my full earnest and last word., sorry about that!

NEWS FROM THE UK

Conservation Of Waterlogged Bark Bowls

Introduction

In the spring of 1990, the remains of four Neolithic bark bowls were excavated from waterlogged levels within river gravels of a tributary of the River Thames. The vessels were removed from the excavation using standard block-lifting techniques and then excavated in the lab to reveal the outside of each bowl. Two of the bowls were fragmentary but the other two were largely complete and each was approximately 40 cm in diameter.

Examination has shown that the bowls were constructed from sheets of birch bark fastened together with willow stitching. The condition of the bark varied greatly, from integral bark and phloem approximately 5 mm thick to 1 mm thick unassociated fragments.

Temporary Storage

Since excavation, the objects have been kept in cool storage at approximately 4 degrees centigrade. They have been kept wet by regular spraying with boiled distilled water and by being covered with polyethylene sheeting. Even after two years in this condition there has been no need to consider the use of a fungicide.#####

Conservation Treatment

In order to retrieve as much information as possible from these unique artifacts, it was necessary to carry out a thorough excavation and recording of both the interior and exterior of the two largely complete bowls. It was decided that, after treatment, the exterior surfaces should be visible for display and future research purposes. This was the side that was revealed during initial laboratory excavation.

This approach necessitated the construction of temporary support so that the bowls could be inverted and the interiors excavated. Another permanent support would then be needed to be made for the inside of the bowls so that they could be reinverted, securely supported on a mount. A suitable drying technique would then be instigated.

A literature search was carried out into the treatment of waterlogged bark and various colleagues in other parts of Europe were contacted for suggestions, We were very grateful for all the interesting replies that were received.

Comparative testing of material from the fragmentary bowls was carried out to identify the most suitable conservation treatment. Solvent drying, air drying, freeze drying and PEG impregnation were tested. the most consistent results were obtained from pretreatment with PEG 400 (20%), PEG 1500 (10%), PEG 4000 (10%) followed by freeze drying. The PEG was applied as a daily spray throughout the treatment period.

The most complex part of the process was the effective support of these fragile, three-dimensional objects during treatment. In order to excavate the contents of the bowls an exterior support was constructed which enabled the bowls to be inverted.

After much testing a suitable technique was devised using nylon gossamer as a separating layer and Japanese tissue

paper, silicon rubber and polyester resin with fibre glass laminates as the support material.

The size, shape and positioning of the piece-mould sections were critical in ensuring that there would be negligible disruption to the bark surface when the moulds were eventually removed.

Once the support was in position, the bowls were inverted. All excavated soil was retained for environmental analysis.

After excavation and recording~ the inside of the bark was relined with the previously excavated burial soil. This had proved to be dimensionally stable during freeze drying tests and had the effect of holding the bark in position.

The next stage of the treatment was to re-invert the bowls so that the outside mould could be removed. This necessitated the construction of an internal mount which would provide a permanent support for the bowls during storage and exhibition. This was made from Silicone rubber and polyester resin/fibre glass in 5 pieces and fixed together with stainless steel bolts.

At this stage the vessels could be re-inverted and the exterior support carefully removed. Thus each bowl was now on a rigid mount and the exterior visible.

Current State Of Treatment

Replicas have been made of these two bowls using the now removed external moulds.

The two fragmentary bowls have been successfully freeze dried and techniques are being refined for the treatment of the two more complete vessels.

An assessment of the effects of the PEG treatment and the bark structure is being carried out by Man Yee Liu using a scanning electron microscope. The bark appears to be in extremely poor condition with extensive damage to the cell walls. Distribution of PEG is being investigated and the extensive presence of calcareous material has been detected on all samples.

The freeze drying of all the bowls should be completed by the end of July 1992 and hopefully a more detailed account of this complete treatment will be available in 1993.

We are very grateful for the advice and practical help with the moulding and replica making received from Derrick Giles

Clare Ward, Dean Sully and John lee
The British Museum
Department of Conservation

NEWS FROM NORWAY

A Wooden Trackway - From Excavation To Exhibition

Wooden corduroy bridges were very common down through the ages in Norway. They were constructed to enable travel across wet, bog like terrain. Logs lie perpendicular to the direction of travel with long hewn planks laid on top in the direction of travel. Several wooden trackways dating from 1 200 to 1400 AD have been found at a depth of 60 cm below the turf in Mid-Norway.

Approximately five meters of a corduroy bridge have been excavated and conserved for exhibition in the new National Cultural Center at Stiklestad, Norway. The bridge was excavated in September 1 991 and the exhibition opened in May 1992. At the start, we realised that the tight time schedule would be the project' s biggest challenge.

Twenty-nine logs were recovered. The logs were 160 cm long with a diameter of 20 cm. The total weight (wet) was 809 kg. The logs are Norwegian spruce (picea) and are well preserved. The water content (u. max) was about 220%. A log from the same bridge, excavated in 1984, was included in the International Comparative wood Treatment Study (1984-87).

The logs were impregnated with PEG 4000, followed by freeze drying. The concentration of the impregnation medium was increased from 10% to 46% over a period of 1 8 weeks, while the temperature was increased from 30 degrees C to 40 degrees C. During freeze drying the surface temperature of the chamber was regulated from -25 to 30 degrees C. Weight loss following impregnation was 2 % and after freeze drying 28% relative to the initial wet weight.

The final result was acceptable. It is possible that freeze drying could have been substituted with long term regulated air drying over a period of two years, but the imposed time schedule gave us no choice.

Wood and Metal

The problem of wood/metal composites came up in connection with the conservation of a collection of finds recovered from a burial mound in mid-Norway. The Object in Question is a small wooden bucket which is covered with thin chased copper alloy bands. the wooden bucket is constructed of yew (taxus). It is conical in shape with a maximum diameter of 14 cm at the top and height of 15 cm. It is fabricated from a solid log which had been hollowed out. The thickness of the wall is only a few millimetres and it had been compressed in several places.

The thin metal bands were partially fastened to the bucket, but numerous fragments, 100 in all, were loose. We wanted to conserve the bucket in such a manner that the metal bits could be remounted after conservation.

Three conservation methods were considered: 1 . acetone-rosin
2. dehydration followed by impregnation with a hard wax mixture (Christtensen' s method)
3. impregnation in an inhibitor-PEG mixture followed by freeze drying

After some trials with naturally degraded samples, the acetone-rosin method was selected based upon the following factors; (1) acetone-rosin provided good physical support to the thin and degraded wood (2) it was possible to reform the bucket back into its original shape during the impregnation process and (3) the rosin will not lead to future corrosion of the metal decoration.

The metal bands and fastenings were removed from the bucket and conserved separately. Following conservation they were remounted using microcrystalline wax.

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Instrumental Analysis of Wet Archaeological Textiles

Although the conservation laboratory in Trondheim is well equipped, we lack in house facilities to carry out instrumental analysis. It is in the area of instrumental analysis that we hope to expand in the coming years. In the meantime, we are investigating possible methods.

Normal, excavation of the medieval levels in the City of Trondheim do not yield many or especially exquisite textile finds. Excavation of the Bishop's Palace at Nidaros Cathedral which began in 1990 has not led to an increase in quantity of textile finds but there have been some "good bits" including textile fragments constructed wholly or in part of metal or metal wrapped threads. We have taken the occasion of these finds to investigate the analysis of the metal contents of the metal threads. SEM-EDS is a method which has gained recent popularity in the analysis of metal mordants on textiles. Of interest was not just the metal contents of the threads but also the extent to which soil contamination influences interpretation of the analytical results. SEM-EDS analysis of gold thread and what we found out to be, gold plated, silver wrapped silk threads was not complicated in this case by wet soil burial. Interpretation of the results was straight forward.

Another project, has been monitoring the exchange of elements heavier than A 1 (atomic number 13) in undyed, unmordanted natural fiber fabrics experimentally degraded by soil burial. It is hoped to gain insight into possible interaction between soil elements and various textile materials. X-ray fluorescence spectrometry is proving very useful. Initial results indicate that interactions vary with soil type and fiber type. In general, interaction are not as extensive or large as one might suspect, although, dyed or mordanted fibers have not been investigated yet.

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The Wetland Revolution in Prehistory
edited by Bryony Coles. The Prehistoric Society and
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In The Wetland Revolution in Prehistory, 16 papers offer an international perspective.

Emanating from a conference held at the University of Exeter in 1991, this volume provides a wealth of fascinating data, from northeast Canada through Europe to Russia, Japan and New Guinea. From this wide coverage both positive and negative points emerge. Particularly important is the contribution that wetland archaeology makes too precise dendrochronological dating of archaeological remains- which helps us to recognise the contemporaneity between different communities and regions.

There are problems, however, especially the huge Quantity of materials generated by wetland sites that incur years of painstaking and expensive post- excavation analysis.

Most serious of all is the apparent failure of "mainstream" archaeology to acknowledge or integrate the unique diversity of evidence from wetland sites into its assessments of the past. This small volume provides a rich cross section of current work in a branch of archaeology that, for once, really does have the potential for bringing the past vividly to life.

Available from:

WARP, c/o Department of History and Archaeology
University of Exeter
Queen' s Building, Exeter
EX4 4Q4

FROM THE EDITOR

For your submissions to be placed in the next Newsletter please send them to me or Per Hoffmann by the end of January, 1993.

Thank you

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SONESTA HOTEL RESERVATION INFORMATION

for

ICOM-WOAM '93 SPRING POINT MUSEUM CONFERENCE

AUGUST 14 - 20, 1993

The Sonesta Hotel is holding a block of rooms for the ICOM-WOAM '93 Spring Point Museum Conference at the following rates in USA funds:

Single occupancy: \$ 92.00 (U.S.) each night + 7% tax
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There is no charge for children under 17 when sharing a room with an adult. Additional cot or person in room is an extra \$10.00.

All room rates will be taxed 7% and incidental charges (phone and room service) will be added to your room bill.

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- * Free off street parking in the adjacent Gateway Garage
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- * Free hot breakfast 7:00 - 11:00 each morning in the "Sand Dollar Cafe"
- * Free Manager's cocktail reception 5:30 - 6:30 each evening at the "Top of the East" lounge
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Handicapped facilities and non-smoking room requests will be taken on an availability basis; coin operated laundry is available. For revisions or cancellations, please call (207) 775-5411 or toll free (800) 777-6246. Reservations must be received by the Sonesta Hotel no later than July 14, 1993 in order to receive the special room rate. Should requests exceed the number of rooms reserved, the room block will be expanded if rooms are available. Make your room reservations early! Contact the Sonesta Hotel directly.

All reservations must be guaranteed with first night's deposit or credit card number (with signature and expiration date). Check-in time is 3:00 pm, check-out time is 12:00 noon.

Sonesta Hotel: 157 High Street, Portland, Maine USA 04101

Fax: 1-207-775-2872 Phone: 1-207-775-5411

Continental USA call 1-800-777-6246

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(please print clearly)

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State _____ Zipcode _____

Country _____

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REGISTRATION SHEET August 14 - 20, 1993**

(type clearly, completing a separate sheet for each conference registrant)

Name: _____

Title/Organization: _____

Address line 1: _____

Address line 2: _____

City: _____

State: _____ Postal code: _____ Country: _____

Home phone: _____ Work phone: _____

Arrival date: _____ Departure date: _____

The Conference registration fee until July 14, 1993 \$ 300.00 (US)

The Conference registration fee after July 14, 1993 \$ 350.00 (US)

The Student Conference registration fee is \$ 200.00 (US)

Please indicate your selection for the Banquet dinner.

_____ Prime Roast Rib of Beef _____ Chicken and Bay Scallops

* I am including my conference registration fee \$ _____ (US)

* I would like _____ extra conference Meal Plan(s)
at an additional \$ 82.00/person \$ _____ (US)
Please choose Beef _____ or Chicken _____

* I am reserving _____ seats for the Sunday
bus tour (8/15/93) at \$17.00/ person \$ _____ (US)

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Island Lobster Bake (8/20/93) at \$50.00/person \$ _____ (US)
Choose one dinner selection per person:
_____ Lobster _____ Steak

Total enclosed \$ _____ (US)

Full payment is due when registering. Please make checks payable
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