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Associated Students for Historic Preservation

Winter 2002

On the Inside

"Poverty is the best friend of preservation. When property owners don't have... money, they're no longer potential customers for the aluminum siding salesman or the fly-by-night contractor hawking the latest trend."

-Clem Labine

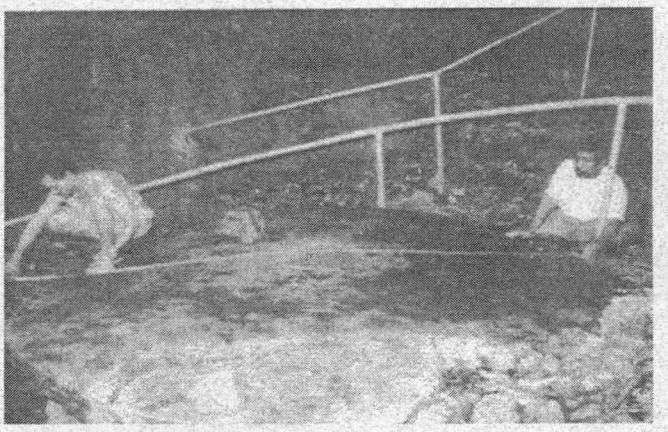


Figure 1:
Calvin Emesiochel and Tamael Klouchelad measuring abandoned stone money disk at Metuker ra Bisech, 1999
(Photo by Scott M. Fitzpatrick).

A Case Study From Micronesia:

FORMING COOPERATIVE RESEARCH RELATIONSHIPS IN ARCHEOLOGY AND HISTORIC PRESERVATION

Introduction

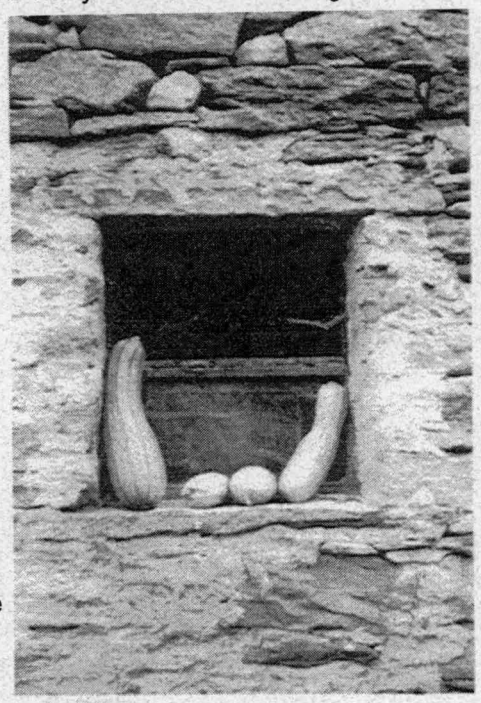
The importance of working collaboratively on research projects in archaeology and historic preservation cannot be overly stressed. From my experience as an archaeologist, I have found it virtually impossible to work without experts in other areas such as geology, biology, geography, political science, and planning. The broad array of theories and research that specialists bring to the multi-disciplinary table when conducting their research allows for a greater understanding of the project as a whole, and ultimately becomes a more rewarding experience for those involved. Since 1997 I have been project director for archaeological and historic preservation training projects in Palau, Western Caroline Islands, Micronesia. Funded through the Sasakawa Peace Foundation and the Hawaii East-West Center with Prof. William S. Ayres (Anthropology) as project organizer, we have focused on upgrading the technical skills of staff at the Division of Cultural Affairs (DCA). To date I have conducted five separate training projects at seven different sites in Palau ranging from basic survey and mapping of traditional

Continued on page 11, Cooperative Research

From the Editor

by Elizabeth Fagin

The 1999 Italian Historic Preservation Field School took place in the tiny village of Canova, nestled at the base of the Alps in Northern Italy. Canova is a family of weathered stone houses, some over a thousand years old, growing like an organic creature out of the rocky soil. The houses cluster themselves together tightly to protect their inhabitants. It is hard to imagine that this sunny pastoral landscape used to be the site of constant violence and warfare during the middle ages. But the architecture is a constant reminder of this, from the narrow look-out windows with built-in seats for people to keep their vigil, to the secret hollow spaces built into the stone walls to shoot arrows at unsuspecting intruders.



Window in Canova
(Photo by Elizabeth Fagin)

We were kept busy rebuilding walls, plastering, measuring and documenting structures, clearing rubble and drawing details of the houses. We also made field trips to the numerous historic sites surrounding Canova. We took walks around the countryside through ancient neighboring villages whose population had drained away until they were practically ghost towns with a few elderly denizens who continued to tend their ancestor's grape vines and cut hay for their animals with home-made scythes.

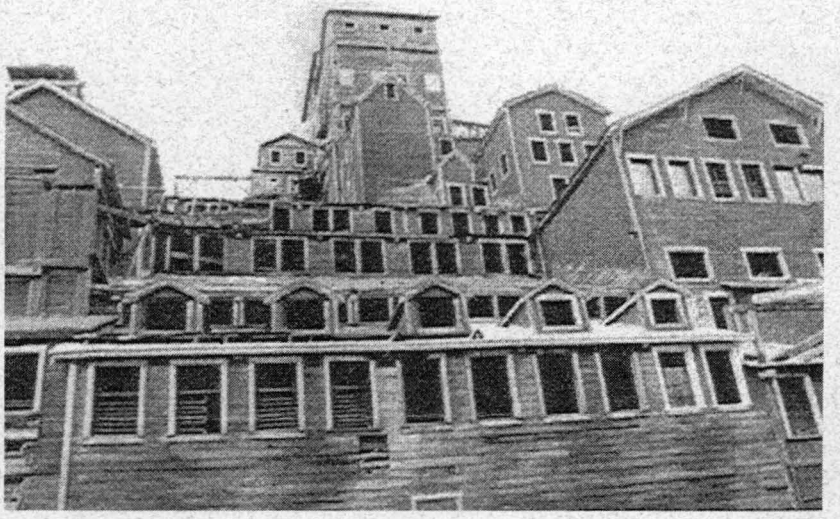
It was bizarre to walk through the narrow winding pathways of the stone villages and be able to freely wander inside the abandoned houses. In some houses it was like the people just put the fire out in the huge open fireplaces and walked away and never came back. One house still had tin cooking utensils stacked on built-in shelves and a cobweb-like lace tablecloth on the wooden table. There was a calendar hanging on the wall with pictures of the pope on it. The date was January, 1964. Some houses were just a pile of rubble, others were rapidly headed there.

It was typical for animals and farm equipment storage to be on the first floor, for the people to live on the second floor, and for the hay to dry on the third floor where the southern facing wall was opened up to the sun. We climbed up terrifyingly narrow and steep stone steps with no handrails into the living quarters of one house to discover that the timber floor had completely collapsed. From the unstable threshold we could s that one of the sleeping rooms was so small that when the floor gave way the bed-frame remained wedged in-between the walls so that it appeared to be floating where the second floor should have been. It was an eerie sensation seeing these buildings, which were obviously at one time full of life, now left to crumble. The few old people who remained were thrilled to see us. They were extremely proud of their villages and their sun-browned wrinkled faces would just glow when our translator asked questions about their farms or the history of their village.

As we were leaving one village we passed a barn door with a desiccated ram's head nailed to it. It still had it's white fur and skin, but no eyes. It seemed to echo the condition of the village. The world had changed so that these villages, for good or bad, could never be how they once were. These beautifully simple stone structures were a product of a hard, sacrificial and often violent way of life.

Alaska's Great Copper Mill:
Interpreting Kennecott's Refining Process

By Grant Crosby



My first visit to the "Last Frontier" was in late December of 1999, when I had hoped for a Y2K experience that couldn't be beat. In the dark, dead of winter, while enduring 50° F below zero temperatures, I anticipated the "grid" going belly up and having to resort to "heating on a shoe string." To my chagrin, the world was free of Y2K glitches and Alaska was no exception. Instead, I was captivated by the endless landscape and the remote nature of Alaska. While standing on a hillock outside of Fairbanks, looking out over a sea of scraggly black spruce, I wondered how people survived in such a harsh winter climate prior to our modern conveniences. I was eager to return to Alaska during different seasons to learn more about the remote state.

An opportunity to work with the National Park Service in Alaska during the summer of 2000 presented itself and I immediately applied along with my classmate, Michelle Rae. In mid June, we set off on a four-day drive up to Anchorage, Alaska. I had visions of the wild, expansive landscape, full of mountains and open space teeming with animals who had been hiding out all winter. While chasing the sun as the days grew longer, sightings of moose, wolves and bears became more and more frequent as towns and gas stations grew sparse along the Cassiar Highway. We welcomed the change.

We had been hired by Steve Peterson, Senior Historical Architect with the National Park Service (NPS) at the Alaska Regional Support Office in Anchorage, and we represented the twelfth generation of University of Oregon students to participate in the NPS internship program. Our project involved documenting the processing equipment at the Kennecott Copper Mill for the Historic American Engineering Record. Amidst 16,000 foot peaks and glaciers that extend for miles, the Kennecott Mill is in the Wrangell - St. Elias National Park and Preserve, which encompasses some 13.2 million acres of rock, ice and forests, making it the largest National Park in the United States.

The Kennecott Mill has a provocative history. In 1900, led by Chief Nikolai, an Ahtna Athabascan Native, two prospectors, Jack Smith and Clarence Warner, were searching around the Kennecott Glacier for illustrious mineral deposits when they spotted what appeared to be a large grassy meadow high above, perfect for grazing sheep. Upon closer inspection, they realized it wasn't

grass at all, but a huge copper deposit. As it turns out, it was the richest copper deposit ever found in the United States. Shortly thereafter, the Kennecott Mines Company was formed and grew into the most profitable copper mine in the U.S. at the time, producing $300 million worth of copper from 1911 to 1938. Two small towns, four miles apart, Kennecott and McCarthy, supported the mining industry and were accessed only by a 196 mile railroad from Cordova on the Alaskan coast. Both towns remain today, though the population of permanent residents has diminished from 1000 to 20-30 year round.

Three mines, the Bonanza, Jumbo and Erie, shipped fist-sized chunks of ore containing up to 79% copper (compared to .03% to 3% today) to the mill. The ore traveled some fifteen hundred feet downhill via a tram system 2 miles long. Once arriving at the mill, the ore entered a refining process that Michelle and I spent 12 weeks learning about and documenting.

Our immediate supervisor was Logan "The Resource" Hovis, an NPS mining historian whose knowledge of mining, the mining process, mining lore and the Kennecott Story is rivaled by few. He gave us three objectives for the summer:

1) Draw plans of the extant processing equipment located in the mill and accurately locate them in the existing Historic American Building Survey plans.
2) Figure out the coordination of the transportation systems and how they related to every piece of equipment.
3) Label all of the pipes and launders (pronounced *law-ders*) in the mill and produce a comprehensive drawing of these systems in a 2D or 3D format.

We organized a schedule of three, eight-day site visits to the mill which was a days drive from Anchorage. On each trip we collected as much information about the equipment and systems as we could: drawings, measurements, photos and diagrams. Our first site visit included several process tours with Logan but it took weeks to understand the role of each piece of equipment, such as the Hancock Jig or the Dorr Thickener. In essence, each piece of equipment separated the material

Kennecott Mill Interior
(Photo by Grant Crosby)

through various gravity processes, ultimately isolating the copper from its host rock and preparing it to be transported by train to Cordova and then shipped to Tacoma, Washington. Following each site visit, we returned to the office in Anchorage to organize the information and produce drawings in CAD.

After locating the equipment in the plans, we set out to comprehend the transportation systems that carried ore from one place to another. Imagine if the electrical wiring in a large office ran amok and you had to figure out what each wire carried, where it came from and where it went. That's what we faced, but the wires were pipes, chutes and launders - the ultimate game of Chutes and Ladders or a Rube Goldberg invention. We started with what we knew, or thought we knew, and began labeling

each piece with colored flagging tape - green represented high grade ore, orange represented middling ore, blue was waste, and so on. Soon the mill was decorated with an industrial version of Tibetan prayer flags blowing in the breeze.

Soon the mill was decorated with an industrial version of Tibetan prayer flags blowing in the breeze

To simplify the organization, we developed a numbering system identifying each piece of equipment. Soon our communication was based on the numbering system. The next step was to figure out what connected each piece of equipment: pipes, launders or chutes and discern where they came from and where they were headed. We crawled through the timber frame bents, chased and tapped pipes and walked on launders to determine what was what. We then labeled the flagging with relevant information.

Knowing there was a possibility that the flagging wouldn't last long (those opposed to NPS activity in the mill might have enjoyed disrupting the process), we decided to use plastic plumbing tags to identify each piece of the system, hanging them out of reach from each respective unit. In many respects, that was the easy part. Back at the office, we had to transform all of this information into a comprehensible 2D format.

We devised a diagrammatic system with a variety of symbols, lines and layers, each representing equipment or a particular launder and what it carried. This system directly corresponded to the colored tags hanging in the mill. For example, high-grade ore was a green, solid line, while middlings ore was an orange, dashed line and so on. Using color and different line types enabled us to plot in black and white or color. Two schedules were created to interpret the lines. The first defined each piece of equipment, where it was located, what fed it and where it sent material. The second schedule defined each line of the transportation system using numbers that corresponded directly to the previous schedule. Creating the schedules was a mind numbing process that resulted in headaches, nausea, laughter and eventually, a real sense of understanding.

We learned far more about processing copper than we would ever be willing to admit. The experience was amazing; spending weeks in a time warp studying equipment and engineering techniques from a bygone era. Our project will likely be used to aid in future interpretive efforts for the public and also to further understand an historic process of copper production.

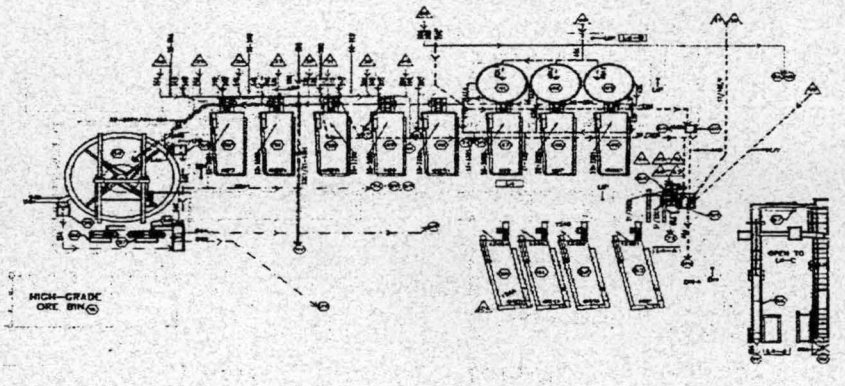


Diagram of the complex workings of a copper mine.

We wrapped up our work in Anchorage just as cooler weather began to hint at what lay ahead. Although we both wanted to stay and experience the infamous sub-zero temperatures, Oregon called, and we set off on our four-day drive south. Our trip home was just as inspiring as the drive up. We followed the rapidly diminishing daylight and witnessed a spectacular display of fall colors from Alaska through to Canada.

Housing Hope:
Rehabilitating an Historic Commerce Building for the Homeless

By Shawn Farrell

It was raining the night I arrived in Everett, WA at Housing Hope Village, a cluster of joined buildings comprising administrative offices, transitional housing, social service offices, and property management facilities; the brand new headquarters of Housing Hope, a non-profit agency committed to addressing the needs of homeless families in Snohomish Co., and the place where I was to spend the next year serving my nation as a VISTA Volunteer and working on the Commerce Building.

I had volunteered at homeless shelters and outreach programs in the past, but what really drew me to Everett was the opportunity to lead a re-development project in the basement of the historic, downtown Commerce Building. That night I met my boss, Ed Petersen, the gentleman who had hired me on the grounds of a single telephone interview, my VISTA application, and my willingness to move across the country, and his belief that I was committed to homelessness issues. I followed him home. I was going to be living with Ed and his wife Carol, in their attic, at least, and fortunately, only for a little over two weeks, until I could find a place of my own. I was suddenly, if only temporarily, one of the many who find themselves displaced in Snohomish County.

I was suddenly one of the many who find themselves displaced in Snohomish County.

From Halloween 1997 until Halloween 1998, I served as a VISTA Volunteer, a National Service program under the AmeriCorps umbrella. The AmeriCorps program was the brainchild of President Clinton, but the VISTA program was a product of the Lynden Johnson Administration developed to eliminate poverty in America. The idea was to assemble Volunteers In Service To America (VISTA) to partner with community based organizations to address the blight of social ills that confronted those Americans who lived from day to day in fear: fear of poverty, illness, or abuse; fears borne from the lack of shelter, food and heat.

My main project, The Commerce Building Janitorial Enterprise, was divided into two components. One element was the development of a janitorial service, to be known as Commerce Cleaners, to employ the clients and residents of Housing Hope's social service programs. The janitorial enterprise was designed to be a stepping-stone, or even permanent employment, for those who required the most guidance. I was assigned the job of Volunteer Coordinator, a position that eventually included an additional role as an impromptu In-Kind Donations Coordinator. But I was most excited about the second element of the Janitorial Enterprise, the rehabilitation of the basement space. The VISTA volunteer before me had contributed a business plan and the anticipated design of the basement. I was hired to continue the physical

development of a Career Center, classroom space, janitorial shop, and social service offices in the basement of one of Housing Hope's most ambitious projects; the historic Commerce Building.

In 1995 Housing Hope had succeeded in their most ambitious project to date: the 3.6 million dollar rehabilitation of an historic, five story, downtown office building into 48 units of studio, and single room occupancy apartments for the homeless, disabled, and displaced of Everett. The project also provides first floor retail space, and the eventual development of the basement space into a career guidance center and janitorial shop. The Commerce Building was erected in 1910 and at that time was home to the Bank of Commerce and the local Women's Suffrage Club. It is one of two buildings representative of the achievements of architect Benjamin Franklin Turnbull whose work dominated Everett's commercial development from 1907 to 1920.

Housing Hope had succeeded in their most ambitious project to date: the 3.6 million dollar rehabilitation of an historic, five story, downtown office building

Previously undeveloped, the basement space of the Commerce Building consisted of 3,000 square feet of storage space and a narrow hallway leading back into more catacomb rooms also used for storage. Honestly, at first, the place was depressing. It was littered with the cast-off furniture and possessions of those who had been evicted from the Commerce Building or left on their own accord. Either way, traveling light was paramount, and due to legal circumstances Housing Hope is bound to hold onto a departed tenants' possessions for a period of thirty days before disposing of them. The basement was filled to capacity with this stuff, since disposal was time consuming and costly and not often a Property Management priority.

There were also two entire back rooms filled with finer furniture, a donation from a bank. Housing Hope had intentions of either using or selling the furniture but the stuff had been under wraps in the basement for nearly two years before I arrived. And then, there was the toilet paper and diapers. Kimberly Clark, a local paper mill, donates regularly to Housing Hope and the boxes of tissue, and diapers filled whatever space was left, from floor to ceiling.

A massive work party was in order. After enlisting the help of the Property Management crew and several resident volunteers from the Commerce Building, a clean-up effort was initiated. After the main space was cleared, efforts were made to remove the bank furniture from the catacombs to Housing Hope Village. This time, residents were hired to help move the hefty furnishings and paper products. The tenant furniture was moved to the catacombs and the main space to be developed was finally open and free of debris.

After meeting again with the architect, it was decided that the space would be divided into one large classroom, two office spaces, a unisex bathroom, a storage area, and a janitorial office/shop located in the rear quadrant. There was some evidence that walls had existed in the basement at one time, visible as faint outlines on the floor and walls, but the major design objective was to enclose the seismic retrofit steel bracing that divided the space. Every effort to minimize adverse effects to the exterior were agreed upon, however security issues did require better exterior lighting. Additionally, because the career center and janitorial enterprise would operate independently but share a common exterior entryway, a window was removed in the shop area and replaced with a door, thereby somewhat altering the exterior appearance. It was determined that the new door be painted and trimmed out in a manner that would blend with the exterior walls and hopefully be less intrusive.

Ed Petersen and the other VISTA volunteer

Housing Hope, Bret Leone, had succeeded in securing half of the projected $64,000 needed for capital improvements. Securing bids and initial construction pressed on as we waited for other potential funding to arrive, including a critical and substantial grant from the Boeing Corporation. My objectives from the very beginning were to limit expenditures by reducing material and labor costs, and to keep the residents of the Commerce Building informed and included. In this sense, every effort to enlist their volunteer support or to employ the residents of the Commerce Building was capitalized.

Housing Hope's lead carpenters, Randy Underwood and Bob, from the Self Help Housing Program were available to help guide me through the construction phase. It was imperative to complete as much of the construction as possible with an in-house crew. Randy, Bob, and I, completed all the rough framing. We secured contracts from plumbers, telephone companies, electricians, sheet rock crews, sprinkler contractors, HVAC, and flooring contractors who had worked with Housing Hope on prior projects and were committed to it's causes. When a thirty-foot long, foot and a half wide trench needed to be cut in the floor for a plumbing line, Randy, Bob and I, equipped with sixteen-pound sledge-hammers, broke away the eight-inch thick concrete floor. Then, using mostly volunteer labor, carried two tons of concrete up a flight of stairs, into a truck, and deposited it at other construction sites ready to pour foundations. The busted concrete acted as fill for these pours and was another arrangement that saved money. I also opted not to hire a painting contractor. Instead, I was the painter. Armed with paint that matched the rest of the building's interior, a paint sprayer and trim brush I reverted back to the trade that put me through my first two years of college. I also painted and installed nearly all the finish trim and door casings.

> Diapers filled whatever space was left, from floor to ceiling.

> Armed with paint and a paint sprayer, I reverted back to the trade that put me through my first two years of college.

After checking with the building inspector, I arranged to use two-hour exterior fire doors for all interior doors because they were cheaper. I managed to strike a deal with the flooring contractor's son, exchanging his labor to float uneven areas of the floor for a case of diapers for his newborn son, a savings of several hundred dollars. Industrial grade carpet was chosen for the floor covering which matched carpet used in other Housing Hope sites and thereby alleviated maintenance concerns.

Throughout the construction process, Ed and I met with Operation Improvement; a local non-profit focused on job placement and job training, and had secured an agreement with them to partner with Housing Hope. It was hoped that Operation Improvement would occupy half of the basement space and establish a one-stop employment center, targeted for disabled, homeless, and special needs clients. It would be the first of its kind in Washington. The agreement was a verbal one (financial concerns were still being negotiated), but they had shown a good faith effort by hiring Commerce Cleaners, the newly established janitorial service, to clean their current office space. It was our first outside contract. Up to that time, Commerce Cleaners sole contract was an internal one with Housing Hope, completing apartment turns and cleaning the administrative space at Housing Hope Village.

By the end of October, office furniture had been secured through a variety of donations and ear-marked for the Social Service space in the basement.

Continued on page 11, Housing Hope

Pacific NW Field School at Ebey's Landing, WA

by David Steele

Time to get your hands dirty at the eighth annual Pacific Northwest Preservation Field School! This year's school will take place at beautiful Ebey's Landing, a National Historical Reserve.

During the field school, students will work on the nineteenth century Ferry House. Each of the four repeatable one week sessions will have a different focus and present opportunities to learn different skills, though certain themes will run throughout the entire program. Sessions will balance seminars, tours, and hands-on experience in a range of preservation techniques.

Topics addressed will include:

- Building conservation and rehabilitation
- Landscape, site, and structure assessment and analysis
- Preservation theory

Instruction from Preservation Professionals

Sessions will be led by one or more professionals specializing in the techniques and materials involved. Faculty come from across the Northwest and participate, as well as teach, in the Field School.

Join Us! - Application Information

Each year the Field School attracts a range of participants: from practicing cultural resource professionals, to graduate and undergraduate students, to novices with little background in the field but a love for heritage and a desire to learn.

To join us for what promises to be an exciting and inspiring learning experience, contact us at the address below for an application packet, or use the application on the back of this page.

Participants pay their own transportation costs to and from the program site. Program cost will be approximately $700 per week-long session, including room and board.

Participants can earn two undergraduate or graduate level credits from the University of Oregon for each repeatable one-week session. ***Applications received before May 15, 2002 will be given preference.*** For further information and application materials contact:

Historic Preservation Program
School of Architecture & Allied Arts
5233 University of Oregon
Eugene, OR 97403-5233
PH: 541-346-2089 • FAX: 541-346-3626
EMAIL: pnwfs@oregon.uoregon.edu

Hope to see you there!

2002 Pacific Northwest

Preservation Field School

Ebey's Landing

APPLICATION

Admissions decisions will be made primarily on the basis of your statement and background. Applicants will be notified as soon as their completed application has been reviewed. PLEASE PRINT CLEARLY OR TYPE.

PERSONAL INFORMATION:

Full name: _____ SSN: _____

Address: _____

Street *Apt. #* *City* *State* *Zip*

Phone: _____ Message phone #: _____ E-mail: _____

STATEMENT OF INTEREST:

Please attach a one page statement which explains your interest in preservation, what you expect to contribute and learn from the Field School program, and a one page vitae in resume form.

ACADEMIC INFORMATION:

List all colleges and universities attended since high school, beginning with current or most recent.

Name of Institution	City and State	Dates Attended	Degree and Year

OTHER TRANING:

List other training opportunities in which you have participated.

_____

_____

DO YOU WISH TO RECEIVE ACADEMIC CREDIT FOR THIS FIELD SCHOOL? ☐ Yes ☐ No

If you do not attend U of O and answered YES, submit transcripts from all colleges you have attended and one letter of recommendation from an academic or professional source.

PLEASE MARK THE SESSION(S) YOU WOULD LIKE TO ATTEND:

☐ Week 1 (Aug 11-17) ☐ Week 2 (Aug 18-24) ☐ Week 3 (Aug 25-31) ☐ Week 4 (Sept 1-7) ☐ Week 5 (Sept 8-14)

I certify that the information provided in this application packet is true and that this application has been completed without misrepresentation. If it is found to be otherwise, I understand it is cause for rejection or dismissal.

_____

Signature

_____

Date

SEND APPLICATION MATERIALS TO:

Historic Preservation Program
School of Architecture & Allied Arts
5233 University of Oregon
Eugene, OR 97403-5233
541-346-2089 (voice) 541-346-3626 (fax)
pnwfs@oregon.uoregon.edu

Applications are still being accepted. A $50 non-refundable deposit towards the $750 fee per session is recquired with the application. Please make checks payable to the University of Oregon.

HOUSING HOPE, Continued from page 8

Housing Hope's Property Management team, in conjunction with Commerce Cleaners, had established lans to outfit the j nit rial shopspace and expected to be fully operational from the new basement headquarters by the ew Year.

When I left Housing Hope on October 31, 1998 the basement renovation had yet to be completed. It was approximately 90% fnis ed with only a few minor tasks to be tended to before it would be ready for occupation. My cost reduction efforts had dre sed the c pit l cost amount by ten thousand dollars. This money allowed for an increase in the projected budge needed to provide social service and job training programs in the basement. The Commerce Building residents were beginning to buzz with excitement. The basement was nearly ready for the addition of the one component that would truly make it complete: people.

It had been a busy and educational year. On Halloween night, I finished the last of what I could, ran through the punch list ith Ed, handed over the keys and hugged him goodbye. Then I motored down I-5 to my next assignment. I was going to Eu en to serve with an AmeriCorps program working with high school kids and restoring sleeper cabins at Silver Falls StatePark.

If you have further questions regarding the VISTA/AmeriCorps program visit their website at www.Americorps.org. You can contact the author at sfcuda1965@cs.com

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COOPERATIVE RESEARCH Continued from page 1

village sites to computerized map making, installation of Geographic Information System (GIS) workstation, and subsurface testing.

An important facet of these projects is the strong working relationship that has developed between myself and staff members from the DCA. While helping to write their five year plan for cultural and historical preservation in 1997, I had many long and insightful discussions with DCA archaeologists about what their operations consisted of, previous archaeological research done in Palau, and how they viewed future research endeavors. As someone only starting their Ph.D. at the University of Oregon at the time (and already having planned to do my research in another part of Micronesia), I was introduced to a fascinating culture with open arms from the very beginning. During my first trip to Palau I visited sites that were being developed as eco-tourist attractions. I discussed the ramifications of this development with Rita Olsudong (Palau National Archaeologist), and with her first suggestion of doing my research in Palau instead of elsewhere, I was both flattered and captivated by the possibilities. As luck would have it, I continued going back to Palau once or twice a year with the training program, and in 1999, after securing funding from the National Science Foundation and Sigma Xi, began the first ever archaeological research on Yapese stone money quarries.

Figure 2: Cassidy deBaker (background), Rita Olsudong, and Tamael Klouchelad mapping an excavated test unit at Omis Cave, 1999 (Photo by Scott M. Fitzpatrick).

Yapese Stone Money

Yap's famous stone money has been discussed by anthropologists, archaeologists, and explorers for centuries. According to oral traditions, a navigator named

Anagumang first came to Palau and discovered a crystalline white limestone which he ordered his men to carve into various shapes before deciding on a circular disk. They perforated the disk with a hole so that it could be carried with timbers and brought back to Yap almost 300 miles away on rafts or canoes. These stone money disks

Figure 3: Rita Olsudong and Ryan Hagerty sorting excavated faunal remains at Chelechol ra Orrak, 2000 (photo by Scott M. Fitzpatrick).

became an important exchange item, their value dependant on the size, quality, shape, and effort expended to quarry the stone. Little is known about when this exchange system began, although it apparently intensified when Europeans became involved in the movement of workers and disks between Yap and Palau in exchange for copra (dried coconut meat). During the Japanese administration in the 1930s over 13,000 pieces of stone money were counted on Yap. Numerous pieces have been found in Palau that were left unfinished or abandoned because they broke, their value thus diminished *(Figure 1)*.

My research on stone money quarries is focused on three sites - Omis Cave, Metuker ra Bisech, and Chelechol ra Orrak. Preliminary survey and mapping of Omis Cave in 1998 revealed several features including one previously unknown stone money disk and a coral and limestone rubble dock to facilitate the transport of stone money onto watercraft. Subsurface testing in 1999 indicated that this site was heavily used for quarrying activities as evidenced by broken limestone fragments, pottery, faunal material, and charcoal recovered during excavation *(Figure 2)*.

In the summer of 2000 we focused our research at Metuker ra Bisech (i.e., Palauan for "around the corner from taro") where 16 stone features were recorded including stone pathways, platforms, alignments, and four pieces of stone money. We also found two metal blades, the first such tools found subsurface in association with quarry material, an indicator of how European technologies transformed the exchange process during historic times. Later in the summer, our work progressed to Chelechol ra Orrak (i.e., Palauan for "beach of Orrak Island") where we found strong evidence for subsistence activity including shellfish remains and fish bone *(Figure 3)*. We also found bone, shell, and stone tools along with pottery shards. At least eight burials were recorded, although their cultural affiliation has yet to be determined.

Cooperative Research Relationships

Without going into too much detail about the specific information we gathered during our work in Palau, I would like to focus instead on why I believe these projects have become successful. From the very beginning of my career as an archaeologist I was taught the utility and importance of working with others to achieve projected goals. This might be as simple as asking for an interpretation of sediment accumulation from a geologist, or interviewing knowledgeable people including Native Americans and locals about the site you are working at. As an undergraduate student I learned these skills through a series of mentor relationships with faculty at Eastern Washington University that became an invaluable part of my education.

Few people, I think, go through academia with a good mentor – someone who is extremely knowledgeable, personable, and a good teacher - that it makes them want to try and do the same for others. So, as I began my work in Palau, I thought back to my early education and tried to think of ways I could both learn and teach this plethora of information with which I was confronted. Although I was (and still am) only a Ph.D. student, I

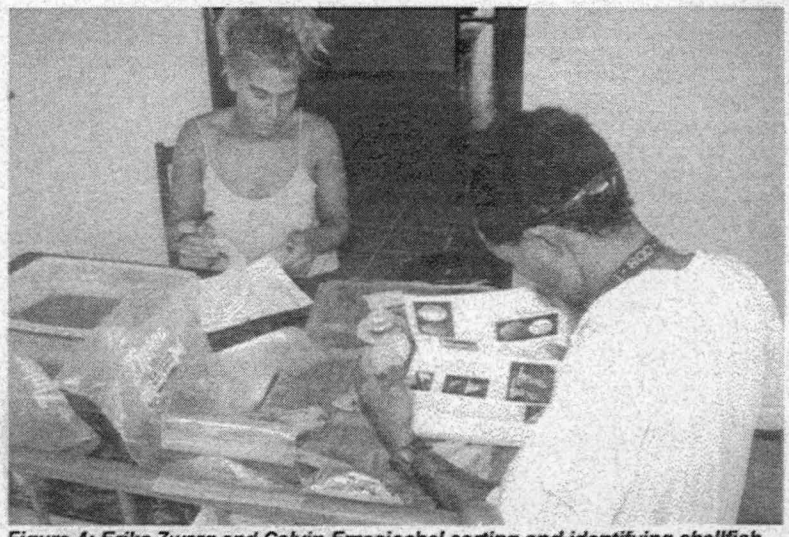

Figure 4: Erika Zwarg and Calvin Emesiochel sorting and identifying shellfish in the field laboratory, 2000 (photo by Scott M. Fitzpatrick).

believed it was never too early in my career to start finding and developing ways for myself to integrate students into these projects. Admittedly, for archaeologists this is also self-serving for it allows us to have a work crew without which we would be hard pressed to get anything accomplished. However, after having spent time on excavations where project directors were only interested in the data coming out of the ground, and not on what students were learning, I decided that expanding educational opportunities by involving students and Palauan archaeologists in a research program was ideal and necessary.

This cooperative research endeavor began in 1999 when two UO undergraduate students, Bethany Watson and Cassidy deBaker, accompanied me to Palau for four weeks to work at Omis Cave with DCA staff. Both sides found the working relationship to be mutually beneficial, and provided the students with a unique cultural and field experience. The two students have since written about and presented their results at a major conference, an important part of continuing their education at the graduate level.

In the summer of 2000, eight UO students came with me to Palau (including Watson and deBaker) for the second phase of the project. We worked with DCA staff identifying and sorting material recovered from Metuker ra Bisech and excavating at Chelechol ra Orrak. This project was an opportunity for advanced UO anthropology students, most of whom are pursuing careers in archaeology, to work with indigenous archaeologists. In turn, it was a chance for DCA staff to transfer in-depth cultural knowledge about traditional Palauan lifeways and information about the sites we were working at.

The cooperative research relationships that have developed between myself, UO undergraduate students, and the DCA staff has been one of the most rewarding aspects of working in Palau. Not only have these experiences left me with a great deal of satisfaction, but they have helped me to better understand the necessity of rigorously 'applying' archaeology. The benefits that come from conducting research apart from a strict academic agenda have considerable benefits for students, researchers, indigenous peoples, and the public. All those who have participated in these projects have expressed a desire to continue working together. And the fact that many of the students are now applying to graduate schools to continue their education in archaeology, is a testament to the impact these relationships can have on young scholars.

It is my hope to continue working in Palau for many years to come – not just as an archaeologist – but as a teacher, mentor, and cross-cultural liaison. I have found that it's never too early to practice the skills needed to foster healthy working relationships in the field. In the case of my work in Palau, it has certainly proven to be beneficial in many respects. ☙

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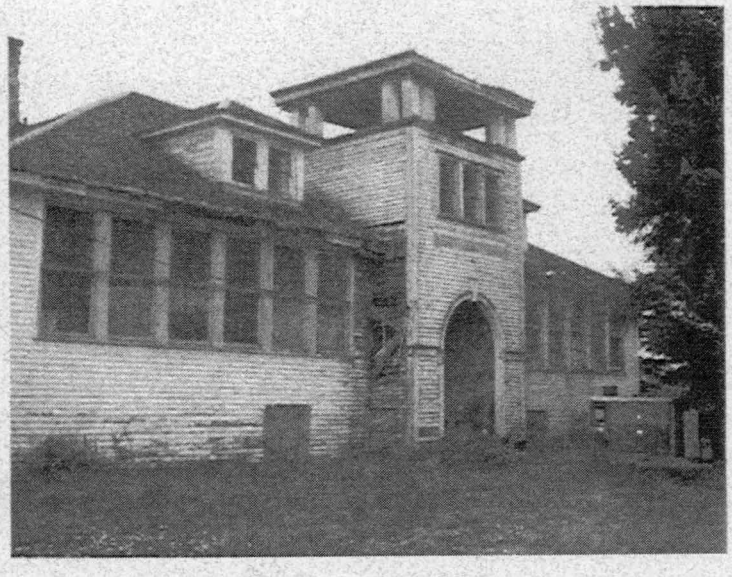

The Alvadore School in the tiny town of Alvadore, Oregon is a wonderful Beaux Arts inspired vernacular building. Unfortunately the "deferred maintenence" program has taken its toll. Until recently the school was lived in by its elderly owner who relocated to a nursing home. It is located across the street from Decker Nursery. Drive out there and catch a glimpse of what used to be the pride and hope of the Alvadore community, before it's gone.