

CORE VALUES ACHIEVABLE
SCIENCE STUDIO/ART LABORATORY MARINE MATERIALS EXPLORATION

I. Advances in science and technology:

- ▶ Marine sediment glazes and the stories they tell spawn new interest groups. The process I do works empirically for artistic outcomes; differently skilled people would develop techniques using the scientific method. Collaboration would produce new outcomes. Telling the stories of science benefits everyone and new opportunities would appear.
- ▶ People working with ceramic change in an art laboratory/science studio would synergize differing attitudes ideas and techniques.
- ▶ Connections with scientists are fostered when people give materials because they share curiosity about fired outcomes. Dick Norris of Scripps Institution of Oceanography said, *“Joan, you don’t know what it’s like to work with these materials for twenty years and then see them in this form.”* He referred to Indian Ocean sediment containing foraminifera shells that were evidence of re-population after the dinosaur extinction.
- ▶ Topics of Large Marine Ecosystems and thirteen Marine Sanctuaries are available on NOAA (National Oceanic and Atmospheric Administration) websites now. Associations with NOAA programs and staff would offer curriculum that spreads awareness about ocean management and conservation.
- ▶ Collaborations among science institutes and schools are feasible. A ceramic lab can transform marsh grasses, seaweeds, shells, biological samples of all sorts and most marine muds. Writing on stoneware clay produces artifacts for personal use, community archiving and exhibitions. Exposure and celebration of everyone’s work is the best anecdote for the kind of competition that sometimes slows progress.
- ▶ Alliances bolster narrow points of view. Windows into the world of science give art a chance to serve the greatest purpose of nurturing creativity for all. Working ceramically with sediments can lead to interest like:
 - studying biological and geological samples from the same place
 - plotting cruises
 - touring ships
 - partnering with engineers to plan, create and test gizmos
 - processing data from seismic monitoring
 - doing mathematical analysis of branching patterns made by melted sediments
 - setting up consistency studies aimed at reproducing results
 - studying chemistry of carbonate and siliceous oceans, acidity, salinity
- ▶ Writing proposals, business plans and communicating result in valuable skill sets for all stages of life.

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II. Community responsibility and leadership

The sea floor is all about communities. There are no boundaries there, where interdependence is a fact of life. History is embedded in the stratified sediments, encapsulating vast discovery potential.

Making glass from mud is similar to making gold from lead.

Awe and wonder from investigating together offers a bonding opportunity among people. Great rewards come when beauty is created, and the taste for more brings incentive to try again. People learn together in feedback loops. Attitudes about what is work and what is play blur.

Earth teaches by demonstrating natural laws. Earth's wholeness is an example of integrity.

III. Culture of innovation

"Discovery consists of seeing what everybody has seen and thinking what nobody has thought."

Nobel Laureate Albert Szent-Georgi :

Who knows what's to be found next in mud! Innovation that is easy for one person might challenge an organization because managing chaos is a phase of change. Everything can shift, including mainstays of daily life like: resource distribution, scheduling, priorities, willingness to make mistakes that lead to reaffirming objectives. About pioneering, Rosabeth M. Kanter, professor at Harvard Business School said, "Leaders ask for innovation, and then ask who's done it first?"

A science studio/art laboratory combo might challenge the usual compartments for learning but also can result in ease and liberation from constraints of past systems that no longer serve people well. If there's a conference facility, ongoing exhibits would spark ideas in an unending stream that would attract people and possibilities, including a variety of distance learning models.

IV. Diversity, gender, equity

It takes so many stories to tell the whole truth is a nurturing message underlying a thriving diverse community. Curriculum naturally arises from studying seafloor samples, and can celebrate biodiversity as a model for humans to emulate. The history of science shows communities surviving extinctions and repopulating after because symbiotic relationships favor survival. Mono-cultures often result in disease. What adaptation skills can we learn from nature -- in this case, from oceans?

"We're all standing on one Earth, [a ball of rock which floats around a central molten core] and there's water in the ocean wherever we go, and there's ground underneath us wherever we go. So we all have, on some level, a commonality of experience. We are all still human beings."

– Martine Prechtel

All the seafloor materials melt, everyone dies -- reminders of equity. Gender differences are complementary, with possibilities for harmony and competition and mutualism. Practicing collaborative learning based on the holistic experience of Gaia -- that Earth is a living organism -- that's interdependence in action.

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V. Global engagement

Materials are from places including: Red, Dead, Black, Bering, Mediterranean, Arabian and South China Seas as well as Atlantic, Pacific and Southern Oceans. Whatever the talents of individuals, there would be projects to flow from those minds, hands, and hearts. Whether it's attracting speakers because of work with materials in common, rewarding people with gifts in the form of artifacts, or partnering with new oceanography programs forming at universities in Qatar and Saudi Arabia, opportunities for cultural diplomacy and inquiry would arise. Ever present is the universal language of touch, patterns and three-dimensional vessels that every culture has created for aeons -- called pots.

VI. Pursuit of excellence

I know no better way to achieve excellence than by passionate engagement. Having a facility whose purpose is hosting integrative learning and accommodating the ideas of faculty and students who test and probe planet Earth might inspire joy and rigorous attention.

VII. Sustainability and stewardship

Firing a fuel-burning kiln teaches sustainability. In order to get to 2300° fahrenheit, ignited fuel mixes with air in a controlled manner. Kiln temperature advances and declines in relation to weather systems that include outdoor temperature, humidity, wind and barometric pressure. Sounds and smells of a kiln advancing in temperature can corroborate or contradict the most advanced scientific instruments.

When the goal is to sustain a rise in temperature, and when adding fuel lowers the heat in kiln chamber, this is a teachable moment! The kiln atmosphere oscillates between oxidizing, reducing, and neutral, all of which affect clay and glaze outcomes and beauty. A kind of literacy awaits -- a microcosm for teaching principles of sustainability.

Stewardship of our environment is a caring attitude for all levels of scale. Working with seafloor sediments, volcanic materials, and biological samples from mysterious depths is like the miracle of birth. At least, it's one of my core values to revere the planet which is my home. I've been changed forever since I heard Chief Seattle's words (although we have no certain translation to his oration of 1854):

*This we know; the earth does not belong to man; man belongs to the earth.
This we know. All things are connected like the blood which unites one family:
All things are connected.*

*Man did not weave the web of life - he is merely a strand in it.
Whatever he does to the web, he does to himself.*

