

THREE *EXPANDED CERAMICS* SITE CONCEPTS (GREAT VALLEY COMPLEX)

NCECA 2022 / Manetti Shrem Museum / UC Davis, Davis, CA

John Roloff 2021

SITE STUDY I: EXPANDED CERAMICS / MUSEUM DISPLACEMENT / NATURAL/AGRARIAN SYSTEMS

SITE STUDY II: EXPANDED CERAMICS / MUSEUM DISPLACEMENT / NATURAL/AGRARIAN SYSTEMS (INVERSION)

SITE STUDY III: EXPANDED CERAMICS / EARTH/BIOME SHIP VECTORS / ANTHROPOCENE/TERTIARY/QUATERNARY

Addendum:

EXPANDED CERAMICS: PLOW/NUTRIENT STUDIES // CERAMICS/EARTH REVERSAL/PEAT EXTRACTION

GREAT VALLEY COMPLEX / ORCHARD GROUP

GREAT VALLEY COMPLEX

BIOGRAPHY

THEMATIC STRUCTURES
Expanded ceramics, agriculture as an extension of ceramic practice, agrarian implements as clay tools, Central Valley clay stratigraphy, common glaze minerals used for their soil nutrient value, museum/nature/agriculture context, post-earth-works displacement strategy, eramic/organic >> ceramic/geologic facies, global metabolism.

POTENTIAL COLLABORATORS:
UC Davis Earth and Soil Sciences, UC Davis Art/Ceramics Dept., OortCloudX (Neil Forrest)

PHASE I
Museum floor plan and roof pattern, plowed field 1:1 displacement using primarily horse drawn moldboard plow with mechanical/tractor and hand options. Plowed sectors based on museum architecture are prepared with mixtures of ceramic glaze minerals of plant nutrient value (dolomite, volcanic ash, wollastonite, bone ash, feldspars, etc.) as well as crushed fired clay grog of different formulas, densities and temperatures (low-fire, porcelain, quartz inversion) including Central Valley sediments, etc., for aeration. Different spaces of the floor/roof plan are given different nutrient and hydrologic characteristics by a range of applied material densities and formulas (glaze formula analog). At the end of Phase I, the ground is left to be populated by Holocene/Anthropocene indigenous and invasive wind blown species, reacting over time to the plowed structure and variable nutrient zones - an extrapolated study site for ecological bio-adapability to ceramic-related materiality and tillage-craft. Further site orchestration of this phase may include an indigenous carbon sequestering biome/strategy, off-setting any carbon and microbial challenges produced by the tillage. Plow or drone-mounted video cameras record the plow/soil/clay interaction. A prototype tillage, nutrient project, *Site Study: Expanded Ceramics/Earth Reversal/Peat Excavation*, was realized for the Ceramic Program at the University of WA, Seattle, WA, 2017.

The displacement of minerals related to serpentinite soils (Franciscan and buried Sacramento Valley ophiolites) could be one focus of mineral selection. Minerals relevant to the Metamorphic belt and Sierra plutons to the east as well as the Great Valley Sequence sediments to the west become relevant geochemistry to consider in relationship to the glaze lab at TB-9 where I first made ceramic material/landscape connections as an undergraduate Art/Geology student in the late 1960's studying with both Bob Arneson, Art and Eldridge Moores, Geology).

PHASE II
Depending on resources, a more ambitious planting scheme may be developed, including the assignment of different plant species representing different areas or needs of the museum, displaced to the plowed floor plan and nutrient scheme. Recognition and extension of storage, exhibition, office, curation, etc., spaces through analogous plant species, potential animal or bird habitat, healing/homeopathy, etc.

ALGAE SKYLIGHTS
For this option, the three larger openings in the roof of the museum have shallow transparent tanks inserted. The tanks are shallow pools of water with living algae grown, fed by the sun, creating increasingly green light filtering into the exhibition spaces. In the plowed area, according to resources, shallow ponds or other resonate structures analogous to the algae skylights may occupy those spaces. The museum algae skylights and plowed soil floor-plan stratify human aesthetic practice between natural and pseudo-natural systems and materiality. An algae skylight was installed in the exhibition, *Original Depositional Environment*, Gallery Paule Anglim, San Francisco, CA, 2002, shown below.



Site Study: Expanded Ceramics/Earth Reversal/Peat Excavation
Ceramics Dept., University of Washington, Seattle, WA, 2017.

Prototype project - area tilled and augmented with soil enhancing ceramic glaze materials (dolomite, volcanic ash, grog). Tilled site the same dimensions as a segment of the exhibition space, Dierot/Forrest/Roloff, NCECA 2017, Portland, OR.

THEMATIC STRUCTURES:
Expanded ceramics, agriculture as an extension of ceramic practice, agrarian implements as clay tools, Central Valley clay stratigraphy, common glaze minerals used for their soil nutrient value, museum/nature/agriculture context, post-earth-works displacement strategy, ceramic/biologic systems, global metabolism, ceramic/organic > ceramic/geologic facies.

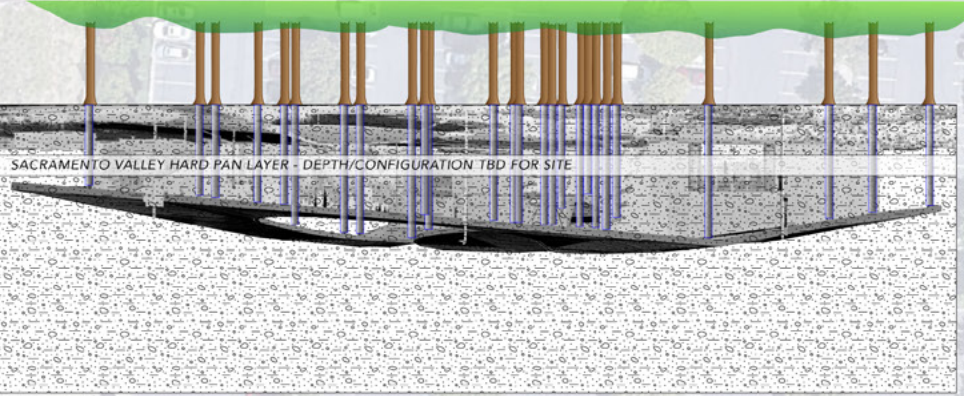
POTENTIAL COLLABORATORS:
UC Davis Earth and Soil Sciences, UC Davis Art/Ceramics Dept., OortCloudX (Neil Forrest)

Extending the concepts of *Site Study I*, *Site Study II: Expanded Ceramics / Museum Displacement / Natural/Agrarian Systems (Inversion)*, the museum's floor plan/roof pattern are theoretically inverted and displaced to an adjacent field creating a conceptual, top-down mirror image of the museum at full scale. The displaced area is plowed in patterns relating to the museum's architecture using primarily horse drawn moldboard plow with mechanical/tractor and hand options. The museum's support column and selected intersections of supporting walls of the museum are plotted onto the displaced field and drilled using an auger to a depth at or ideally below the infamous hard pan clay layer of the Sacramento Valley (site-specific or a symbolic average depth). The sediment excavated by the augers and adjacent plowed areas are locally prepared and infused with different mixtures and densities of plant nutrient, ceramic glaze minerals (dolomite, volcanic ash, wollastonite, bone ash, feldspars, etc.) in a range of material densities and formulas (glaze/clay body formula analog), as well as crushed fired clay grog of different formulas, densities and tempratues (low-fire, mid-range, porcelain, semi-lithified) including Central Valley sediments, etc., for aeration.

The auger-extracted sediment/ceramic mineral mixtures are placed back into the excavated voids and become planting sites for an aboreal system of drought-tolerant species from different geologic eras and biomes of the Central Valley - full schemata TBD. Like *Site Study I*, the plowed, ceramic material infused, ground surface is allowed to be naturally wind-populated by Holocene/Anthropocene indigenous and invasive species, reacting over time to the plowed structure and variable nutrient zones. The ground system may be further formulated to work in tandem with the aboreal system to create an integrated carbon sequestering biome, off-setting any carbon and microbial challenges produced by the tillage and drilling. The inverted field museum transforms the traditional museum and its role of aesthetic, cultural inquiry to a study site for an expanded, definition of ceramics and its relationship to the environment: ecology, mineral/biotic systems, and ground/atmosphere discourse. The symbolic space of the subterranean museum in the field is now occupied by the ceramic nurtured roots of the aboreal systems, futhering a generative, reconsideration of aesthetic space and program. Plow or drone-mounted video cameras record the plow/auger/soil/clay interaction. A prototype project for the auger interaction is a second part of *Site Study: Expanded Ceramics/Earth Reversal/Peat Excavation*, realized for the Ceramic Program at the University of WA, Seattle, WA, 2017.

Environmental displacement of minerals related to serpentinite soils (Franciscan and buried Sacramento Valley ophiolites) could be one focus of mineral selection. Minerals relevant to the Metamorphic belt and Sierra plutons to the east as well as the Great Valley Sequence sediments to the west become relevant geochemistry to consider in relationship to the glaze lab at TB-9 (where I first made the glaze/landscape connection as an undergraduate Art/Geology student in the late 1960's as a student of Bob Arneson and Eldridge Moores in their respective fields of study).

As in *Site Study 1*, a series of algae skylights for both the physical museum and related interventions for the conceptual museum may be considered.



Section: Conceptual museum inversion, hard pan layer with auger/sediment/ceramic nutrient intrusions at column and selected wall intersections with planted aboreal system >> auger/root/trunk/ceramic/site relationship.

Concept Study: Pier Pillings/Off-site Reciprocal Forest
San Francisco Wharf Complex, Bernard Osher Fellowship, Exploratorium, 2010.

Segment of a new forest to be planted on the land as a reciprocal gesture and respiration renewal of the hidden forest of concrete and tree-trunk pilings of the San Francisco Wharf piers.



Site Study: Expanded Ceramics/Earth Reversal/Peat Excavation (auger/brick displacement)
Ceramics Dept., University of Washington, Seattle, WA, 2017.

Prototype project - L to R: auger component, sediment/brick exchange, auger hole, UW students pulverizing bricks >> grog for tilling/nutrient component, see *Site Study I: Expanded Ceramics / Museum Displacement / Natural/Agrarian Systems*.

THEMATIC STRUCTURES:
Expanded ceramics, agriculture in the extended field, agrarian implements as clay tools, paleogeographic and paleochronological site-relationships, history of TB-9, glaze minerals used for their nutrient value, sea levels of the Sacramento Valley, Western Cordillera, orogenic, diagenic analogs, ceramic/organic >> ceramic/geologic facies, global metabolism.

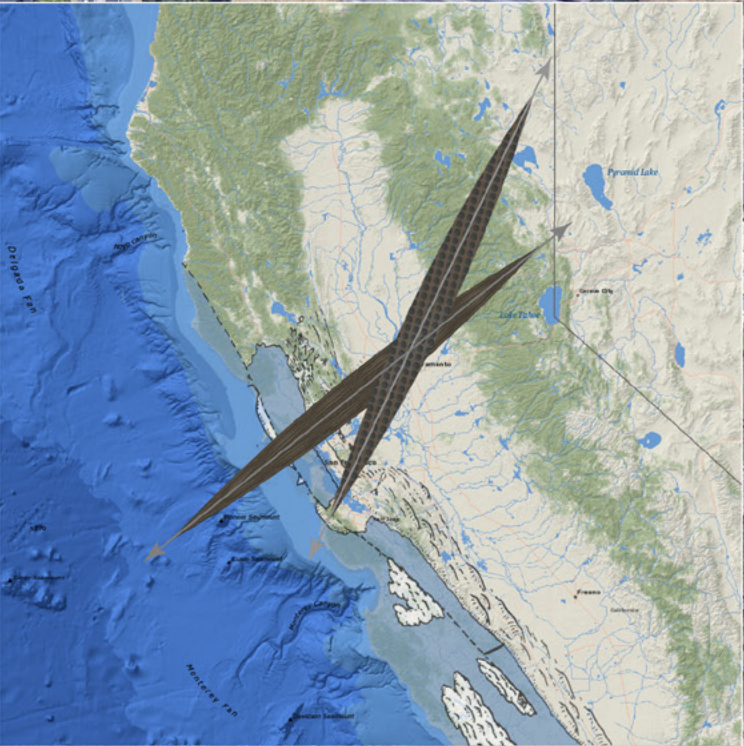
POTENTIAL COLLABORATORS:
UC Davis Earth and Soil Sciences, UC Davis Art/Ceramics Dept., Oort-CloudX (Neil Forrest)

Two, crossing earth/biome ship forms, *Anthropocene Ship* and *Tertiary/Quaternary Ship*, each a little over 3 acres of tilled soil, are proposed to be installed on the large site between the museum and Interstate 80. The ships would be physically altered by agricultural and expanded ceramic processes and materials to engage Anthropocene and Tertiary/Quaternary geologic-timescapes of the central Sacramento Valley. The plow, used in both as an extended ceramic tool within an agrarian context would be the primary implement. Ceramic glaze and related natural minerals employed as soil augmentation and zones of land/ceramic-biome experimentation, among other themes, instigates exploratory relationships of ceramics to the arboreal/microbial world. The churned soil, nutritionally, symbolically and go-chemically augmented with ceramic and natural minerals, experimentally foster biomes from each of the selected geologic eras of the Central Valley.

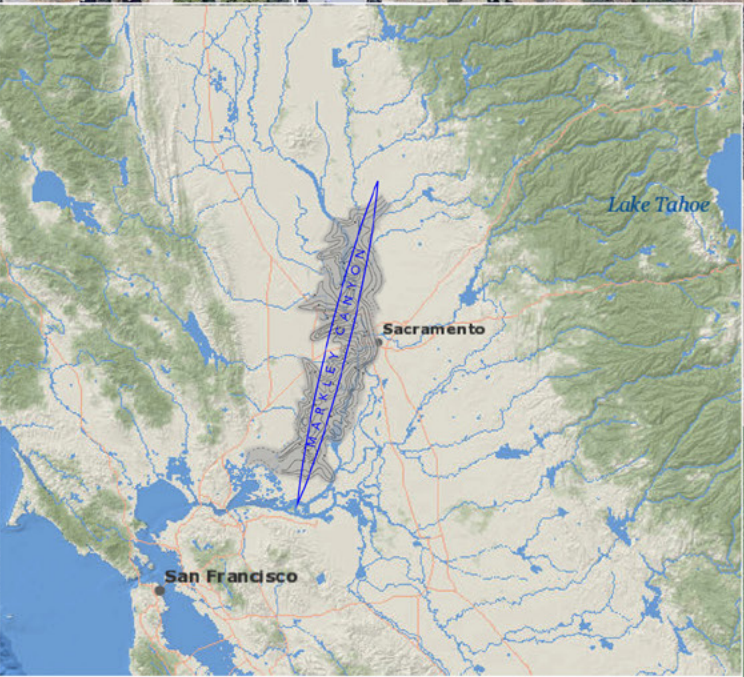
Anthropocene Ship (loosely late Holocene epoch to present/future) is plowed concentrically, each circuit/contour mimicking the ships form. Mineral augmentation to be derived from the famous, celedon-like cone 10 “Scoop Glaze,” of TB-9, the UC Davis ceramic facility, Bob Arneson, others and myself used in the 1960’s and later. Several post-tillage biomes are considered for this ship: (1) wind-blown indigenous and invasive seeds, (2) drought-tolerant California chaparral, (3) orchestration of an indigenous carbon sequestering biome, off-setting any carbon and microbial challenges produced by the tillage. The ships vectors approximate an east-west direction, implying migrations of species, climate and resources, drainage through the Golden Gate, as well as connecting specific oceanic and terrestrial landforms and environments.

Tertiary/Quaternary Ship (65 to .1 million years BP), is plowed directionally in parallel rows oriented to mid-Pliocene magnetic north and south. Bridging the Sacramento Valley’s, Paleogene and Neogene Periods of regressive-transgressive cycles of sea, land and climate change. Mineral augmentation of the soil derived from natural and ceramic volcanic ash formulated (glaze/clay body formulations) to reference the Valley Springs, Mehrtens and other Tertiary volcanics that played a role in the origin of the Sacramento Valley sediments. A formal orchard of trees selected from a thriving biome of the Pliocene climate maximum, when the northern Sacramento Valley was dry land, brings an unexpected ‘order’ to the *Tertiary/Quaternary Ship*, bridging the distant past with the potential Anthropocene future approaching the warmer climate of the Pliocene.

Placement and scale of the ships is intended to poetically and materially connect and explore a range of geologic transformations of the Sacramento Valley through the language of expanded ceramics with the Manetti Shrem Museum site as a nodal point in that conversation. The ships as vectors conceptually propagate the site beyond the visual and chronological horizon. Farallon Plate subduction, Sea-floor sediments, the Canadian Rockies, Western Cordillera terranes, Franciscan Complex, Sierra Nevada metamorphic belt and intrusives, along with attendant climates/paleoclimates, and organic systems, become gen-



Study: Vector Earth/Biome Ships / Contemporary California landscape with simulated Pliocene Pacific shoreline (adapted from Howard, A. D., Geologic History of Middle California, 1979).



Paleogene Markley Submarine Canyon, conceptual Earth/Biome Ship overlay. Late Eocene/Oligocene age submarine canyons beneath an inland sea connecting to the Pacific Ocean by the Markley Strait, now buried beneath subsequent Sacramento Valley sediments. (Basin profile map adapted from Pepper-Kitridge, O and Wilson, M. L., The Markley Submarine Canyon and its Stratigraphic Relationships, Sacramento, CA, 1984.



Venice Substructure Complex: Forrest Ship/Cistern Ship, 2006. Concept for calculated 12 million Venetian foundation pilings replanted as a 30,000 acre forest ship and an Istrian limestone, sand filled trachyte paver, ship, superstructure of 231 Venetian brick water/well cisterns. Both ships oriented as Apulian/Aptian tectonic plate vectors.



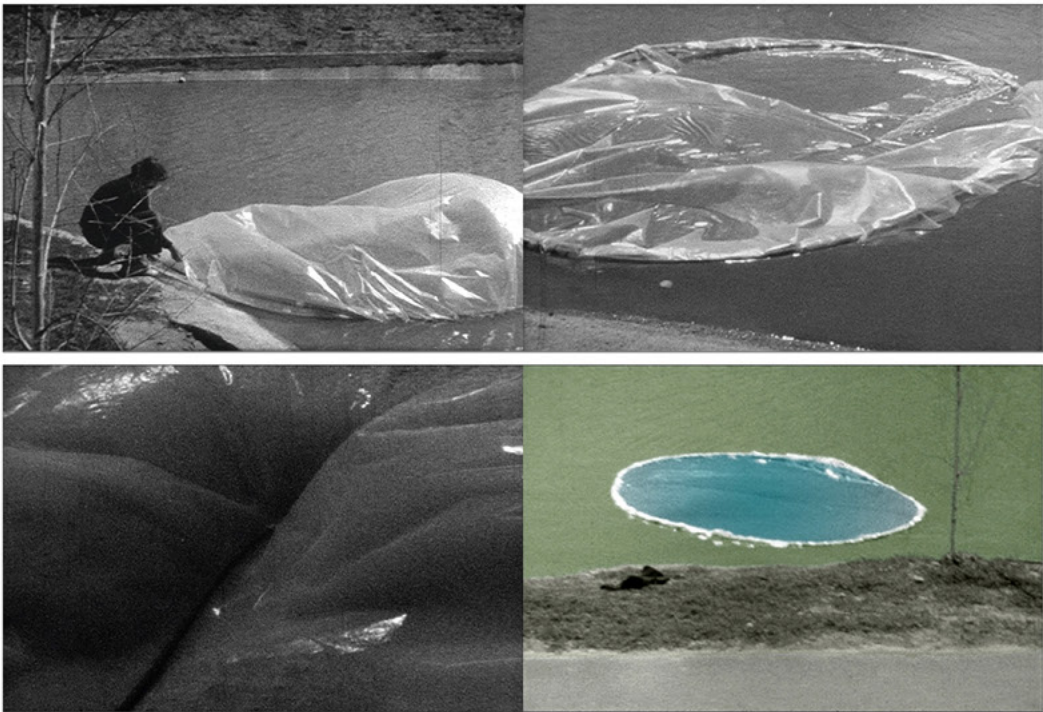
Top, left to right:

Slump (Orchard) II, b&w photograph, wood, 14 ft. x 24 ft. x 18 ft., *Dialogs with Nature*, Lance Fung Gallery, New York, NY, 1998. Collection: University Art Museum, University of CA, Berkeley,

Slump (Orchard) I, b&w photograph, wood, glass, 8 ft. x 24 ft. x 9 ft., *John Roloff: The Sea within the Land 1980-2019*, Anglim Gilbert Gallery, San Francisco, CA, 2019.

Proped Anticline (Orchard) I, b&w photograph, wood, 23 ft. x 11 ft. x 16 ft., *Terrain into Architecture: Projection and Displacement*, Maryland Institute of Art, Baltimore, MD, 1999. (Orchard photograph from *Slump (Orchard) I*, reconfigured from a 'slump' structure to an 'anticline' structure.

Bottom left: Aerial view near Winters, CA., 2021, approximate location of the almond orchard photographed in the mid-1990's to produce the *Orchard Group*.



Putah Creek Piece, Putah Creek, Davis, CA, 1969

Putah Creek Piece, is a sculptural performance documented by black and white film. It is one of the earliest site-based examples of the land/sea, land/land, sea/sea concepts. Conceived of as both an ecological and formal work, a temporary floating "sea" (island/ship) of clear water immersed in the algae-laden surface water of Putah Creek on the UC Davis campus, Davis, CA.



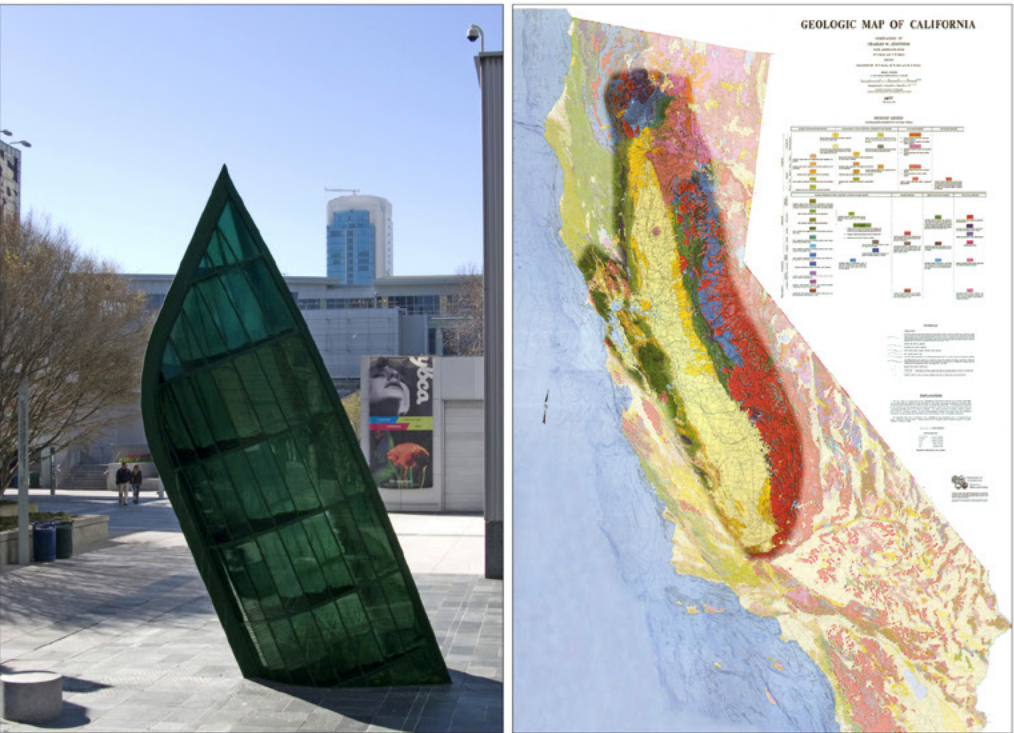
Ancient Valley (Sea Floor), Swanston Light Rail Station, Sacramento, CA 1986-89

This work draws a parallel between the 'mythic' (Nissenan) and 'scientific' (geologic) stories about the origin and history of the Sacramento Valley. Glazed ceramic set in cement, two of 11 major elements 3' to 30' with numerous smaller ceramic inserts. Commissioned by the Sacramento Arts Commission.



Metafossil (Pinus: ponderosa, radiata, balfouriana), 1992

Three ship sculptures relating to the migration, deposition and fossilization of species in geologic time and changing climates. Three elements, 7 ft., 10 ft. and 12 ft. long, steel, refractory cement, species specific pine boughs and needles. Installation view: Gallery Paule Anglim, San Francisco, CA, 1992. Maps show the native habitats for each species in contemporary time where the needles were collected in central California framing the Central Valley. Over time the needles will erode away leaving a distinct impression or "fossil" of each species. Collection: de Young Museum, San Francisco, CA.



Deep Gradient/Suspect Terrain..., Yerba Buena Gardens, San Francisco, CA, 1993

This work is a permanent public work that refers to the origin of the coastal California landscape from sea floor sediments and the accretion processes of plate tectonics. The sedimentary material within the structure was gathered from the sea floor about 4 miles (6km) off the California coast. The water shed of the Golden Gate as highlighted on the Geologic Map of California indicates the potential area of sediment and organic sources contained within the ship. Currently plants are growing inside originating from seeds encased in the sea floor sediment. 20' high x 6' wide, painted steel, tinted laminated glass, sediment and plant growth from the Pacific Ocean floor, water, misting system.



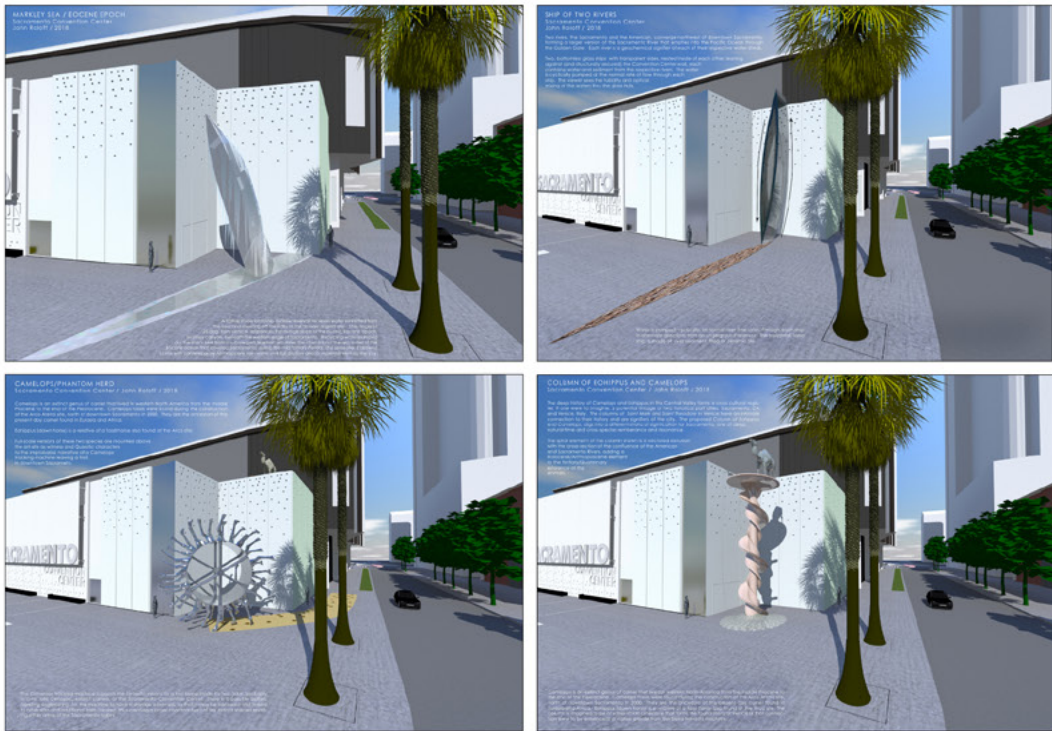
Left to right, top to bottom:

Slump (Orchard) II
One of several investigations of the image of an orchard altered by a geologic process in an architectural context. Solo exhibition: *Dialogues with Nature*, Lance Fung Gallery, New York, NY. 1998. B&W photograph, wood, 14' h x 24' w x 18' d, 1998. Collection UC Berkeley Art Museum, Berkeley, CA

Propped Anticline (Orchard) I
Orchard I image configured as a geologic anticline. Solo exhibition, *Terrain into Architecture: Projection and Displacement*, Maryland Institute College of Art, Baltimore, MD. B&W photograph, wood, 23' h x 11' w x 16' d, 1999.

Slump (Orchard) I
The original configuration of an orchard altered by a geologic process in an architectural context. B&W photograph, wood, glass, 8' h x 24' w x 10' d, 1997. Solo exhibition, *The Sea within the Land*, 1981-2019, Anglim Gilbert Gallery, San Francisco, CA, 2019.

The orchard images were taken in the mid-1990's in an almond orchard near Winters, CA, Sacramento Valley.



Left to right, top to bottom:
Markely Sea/Eocene Epoch
Ship of Two Rivers
Camelops/Phantom Herd
Column of Eohippus and Camelops
Palm/3D Dialectic

Proposals for a public artwork at the Sacramento Convention Center, 2018

Markely Sea/Eocene Epoch and **Ship of Two Rivers** recall the encased, Eocene epoch, Markley Basin, lying beneath the more recent sediments of the Great Valley to the west of Sacramento and the Quaternary and more recent story of the merging of two rivers, the Sacramento and the American, northwest of downtown Sacramento. Both concepts represent historically critical, watersheds and fluvial dynamics of the Sacramento Valley.

Column of Eohippus and **Camelops** and **Camelops/Phantom Herd** explore the extinct genera of Camelops and Eohippus (dawn horse), paleo-inhabitants of the Great Valley. The North American, Camelops migrated east to west across the Bering Straits, is the ancestor of contemporary camels usually associated with Eurasia and Africa. In *Camelops/Phantom Herd*, a "tracking machine" evokes the presence of a herd of vanished species of the Sacramento Valley.

Palm/3D Dialectic, considers the physical and spatial properties of the palms as a kind of stage-set for perceptual and theoretical questions engaged by a phenomenological device of popular culture, the bi-colored 3d glasses from contemporary and earlier cinema. The two fan palms further suggest, along with paleo-geographic and geologic research of the Sacramento area, a rich climatic, hydrologic and environmental history of the Sacramento Area.



Orchard of the Sun V, Central Valley, CA, 1989

A conceptual study to re-fruit with coal and refractory cement insulation, the dead portion of a tree at Donna Billic's farm, Central Valley, CA. Related to the Land Kill Projects of the late-70's to early 1990's considering themes of global metabolism and the intersection of energy and natural systems in geologic time. Collection: Achenbach Foundation for Graphic Arts, Legion of Honor, San Francisco, CA.

Left: top to bottom:

Site Study I: Expanded Ceramics / Museum Displacement / Natural/Agrarian Systems

Site Study II: Expanded Ceramics / Museum Displacement / Natural/Agrarian Systems (Inversion)

Site Study III: Expanded Ceramics / Earth/Biome Ship Vectors / Anthropocene/Tertiary/Quaternary

Three concepts for one or more "Expanded Ceramics" site works, proposed for the 2022 National Ceramic Conference (NCECA) in Sacramento, CA - site: Manetti Schrem Museum, UC Davis, Davis, CA.

Site Study I: Expanded Ceramics / Museum Displacement / Natural/Agrarian Systems, imagines the Manetti Schrem Art Museum's floor plan and roof pattern as a 1:1 displaced plowed field using primarily horse drawn moldboard plow with mechanical/tractor and hand options as extended ceramic tools. Ceramics, agriculture, museum culture and Sacramento Valley geology are brought together in this project. Expanding the ceramic, agriculture, geology connection, the plowed field is prepared with mixtures of ceramic glaze minerals of plant nutrient value (dolomite, volcanic ash, wollastonite, bone ash, fieldsoars, etc.) as well as crushed fired clay grog of different formulas, densities and temperatures (low-fire, porcelain, quartz inversion) including Sacramento Valley sediments, etc., for aeration. Different spaces of the floor/roof plan are given different nutrient and hydrologic characteristics by a range of applied material densities and formulas (glaze formula analog). For Phase I of this project, the ground is left to be populated by Holocene/Anthropocene indigenous and invasive wind blown species, reacting over time to the plowed structure and variable nutrient zones, the site becomes an extrapolated study site for ecological bio-adaptability to ceramic-related materiality and tillage-craft

Site Study II: Expanded Ceramics / Museum Displacement / Natural/Agrarian Systems (Inversion), proposes to displace and invert the museum's plan/roof pattern creating a conceptual, top-down mirror image of the museum at full scale. Like Site Study I, the displaced area is plowed in patterns relating to the museum's architecture using primarily horse drawn moldboard plow with mechanical/tractor and hand options as well as a similar ceramic material nutrient strategy. The museum's support column and selected intersections of supporting walls of the museum are plotted onto the displaced field and using an auger to the hard pan clay layer of the Sacramento Valley site-specific or a symbolic average depth), an arboreal system of trees are planted representing various biomes and geologic eras of the Sacramento Valley.

Site Study III: Expanded Ceramics / Earth/Biome Ship Vectors / Anthropocene/Tertiary/Quaternary proposes two, crossing earth/biome ship forms. *Anthropocene Ship* and *Tertiary/Quaternary Ship*, each a little over 3 acres of tilled soil, to be installed on the large site between the museum and Interstate 80. Similar to Site Studies I and II, The ships would be physically altered by agricultural and expanded ceramic processes and materials to engage Anthropocene and Tertiary/Quaternary geologic-timescapes of the central Sacramento Valley. The plow, used in both as an extended ceramic tool within an agrarian context would be the primary implement. Ceramic glaze and related natural minerals employed as soil augmentation and zones of land/ceramic-biome experimentation, among other themes, instigates exploratory relationships of ceramics to the arboreal/microbial world. The churned soil, nutritionally, symbolically and geo-chemically augmented with ceramic and natural minerals, experimentally foster biomes from each of the selected geologic eras of the Central Valley. Each of the ships become conceptual vectors locating the project site in the geologic and paleogeographic potential, theoretically pulling in landscapes, climates and relationships from beyond the horizon into the conversation initiated by the project.



GREAT VALLEY COMPLEX

Selected environmental works, installations, concepts engaging and framing the Great Valley of California / John Roloff, 1969-2021

John Roloff is a visual artist who works conceptually with site, process and natural systems. He is known for his ceramic works and outdoor kiln/furnace projects done from the 1970's into the 1990's, as well as other large-scale environmental projects, gallery installations and objects investigating geologic and natural phenomena. Based on an extensive background and ongoing research in the earth sciences, he works from geochemical and global metabolic perspectives. His work since the late 1960's engages poetic and site-specific relationships between material, concept and performance in the domains of geology, ecology, architecture, ceramics, industry, metabolic systems and history. The ship is a central image of his work, metaphorically evoking psychological and transformative processes of the sea and land in geologic and contemporary time. He studied geology at UC Davis, Davis, CA with Professor Eldridge Moores and others during the formative days of plate tectonics in the late-1960's. Contemporaneous with geology he studied art with Bob Arneson and William T. Wiley also at UC Davis. He received a master's degree in art in 1973 from CSU Humboldt. In addition to numerous environmental, site-specific installations in the US, Canada and Europe, his work has been included in exhibitions at the Whitney Museum of American Art, UC Berkeley Museum, San Francisco Museum of Modern Art, Smithsonian Institution, *Photoscene Cologne* and the Venice Architectural and Art Biennales, *The Snow Show* in Kemi, Finland and *Artlantic*, Atlantic City, NJ. Public art works that explore geologic and related environmental concepts can be found at sites such as: Yerba Buena Gardens, San Francisco, CA, University of Minnesota, Minneapolis, MN, I-5 Colonnade Park, Seattle, WA and Stanford University, Palo Alto, CA. He has received 3 artist's visual arts fellowships from the NEA, a Guggenheim Foundation fellowship, a California Arts Council grant for visual artists and a Bernard Osher Fellowship at the Exploratorium, San Francisco, CA. He is represented by Anglim/Trimble Gallery, San Francisco and is Professor Emeritus of Sculpture/Ceramics at the San Francisco Art Institute.