

Boise State University and Boise City
Geothermal Public Art Project

Narrative Artist's Statement Introducing *Palici*
By Michael Horswill

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To the Boise public art committee and the community of Boise City and Boise State University:

This proposal for a geothermal-themed sculpture emphasizes the union of fire, earth, water, and air in an organic-industrial earth machine entitled “Palici” that honors the incredible underground labyrinth of wells and pipes created in the Boise area since the late 1800s. From decomposing rocks, tectonic plates, and natural earth furnaces, the hot water rises in artesian hot springs that we humans have harnessed in machinery that heats the Idaho state capitol complex and many other buildings. Our engineers calculate, tinker, and fine-tune both low-tech old wooden pipes wrapped in wire and new high-tech pipes wrapped in insulating fabric—all in the service of channeling eco-friendly heat to the homes, work spaces, and learning environments of this capital city.

When creating a sculpture celebrating Boise’s geothermal energy, the aesthetic and educational purposes must be in balance, depicted in this approximately fifteen-foot tower in three main layers or stories:



Sketch of sculpture at approximately 15 feet tall and with approximate colors.

- *Layer 1: the earth:* Nature is represented by rusted steel roots that rise to the surface to meet production wells and return replenished through injection wells. The heat of the earth appears in rusted steel, red-orange-yellow powder-coating, and transparent acrylic plexiglass that will glow below in sunlight.
 - This ground floor starts with a four-foot square of steel bolted to a five-foot concrete foundation, with the internal steel roots constructed in pipes and outer legs creating stability.
- *Layer 2: the machine:* The geothermal system is composed of a playful network of pipes and gadgets for mechanical and imaginative minds. Some pipes are whole and others are constructed in parts made of recycled and repurposed steel welded together in latticed pipe, with transparent blue acrylic inside and blue-green powder-coating suggesting water flowing. These pipes arise symbolically from the roots of the first layer and return again to the earth to honor the intricacy, efficiency, and sustainability of the system.
 - This second layer is stacked and anchored on the first layer in a three-foot square of steel, with stone-shaped holes providing drainage for wind and rain; the pipes are welded firmly to the root structure, and outside legs create stability;

- *Layer 3: the air:* The heat that moves upwards to provide warmth and life is represented by a celebratory crown of colorful transparent acrylic circles that suggest spheres, planets, faces, or air rising and dancing. This layer would appear kinetic in its culminating movement upwards from the roots to pipes to bubbles of energy.
 - This third layer moves upward from strong circular rings topped by solid steel round bar and two acrylic circles attached to each bar, joined to look sphere-like.

Uniting these three layers are the human-constructed pipes symbolic of nature's rounded passageways—such as roots, rivers, trees, and arteries. The scaffolding of the tower also reflects the history of the geothermal system in its inward-leaning legs, memorializing the antique derricks that drilled the first hot water wells. This tower structure shows the transformation and upward movement of the heat from earth to water to air. Even though the sculpture is not exactly accurate in its depiction of the geothermal system, it is truthful in concept and would be both aesthetically engaging and educational for viewers, celebrating this natural gift.



Rendering of "Palici" near the BSU sign on Capitol Boulevard, not including signage or concrete platforms.

The sketch and model shown here depict the basic shapes of what would eventually become a more intricate final sculpture with decorative elements beyond what either two-dimensions or a small model can display. Steel and transparent acrylic (plexiglass), which I have used in past sculptural work, are strong and durable. This acrylic is a medium that also provides shape, color, and luminosity. In addition, depending on what recycled materials I can find, integrating details like recycled tools would inspire delight upon closer inspection. This structure will weather Boise's snow in winter and sun in summer. The steel framework would be strong, and the colorful details would be visually arresting, reflecting vibrant light, from the orange-red of earth to blue-green of water to a rainbow of colors in the sky.

The schedule for fabrication and installation would follow the calendar included within the Department of Arts and History's original application. After the selection process this fall, fabrication would be ongoing from fall to spring. In spring after the site's exact approval, excavation for a concrete slab would occur, likely using Perkins Construction, a BSU-approved company that provided a good estimate shown on the enclosed budget. In early summer and certainly by mid-July, the sculpture's three layers would be bolted and stacked onto the foundation, using a precision crane, as estimated by Boise Crane company. The celebration event could occur in mid-summer, and I would be available in future for any questions about maintenance, although the structure and materials will be durable and long-lasting.

Finally, the name "Palici" comes from an ancient Greek myth about the twin sons of Hephaestus (the god of the forge within Mount Olympus) and Aetna (daughter of Oceanus and goddess of a volcano), called the Palakoi. These rough and rugged twin deities oversaw an area of sacred hotsprings and geysers, called Palici, that became a refuge to runaway slaves and a place for making ritual oaths (summarized on Theoi.com from Aeschylus, Ovid, and others). Boise's artesian hotsprings are likewise ancient and mysterious, harnessed by artisans and engineers to create a refuge historically for Boise's indigenous people and currently for its residents. The name also suggests a palace, a crown, or our capital of Idaho.

It is as if this project was designed for my work, which often unites the organic with the human-mechanical in materials and imagery. In past drawings I have shaped such environments in charcoal, and in sculptures I have bent pipe and added recycled materials to create architectural structures that make viewers consider the connection between natural and constructed designs, appreciating our civilization's dependence on the earth. Here and now in reality, these imaginative visions actually exist in Boise's one-of-a-kind geothermal system.

Sincerely,

A handwritten signature in cursive script, appearing to read "Mike Hansen". The signature is written in dark ink and is positioned to the right of the word "Sincerely,".

Boise State University and City of Boise
Geothermal Art Project, 2014, Proposed Budget for *Palici*

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Estimated Services and Materials	Cost per	Number	Cost	Subtotals
Foundation work (est. by Perkins in Boise)				
Concrete for slab, per yard (5' x 5' x 2')	\$1,350.00	1	\$1,350.00	
Landscaping (add approximately 10%)	\$150.00	1	\$150.00	
Metal				\$1,500.00
STRUCTURE:				
Legs (1.5" pipe) x 2 at 20'	\$58.00	2	\$116.00	
4 x 4 plate (3/16") for base	\$115.00	1	\$115.00	
3 x 3 plate (1/8") for second tier	\$65.00	1	\$65.00	
2" x 1/8" flat bar x 20'	\$14.00	1	\$14.00	
.5" x 1/8" flat bar x 20'	\$11.00	1	\$11.00	
.5" round bar x 20'	\$15.00	3	\$45.00	
.75" x 21' pipe	\$23.00	2	\$46.00	
Fabrication of rings	\$50.00	2	\$100.00	
PIPES:				
6" tubing x 1/8" per foot	\$13.50	10	\$135.00	
5" tubing x 1/8" per foot	\$12.50	10	\$125.00	
4" tubing x 1/8" per foot	\$9.50	10	\$95.00	
3" tubing x .065 HREW per foot	\$2.00	40	\$80.00	
Round bar 3/16" x 20'	\$2.50	10	\$25.00	
Round bar 1/4" x 20'	\$3.60	10	\$36.00	
Round bar 3/8" x 20'	\$9.00	10	\$90.00	
RECYLED MATERIALS and objects	\$550.00	1	\$550.00	
Welding supplies				\$1,648.00
Gas tanks	\$50.00	4	\$200.00	
Wire, rod, grinding supplies	\$200.00	4	\$800.00	
Acrylic supplies				\$1,000.00
Colored transparent acrylic (.25" x 48" x 48")	\$85.00	6	\$510.00	
Colored acrylic discs (.125" x 10")	\$9.00	20	\$180.00	
Colored acrylic discs (.125" x 12")	\$15.00	20	\$300.00	
Cutting and shipping	\$250.00	1	\$250.00	
Bolts, screws, washers	\$4.00	45	\$180.00	
Powder-coating				\$1,420.00
Sandblasting, paint and primer	\$350.00	3	\$1,050.00	
Transportation and delivery	\$75.00	2	\$150.00	
Other supplies and materials				\$1,200.00
Tools (drill bits, etc.)	\$250.00	1	\$250.00	
Utilities (per month)	\$75.00	5	\$375.00	\$625.00
Boise Crane installation (\$130 per hour)	\$130.00	5	\$650.00	\$650.00
Zoning Certificate estimate	\$50.00	1	\$50.00	\$50.00
Transportation				
Truck rental (\$550) and fuel (\$350)	\$900.00	1	\$900.00	\$900.00
Travel to site	\$250.00	4	\$1,000.00	\$1,000.00
Labor, income taxes, other unforeseen costs	\$12,000.00	1	\$12,000.00	
TOTAL			\$21,993.00	