You are the Tree





You are the Tree is an interdisciplinary, community-focused artwork which celebrates local labor while considering the linked histories of Redwood City and California as members of our shared global citizenry. The project juxtaposes the historical facts of the 19th century clear cutting of old growth redwoods from the Santa Cruz Mountains with the resultant development of Redwood City, both historically and currently, with emphasis on the contrast of disruptive innovations and resurgent interests in slow/by hand/craft industries.

You are the tree is a seven foot diameter replica of an old growth coast redwood tree stump. The stump's multicolored and highly textured bark alludes to the beauty and value of human and environmental diversity. Concentric growth rings are visible on the hand-painted surface of the stump. Small flags mark significant disruptive innovation events which occurred during the last 400 years, the lifespan of the tree. A living redwood tree sprouts from the stump's center.

For the initial Redwood City installation, photographic slices of Redwood City's new, residential high-rise buildings tower in each of the glass kiosk's four corners. Through the windows, landmark buildings, including the Fox Theatre and the former San Mateo County Courthouse, are visible. The kiosk windows contain four words: you are the tree.

This handcrafted, paper pulp structure was made from locally sourced, Redwood City, craft industry byproducts. The 25 unique bark sections are tagged with legacy tree markers to identify both contributors and byproduct materials. Each section celebrates local labor and honors people who make things with their hands.

You Are The Tree asks us to consider:

What constitutes meaningful labor?

What constitutes a meaningful life?

What are we willing to put at risk for future generations to have something ourselves today?

What role can and do individuals play in environmental health and a sustainable culture?

What can I do to participate positively in creating a sustainable, healthy city?

What is my byproduct and what can I do with it creatively without causing harm?

TIMELINE			
		2020	Today
Recent Disruptive I	nnovations	LOLO	rouuy
Plastic		1067	Padwood City incorporated
Airplane		1007	Redwood City Incorporated
Mass produced automol	biles	1850	Harvesting of Santa Clara Range begins
Xerox photo copy			California Statehood
Polyester	Industrial Revolution ———		•
Consumer television	Steam engine		
Video tape recorder	Spinning Jenny		
Shipping containers	Circular saw	1600	Clavalabar
Hard disk drive	Power loom	1020	Stave Labor
Silicon chip	Threshing machine		Slavery in the colonies becomes normalized
Jet engine	Sewing machine		
Minicomputer	Cotton gin		
High speed rail	Paper machine		
Email	Typewriter		
Word processor	Canning process fo <mark>r food</mark>		
Digital camera	Planing machine		
3D printing	Railroad		
Compact disc	Modern hydrauli <mark>c mining</mark>		
Commercial cell phone			
Civilian use of gps			400 years old
Desktop publishing			Coastal Redwood You are the Iree
World Wide Web			7 foot diameter
Streaming media			7 leet ulameter
Amazon	2000 years old		
eBay	Coastal Redwood		
Social Media	30 feet diameter		
USB drives			
Wikipedia			
First armed drone strike	e		
Smartphones			
Airbnb			
Cloud computing			
Cryptocurrency/blockchain			
CRISPR Gene editing			
Uber Autopomous vehicles			
Autonomous vehicles			
Space colonization			
Space colonization			
Artificial Intelligence			
Aruncial Intelligence			

0 Start of Roman Calendar





Flags mark significant disruptive innovation events which occurred during the last 400 years, the lifespan of the tree.



The 25 unique bark sections are tagged with legacy tree markers to identify both contributors and byproduct materials.



A thin slice of green on the stump's hand-painted surface represents the 5% of coast redwoods saved from the 19th century extraction/clear cutting of redwoods from the Coast Range.

Statement

We live in a time of hindsight and nostalgia. The advancement of digital technologies and the way they have allowed us to see into and connect with the lives of others on a global scale, have something to do with this. Digital technologies have also changed the way we work. Humans are makers—our cultural and evolutionary histories are based, in large part, on our physical labor and inventions. Today, many of us work in offices in front of computer screens. Today, many of the challenges of survival—which previously involved being out-of-doors navigating wild places—have been replaced with monetary and data systems which require navigating people in offices and structures of compliance.

When California was being colonized by the Europeans and European Americans, the prized resources extracted from her soils were, of course, gold, and also the seemingly abundant, excessively majestic, redwood tree. These are the two primary resource extraction industries that resulted in the development of Redwood City. Neither was sustainable. Although it brought new populations to California, the Gold Rush was relatively short lived at seven years. The 19th century extraction of the Coastal Redwoods resulted in the removal of 95% of these old growth trees in less than 50 years. Globally, old growth trees of all species are still at risk, but now more for the land they occupy than the lumber they provide. Today the prized resources extracted from our planet are hydrocarbons in the form of crude oil and gas. These run the global economy, and the rights of control over them is the stuff wars are made of.

Here, in 2020, we are able to see many of the effects of our past practices, and many of these are not positive in terms of human and planetary health. Our cities, and even our countrysides, are built from materials extracted from our earth. These built environments were not designed as self-sustaining systems, but rather lack stability, depend on continuous maintenance and are ever hungry consumers of energy creating resources. Our habitual natures and societally created beliefs encourage us to continue in lifestyles that we know are unhealthy for us, individually as well as collectively, and are unsustainable as we continue to deplete earth's resources. Invented needs and media induced presumptions allow us to believe in our own absence of determinacy, and rights of privilege over the natural world. Our consumer demands discourage conservation.

Simultaneously, we are experiencing a resurgence of interest in and desire for slower lifestyles that involve the mark of the handmade. We are becoming aware of our psychological need as humans to be in wild places and away from our devices and plastic appliances. There are many things that feel empty or are just not as good when carried out by a robot, computer program or artificial intelligence product than they are when made with human hands. We are drawn to nature as well as to the handcrafted, creative products of our fellow humans.

Historical Context

Redwood City is significant in the history of California because of its proximity to a variety of exploitable natural resources, and because of its natural geographical features—it originally had a sizable navigable creek, Redwood Creek, and it is the only deepwater South Bay port. The rapid development of this region is based on natural resource extraction industries. It is these that prompted California statehood in 1850, and mass migrations to California which began during the California Gold Rush. People were looking for new ways to "make a living" and improved lifestyles. Speculators and investors were looking for wealth.

There were five natural resource extraction industries which influenced and prompted the development of Redwood City. The first was the California Gold Rush which began in 1848 and ended by 1855. In 1848 California's population was considered to be roughly 160,000 people, most of whom were Native Americans. At that time, California had just been ceded to the United States as a result of the Mexican-American War. ^[1] The Gold Rush brought an additional 300,000 people, mostly European Americans, but also people from other lands. These immigrants perceived California's natural resources as opportunities available to be taken.

The clear cutting of the Coast Redwoods ^[2] began in the 1850s. The Santa Cruz Mountains which extend south of San Francisco to Monterey Bay, were logged first from the east side. The logs were dragged by oxen down to Redwood Creek and then floated up to San Francisco via tidal action for use and export out to the world. This resulted in the development of the Port of Redwood City.^[3] Once the forests on the east side were cleared, logging began on the west side. The majority of these trees were hauled up to the summit and then back down to the Port of Redwood City as this was easier than moving them up the coast to San Francisco via the ocean. Every old growth tree in the Santa Cruz Mountains would likely have been harvested if not for a group of concerned citizens who founded the Sempervirens Fund in 1899. ^[4] Most of the Coast Redwoods that we see today are between 50 to 150 years old. The old growth redwoods logged in the 19th century were upwards of 2,000 years old.

Poison residue from mercury mining continues to be a critical Gold Rush effect in terms of human and animal health in the San Francisco Bay region.^[5] Mercury was used in gold mining to separate the gold from sediment and rock. California was rich in cinnabar, a common mercury mineral easily identified by its red color. This discovery resulted in thousands of mercury mines. Many were located in the Coast Range.^[6] Mercury enters the Bay from tributaries near the mining source as well as being carried down from gold mining sites in the Sierras. The single most significant source of mercury in the San Francisco Bay is the New Almaden Quicksilver mine, located near the Guadalupe River in the Almaden Valley, now a part of South San José. When mercury enters water systems bacteria transform it into a highly poisonous neurotoxin, methylmercury, which is absorbed by plant life and subsequently moves all the way up the food chain to human and animal consumers

of Bay Area seafood. Mercury continues to enter the Bay from various watersheds, including the Guadalupe River. There are attempts to limit mercury run off and clean up the Bay, but legacy amounts (meaning that which entered the Bay during the Gold Rush) of methylmercury which remain on the Bay floor are continuing to erode and are impossible to clean up.^[7]

For thousands of years prior to the Gold Rush era the San Francisco Bay was rich with oysters, which were a food source for the Ohlone and Coastal Miwok people. Evidence of this were the existence of massive shell mounds throughout the Bay Area.^[8] These ancient oyster beds produced a relatively small oyster which the new inhabitants of the Peninsula thought to be inferior in taste to oysters from the East Coast. Thus attempts were made to reseed the Bay's oyster beds with East Coast varieties. As Bay Area cities developed and the area industrialized, pollution, including raw sewage and massive amounts of sediment from hydraulic mining in the Sierras, resulted in ovster industry failure. In 1923 South Bay Morgan Oyster of Redwood City sold their holdings to Pacific Portland Cement (now CEMEX). Pacific Portland Cement began dredging the bay to remove the oyster beds, some 30 feet deep, to make cement.^[9] The decimation of the oyster population and loss of reefs significantly affected local wildlife habitats and ecosystems. Currently, the California Coastal Conservancy with the San Francisco Bay Living Shorelines Project are working to bring back the nearly extinct Olympia oyster and restore its long-lost reef habitat in the San Francisco Bay. This is important as oysters are exceptionally effective water filters, when not overwhelmed by excessive pollution.^[10]

Salt extraction is another industry with a long history in the Redwood City area.^[11] Significant environmental issues resulting from salt extraction have to do with the creation of salt ponds—the walling up of marshlands^[12] via built levees to prevent bay water in the form of tides from flowing in and out. This resulted in damage to tidal marsh ecosystems and bay wildlife. It is estimated that 95% of the original tidal salt marshes were lost by 1990.^[13] Salt extraction is responsible for most of this loss. Tidal marsh restoration is a recent effort towards repairing Bay Area ecosystems. ^[14]

Hydraulic mining is an example of a disruptive innovation which took place in California in the 1850s. This technology replaced pick and axe mining by using water cannons to wash gold and sediment out of the mountains and hillsides. It was responsible for significant scarring of the Sierras and fill-in of the San Francisco Bay and the Bay's waterways. Hydraulic mining in the mid 19th century required damming of small valleys in the Sierras for the purpose of creating a high pressure water flow. After pounding a targeted hillside, the water flowed down towards the ocean. The Sacramento and San Joaquin Rivers are part of this watershed. These rivers' ecosystems were damaged by gold mining runoff—mercury and silt—which filled in their beds and contributed to flooding in the Central Valley. Rock and silt from this 1850's practice continues to enter the Bay watershed.^[15] The collective labor requirements of hydraulic mining also transformed independent gold miners into wage labor workers.

Conclusions

One of the complexities of our current extraction-based culture is the relationship between issues of sustainability and the real need for human occupation, i.e. employment. Disruptive inventions such as artificial intelligence and robotic technologies compounds this human labor component as machines increasingly take on our previous physical occupations. We see this most obviously in political discourse around jobs and employment as reasons to continue in destructive and often outmoded extraction industry practices such as the coal industry. At least, the employment language is targeted at the vulnerable working class voter. It is likely not the real motivation to keep such industries going. The real motivation is most probably corporate profit.

So we have a dilemma. Humans need occupation—physically, mentally, and psychologically. We have evolved thus. But the culture we have created and currently exist in removes "meaningful" occupation from many of our lives. Consumption practices may be a substitute for meaningful occupation. However, most consumption practices do not address, let alone resolve, our shared global challenges. Rather they exacerbate many of our real, as well as perceived, problems. Sustainability of life on this planet, as we know it, among them.

Footnotes

^[1] The Spanish began colonizing California in the 1700's. It became a territory of Mexico in 1822.

^[2] Sequoia Sempervirens are among the oldest living things on this planet. They are also the tallest of trees reaching upwards of 379 feet and 29 feet in diameter. Their normal lifespan was between 1200 - 2000 years. They are currently considered endangered.

^[3] Originally called The Embarcadero. Names in this region have changed many times over the course of Western settlement.

^[4] The first protected grove was in Big Basin Redwoods State Park.

^[5] Brilliant Earth.

^[6] Only 12 percent of the 220,000,000 pounds of mercury mined was used for gold recovery. The rest was shipped out to Pacific Rim countries and western states. Alpers.

^[7] Mann.

^[8] Shellmound and Mound as place names continue in the Bay Area.

^[9] "Pacific Portland Cement Company's mill at Redwood City, which produces cement far in excess of a million barrels annually, utilizes seashell accumulations from San Francisco Bay as its sole source of lime." Jenkins.

^[10] Barrett.

^[11] Various South Bay salt extraction industries ran from the current locations of the San Mateo Bridge all the way to the Dumbarton Bridge.

 $^{[12]}$ Marshland, Salt marsh, Tidal marsh, Wetlands and Baylands are used interchangeably for this ecosystem.

^[13] Clarke.

^[14] Meadows.

^[15] Romans.

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Exhibitions

Redwood City Art Kiosk, Redwood City, California February 1–March 22, 2020

> Art Ark Gallery, San Jose, California March 4–April 1, 2022

Art Works Downtown, San Rafael, California February 3–March 25, 2023

For more information about the artists and documentation of the making of *You are the Tree* visit: preneo.org/youarethetree

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Cover Image: Conceptual sketch for You are the Tree