





TIME STRATA

An Interactive Sound Art Experience by

Margaret Noble

October 22 and 29, 2016

Port Spaces 01 32°41′40.7″N 117°09′07.8″W

Commissioned by Waterfront Arts & Activation Port of San Diego

ISBN 9978-0-9998531-0-8



Is the world and its soundscape an indeterminate composition over which we have no control? Or are we its composers and performers, responsible for giving it form?

R. Murray Shafer, The Soundscape: Our Sonic Environment and the Tuning of the World

TIME STRATA



Sound Engineer Robert Mason calibrating windactivated percussive instruments temporarily affixed to pier railing.

ver the last three decades. public art has undergone a substantial metamorphosis, evolving from solely static, durable, and everlasting sculptural objects to an industry which now embraces temporary communitycentric artworks dedicated, at their core, to change through engagement. In this transforming field of practice, placemaking has become a key method for creating successful public art that leverages the power of the arts, culture, and creativity to better serve an individual community's interests and goals. This approach provides a broader agenda for change, growth, and transformation in a way that also builds character and quality of place.

As part of its curatorial shift towards site-specific artworks and creative placemaking, the Port of San Diego's Waterfront Arts & Activation department launched a series of temporary, interactive art installations, featuring artworks by several prominent San Diego-based artists. Accompanying this ephemeral series is a new publication project that will serve to document and encapsulate these important pieces both as a record of the work and for future audiences to enjoy. Members of

the public who did not experience the artworks firsthand will now have the opportunity to learn about the artwork and gain a deeper understanding of the project as a whole. This inaugural publication chronicles the two-day interactive sound installation, *Time Strata*, produced by Margaret Noble.

Noble describes *Time Strata* as: "... [An] interactive sound art concert [that] was presented over two Saturday afternoons in October of 2016, on the edge of the Cesar Chavez Park pier in Barrio Logan, San Diego, California. These events featured live streaming audio from several sound sculptures, the architecture of the pier, the natural environment, and electricity. A total of eight sound sources were channeled live to interactive listening stations where audiences could isolate and layer sounds on discrete digital mixers."

While it's impossible to recreate the actual experience of an artwork, it proved to be particularly tricky to present a project whose primary medium is sound in the visual medium of a book. Occupying a space between experimental music and fine art practices, sound art has a rich history dating back to the cacophonous performances of Dada artists in post-

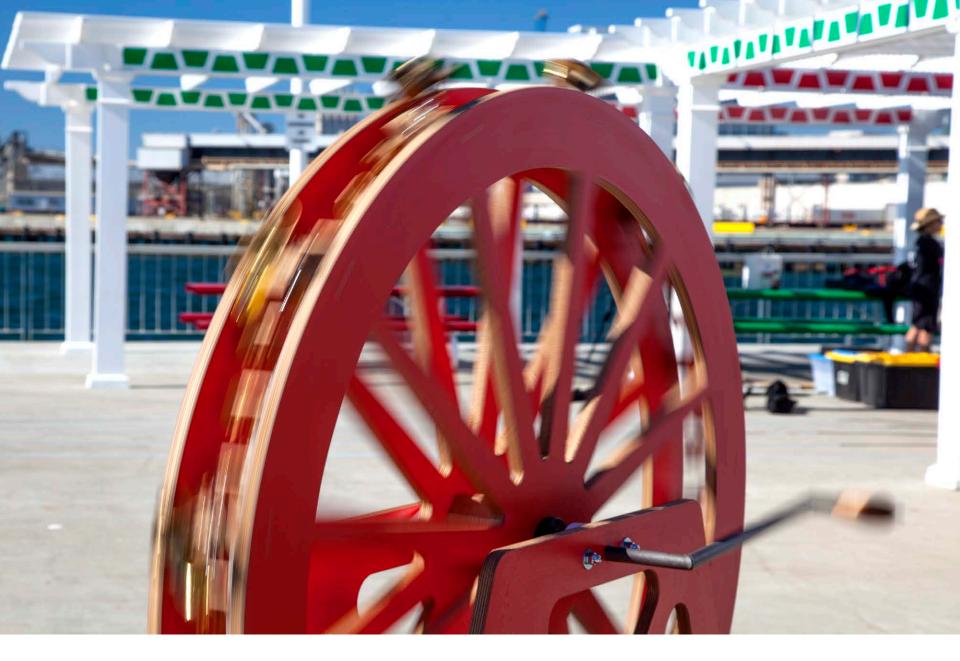
World War I Europe. Modern-day sound art utilizes audio as a dynamic medium and is often the result of a performative or sculptural event, also comprising an element of a larger, more comprehensive project.

With *Time Strata*, Noble placed emphasis on the ability that sound has to function as a signifier of its own making. The project was comprised of three core sculptures that interacted with the kinetic elements of the site, including wind, tides, and visitors, to produce sound. These interactive sculptures became the visual anchors for the experience of generating sound, and also served to direct the audience's attention toward other aspects of the location that might otherwise have been overlooked. The project highlighted a rich co-existence of natural and artificial phenomena, from the drone of the adjacent industrial waterfront to the ubiquitous clicking of tiny snapping shrimp nestled in the rocks on the bottom of the bay. By capturing this audible ephemera and allowing us to listen, Noble created an opportunity to experience our everyday world as a world we never knew existed.

While sound exists as a record of a specific moment in time and place, so too was *Time Strata* and the future projects that comprise the Port's curatorial program. Temporal works like Noble's prompt new opportunities and formats

for engaging in public art, producing interactions that are flexible, dynamic, and socially conscious. In place of monumental permanence emerges a sustained program of placemaking and experiential learning. We hope you enjoy *Time Strata* in publication form.

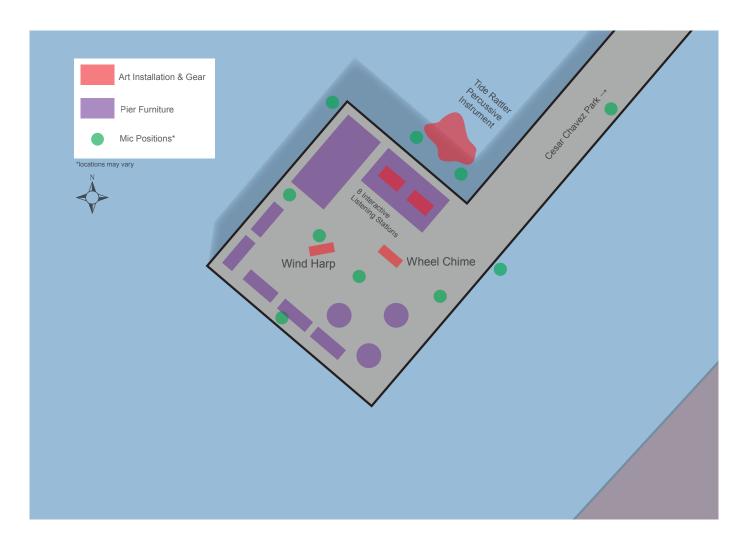
Yvonne Wise
Director, Waterfront Arts & Activation
Port of San Diego



Bell Chime sculpture after being spun and released







Map of installation including hardware and sculpture objects on Cesar Chavez Park pier





Visitors were invited to crank the handle to spin the *Bell Chime* wheel. As the wheel spun faster, centrifugal force held the bells in place and the sculpture tended to produce less sound. As the wheel slowed down, the bells would no longer be held in place and began ringing. *Bell Chime* contributed to the mixture of sounds only to the extent that visitors decided to engage with it.



Bell Chime

An interactive kinetic wheel of found bells and chimes

Plywood, hardware, paint, bells





Wind Harp

A 12-foot pillar of wood, stainless steel, concrete, and piano strings



Wind Harp rotated on a pivot in order to best align the strings and resonating body with the current direction of the wind. Wind pressure passing over the strings causes them to vibrate and produce a tone. The hollow, wing-like shape of the resonating body causes the wind passing over it to speed up, creating stronger vibrations in the strings, and therefore producing a louder tone. Much like the body of an acoustic guitar, the resonating body of Wind Harp amplifies and enriches the tone produced by the strings. On the San Diego Bay waterfront, a steady sea breeze can be counted on throughout the day.



Fabricator Reuben Foat performs adjustments during the temporary installation of Wind Harp.

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Contact microphones and hydrophones picked up percussive sounds made by *Tide Rattler* as it rocked on the bay surface near the pier. *Bell Chime, Wind Harp,* and *Tide Rattler* acted as indicators of both natural and social phenomena as they changed throughout the day on the pier. As visitors came and went, boats passed, ocean swell picked up or diminished, and wind gusts passed, the sounds produced by the sculptures would become more or less intense concurrently.



Tide Rattler

A partially submerged percussive raft made of vintage buoys, bamboo, and metal tubes





The repetitive clicks generated by the claws of inumerable, tiny snapping shrimp hidden in the rocks and mud at the bottom of San Diego Bay are a ubiquitous part of the bay's underwater soundscape.

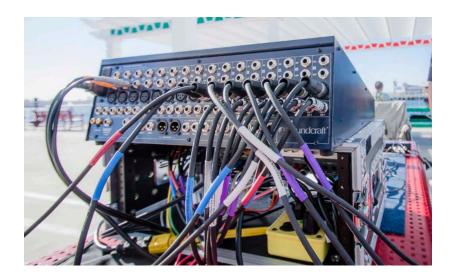


Environmental Sounds





Hydrophones and contact microphones picked up sounds produced by chance from the water surface and along the pier's railing.

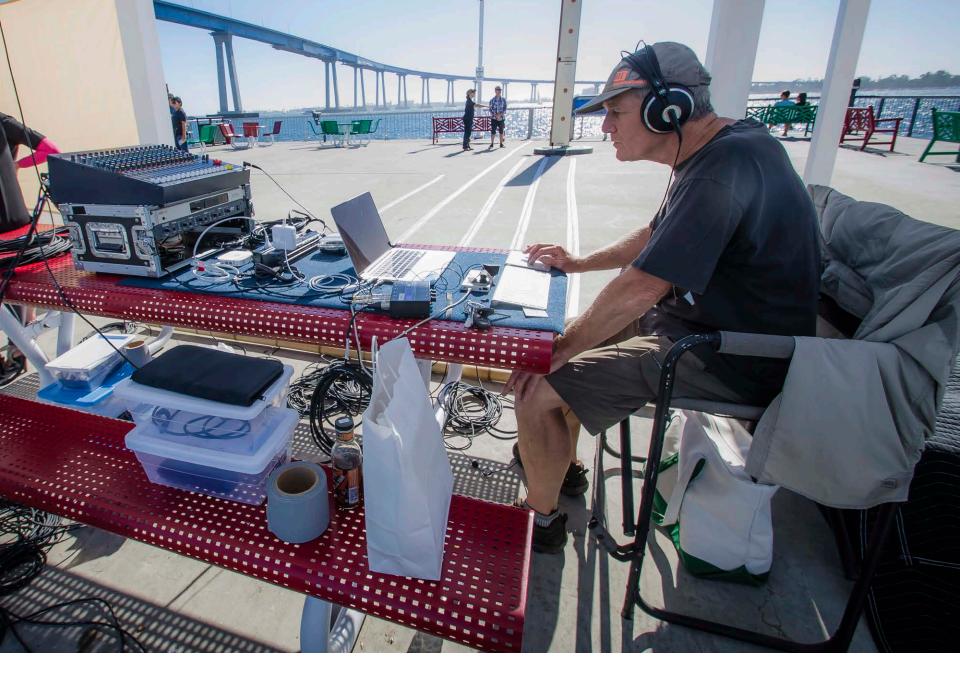


The faint buzzing made by the electronic equipment used to produce the piece and even the sounds made by visitors are incorporated as tracks that could be mixed with the sounds produced by the sculptures and other pier ambiences.





Wind-activated percussive instruments produced tones as they struck the pier railing.



Sound Engineer Robert Mason overseeing and maintaining simultaneous inputs and outputs

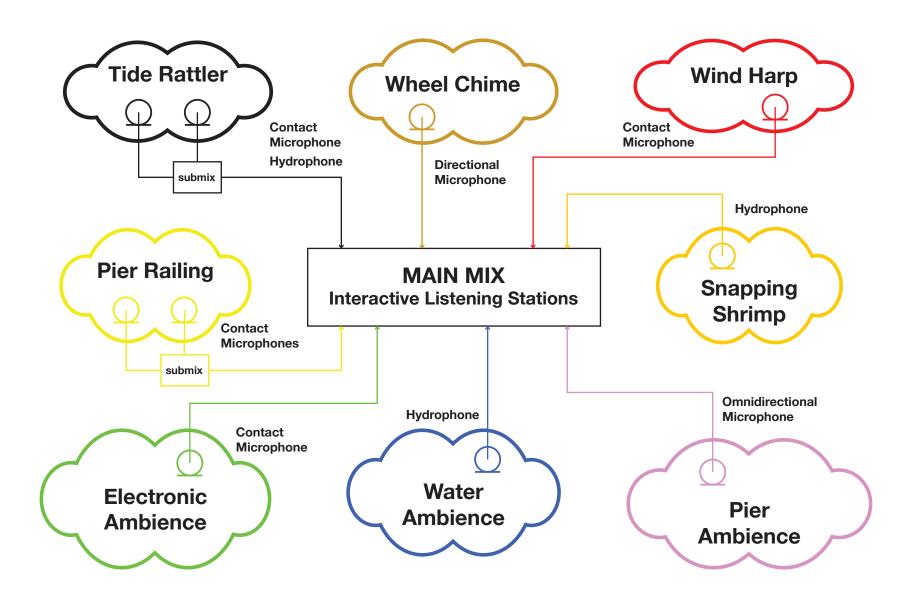
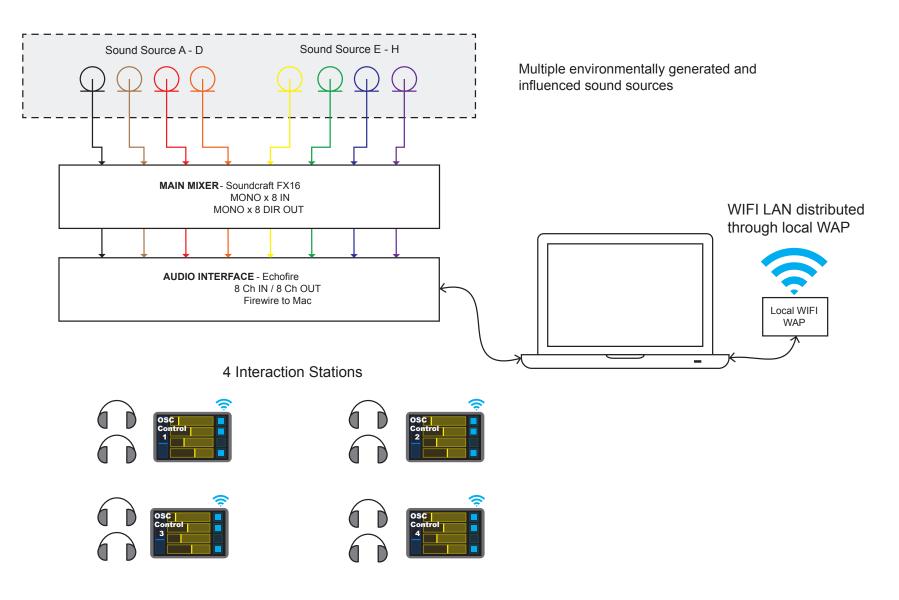
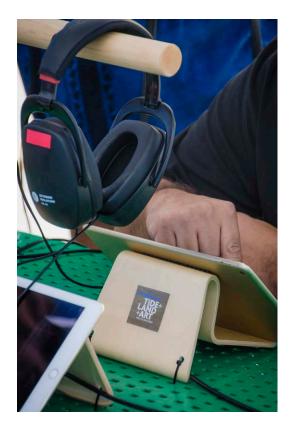


Diagram of the various simultaneous live signals on the pier



Technical diagram illustrating the wired and wireless signal flow that enabled visitors to interact with the live audio tracks



STATION 4

Sliders A - H make individual sounds louder or softer

Interface and interactive listening stations



Listening Stations: Live-feed audio from sculptures and various pier ambiences could be mixed by attendees in real time with wireless iPad controllers.

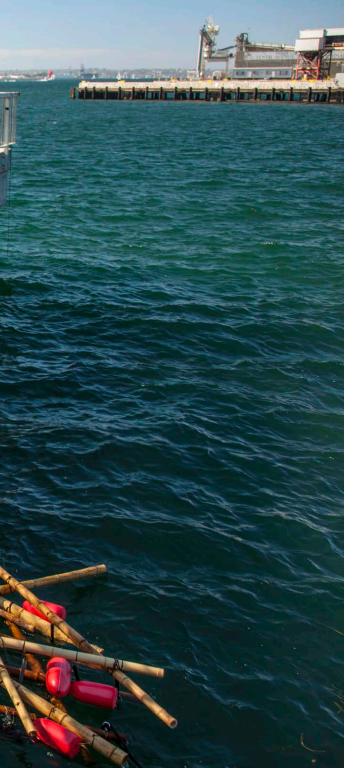




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Margaret Noble is an interdisciplinary artist based in San Diego. Her work resides at the intersection of sound, sculpture, installation, and performance, and is influenced by her experiences participating in Southern California and Chicago's dance, electronic, and experimental music scenes. Noble has created sound works for collaborative projects in video, dance, and object theatre, and now produces sculptures and installations influenced by her interest in memory, history, narrative, and identity.







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TimeStratawascommissionedaspart of the PortSpaces curatorial program, a series of temporary site-specific artworks activating public spaces on Port Tidelands.

Recordings of sounds at the pier can be listened to at:

margaretnoble.net

Sculpture Fabrication by Reuben Foat Sound Engineering by Robert Mason Engineering services generously provided by Kleinfelder

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ISBN 9978-0-9998531-0-8

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