TAMIKO THIEL
SELECTED WORKS 1986 – 2022
My works reflect on the multiple layers of memory, history, myth, fantasy and desire that can be evoked by a compelling object, image or site. These concerns inform my entire art practice, from my early work with objects and video, my large-projection interactive 3D virtual reality installations and my current work in augmented reality.

My art practice has always focused on bringing visual form to these invisible levels of meaning. My first artwork, the Connection Machine CM-1/CM-2 supercomputer, reflected fantasies expressed in both science writing and science fiction of creating an electronic brain. (Collections: MoMA New York, Smithsonian).

My early videos in the Totem Project explored the power of the human body to evoke numinous beings existing somewhere between the boundaries of the human and the supernatural.

My site-specific interactive 3D virtual worlds involved creating 3D reconstructions that referenced real places (Manzanar Internment Camp in the California desert, Venice and its lagoon, the Berlin Wall and its surrounding neighborhoods in East and West Berlin), and then triggering surreal shifts between the very diverse layers of associations that different groups of people have with these sites.

Working now with augmented reality I am spared the effort of first reconstructing a location, being able to position my artworks directly at a site to trigger the invisible layers of meaning and meaning that it evokes. The frequent critique of AR, that it is invisible, is irrelevant to me because in human experience the most powerful associations connected to a site are often invisible to those who do not know or actively wish to ignore them.

Now, AR can make the invisible visible, revealing the hidden worlds that have accumulated throughout our long history and creating new worlds yet unseen. These worlds can now be visible for all those who wish to seek them.

Photo: Daniel Sammons, wet plate collodion print

ARTIST STATEMENT WWW.TAMIKOTHIEL.COM
Humans have created a whole new epoch for the denizens of the ocean: the Plastocene. Plastic has become a ubiquitous part of the world’s oceans, permeating all layers from the surface down to the darkest depths.

Visitors to the MEET Immersive Space were surrounded on three sides by a continuous, 50 meter long floor to ceiling plastic waste coral reef and schools of fish and swimming plastic waste. “Enter the Plastocene” embeds visitors via live augmented reality video streams into the middle of the garbage we create, giving them an acute sense of the life surrounded by garbage that we are inflicting on ocean dwellers. Visitors could also view the AR app on their own smartphones, layering additional plastic waste corals and fish onto the visitors and the physical space.
ENTER THE PLASTOCENE

Immersive video projection space
Tamiko Thiel and (p. 2021
World premiere at documenta ART LAB Gleis 1, Regensburg, Germany, 2021.

At the Regensburg Central Station, visitors descended stairs into the documenta ART LAB Gleis 1, an unused pedestrian underpass, transformed into a mysterious underwater cave. Beyond the rhythmic burble of a scuba diving breathing apparatus, the muffled announcements and sounds of arriving and departing trains created an eerie world of its own, far removed from the bustle of a busy train station. Fish and plastic garbage swim above, while (real) plastic waste on the floor and virtual projections of plastic waste coral reefs fill the walls and the ceiling of the tunnel.

Since most plastics cannot be recycled, the contents of our overflowing recycling bins are shipped to poorer countries around the world, often being simply dumped into the sea en route or at their final destination. The larger pieces wash up on the beaches or float on the surface in gyres such as the Great Pacific Trash Vortex. The smaller parts and the degraded micro and nano parts make their way from the North Pole to the South Pole, and down to the ocean floors all over the world. Welcome to the Plastocene!
Augmented Reality Installation
Tamiko Thiel and (p, 2021
Commissioned for the 175th anniversary of the Smithsonian Institution, curator Ashley Moose.

Challenged by FUTURES curators to “imagine the future we want, not the future we fear,” we offered a vision of how Washington D.C. could be rewilded to create a thriving, sustainable environment for nature in the city. Developed in collaboration with S/Gardens and horticulturalist Holly Walker, we focused on symbiotic relationships between flowers and insects native to the Washington D.C. area. Time-based AR animations take viewers through the seasons: dogwoods and their dependent dogwood mining bees, columbines and sphinx moths, milkweed and monarch butterflies, and echinacea and metallic green sweat bees. A brief winter interlude brings the viewer back to the spring miracle of dogwoods flowering on bare branches.

ReWilding the city means turning all available open areas and parks, but also planting strips, rooftops and planting strips wherever possible, from carefully mono-cultivated gardens into wildflower meadows, wetlands or similarly biodiverse biotopes. It means preserving not just beloved or “useful” plants and insects, but also ones we might see as nuisances, or that produce no “useful” commercial products.
ATMOS SPHAERAE

Immersive large video projection
Tamiko Thiel, 2021
Created in virtual reality for the DieMuseum 4.0 VR museum exhibit „Dia/Locatio:” curated by Christine Paul.

Original music by Christoph Reiser
Sound engineering by Martin Rieger

Image this page: Gases in the proto-planetary disc.
Image facing page: Greenhouse gas emissions from Anthropocene oil rigs.

A deep time meditation on the changing elemental composition of the Earth’s atmosphere.

Atmos Sphaerae uses the poetic beauty of the scientific notation “Lewis structures” to make visible the differences in atomic composition between different atmospheric gases.

The experience takes the viewer from the pre Big Bang void through the proto-planetary gas disc, to the life-giving water, then the Great Oxygenation Event triggered by photosynthesizing cyanobacteria, to the runaway greenhouse triggered by humans’ voracious appetite for fossil fuels.
In Lend Me Your Face! a neural network animates a single photo of each participating visitor’s face to match “driving videos” of leading public figures. The deepfakes are displayed in large projections surrounding the public.

The visitor is confronted with a very personal encounter of how the most intimate and yet public part of the self, the face and the emotions it expresses, can easily be manipulated and placed in contexts out of their control.

* Lend Me Your Face! uses an open source deepfake neural network framework developed by A. Siarohin et al. using the VoxCeleb dataset, extended with “deep-animator,” a wrapper created by Dimitris Poulopoulos, and set up with the help of Christoph Clement.
I AM SOUND

Participatory music/video installation, digital prints, videos
Tamiko Thiel (image) and Christoph Reihner (music/instrument), 2016
Commissioned by the Digital Synesthesia Group (University of Applied Arts Vienna, City University of Hong Kong, ZKM Karlsruhe)

A dark room. A pool of light, with a camera and microphone. You enter the light. Your face appears projected and fractured into a cubist portrait on a curtain of metal plates — a 12-tone metallophone.

A soft, shimmering sound begins to fill the room — your face, transformed into a personal, minimalist music composition, plays on the metallophone. Green lines scan your face. The music changes, and the vibrations of the plates causes the mosaic of your face to shimmer.

You are the living heart of an aural/visual system that transforms your face into a personal music video.

You become image. You become sound.
I began the Touching, Traces work series as an exploration of the intimacy of touch on mobile device screens. This became even more relevant in 2020, the first year of the coronavirus pandemic. Since it was thought that transmission of the virus was primarily through physical contact, we all became hyperaware of the surfaces we touched and of the traces that may or may not be on those surfaces. For those alone in self-isolation, our mobile devices were the surfaces we touched and stroked most intimately and most often.

As I was following the course of the 2020 US presidential election, my work with Touching, Traces became a mirror of the events I was following online, and codified in my “2020 Election Diaries.” These were records of my frantic “doomscrolling” on news sites and Facebook on key days around and after the 2020 election, as Trump and his GOP allies attacked the landslide win by Biden and Harris that knocked him out of office.

As we now know, the attempts culminated in Trump’s call to storm the Capitol Building on January 6, 2021. Trump stirred up a violent mob to attack the Senators and Representatives of the United States of America in the Capitol Building as they were meeting to confirm the results of the election. Multiple people died as a result of the attack, and Vice President Pence and others narrowly escaped death by mob violence.

This led to Trump’s second impeachment, in which however a majority of the Republicans, whom Trump put in peril of their lives, voted not to convict him.

Living in Europe, isolated from the events in the USA by time and distance, I was desperately trying to make sense of the weird events and the weeks of uncertainty and suspense, and seeking solace in my online community of friends and media analysts.

Series of 21 “mini” digital fine art prints, 14x19.5 cm floated on 21x30 cm, Hahnemühle Baryta paper
Tamiko Thiel, 2020-2021
EVOLUTION OF FISH (PUBLIC ART INSTALLATION)

Participatory augmented reality installation in public space, iPad, large projection
Tamiko Thiel and /p, 2019
Commissioned by Digital Graffiti Festival, Alys Beach, Florida, 2019

Created during an artist residency at the Digital Graffiti Festival, Evolution of Fish is an augmented reality installation that turns the surroundings into an underwater reef, filled with schools of fish. Visitors use iPads to guide the fish to swarm left and right — but the more they intervene, the more the fish turn to plastic garbage.

For the festival, two iPads were placed on rotating stands in a small square. The images from the iPads, with the augments and the background image including any visitors caught by the camera, were projected on the two-story facades of buildings on each side of the square. Visitors became denizens of a giant aquarium filled with fish and plastic waste.

The installation includes fish native to or invasive in the Florida Gulf Coast: large silvery Ambezeugas, known for their love of debris, and colorful reef fish that will become more common on the Florida Panhandle Emerald Coast, as they migrate northward due to warming waters.
In the Digital Art Space Munich the gallery was transformed into an underwater cave filled with plastic waste. The AR image from the iPad was projected onto the walls between the garbage. Visitors were included in the AR projection as well and became habitants of the underwater reef.

Friends of the gallery were requested to save all plastic garbage that accumulated in the course of their daily lives, and help attach it to the surfaces in the gallery: onto the walls, the ceiling and floor. The waste included much plastic packaging, but also many household and personal items: worn out shoes and clothing, nylon stockings, toys, office supplies, broken umbrellas, etc. etc. etc. As a participatory gallery installation, Evolution of Fish raises awareness of how plastics permeate our lives.

In each new venue for the artwork, the garbage will reflect the local products and lifestyle. Many participants and visitors in Munich, a very health-conscious city, were for instance startled to realize how many of their natural food products were sold in single-use plastic packaging.
Perturbations in the natural order have torn the fabric of the space-time continuum, and unexpected growths are seeping into our world—perhaps from our own future. Augmented reality apps transform our mobile devices into “ARscopes” — allowing us to see into these parallel dimensions that co-exist and overlay our own so-called “reality.” One such growth was discovered on the 6th floor terrace of the Whitney Museum of American Art. The growths are movable, and are periodically reshuffled by passing waves. This strange growth seems to respond to the mediated human gaze on a daily cycle, absorbing electromagnetic energy from our “ARscopes.” Over the course of a day, depending on the number of people viewing it, the accumulated exposure seems to cause the growth to bleach.

More investigation and longer term studies will be needed to understand the effects of human interference with its growth cycle. What we can say so far is that the growths seem to be an odd mixture of coral animals and plastic. They are clearly following principles of Lindenmayer systems: algorithmic, branching growth as is common in many corals. It is unclear however how the plastics are becoming incorporated into living systems, and what effects these coral-plastic symbioses will have on the larger ecosystems, especially on animals all along the foodchain — up to human beings — who feed off of sea flora and fauna. Another troublesome aspect is that the growths on the 6th floor terrace are clearly underwater creatures. If they are really coming from our future, when will the waters of New York Harbor reach this disturbingly high level? Are such symbioses our future, as plastic waste becomes more numerous than the fish in the sea?
NOTHING OF HIM THAT DOTH FADE...

3D ceramic print, one of a kind
Tamiko Thiel and /p, 2019

Collection Julia and Anton Hofmeier
Produced for the PIN. benefit auction 2019 for Pinakothek der Moderne and Museum Brandhorst in Munich.
Photos: Haydar Koyupinar, Bayerische Staatsgemäldesammlungen

Full fathom five thy father lies:
Of his bones are coral made:
Those are pearls that were his eyes:
Nothing of him that doth fade.
But doth suffer a sea-change
Into something rich and strange.
Sea-nymphs hourly ring his knell:
Ding-dong.
Hark! now I hear them — Ding-dong, bell.

In the iPad display we see that we are surrounded with a reef of virtual corals — made of plastic garbage. The longer we look, the more they bleach. The little white sculpture is a coral that bleached fully, and in dying fell out of the virtual world into our real world. Surrounded by broken pieces of its own body, it is a memento mori for our endangered oceans.
Augmented Reality. Tamiko Thiel. © 2019
Image Tracking Augmented Reality. Tamiko Thiel. © 2019

Image below:

A strange new growth is taking over the ocean depths. Scientists constructed this image from data, recorded with a revolutionary new process that incorporates a 4D space-time recording of the organism into a simple 2D black and white graphic.

**WARNING: THERE MAY BE UNEXPECTED CONSEQUENCES OF VIEWING THE OBJECT!**

On recent model iOS or high-end Android smartphones:
- Download and install AR-vos app: http://ar.vos.com
- Accept all permissions.
- If a list appears, select „Tamiko Thiel.“
- Frame trigger image (on right-hand page) in brackets in app screen.

**WATCH CAREFULLY - THE ORGANISM MAY TAKE OVER THE ROOM …**

Strange Growth first appeared in:
VECTOR (Edition #9) Artist Journal
Guest Editor Munich: Birthe Blauth
Managing Editors: Peter Gregorio and Javier Barrios
Book launch 11 December 2019 in the Kunsthalle München.
http://www.vector.bz
GARDENS OF THE ANTHROPOCENE

Augmented reality installation, digital print, videos
Tamiko Thiel, 2016
Commissioned by the Seattle Art Museum for their Olympic Sculpture Park

Gardens of the Anthropocene posits a science fiction future in which native aquatic and terrestrial plants have mutated to cope with the increasing unpredictable and erratic climate swings. The plants in the installation are all derived from actual native plants in and around the Seattle Olympic Sculpture Park that are tolerant to drought on land or to warming sea waters, and are therefore expected to adapt to the increasing temperatures to come.

Beyond this actual scientific basis, however, the artwork takes artistic license to imagine a surreal, dystopian scenario in which plants are “mutating” to breach natural boundaries: from photosynthesis of visible light to feeding off of mobile devices’ electromagnetic radiation, from extracting nutrients from soil to feeding off man-made structures, and to transgressing boundaries between underwater and dry land, between reactive flora and active fauna.
Augmented reality installation, iPad, digital prints (Tamiko Thiel)
Japanese calligraphy for AR and on mylar hangings (Midorikono Thiel)
A calligraphic family narrative, written onto the skies of Seattle, WA (2015) and San Jose, CA (2019).
Commissioned for Seattle by the Wing Luke Museum of the Asian American Experience, 2015; Commissioned for San Jose and Cupertino, CA, by the California History Center and Euphrat Museum, DeAnza College, 2019

Photo on this page: Midori Kono Thiel with AR calligraphy and mylar calligraphy wall hangings, Wing Luke Museum, Seattle; Next page: Brush the Sky: Odoroku (Astonishment) with Cherry Blossom Festival logo, Seattle Center.

For millennia East Asian artists have enhanced paintings with calligraphy, the abstract, graphic qualities of the brush strokes reverberating with the meanings of text and image. In “Brush the Sky,” a mother-daughter duo bring the ancient art of calligraphy into the 21st century.

In the Wing Luke Museum and Euphrat Museum gallery exhibits, transparent wall hangings by Midori Kono Thiel emphasized the abstract nature of calligraphic art by deconstructing the strokes of Japanese characters across multiple parallel layers in non-traditional ways. The transparent layers and their shadows, stirred into motion by a slight breeze, invited visitors to regard the calligraphy as abstract, gestural art. Her daughter Tamiko Thiel enhanced the installation with augmented reality overlays, visible through an iPad mounted on a rotatable pedestal. These AR versions of Midori’s calligraphy enclosed visitors between veils of “real” and “virtual” calligraphy to incorporate them into a total installation.

Tamiko also placed augmented versions of Midori’s calligraphy at sites of family history around Seattle and Silicon Valley to create city-wide public artworks. These virtual artworks, often animated, further de- and re-construct Midori’s boldly abstract, gestural calligraphy into visual poems, marking sites of this Japanese American family’s four generations of involvement with the Seattle and San Francisco Bay Areas. In San Jose, CA, the AR exhibit is being shown as part of the Hidden Histories of San Jose Japantown Project, in collaboration with the Japanese American Museum of San Jose and support from a Knight Foundation Immersive Technology in the Arts grant.
GOLDSEGEN / GOLDEN BLESSINGS

Participatory augmented reality public art project and wall hanging
Tamiko Thiel, 2015 - 2017

Commissioned as part of the public art project "Das Rätsel des Überflüssigen" ("Conundrum of the Superfluous") by Serafin Lindemann | artcircolo with pilotraum 01 e.V., GCN and DenonDenkRaum, for Klimaherbst München 2014.

"HOW MUCH DO YOU NEED TO BE HAPPY?"

I asked people to write their answers to this question on a whiteboard, then took augmented photos of them with their answers, standing in a shower of lucky gold coins. I printed out the image on the spot – one copy for them to take home as a lucky charm, the other copy to create a participatory wall hanging.
SHADES OF ABSENCE

Augmented reality installation, digital print, videos
Tamiko Thiel, 2011
Manifest.AIR artist group intervention at Venice Biennale, 2011

In these “pavilions of absence” images of contemporary artists whose works have been censored are reduced to gold silhouettes and placed in the midst of terms of transgression. Each erased silhouette stands for countless unknown or lesser known artists who face censorship or persecution with no public support.

“SHADES OF ABSENCE: PUBLIC VOIDS”
Artists of censored public artworks — including several cases at the Venice Biennale itself — are placed into the public space of Piazza San Marco.

“SHADES OF ABSENCE: OUTSIDE INSIDE”
This work creates a virtual pavilion on the Giardini main concourse for censored artists who have faced threats of violence or arrest.

“SHADES OF ABSENCE: SCHLINGENSIEF GILDED”
The posthumous exhibit for theater director Christoph Schlingensief in the German Pavilion won the Golden Lion Award for Best National Pavilion. In an homage to Schlingensief, this artwork manifests his ironic presence surrounded by terms often used to describe his works.
On 9 October 2010, Sander Veenhof & Mark Skwarek organized an uninvited cyberspace takeover of the Museum of Modern Art (MoMA) in New York as part of the Conflux Festival for Contemporary Psychogeography. The exhibition, called “We AR in MoMA,” placed virtual artworks into MoMA’s “real” galleries using GPS based geolocative augmented reality technology.

On their invitation I was delighted to contribute my first AR artwork “Art Critic Face Matrix” to the exhibit. It was placed in the atrium, fittingly overlaid on Yoko Ono’s 1961 instruction painting “Voice Piece for Soprano: Scream, 1. against the wind 2. against the wall 3. against the sky,” which provided the appropriate soundtrack for the Art Critic Face Matrix.
LAND OF CLOUD

Augmented reality installation, digital prints, videos
By Tamiko Thiel, 2017-2018

Google VR Tilt Brush artist in residence, San Francisco, 2017
Winner of the audience award, VRHAM VR festival, Hamburg, 2018

Three days journey beyond Space and Time lies the Land of Cloud. The people there are silent. They communicate not through speech, gesture or gaze, but instead through strange and wondrous “cloud mirrors.” These devices keep them in constant contact with their deity, The Cloud, in whose image they are created — their bodies are themselves composed of softly billowing clouds.

The Land of Cloud is a beautiful garden, but the Cloud People are oblivious to their surroundings. They stare into their devices, motionless, spellbound by whispers from The Cloud. The garden slowly envelops them in its boughs.

If you visit the Land of Cloud, you will hear a susurration of voices when you enter the space. If you walk up to a Cloud Person, sit or lie down next to them and place your head in their head, you will hear that each one repeats its own mantra, given by the Cloud Deity.

All mantras were taken from the 2016 USA election campaign.
ReVISIONING THE VIRTUAL WALL

Digital collage, 70 cm x 140 cm, 2009
Fine art print on Hahnemühle Baryta paper, mounted on alu-dibond.

Two of a larger series of motifs are illustrated here.

Digital collages mix archival materials discovered in researching the Berlin Wall with digital material generated for the 3D virtual reality artwork Virtuelle Mauer/ReConstructing the Wall. Using ancient techniques to depict time as image composition, with more modern techniques of layering and collage, I create complex images of memories and movement through space and time.
VIRTUELLE MAUER / RECONSTRUCTING THE WALL

Interactive virtual reality large-screen installation, 2008
Stereo VR version for Oculus Rift/Quest 2 + Link, 2022
T+T (Tamiko Thiel and Teresa Reuter)

Supported by a 2007 Hauptstadtkulturfonds grant (Berlin Capital City Cultural Fund) as an integral part of the Berlin Wall Memorial Concept of the City-State of Berlin. Winner of the 2009 IBM Innovation Award for Art and Technology, Boston Cyberarts.

It is over 30 years since the Fall of the Berlin Wall on November 9, 1989. Most people alive today have never seen it in real life. This artwork recreates a kilometer-long section of the Wall and its surrounding neighborhoods in East and West Berlin, depicting the radical changes made over the 28 years of its existence.

Exploring the virtual space with a simple thumbwheel, users’ own movements and actions trigger dramatic encounters with events spanning from the 1960s to the 2000s. In West Berlin users can tour the colorful graffiti on the West Wall and hear stories of past events; in East Berlin there is a hushed silence and users find that approaching the Wall and its checkpoints can have severe consequences.

Users are protagonists in a surrealistic dream – not as all-powerful border guards, but in the role of normal Berlin residents living “in the shadow of the Wall.”
**THE TRAVELS OF MARIKO HORO**

Interactive virtual reality large-screen installation, digital prints, videos
Tamiko Thiel, 2006
Original music by Ping Jin, Professor for music composition, China Conservatory Beijing

Supported by a 2003 Japan Foundation fellowship at the Kyoto Art Center and a fellowship at the Massachusetts Institute of Technology Center for Advanced Visual Studies in 2004
Winner of the 2006 Junge Kunst/Neue Medien Prize of the Capital City of Munich

The Travels of Mariko Horo is a "reverse Marco Polo" fantasy in which Mariko Horo, a time-traveling Japanese woman living between the 12th and the 21st centuries, constructs the exotic and unknowable Occident. The user never sees Mariko, she is Mariko and explores the world through her eyes.

The piece was inspired by Japanese artists of the "Namban" ("Southern Barbarian") genre that existed between the 17th-19th centuries while the country was closed to the outside world. Drawing on only a few images and maps enhanced by their own fertile imaginations, they created fantasies of an exotic, unknowable West. This VR installation draws on images from Venetian and Byzantine art history and collides Dante’s Christian universe with Buddhist cosmology, using the medium of interactive 3D virtual reality for a journey through space and time, a work of Namban Art for the 21st century.
Beyond Manzanar is an interactive virtual reality environment, a metaphorical landscape that explores political scapegoating of ethnic populations in times of crisis. The historic experiences of Japanese Americans in World War II and the more recent experiences of Iranian Americans during the 1979 Iranian Hostage Crisis form the basis for a surreal and poetic work contrasting immigrant attempts to achieve the American Dream with the demonization of entire groups as “alien invasives.”
METAMORPHOSES

Digital print series, 1997

Left image:
Metamorphoses: AM/PH-X01, 1997
Digital print, 61.4 cm wide x 76.5 cm high

Right image:
Metamorphoses: AM/PH-X02, 1997
Digital print, 61.4 cm wide x 51.2 cm high

Totem: An object, animal or plant, worshipped as the ancestor or protector of a person or a clan, and that serves as a magical helper.

The Totem Project is a series of works that use technology to reclaim a sense of the human body as mysterious and powerful, a source of mythic significance. Through the eye of the camera I seek this transformation from the human to the numinous, from the mortal body to that of its totemic protector.
Single channel version of 5-channel CRT video sculpture, 1996
Supported by a Bay Area Video Coalition (BAVC) Artist's Equipment Access Grant, San Francisco, 1996.
Original music by Teed Rockwell.

In the original Totem of Heavenly Wisdom video sculpture, five CRT monitors created a “video totem pole” taller than a human being. The single channel version brings the 5 channels onto a single, vertically oriented 9:16 monitor.

The music was composed and performed by Teed Rockwell to fit the character of the totemic beast. It is a synthesis of East Indian classical music and western jazz/rock traditions.

I search for abstract forms and movements of the human body that trigger powerful associations with the processes of life and death, transforming images of “innocent” body parts into fetishistic objects, projections of the viewer’s own desires and fears.

TOTEM OF HEAVENLY WISDOM
GOLDEN SEED

Video installation, digital prints
Music: 17th century Russian Orthodox liturgy
Tamiko Thiel, 1991
Diploma exhibit for Academy of Fine Arts Munich, 1991
Finalist in “Deutsche Videokunstpreis,” ZKM Karlsruhe, Germany, 1992
(under the name “Das Goldene Ei/ The Golden?”)

A dark passage leads into the underworld. In a low cave with a sandy floor, smelling of incense and of dry dust, light streams from a moving votive image framed in gold. Sacred music rises and falls in ecstatic chorus.

Holy Mother Earth, dark and fertile, your child will rise again in eternal golden light… in the fields, the fertile furrows will overflow with ears of grain…
Artificial Intelligence parallel supercomputer, 1986/1987, Danny Hillis, inventor
Tamiko Thiel, lead product designer, Thinking Machines Corporation

The Connection Machine CM-1, the brainchild of inventor Danny Hillis, was the first commercial supercomputer designed expressly for problems of artificial intelligence (AI), a massively parallel supercomputer with 65,536 processors. The CM-1 was modeled on the structure of a human brain: rather than a single powerful processor performing calculations one after another, the data was distributed over tens of thousands of simple 1-bit processors, all of which could perform calculations simultaneously.

What enabled the processors to communicate faster than previous parallel computers was the internal network, a 12-dimensional boolean n-cube structure suggested by Nobel Prize physicist Richard Feynman.

**Technical legacy:** Google co-founder Sergey Brin learned parallel programming on a CM-2; his adaptation of Hillis’ parallel programming paradigm enabled the early success of Google’s search engine. In 2010 Google also bought Hillis’ follow-on AI company MetaWeb — its CTO John Giannandrea became head of AI at Google.

**Design legacy:** From 1983-1985 I directed the packaging and industrial design of the Connection Machine CM-1/CM-2 at Thinking Machines Corporation, with industrial design consultants Allen Hawthorne and Gordon Bruce, and mechanical engineering consultant Ted Bilodeau. The design influenced Apple and NeXT founder Steve Jobs: According to personal communications from Joanna Hoffman, Steve Jobs “right hand” on the original Macintosh computer and Jobs’ NeXT computer, Jobs requested she get the designer of the Connection Machine to design his NeXT PC. Joanna replied, “Sorry, Tamiko has gone to Europe to be an artist ...”
Tamiko Thiel was awarded the 2018 IAIA Visionary Pioneer Award by SAT Montreal for lifetime achievement creating media artworks exploring place, space, the body and cultural identity in political and socially critical artworks.

Starting as a product design mechanical engineer with degrees from Stanford and MIT, she was lead product designer on Danny Hills’ Connection Machine CM-1/CM-2 (1986/1987), the first commercial artificial intelligence supercomputer and in 1989 the fastest computer in the world. These machines influenced Google’s AI technology, inspired Steve Jobs’ designs, and are in the collections of MoMA NY and the Smithsonian Institution. Thiel has subsequently used AI technology to create artworks such as her Land Me Your Face (2020), with 3D deepfake AI video installation.

Her first VR work was as producer/creative director of Starbright World (1994–1997), the first 3D online metaverse world for children, in collaboration with Steven Spielberg. Her VR artwork Beyond Manzanar (2000, with Zara Houshmand), was one of the first VR artworks collected by a US art museum (in 2002, by the San Jose Museum of Art in Silicon Valley). Her interactive large projection VR Virtuelle Mauer/ReConstrukt the Wall (2008, with Teresa Reider) was supported by Berlin’s Capitol City Cultural Fund and won the IBM Innovation Award for Art and Technology in 2009. It is being shown for the first time as a full stereo VR experience in „Diverse Realities:“ Other major VR artworks include Land of Cloud, created for GoogleVR Tilt Brush Artist in Residence and winner of the VRHAM Audience Award in 2018, and Atmos Sphaeræ, created for the DMAqua 4.0 VR exhibit „Du/Location“ curated by Christiane Paul.

As a founding member of the group Manifest.AR Thiel participated in their groundbreaking augmented reality intervention into MoMA NY in 2010 with her ARI Critical Face Matrix, and was the main curator/organiser of their AR intervention at the Venice Biennale in 2011, including her work Shades of Absence. Many AR commissions followed: Biener Schekter (2013, with Will Pappenheimer) from FACT Liverpool, Brush the Sky (2015, with Midori Kono Tarbright - Thiel) from Wing Luke Museum of the Asian-Pacific Experience, Gardens of the Anthropocene (2016) from Seattle Art Museum. The 1st edition of her AR installation Unexpected Growth (2016, with p) was commissioned by and is in the collection of the Whitney Museum of American Art. The 2nd edition was auctioned in 2021 in the first curated sale of NFTs at Christie’s New York, Lady Phe’s „Proof of Sovereignty,” for which Thiel required Christie’s to develop a more sustainable Proof of Stake NFT minting process for their platform. Her most recent AR commissions include ReWildAR (2021, with p) for the 175th anniversary of the Smithsonian Institution, and Afterthechies (2022), created for Rosche’s 125th anniversary ARTour Basel curated by Sabine Himmelstädt, and now in the Roche Basel Art Collection.

Thiel has works in various private collections as well, including works from her digital print series Touching, Traces in the collections of fellow media art pioneers Eduardo Kac and Lynn Hershman Leeson.
1957 Born in Oakland, California, USA to Philip Thiel and Mitori Kono-Thiel. Childhood in Kamakura Japan and Seattle, USA.

EDUCATION
1991 Academy of Fine Arts, Munich, Germany. Diploma in Applied Graphics with Gerhard Berger; studies with Daniel Spoerri and Jörg Immendorf.

1983 MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, MA, USA. M.S. in Mechanical Engineering. Studies in Biomechanics Lab and in precursor to MIT Media Lab.

1979 STANFORD UNIVERSITY, Stanford, CA, USA. B.S. in General Engineering/Product Design, Human-Machine Interface

COLLECTIONS
WHITNEY MUSEUM OF AMERICAN ART, New York, NY: Unexpected Growth
SAN JOSE MUSEUM OF ART, San Jose, Beyond Manzanar
SMITHSONIAN INSTITUTION, Washington DC, Connection Machine CM-2
KUNSTSTADTLING ROCHEL BASEL, Aristocrazia’s fine art prints.

EDUARDO KAC Collection, Touching, Traces: 2001-05, fine art print
LYNN HERSHAM LEESON Collection, Touching, Traces: 2005-00, fine art prints

LUMEN PRIZE / BCS Immersive Environment Award Longlist.
SUNDANCE INSTITUTE | UNITY CHARITABLE FUND GRANT.
CHRISTIE’S NEW YORK first curated NFT sale “Proof of Sovereignty.”
SUNDANCE INSTITUTE Art of Practice Fellow, 2021 – 2022.
NANTES BUCH FOUNDATION commission.
WHITNEY MUSEUM of AMERICAN ART, Art commission.
VISIONARY PIONEER AWARD, SAT Montreal, Canada.
VRHAM VR Festival Hamburg, Audience Award. GOOGLE VR TILT BRUSH Artist in Residence, San Francisco, USA.
NATIONAL ENDOWMENT FOR THE ARTS Boston Cyberarts exhibit.
SEATTLE ART MUSEUM, Art commission.
MACDOWELL COLONY Foundation, Fellow, Peterborough, NH, USA.
FACT LIVERPOOL commission for bio-sensing Art works.
IBM INNOVATION Award for Artistic Creation in Art and Technology.
HUPPSTADTKULTURFONDS (Berlin Capital City Fund) Award.
YOUNG ART/NEW MEDIA ART/WARD, Munich.
MASSACHUSETTS INSTITUTE of TECHNOLOGY, CAS Fellow.
JAPAN FOUNDATION / KYOTO ART CENTER Fellowship.
ROCKEFFFFELER FOUNDATION, New Media Arts Fellowship nomination.

2002 LUMEN PRIZE / BCS Immersive Environment Award Longlist.
SUNDANCE INSTITUTE | UNITY CHARITABLE FUND GRANT.
CHRISTIE’S NEW YORK first curated NFT sale “Proof of Sovereignty.”
SUNDANCE INSTITUTE Art of Practice Fellow, 2021 – 2022.
NANTES BUCH FOUNDATION commission.
WHITNEY MUSEUM of AMERICAN ART, Art commission.
VISIONARY PIONEER AWARD, SAT Montreal, Canada.
VRHAM VR Festival Hamburg, Audience Award.
2017 GOOGLE VR TILT BRUSH Artist in Residence, San Francisco, USA.
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2003 JAPAN FOUNDATION / KYOTO ART CENTER Fellowship.
2001 ROCKEFFFFELER FOUNDATION, New Media Arts Fellowship nomination.
1998 WIRED MAGAZINE Computer Art Award.
1992 DEUTSCHE VIDEOKUNSTPREIS Finalist, ZKM Karlsruhe, Germany.

SELECTED SOLO EXHIBITIONS 2009-2022
KUNSTSTADTLING ROCHEL BASEL, “Diverse Realities” retrospective. MEET DIGITAL CULTURE CENTER, Milan. AR immersive installation.
2021 THE PHOTOGRAPHERS’ GALLERY, London. deepfake AI net art.
2021 DAM PROJECTS BERLIN, “Virtual Berlin Wall” VR and fine art prints.
2016 SEATTLE ART MUSEUM, Olympic Sculpture Park AR commission.
2009 HARVARD UNIVERSITY / GOETHE-INSITUT BOSTON AMERICAN MUSEUM / GOETHE-INSITUT W.A. D.C. BOSTON CYBERSPACE FESTIVAL / GOETHE-INSITUT BOSTON GALLERY [DAI/BRUNI], Berlin, Germany. Revisiting the Virtual Wall.

SELECTED GROUP EXHIBITIONS 2009-2022
2022 ART Tour Basel, curator Sabine Himmelbach.
2001 SMITHSONIAN INSTITUTION ART/AB FUTURES “175th anniversary exhibition, curator Ashley Mokele.
2020 LIGHTCUT TRIENNIAL, Bad Rothenfelde, Germany.
2019 GALLERY PRISKA PASQUER, Cologne, Germany, 20th anniversary.
2005 MOVING IMAGE NEW YORK Art Fair, New York.
2005 WING LUKE MUSEUM / SMITHSONIAN INSTITUTION AFFILIATE, Seattle, USA. "Constructs.,” Curator Stacey Underwood.
2004 ART GWANGJU Art Fair, Korea / THE ART SYN PROJECTS London, BROAD ART CENTER, Los Angeles, USA. "La Pa Plag:" AR public art.

SAN JOSE MUSEUM OF ART, San Jose, CA. "Almost Human: Digital Art from the Permanent Collection"
2005 WING LUKE MUSEUM / SMITHSONIAN INSTITUTION AFFILIATE, Seattle, USA. "Constructs.,” Curator Stacey Underwood.
2004 ART GWANGJU Art Fair, Korea / THE ART SYN PROJECTS London, BROAD ART CENTER, Los Angeles, USA. "La Pa Plag:" AR public art.