

ORGANUM

The original narrative
illustrated with 23 scenes from
the short animation "Organum",
prepared in 2003 for the UC Berkeley
Townsend Center of Humanities and the
Berkeley Art Museum Gene(sis) Exhibit
by Greg Niemeyer, Christine Liu,
Lorenzo Wang and Chris Chafe

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**A suite of 23 film stills from the short animation
“Organum” in narrative order.**

Project directed by Chris Chafe and Gregory Niemeyer

CG Images by Gregory Niemeyer and Christine Liu

CGI Character Design by Lorenzo Wang

Story written by Gregory Niemeyer

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In conjunction with Gene(sis): Contemporary Art Explores Human Genomics, an exhibition on view at the University of California, Berkeley Art Museum from August 27 through December 7, the Townsend Center for the Humanities presents a suite of twenty two stills from Organum, a computer-animated film by Greg Niemeyer, Chris Chafe, Christine Liu and Lorenzo Wang. While the stills are arranged here in a linear fashion to tell a story, the film itself is a nonlinear montage.

A collaboration between three artists and a musician, Organum is a state-of-the-art musical, in which an organic digital synthesis of Computer Graphics models and synthetic sounds make sounds viscerally visible. It is a meditation on the adaptation and evolution of organisms in the age of genetic engineering, when internal organs such as larynxes and lungs could conceivably lead their own lives and make history. It is a science fiction epic about the ultimate fusion of human bodies and prosthetic technologies. It is an exultation of the human voice, our desire to make music, and the knowledge that enables us to create instruments that pipe glorious sounds into the world.

The twelve-minute film will premiere in Berkeley at the Pacific Film Archive on October 30, and will be shown in a Dome-Theater version, for which it is designed, later this year at the LodeStar Planetarium in Albuquerque, New Mexico.

Organum is funded by the University of New Mexico, The Rockefeller Foundation, Intel Corporation, the University of California, Berkeley, the Hellman Foundation, and by the Townsend Center for the Humanities.

**Alla Efimova
Associate Curator
University of California, Berkeley Art Museum
and Pacific Film Archive**



There was a long drought in our Valley, the Valley of Distributed Organs. Our external organs, especially our Storage Stomachs, were drying up, and leathering in the heat. Only we, the Lungs, who could move freely with our springy ribs, could protect ourselves from the heat by retreating into the shadowy openings of the lava tubes which framed our Valley. Hiding was not really an option for the long term, though, for without our external organs, what say I, without our entire Valley watered, we could not survive for long. We, too would eventually dry up, our parched vocal chords would sing their last song, and our tribe, the Lungs, would turn to dust and distant echo.



One hot morning, we consented to send one of us to search for new sources of water beyond our Valley. We did not like splitting up, but it was our only choice. So we held an election to see whom we would trust to be a great explorer, and after much singing and wave cancellation, we harmonized about Sampo being our Explorer. Sampo was experienced in all interactions, had a good voice, and had traveled the farthest before. Branching out was in its character. Modest, Sampo accepted the mission with a beautiful chant about hearing each other despite the distance. Ahti, with whom Sampo was in sync, decided to see Sampo off the following morning, in private.



We all celebrated one last night together, and Sampo sang a Song of Departure to our Central Brain. It was our way to transfer all our needs from our external, shared organs to our own bodies through songs. Instead of exchanging fluids, we found it water-wise to just exchange information about fluids through music, long the most evolved mode of exchange. Indeed, song was our blood.



So the next morning, Ahti and Sampo climbed to the rim of the valley for a final goodbye. We could just hear the echo of their songs from the high cliff above our valley: “Farewell my fearless explorer!” “Farewell courageous one!” “Now find the water and the life!” After one long last kiss, the explorer hopped on its way in confident steps, but its journey unfolded in an unexpected way. The following events were very untypical for us, and quite reminiscent of age-old patterns of poor behavior. The Explorer barely turned onto its path, as Macao suddenly appeared out of nowhere.



Macao was a Lung like us: the trouble was that Macao had a long, sad interest in Ahti, but left our tribe as it saw that Ahti harmonized much better with Sampo. At that point, Macao retreated to the deep recesses of a lava tube we thought was haunted. We rarely heard from Macao since, except for its hush-hush visits to the Storage Stomachs. That morning though, Macao emerged in full daylight and challenged Sampo: "If you are fit for this adventure, then prove it," Macao hissed, and: "I know a better way of finding water. I explore, you stay, and if I don't come back, at least Ahti won't cry for me!"



The mention of Ahti must have pushed Sampo beyond composure: A sonic contest of vanity ensued. After a few high-dB shouts, Macao, the challenger recognized the explorer's weakness, and hurled sonic feedback at Ahti, who curled up in pain on the cold hard rock.



So Macao played the two lovers and their feelings of concern for each other, and provoked Sampo to move into a risky position at the edge of a cliff.



One well-timed sonic feedback pop pushed Sampo over the edge of the cliff. The Explorer fell through space and time. The cliff was sudden, sheer and stone, and there was no stopping Sampo save for the bottom of our Valley.



Assembling down in the valley, we heard our Explorer falling closer, bruising, ripping and crushing its parts; Pain engulfed Sampo like a vacuum. We all were accustomed to doing things together mostly, so this entire scene was strange and frightening to me. Sampo, my old friend, suffered all the dangers of a solo experience just a few minutes into its exploration.



When Sampo finally came to a stop, we rushed towards it. We heard that its lungs were ruptured, and that its bones were bruised and broken. We tried to share its pain, but the vacuum around it kept us out. Sampo could not sing, and we could not feel. We counted the Explorer's every breath, flat as it was, and encouraged Sampo to hang on. Of our own fate, we became unsure as well. But this was not yet all.



While we were there, fearing, hoping and almost mourning, suddenly, three of our strange neighbors swooped into the valley from above with the typical thunder and clamor of the New Breed. These invading New Breeds were of the type Pipecopter, a kind of helicopter-trumpet.

We had not seen much of these semi-mechanical neighbors in a long time. We actually thought they migrated away because of the drought.



But no, here they were, and they were here for Sampo. In a skilled, coordinated and precise maneuver, these fierce Pipecopters abducted our fallen Explorer's body.

As far as we knew at the time, the New Breeds emerged from ancient industrial landfills, where they found plenty of resources to mine and harvest, and to constantly retool themselves.

To us, the New Breeds were organized piles of refuse. Their base elements were the trash of the past, and their way of life was to organize that trash into higher structures.

Flying was their way of moving, and they made strange music. Because we did not enjoy their sounds, but shared the same region, our history with the Breeds was dark and twisted, marked by dependency and aggression; our two tribes were in the habit of wearing each other down. It was always hard for us to tell their accidents from their intentions, but this abduction sure seemed like intentional robbery to us.



We resolved at once to form a rescue team to follow the New Breeds wherever they took Sampo. Ahti, the Lover, of course volunteered first to join this team. I, as a younger friend of Sampo's, joined in. Ahti and I also asked Macao to join the team and "to fix the trouble it caused or to never return." After some dithering, Macao agreed and said that it also knew the way through the lava tubes to the very end where the Breeds were known to live.

We prepared for our mission with an Ode to the Brain, a Waltz for the Heart, and a Canon to the Storage Stomachs which lined the valley. By the Brain, we vowed to return the explorer and to restore the honor of our hero.



Then we leapt to the Explorer's rescue. Our path was riddled with cracks. Our three legs provided us with great balance, but not with much speed.

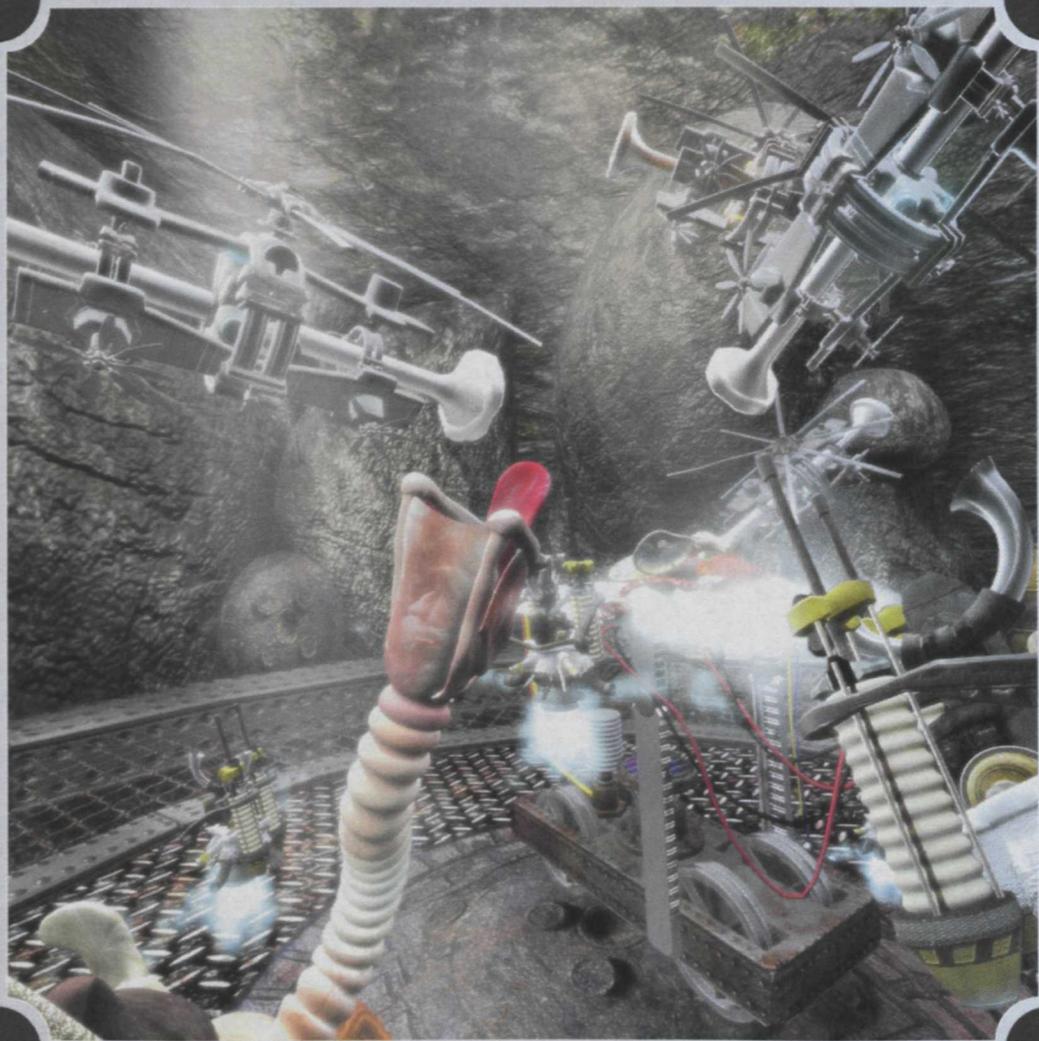
Through adaptation and evolution, we had grown comfortable to the rough terrain of our native Valley. There, it was easy for us to tell up from down, left from right, because the Valley was open to the sky. The special echo of each rock in the valley was a familiar sound to me. The Tubes though were a different matter.



Sound bounced off the Tubes' walls in unpredictable, complex ways. To me, "above" now sounded like a pond, "below" like a hole, and "back" and "forth" both sounded like two mirrors.

What we sung out was nothing like what we heard in return. These narrow rocks turned our careful signals into racing noise.

In addition, the Tubes were not used to us: The constant strain of gravity, combined with our chanting, loosened much rubble and rock which hung in the ceilings for many hundred years.



The deeper our rescue mission proceeded, the more loosened rocks came falling down on us. Luckily, we could hear the rocks creak before they fell, and so we avoided the big ones. Splinters and fast dust hurt and slowed our progress though, so we fanned out to minimize our sounds in any one position.

Finally, after a half day's hike, we heard a deep rumble in a wide cave not far ahead: The Lair of the New Breeds. The sound was breathtaking to me, but Macao seemed to know what it was in for, and it guided us to the entrance of the Lair.

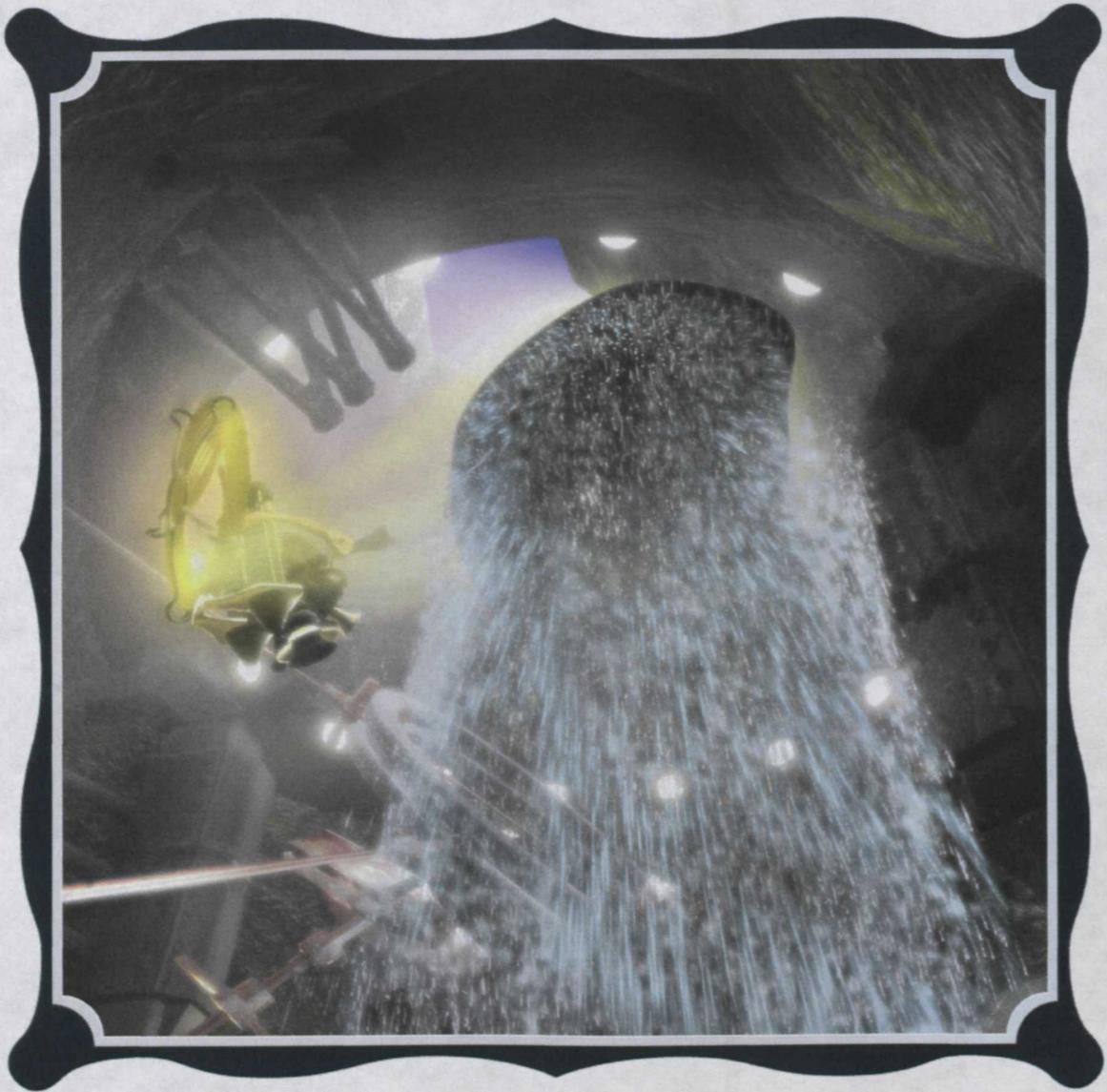


The Lair was a large dome, with openings to further caves, and bins of waste stacked high: a dark and frightful scene to any Valley Lung, and yet we had another shock in store: We heard much noise, chopping and pumping, squeezing, welding and sewing, and above that all, we heard suckings and screamings of our Explorer, Sampo. All its parts were stretched on a glass table, in the middle of the Lair, and countless carnivores were feasting on its body. Steampacks, a kind of hovering French horn, were particularly busy clanking, screwing, and throwing themselves on this rare piece of trash, the warm, twitching body of a Lung Explorer.



The parts, the noise, the crowds of Breeds: We realized what little there was to return of our Explorer Sampo. Filled with anger, we began our Tune of Revenge, in decimation decibels. Our tune made rocks shiver, and New Breeds fly for cover. In the dome, its effect was quite unusual: A major boulder, which formed the inverse apex of the Lair, trembled, came loose and was about to crush the Lair.

The boulder, looser, the Pipecopters, more terrified, the Steampacks, wilder, and us, fearing our tune to be our suicide: I foresaw a quick and certain end for all.



In the middle of our panic, a sudden voice emerged, a voice that neither Lung nor Breed had ever heard before. It was the voice of Sampo the Explorer, freed from pain.

Macao, Ahti and I formed an instant choir to praise the revival of Sampo, but Sampo rose above us, towards the shaking boulder, and began a "Tune of Transformation".



Through all the panic, this new tune cut through and made me calm, although I could not sing along: the notes were far beyond my range. Sampo aimed its new tune at the boulder, and under the elegant waves, the rock transformed into a cloud, and the cloud into a shower of water.

I could not believe what was happening, and neither could our team, so we all launched into our Canon of Confusion. There, fear displaced our anger. Fear because our friend Sampo, now half machine, half organ, but all strange, was making waves we've never even heard before, and these waves transformed our falling gravestone boulder into sweet, fresh rain.



Once the boulder was all water, Sampo flew from apex to base, and hovered before us. The Explorer sung to us an account of its recent adventure: “Feel no fear or anger: the Breeds flew me away, to the place they stay.

I thought they were about to eat me, but not: the Steampacks changed my ruptured lungs for electric pumps. The surgery was painful, but swift; the Breeds used coral glue to make seamless fits between disparate matters. They attached a gas horn apparatus where my broken legs were, and a gigantic disk which allows me to sing an expanded range of tones, more, far beyond what you can even hear.



Then, I heard you all singing the fearsome Tune of Revenge, and I heard, too, the trembling boulder: time to start a song I always thought might work, the Tune of Transformation, and see, it did.”

Ahti replied first: “Sampo, is it really you...so different, so Breed? You say the Breeds saved you. We thought they were eating you. But now, you’re so strange.” Macao and I sensed that the songs which would follow were not meant for us, so we hopped off to the Breeds to thank them for their deed. They were assembled by the pool of rain at the base of the lair, sucking water for their cooling systems.



Together, these Breeds and we improvised a New Water Song, and we understood their music for the first time. Meanwhile, I heard Sampo and Ahti sing a Long Impossible Love Song together. As Ahti later told me, they recognized each other. Ahti understood that Sampo had to continue its exploration, looking not to know of more water but looking to know more about itself.

Sampo understood that Ahti's task was to lead our union with the Breeds, and other members of the Valley. So the Explorer gave its lover a gift. I never saw what it was, but after Ahti received it, its voice changed for the better.

They sang a Joyful Tune together, and gradually, the whole Lair joined into their song. Sampo addressed the crowd by the pool: "Allow me to travel beyond our Valley and share with others what we did together." We cheered for Sampo and sang a Wanderlied for its journey, and so the Explorer departed. Ahti was tearful, but certain that their decision was made for the right reasons. In its lament, Ahti revealed its new voice, transformed by Sampo's gift.

The Breeds and the Lungs gathered around Ahti, and it led us all out of the cave. All the way, Ahti sang the new Tune of Transformation, so a creek of water followed us out into the Valley.

There, our fellow Lungs welcomed us with a Curious Shanty. After some explaining and some drinking of new water, all our Lungs mingled with all the Breeds and prepared for a carnival. In the mix, one of the Pipecopters became very friendly with Macao: together, they sang a first Interspecies Valley Canon. This canon turned into a choral we all sang together, and from then on, the Valley was filled with music. I then realized that Macao sure was to blame for Sampo's accident, but also for this moment, and that is what I sang about the next day when I went to see the Brain.