

The Familiar

Like the legend of the Phoenix / All ends with beginnings / What keeps the planet spinning / The force from the beginning (Daft Punk, 2013)

This is not where it all begins: Instead it's a hot July evening and meteorologists have speculated that we're about to break some heat records. It is outrageously hot, the brain don't work no more, and one thing keeps popping up in conversations – the good old Climate Change. (*It's the ecology, stupid.*)

I have spent the past days of this heat wave with a frenzy of my own: an extensive search for a specific file. It's not a digital one, so no *Command-F*, but a letter-sized manila envelope that I had kept as a precious possession since fall 2009. The missing envelope contains a bunch of old press photos and, more importantly, detailed blueprints of *Biosphere 2*. I had xeroxed the architectural plans during my stay with the experiment's founding group in Santa Fe in 2009, during a night at their archive. If I had around 200 million Euro or Dollar, I could actually build another version of the perfectly sealed glasshouse that contained 3800 species of plants and animals and supported a crew of eight people from 1991 to 1993. I would love to do that, but in lack of funding I continue my humble research of the past experiment. And besides, I can't find the plans.

I have looked in my studio, our apartment, in a friend's attic (add 15 degrees there) and in my old storage basement in the countryside (minus 15 here). I have emptied shelves and then emptied individual files with sketches, contracts, receipts, bank data, etc. The plans were not there. I have unpacked three dozen boxes, boxes of stored installation materials, from moving out of my old studio last summer (and the summer before, both hot as hell as well) and from moving out of my apartment in 2006. I have moved a lot, and most boxes haven't been opened since then. I found at least ten precious belongings that I had looked for at one or another time in the last five years, and at least thirty things whose existence I had all but forgotten entirely. I found a lot of things from past projects, and objects from the Biosphere itself: * a logbook I took away from the abandoned research test module in 2007 turned up at the attic (the temperature there matching that August day in Arizona) * a slice of the caulking material that sealed the 6600 glass panes of the Biosphere * a screw of its space frame * a green pillow from the tower library high above the Habitat * a Bio2-branded poker game card set I seemingly bought on eBay * etc etc (I also found a curious sheet of paper on the attic, a photocopied page from a text about Chris Marker entitled "Memories of the Future" and took it with me)

What I couldn't find was the fucking plans. I lost the plans of the greenhouse that I have researched for the last six years. Fuck me.

Why did I look for them now? Because I had a vague idea for an installation: a shiny ruin of Buckminster Fuller's well-known Dymaxion map, made out of equilateral triangles of Plexiglas, in which I wanted to laser-etch the Biosphere blueprints.

The semi-assembled (or disassembled) icosahedron would hang from the ceiling, its shadow and the etchings being projected on a wall. Fuller had been without any doubt the main inspiration behind the building of the miniature world of Biosphere 2. His ideas of synergetics had been the prime source for the synergetic lifestyle that the later Bio2-founders started in the late 1960s. And it was Fuller himself who challenged them to build the experiment, during one of their conferences in 1982: After a presentation of future self-sustaining space colonies, he asked them: "If you guys don't build a biosphere, who will?" If I can't find the plans, it's a huge problem for the upcoming exhibition. But on a larger scale, it's about the worst-case scenario in itself: I had the plans for the Biosphere – and then I lost them? How stupid can one be?

While I'm digging through my boxed possessions and projects of the past decade, I begin to question my entire research about Biosphere 2. Not that it's the first time, far from that, but it feels like a particular bad twist of fate. It seems that I have lost not only these blueprints, but also my bearings about the entire project: What was the Biosphere about at all, again? What was it that kept fascinating me for all those years? It's a common recurrence in my investigations: Every time I try to sum it up, make some sort of preliminary report, a text, a video, an installation, the fucking Biosphere keeps slipping from my hands. I can't nail it down. It's like jinxed, or something, some sort of spell that one cannot get a firm hold of it. To add insult to injury, I'm also stuck on a half-finished catalogue text for a week now.

In the afternoon I was lying lying lying in my bed, exhausted, in between some more fruitless search operations. I had just stumbled over a collection of short stories by China Mieville, probably the most intriguing contemporary writer of Science Fiction and Fantasy. While my heart kept racing in multi-dimensional panic and I tried to relax my heated system, I remembered a story of that book, "Familiar": An urban witch conjures a familiar spirit from his own body materials, but gets rid of the hideous creature in a canal. The story then follows the familiar's journey through the world: Taking up its own point of view, we witness its encounters with discarded machines, waste and animals, all the while incorporating their elements in its own ever-growing amalgamous form. Mieville, that master of speculative fiction!

In an earlier break from looking for the plans I had tried to clean the shower drain. Completely naked I sported only a camping headlight to illuminate the dark realms at the beginnings of the Viennese underworld. With various tools like knives, forks and screwdrivers I tried to get the stuck materials out of the drain, occasionally glimpsing myself in the mirror – it would have been a hilarious selfie. The act of fiddling out the slimy dirt from the shower drain proved more satisfying than the searchings of the past days. Piece by piece little hairy entities showed up, mucous organs at their early stages of develop-

ment, pointing towards unknown evolutionary histories of the underworld.

Something felt enormously coherent about recovering these fragments of amorphous slime conglomerates from our neglected shower's sewerage.

It was some time later, tossing and turning and sweating in bed, thinking about Mieville's short story, that it all started to make sense again: I had to construct a depiction of the Biosphere's familiar spirit. My poor racing mind had made a shortcut exit out of the lost plans situation, escaping the dead end of this unhappy search party and coming up with what seemed like a brilliant idea for a sculpture.

It's not that I had not been fascinated by the idea of familiars before. Actually, my main approach to researching the Biosphere project had been based on some sort of spiritual entity from the very beginning: The Ninth Biospherian.

I was lucky enough to find (which would be *erfinden* in German) an obscure Science Fiction novel with that title, based on the actual experiment. It's quite an "experimental" book with countless layers of stories and styles, most of them rather fragmentary, and I have set myself the peculiar task of translating it. The novel follows the whereabouts of the eponymous figure, which is itself based on a joke of the original eight Biospherians: Due to food shortage they lost weight, which had to remain within the closed system, and so they started wondering if their collective loss could have formed a ninth crew member. This phantom is what keeps the book going on, and it has proven a strange attractor for my own work as well.

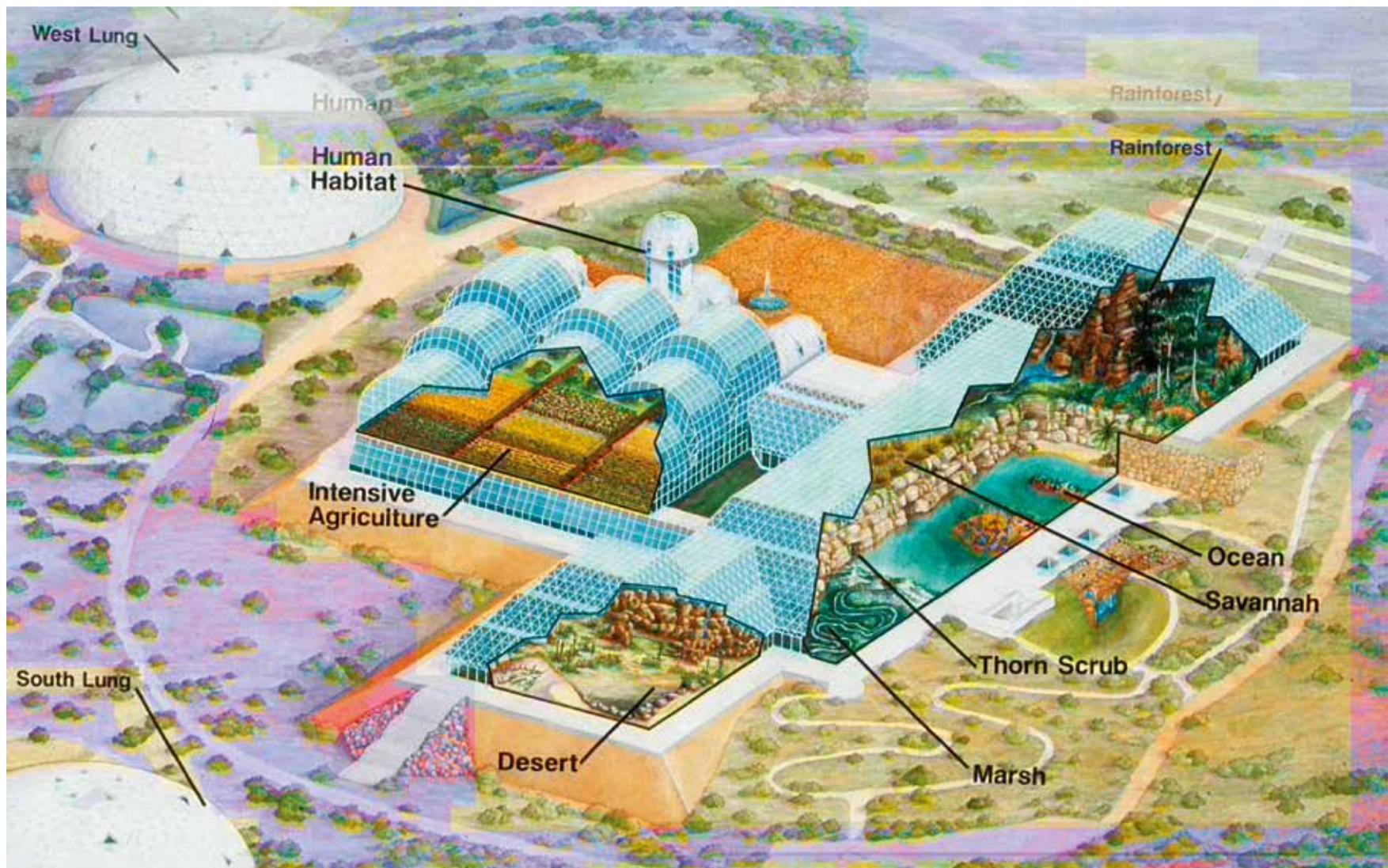
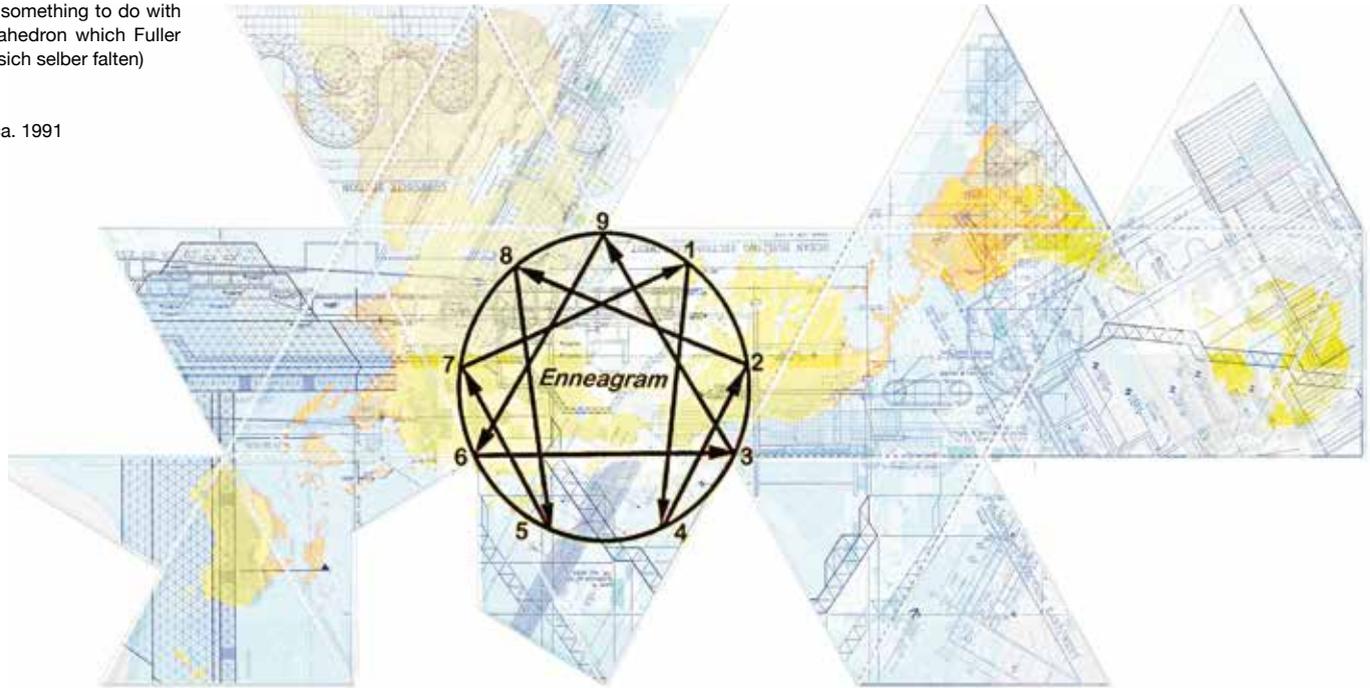
Familiar spirits are mostly depicted as some sort of supernatural entities conjured to assist witches and cunning folk. *Gehülften*. Little helpers. They would appear in numerous guises, often as animals like cats, but also at times as a human or humanoid figure, and were described as "clearly defined, three-dimensional... forms, vivid with color and animated with movement and sound" by those alleging to have come into contact with them. The German word for it is *Hausgeist*, and that's what the Ninth Biospherian obviously is. There's a certain ambivalence to their allegiances, sometimes they're helpful and nice, other times malevolent spirits causing harm and accidents. They do seem to possess a mind of their own.

In my own understanding, the Ninth Biospherian as described in the novel is the essence of the strange ecologies of Biosphere 2. It is the amalgam of individual products of waste and loss, the in-between spirit of a new understanding of ecology, one that transcends purely biological processes and includes the "non-natural" spheres of human society, culture and technology. It is a fitting allegory for the weird mixture of the Biosphere's own species and technologies, concepts and ideas.

The etymological meaning of Ecology is the study of the house, and a truncated understanding of the concept might lead us to a conclusion that everything is connected in a web of relations. This sounds familiarly close to what conspiracy theories

(1)
The enneagram (*nine, written or drawn*) has something to do with the complete or final stellation of the icosahedron which Fuller unfolded into a world map. (Falten, falten, in sich selber falten)

(2)
A schematic representation of Biosphere 2, ca. 1991



want us to believe. But every conspiracy theory is based on some central power at work; ecology is like a conspiracy in lack of any such agency in total control. It is about ever-changing relationships and networks. The Hausgeist of the Ninth Biospherian is exactly this in-between that makes the system turn and turn, the stuff in the void between objects that connects all things in multidimensional meshes. The Ninth Biospherian is the all-too unfamiliar familiar I am constantly looking for and can never pin down. Hitchcock had come up with a similar device in his movies, something that keeps the story going without being significant in itself. A trick of Magick.

The serendipitous mixture of the vulgar drainage cleaning procedure and my panic fuelled by the loss of the Biosphere's plans had played out into a short moment of epiphany. Everything is connected through the Ninth Biospherian – like the familiar in Mieville's story, integrating the left overs of society and nature, the dirt, the waste, the *Abfallprodukte*, the stuff that went down the drain. A homeopathic phantom of ephemeral fragments and all but forgotten residues.

Like Frankenstein's creature, it is a patched together monster: Mieville's familiar, the Ninth Biospherian, the Biosphere itself, the novel, my research efforts. Would it ever come to life? It all comes down to that question, the same they asked themselves before the Biosphere experiment: Would some complex system evolve, or would it all turn to green slime? Of all the things, the thing itself is not *dingfest*

machbar. At times I even forget that the Ninth Biospherian even exists, and only the painful feeling of lack and loss starts to remind me once more of its presence, somewhere out there, in the archives, in the boxes, in the abandoned buildings, the attics and the basements...

"The material from Biosphere 2 would progressively over-write his own archive, bit-by-bit, frame-by-frame, sample-by-sample, etc. Only extremely distinguished experts would ever be able to recover rudiments of the forsaken data layer, stupefying fragments of digital glitch, at best. The prospect of such an unlikely attempt made him think of the random, mesmerizing imageries he had encountered while watching slightly damaged or incomplete movie downloads. In what looks like digital slime, the corrupted data stream provides more than often a breeding ground for remarkable monsters, suddenly unfolding from extraneous dimensions. There's something lurking in the space between, he wrote."

My mind was racing, and I decided to throw everything so far over board: the Plexiglas etched with the missing plans as well as the unfinished catalogue texts. I decided to sit down and write a text about the familiar.

I got as far as writing down the title. Suddenly everything was gone again, all the lines of thought lost somewhere in the heat of the day. I penned down some laments of losing ideas over and over, of the

Biosphere slipping away time and again, etc. blabla. I had a shower and watched the water and my sweat and skin particles go down the considerably cleansed drain, a mesmerizing swirl echoing an almost perfect plan, but vertigo, vertigo, vertigo,

Great. So now I was stranded with even more fragmentary ideas and concepts that I couldn't make to work out in one coherent piece. My first draft for a catalogue text had started out as a travel report. It's title:

Schwindel is the Best Translation

(Breathe In)

(Breathe Out)

Enjoy the air.

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I'm on a Transatlantic Plane. This is where I'm starting this letter from. Excuse the typos: *We're encountering some turbulences.*

I'm flying to San Francisco, for a conference at Stanford University, Performance Studies. I'm invited to present some ideas on performative research based on my Space Shuttle project, together with Jon McKenzie. Stanford sounds good, at least in your CV. The locals call San Francisco SF, but to me this rings another bell. So here's an SF travelogue.

Almost exactly 20 years ago, on July 4th, 1993, I was on my first flight across the Atlantic. I'm not sure if it wasn't even still allowed to smoke on planes back then. I was headed for Phoenix, Arizona, which I chose on a map – it seemed close to Mexico. I was 17 then, on my own, and I wonder how the hell they actually let me enter through immigration. Like really, nowadays I'm even afraid to tell them I'm going to a conference, as even this might sound suspicious. Everyone's gotta be a tourist!

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Besides the Stanford gig I applied for some monnney to further investigate space colonies. An old fascination of mine. NASA Ames Research center is in the area, and in 1975 they were hosting a six weeks design workshop on space settlements at Stanford. This and

other studies in the 1970s resulted in some pretty detailed plans – and incredible illustrations. Today, the material is hosted at the Ames' website. I'm planning to meet the guy curating the website as well as one of the illustrators.

Space Colonies may sound like outright Science Fiction today; in the mid-70s they seemed not only plausible, but necessary. A necessity in face of various crises on Earth, especially after The Club of Rome's *Limits to Growth* was published and predicted overpopulation and depletion of fossil fuels. Space was the Place.

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San Francisco is a strange place, as well. I can't really think of another city that has been such a hotspot for various developments in so many fields over more than fifty years. The Beat Generation, the summer of love, the LGBT movement, and now Apple, Google, Silicon Valley. No wonder the Whole Earth catalog was published here!

And in the midst of it space colonies were planned. Why? Because. And how?

– floating in outer space, not to be bound of a planet's gravity

– rotating to create some artificial gravity for their tenthsousands inhabitants

– each colony a self-sustainable ecological system, a world of its own, producing air, water and food for its population.

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In the 1970s we had been promised space colonies by the year 2000. They never showed up. The closest we

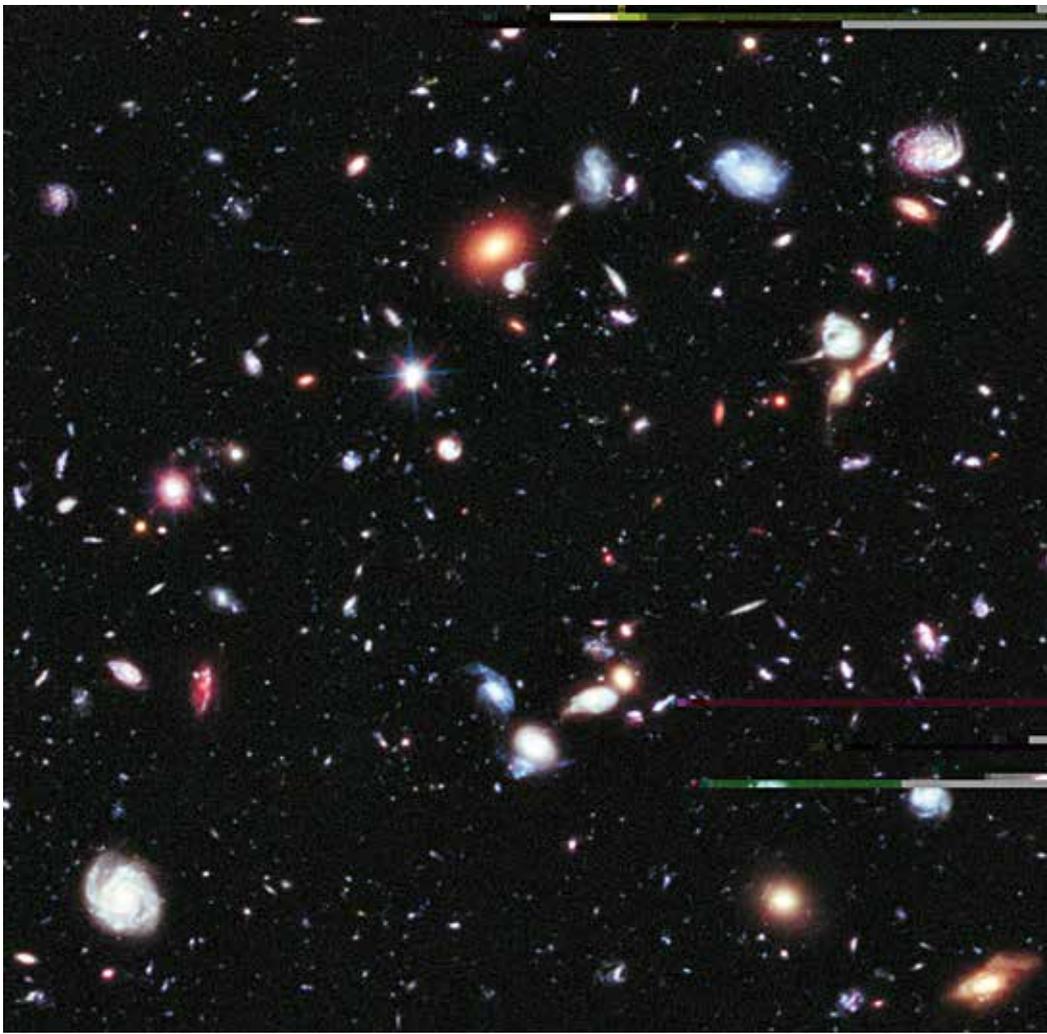
came to their realization was a enormous experiment in the desert of Arizona: a closed ecological system in a perfectly sealed greenhouse. Biosphere 2 housed eight so-called biomes, among them a rainforest, an ocean, a and a farm. From 1991 to 1993 eight people lived in this strange, almost forgotten crystal palace, grew their own food and conducted research about future space colonies as well as about the Earth's global eco-systems.

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In 2008, I wrote a Translator's Note to lay out some basic ideas. It's 2013 now, and I'm writing an ostensible letter which might as well be some sort of preliminary report to the powers that be. It's five years since the other text and this letter could as well be one of apologies. The construction of Bio2 began in 1987, which makes it 4 or 5 years until they were finished and the mission started.

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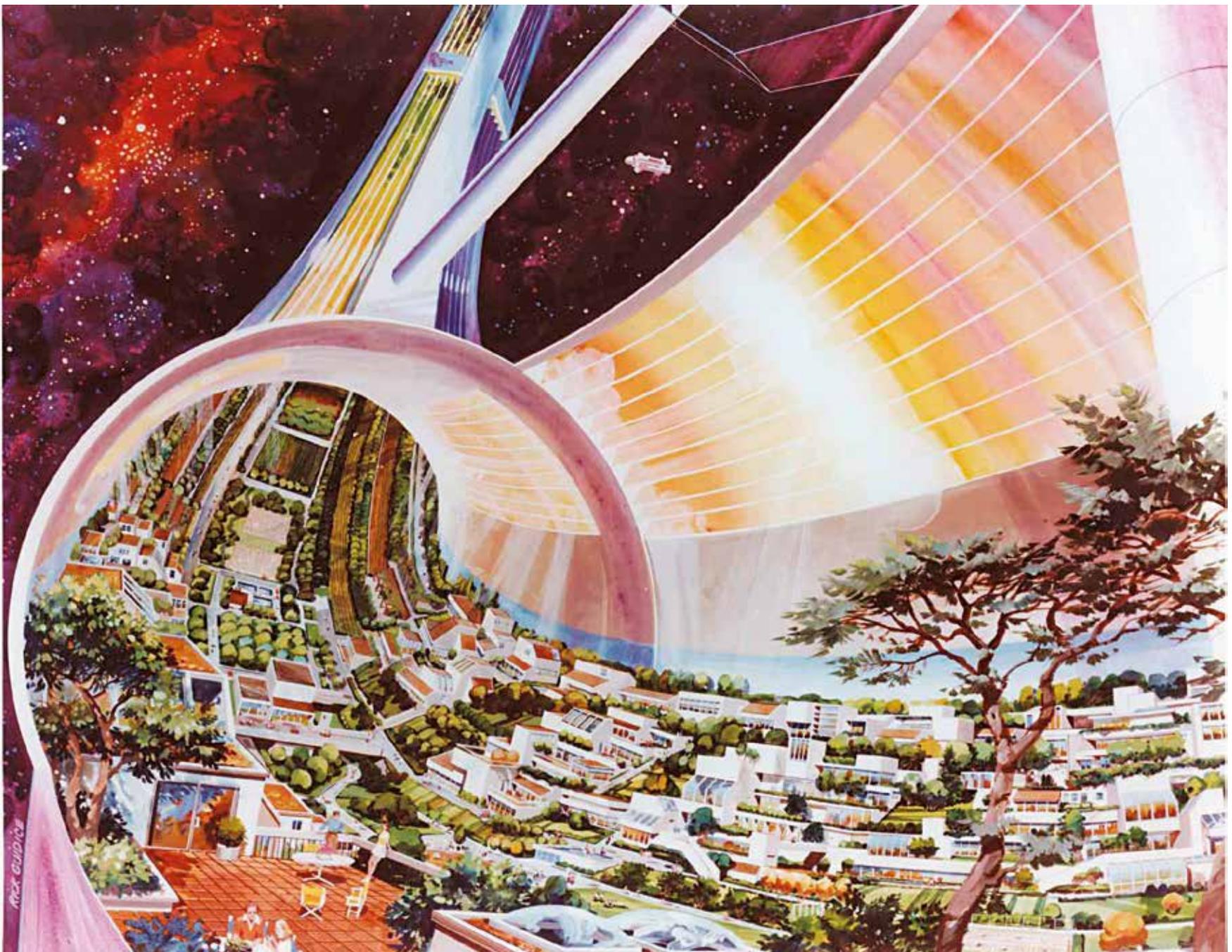
I've gone to some lengths to build myself a tiny cave in my airplane seat. Hidden from the other passengers, like a single person writing unit, sealed from the outside. When I was leaving my small hometown on that July morning in 1993, I wasn't feeling like running away, although technically I was, as my parents ddnt know shit about it. I had planned the trip in secret for almost half a year, starting with a clear thought on a drunken boring teenage night, maybe some drugs, but drugs were scarce in smalltown countryside. Nayway, my basic goal was to go to Mexico to take Peyote. The sacred cactus. I had extensively read Carlos Castaneda for like a year or so, and seraching Peyote seemed

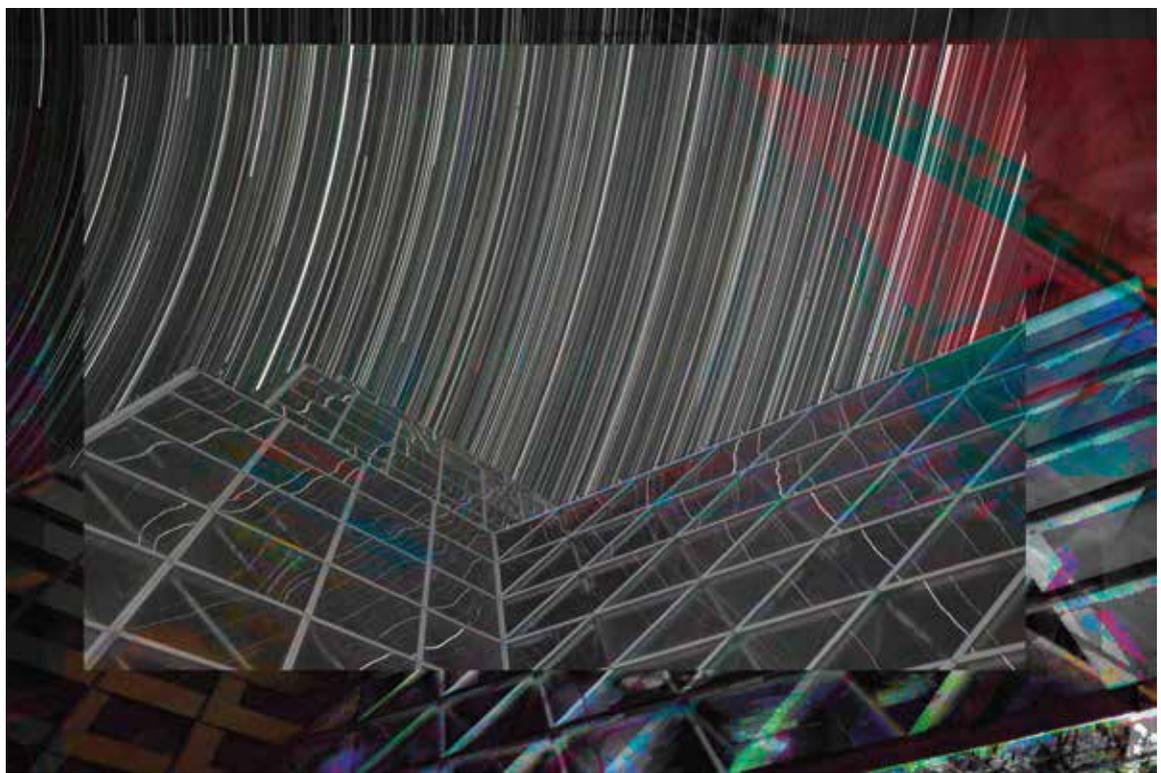


(3)
The Doors of Perception and the Limits to Growth: If you put this page 20 meters above your head, the size of this section of the universe would somehow correspond to its actual size in the night sky above us. There are more than 170 billion galaxies in the known universe. Each of the tiny spiral galaxies in this image contains millions to trillion stars. (Hubble eXtreme Deep Field image, NASA, 2012)

(4)
Lophophora williamsii is a small, spineless cactus with psychoactive alkaloids, particularly mescaline. The Spanish common name, also used in English, is peyote from the Nahuatl word *peyōtl*, which means "glisten" or "glistening". The blue-green, yellow-green or sometimes reddish green shoots are mostly flattened spheres that come in a variety of forms.

(5)
Illustration for a Stanford Torus type Space Colony by Rick Guidice, 1975 (NASA Ames Research Center)





like a logical idea to me. I took my *Erspartes* and bought a ticket and exchanged the rest to travellers chques.

Just on a sidenote: I'm pretty sceptical about this whole auto-biographical attitude here, but rest assured, it's all invention. Like at least, most of it. It's true that I knew about the Biosphere experiment in 1993. It was at the end of it's two year mission, I was more or less around the corner in Arizona, but for some reason I didn't visit it like hundreds of thousands tourists did that year.

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I spend my first days in Oakland, just across the Bay from San Francisco. A friend has bought a house there some years ago, affordable after the real estate crisis. It turns out to be the weirdest house I've ever lived in, some sort of old Masonic lodge. My friend tells me ghost stories on my second evening, I dream of hidden passage ways guarded by the three house cats. The conference only starts on Wednesday and on Tuesday I'm meeting Al Globus in a Mexican restaurant in Moffet Fields. It's his lunch break from Ames, where he works in traffic simulation and does the curating of the Space Colonies webpages as a side project. And yes, that's his real name. He turns out to be great guy, tells me stories about staying in Munich in 1967 and travelling through the Eastern Bloc in 1968, just before the Prague Spring. We agree to record a proper interview the following week.

I'm happy this works out, especially as I got dumped already before my departure, when I contacted Stewart Brand, the Whole Earth catalog guy, about meeting him. His short reply: *thanks, i have to pass*. Well, fuck you, Stewart Brand.
Or rather: fuck me.

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I'm off to the conference in Stanford. From the very first moment I hate the campus. Grave and mighty buildings emanating the elitist airs of Power, lush parks and lawns, and in between nicely ordered residential facilities. The idyllic setup intimidates the shit out of me. It is fake and scary.

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A description of the conference follows. Didn't like it too much. The best part was a brief encounter with Beth Stephens, who happened to know the Biosphere people: she hi-fived me and talked about the rumors of them being a cult. "But if they're a cult, I want to join." Then she's off to France for some EcoSex workshop she does with Annie Sprinkle. I like her.

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I stayed with the Biosphere founders for three times. They're in their 60s to 80s now, living on a ranch in Santa Fe, and still doing great. Inspirational people. Starting out as a performance troupe in San Francisco in 1967, they established what they call the synergetic

lifestyle, involving on a daily basis farming, craftwork, theater, philosophy and engineering. In 1975 they even built their own ship, the RV Heraclitus, a Chinese junk made of ferroconcret. It still sails around the world.

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On Sunday the conference fades out and I find myself depressed and without anything close to a plan. I decide to go back to Oakland, to my friend's Masonic Temple. On the freeway I realize I hate the US for the first time in years. The NSA and Stanford are to blame. When I arrive, my friends have just arrived as well, they're happy I'm back and staying longer seems no problem. My friend cleans trash from the street and I'm eager to help. It's about the best activity I can think of after Stanford.

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The next day I'm heading out for a hike to some look-out over the Bay. I drive my car along a winding road, like Mulholland Drive in LA, but the Oakland version. I brought Beef Jerky, a protein bar, water, a tripod and my camera. It's the same equipment I have used during first filming in Biosphere 2 in 2009, a blissed time full of work. I start my hike only late in the afternoon and do some shots of the Bay. SF is covered in clouds, as most of the time, the Golden Gate Bridge occasionally spiking through the fog. There's always fog in SF, created by the humid air streams of the Pacific. This is the end of America, the end of its historical frontier. It is here in California, where the ideology of the frontier came to a geographical halt. But new frontiers were created: Hollywood, Outer Space, the Internet.

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The following day I'm going to Muir Woods, a state park north of SF. My friend's girlfriend joins me. Muir Woods is famous for its Redwood Population, giant 1000 year old Sequoia trees, one of the few that were left after the logging craze in the 19th century. You can only walk on certain paths – the ground is not to be stepped on.

We imagine being dressed in lumberjack shirts, carrying axes through the park sanctuary, singing *(in a jolly good mood)*

**A thousand years you've grown
A thousand one you won't
Be-Cause, Hey-Ho, Hey-Ho,
We're the lumberjacks,
Hey-Ho, Hey-Ho.
This is Logger's Paradise.**

It would be great eco-performance. Next time we'll bring the axes and the shirts.

Dusk has fallen and the park is about to be closed,

when I suddenly setp in front of a familiar sight. It is a tree disc, a giant redwood disc. It has markers with dates on it, connecting the tree's growth rings to a thousand years of human history. It is the famous location of *Vertigo*, where Madeleine explains to Scottie about her past in a former life. Or, more famous to me, it is the location of Chris Marker's own fascination with the past through *Vertigo*.

It's too dark, my photo is blurred.

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On the evening of July 4th, I drive up the hills and film the hundreds of fireworks around the Bay. I remember arriving in Phoenix 20 years ago and my trip to Mexico. I didn't quite find enough Peyotes in the deserts of Real de Catorce, but I found serendipity and the wonders of travelling. Peyote had been more of a decoy, but magic, nevertheless.

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My fascination with Biosphere 2 started around summer 2007. I had read a book by Jane Poynter, one of the crew members. Her account details the background of the group she had joined, their collective building of various projects leading up to their *Opus Magnum*, the Biosphere. And then eight of them were sealed inside, and after only 6 months they split into two factions. It was a story of collective achievements and disasters. I had just come out of a disastrous collective experience myself: the big story of Biosphere 2 reflected my own experiences on a much larger scale.

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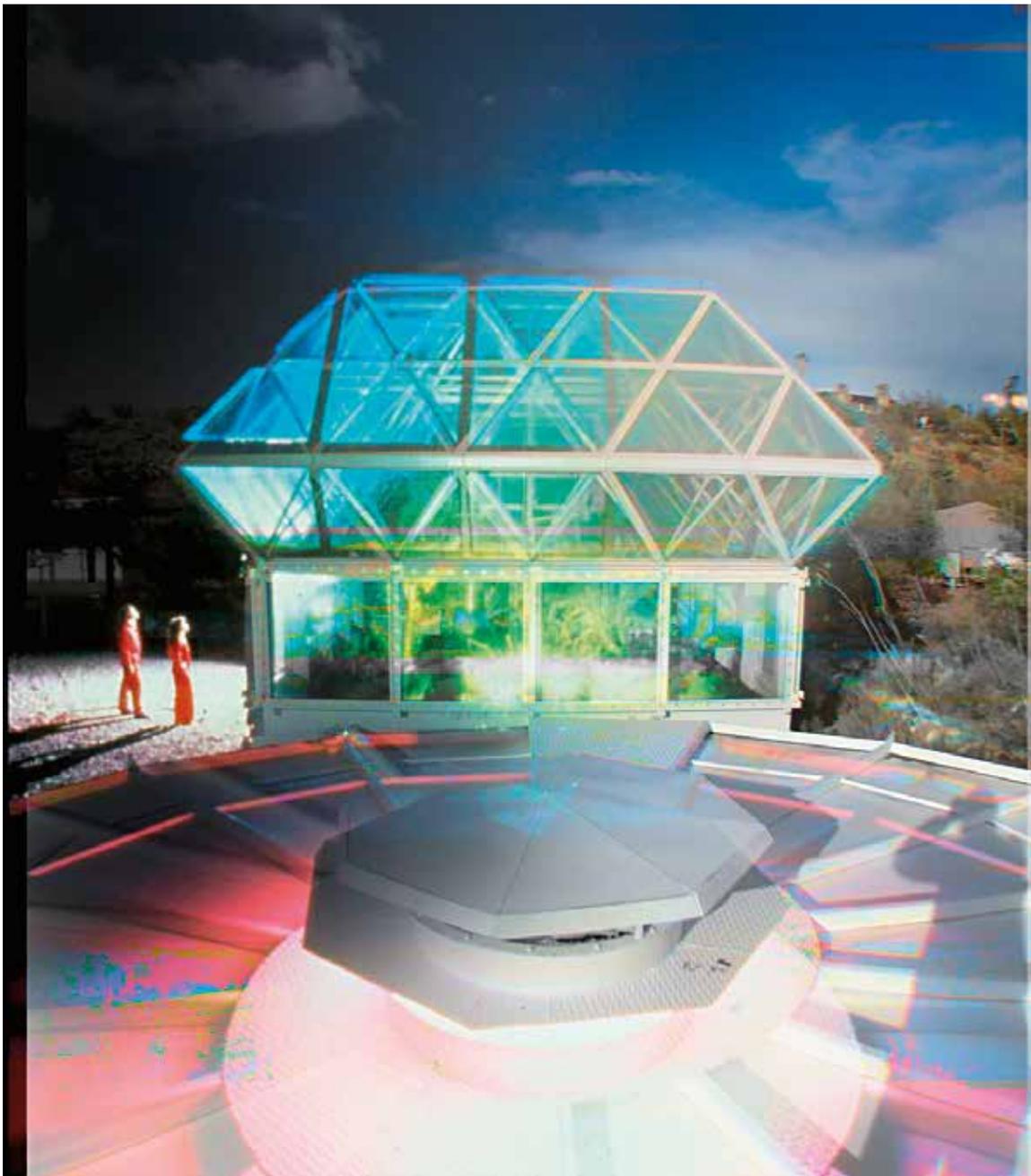
Mark Nelson, another crew member, once told us that the Biosphere 2 is one of the greatest stories hardly told. I had recorded the interview together with a friend. For more than 3 years now, we have been trying to get fundings for a feature film about Biosphere 2.

What follows is a lengthy rant against the film production system and that it will go the way of the music industry soon. Thank you Napster, Thank you Pirate Bay! It ends with a sketchy praise for upcoming new media formats, like interactive books, which would enable artists to seamlessly work across various media, a late fulfillment of the 1990s promise of the multimedia CD – an idiotic medium, which Chris Marker was a big fan of, so it's not entirely to be dismissed.

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In 1993 the first mission ended. And in 1993 there was also Jurassic Park. I must have been in cinemas while I was in the States, but I didn't watch it. I had to turn every Cent twice. I recently watched it again, after what must have been 15 years or so, with no real expectations, and boy was I surprised how good it is. the park it lays out is so much like the Biosphere.

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(6)
A few hours of star trails over Biosphere 2, 2009/2012

(7)
The crew of Biosphere 2 performing the theater play "The Wrong Stuff" a few weeks before the experiment starts, 1991

(8)
The test-module was built as a proof of concept before the much larger Biosphere 2, 1989/2009



(9)
Big Basin Redwoods State Park, 2013

(10)
Time is the substance from which I am made. Time is a river which carries me along, but I am the river; it is a tiger that devours me, but I am the tiger; it is a fire that consumes me, but I am the fire.
(Borges, Madeleine, Alpha 60, Marker)

(11)
A Bernal Sphere type Space Colony, Rick Guidice, 1975; Bernal Heights, San Francisco, 2013

When I met Al Globus in that Mexican restaurant, he told me about a Science Fiction novel. It's about a secret association promoting mankind's expansion into the universe. Like the first marine life had to step out of the water onto land, humans have to expand life into the galaxy. It's an evolutionary obligation.

The basic premise makes total sense to me. Space colonies are back in the realm of Science Fiction these days, but I'm 100% sure they will come one day. There's just no way we won't expand whatever we will have become or what is left of us into outer space.

I'm simply saying that life, uh... finds a way, the Goldblum character in Jurassic Park says.

One of the main arguments to expand life into space is the threat of asteroid impacts. Stephen Hawking speaks of it, and so did Al Globus. We laughed at the recent meteor blast in the Russian town of Chelyabinsk, that little rock that didn't even make it to the surface and still scared the hell out of people around the globe. But space colonies? You gotta be joking.

When I first heard about my nomination for the BC21 award, I did some online research about its sponsor, the honorable Boston Consulting Group. I learned about one of their credos for career planning of their employees: "Up our Out".

I'd like to think that it's somehow related to humankind moving out to the stars, or being extinct by for instance an asteroid. But I'm afraid I know better, like economically, not quite astronomically.

Al is a great guy. I tried to steer the interview towards the socio-cultural context of the 1970s Bay Area, but he'd rather talk about organizing an annual contest, in which highschool students from all over the world propose space settlements designs. I was disappointed about his lack of interest in the 1970s, and only now I realize he wanted to talk about the future instead of the past.

Rick Guidice did some of the most awesome colony illustrations from the 1970s. I visited him in his Los Gatos home, where he works as an architect today and we talked for hours. He showed me his old artwork and I asked him about the specific imagery, the idyllic suburban dreams relocated to ring worlds in outer space. It was Gerard O'Neill, the main proponent of space colonies in the 1970s, who had personally asked him to design them like English garden cities. Utterly unrealistic, of course, and later Guidice would depict the settlements more like shopping centers. I always thought that the Biosphere's architecture of steel and glass is eerily

close to the basic setup of commercial malls and their little distractions.

The lack of gravity poses a major problem for living in outer space and most designs respond with a simple physical trick: rotation. A space colony would revolve around a central axis, the centrifugal forces creating artificial gravity for its inhabitants. We can see this in the wonderful paintings by Rick Guidice and others. The new worlds will feature curved, neverending horizons.

In Hitchcock's *Vertigo*, spirals are a central motif. Although technically Scottie's fear of heights is not medical vertigo at all, his dizziness is depicted through spiral elements throughout the film: Madeleine's hairdo, Saul Bass' title design, or the Redwood year rings they encounter at Muir Woods.

I wasn't planning on looking for any *Vertigo* clues. Of course I knew about the film, and I knew countless academic and artistic engagements with it. *Vertigo* seemed utterly uninteresting for my stay in SF. But after I saw the giant Redwood trees for the first time, my fascination was growing rings, the links started appearing.

madeleine was obsessed with carlotta
scottie was obsessed with madeleine
marker was obsessed with vertigo
i am obsessed with biosphere 2

The number nine digit resembles a spiral, indeed. MacGuffins. That's what Hitchcock called the magic devices. Decoys that are essential to the plot's internal storyline, but irrelevant to the audience. If one would still further proof about the ridiculously bad German translations of movie titles, it's *Vertigo - Aus dem Reich der Toten*. It would have been so easy, had the stupid translator not fallen for the MacGuffin of a ghost story. *Vertigo* is *Schwindel*. It's just too obvious.

I returned to Muir Woods on my last day to get some daylight shots of the historical markings that Scottie and Madeleine looked at. Over the past week, a spiraling narrative had slowly formed in my mind: the curved spaces of endlessly rotating Space Colonies, the Redwood trees of *Vertigo*, my own dizziness concerning the Biosphere's infinite narratives...

The trees in Biosphere 2 would not grow hardy and strong. Trees need wind, and there was none inside.

Gravity is a necessity of life as we know it. Prolonged missions at space stations have shown that bone ma-

terial and other bodily functions decline in micro-gravity and lead to serious health problems. On the other hand, the gravity of our planet is a major obstacle to leaving earth in the first place. Gravity is both a blessing and a curse. It enables life and becomes its prison at the same time. Like a closed miniature world, like years of living in it, or researching about it.

On the outskirts of a rotating black hole there is the so-called ergosphere – from the Greek *ergon* – "work". It received this name because it is theoretically possible to extract energy and mass from the black hole in this region.

While I was staying in Oakland, I only crossed the bridge to SF twice. I instantly connected the city's famous steep hills and streets with my research. It seemed perfectly evident that the curved space settlements had been designed in the gravitational zone of this topography.

My friends recommended a visit to Sutra Bath, a ruin of a former SF bathing facility right at the Pacific Coast. I shoot several clips of the ruins and see a sign: The area is called Land's End.

One of SF's most famous tourist attractions I didn't visit: Alcatraz. Only later I found out about the Native American protests and their occupation of the former prison island in the 1970s.

I always wondered about the term Space Colony. It's not the most innocent term and concept. Al Globus says he switched to the more technical term of "space settlement" some time ago exactly for this reason. I still like colony, because it provokes a reflection on the actual effects and contexts of expansion into outer space. To all our knowledge, there are no populations to be exploited out there. But recently I started wondering about my preference as well: Considering Object-Oriented philosophy and Latour, aren't the vast geologies of planets, and even the vacuum of outer space also actors in broader networks?

The clichés of idyllic life in outer space depicted in the 1970s illustrations actually help to trigger the most unanswerable questions about space settlements: How will life actually look like out there? What political forms and struggles will form in them? What biological, social, cultural impact will life in outer space have?

I asked Al about this. He says he got now answer at all, only that it will change everything as profoundly as when the first organisms crawled out of the sea onto land.

I feel an enormous dizziness.



It is here that the continuous text abruptly breaks down. I remember getting lost in my own intricate labyrinth of travelling through times and places. What follows are only vague comments of ideas and concepts that are still missing.

frankenstein
slime
ecology + conspiracy
<http://youtu.be/SBte90ULpp4>
tnb

There is a fragment about the upcoming SF-Blockbuster Elysium by Neill Blomkamp. It features a giant space colony orbiting Earth, a revolving paradise modeled after the 1970s NASA sketches. In 2154, Earth is an overpopulated slum of crime and poverty. Elysium, the colony, is home to the super-rich, enforcing strict anti-immigration laws and shooting down refugee spaceships. I'm looking fwd to downloading

it, a crappy screener version, digital artifacts all over. The final part of the letter plays out in Oakland. I knew that the Biosphere's founders had built their ship in the city. Kathelin Gray sends me an email from the Synergia Ranch, it's been at the Marina on 5th Ave. I go there and ask if people still remember it. There are some drunkards around, and yes, they do remember. They joke about the cult idiots building a ship of concrete that probably never made it out of the harbor. I tell them the research vessel is still sailing around the world. Some younger guys invite me for BBQ. It's my last evening in the Bay Area. I remember a story about the shipbuilding: In the end, they had almost given up. They were already leaving in their car, when they decided to return and still do it. If they hadn't done that U-turn back then, the Biosphere would have never been built.

And then there are a few lines of finished text, which would probably come at the end of this whole fragment letter travelogue.

∴

Last year I started growing Peyote on my balcony in Vienna. I bought several pots with small cacti and started caring for them according to online manuals. Every day I keep looking after their slow, slow development. This spring they have flowered for the first time, and they keep growing flowers from the center of their strange spirals since then. It is simply amazing. It will take another 20 years until they reach a reasonable size for a Peyote ritual.

Will there be space settlements in 2033?

∴

Around the World, Around the World / Around the World, Around the World / Around the World, Around the World, Around the World, Around the World, etc (also Daft Punk, 1997)

PS: After I had given up all hope, I gave the search one more try. Believe it or not, the second or third thing I looked at was a mislabeled box (it said WoW), and in it the manila envelope, and the press photos, some news clippings, and the entire blueprints for the Biosphere. Now I'd only need some money to continue the reconstruction.

It is another evening. The heat wave has produced no memorable new records. The trees outside my studio speak of a coming storm. I cannot see the air, but I know it's moving in endless turbulence: an invisible maelstrom of connected vortices.

