Translator’s note:
The Ninth Biospherian by Roni Layerson

The literatures of the various languages are replete with untranslatable books; today it is a commonplace in comparative literature and linguistics, or whatever these fields and their institutions of the academic spirit of the age currently prefer to call themselves, that every text, however trivial, contains facets that cannot be transferred into another linguistic system. But perhaps hardly any text defies translation as staunchly as The Ninth Biospherian by Roni Layerson. His(?) complex approach to the Biosphere 2 project presents major comprehension problems even to readers sharing the same language (if indeed they manage to get hold of the text in the first place; more on the confused publication history below). The translator, who will at least probably have a complete – or, more probably, an incomplete – copy at his disposal, can but despair.

The Ninth Biospherian is the story of Biosphere 2: From 1991 to 1993, eight people lived in a giant glass house situated in the Arizona desert. The building was closed off from the outside world and comprised six biomes, i.e. six complete ecosystems, a rainforest, ocean, desert, agriculture, etc., that were supposed to recycle the air and water and provide the crew with food. Layerson relates the various aspects of this project from the viewpoint of an imaginary ninth crew member.

The structure of the available manuscript is that of an anthology. There are said to be other versions, but I am not familiar with them. My copy has 637 A4 pages, with an additional loose appendix of notes, bibliography, footnotes, and photo material that is almost as thick.

The table of contents, that has first to be discovered, appearing, as it does, unexpectedly at the end of the first third of the text, indicates twelve chapters, listed as separate essays and short stories. I have discovered at least one additional, unlisted chapter. The individual chapters (I will stick with this impartial term) are not ascribed to different authors, although they are, in some cases, clearly copied: sometimes more, sometimes less. Layerson refrains from a trivial allocation of authors’ names, knowing that we will read it thus anyway.

A kind of introduction at the start of the anthology takes care of this. Layerson writes:

At first glance, i.e. on the first few pages or upon casual browsing, The Ninth Biospherian may, depending on the reader’s educational background or stylistic preference, appear reminiscent of Lem’s A Perfect Vacuum or one of Borges’s meta-fictions, or what do I know. And after all these are two references that are often cited when people are writing about it, so the book appears to be so before you have even got hold of it. I knew this too before I began dealing with it. It is really no problem to establish links going back to Sartor Resartus.

References. Gimmicks.

By now it is abundantly clear which waters we are navigating. Stanislaw Lem’s A Perfect Vacuum is a book consisting of reviews of imaginary science-fiction books. The preface discusses Lem’s book itself. Anyone familiar with this brief essay. Some doubt is warranted. Cf. note 5.

1 Hardly anything can be said about the identity of the author – male or female – in this brief essay. Some doubt is warranted. Cf. note 5.

2 A river delta, not a river.
A Perfect Vacuum will perhaps agree with me that it is mannered and conceited rather than a reading adventure. Jorge Luis Borges, mentioned by Layerson, writes in a preface that his style of writing in Collected Fictions was still clumsy. Elsewhere he ascribes the overly baroque nature of a text to an immature author. With its intrinsic vanity, this self-criticism probably applies less to the stories in Collected Fictions than to Lem’s later book and it applies to Layerson. It seems as though the virus of this “mirror-fencing” text production is also eating into the matrix of the fencing style, more and more so with each generation. I too feel its infection. I am beset with the same difficulty when translating the text; for on the one hand I aim to remain true to the style of the original, as crappy as it may be. On the other hand, I am of course tempted to improve on the author’s weaknesses. For example, to write: “as crappy as it may be”, i.e. to abandon the blasé. Into another mannerism. And thus remain true to the fundamental character of the original!

But back to the structure. Soon we recognize the individual essays as what they would be according to their function in an academic anthology: different ways of seeing and approaching an object of interest. Aspects of a topic. This object of the author’s fascination is that crystal palace that a group of people – some call them a commune or even a sect – began to build in the mid-1980s. Biosphere 2 is a time-crystal in the sense of Deleuze, an architecture in which social, technological and cultural vectors of the past decades converge. Biosphere 2 is a time machine that combines the sense of a new era in the 1960s and 1970s, the Utopias of the Space Age, autonomous life plans and the “realities” of the 1990s and the present day, Big Brother style reality shows, information technologies and the primacy of the economy with its subordination of all aspects of life, what people today like to call biopolitics. It is a wonderful move by Layerson not to combine this difference, this diversity in a monadic text. Instead he lets this plurality stand by devoting one chapter of the anthology to each perspective. We find them set out mainly in the form of short science-fiction stories and scientific articles, often as a discussion of themselves, always hybrid forms of different literary genres, variable encyclopaedic treatises, songs and poems in free verse form, travelogues, architectural and performance manifestoes, exhibition concepts, treatments, script experiments; and lists and more lists: lists of characters, lists of animal and plant species, diagrams of a classification of list layouts, bibliographies and filmographies, not to forget: track lists!, inventories of chemical laboratories, lists of locations, exported edit lists, extrapolated post-production budgets, shopping lists, legal and illegal, lists of all manner of recipes for bananas (bananas always grew).

The figure that features in all of these stories and enumerations is the titular ninth crew member. The Biosphere project, although barely a decade past, has vanished from the annals of history and its still neglected relative, collective memory. What remains is fuzzy recollections of a failed experiment, a magnificently failed experiment, a suffocating crew, rumours of sex in the artificial Garden of Eden, escape attempts, (no longer) fashionable overalls. One less well-known fragment of the innumerable anecdotes is that of the ninth Biospherian. As a result of the constant lack of food, all eight crew members lost up to twenty per cent of their weight; however, naturally enough, this bodily substance was preserved inside the closed system. The occupants jokingly talked about the ninth crew member in the Biosphere that could have been formed from their collective loss of substance. At the most fundamental level, Roni Layerson explores the history of this imaginary occupant. The ninth person acts as a kind of (glass) household ghost who continues to haunt the ruins of the failed Utopia. Nine, then, is the sum of what remained of all those involved. The Biosphere concept is based on Richard Buckminster Fuller’s concept of synergy, and the figure of the ninth reflects a kind of negative synergy, that is equally more than the sum of its individual parts. The second law of thermodynamics says that the universe is moving towards a state of chaos, en-
tropy. In his seminal 1944 essay *What Is Life?*, Erwin “cat” Schrödinger described life as the antithesis of physical entropy. This negative entropy is what makes life life. The same question, *What is life?*, is perhaps also the motto of the ambitious Biosphere 2 project, and it stands at the centre of the (probably even more ambitious) examination of Layerson.

Negative entropy, then, expresses itself as fiction, an inexplicable imagination that arises from the failure of the Biosphere. If I have spoken of “failure” several times above, then I must now put this into perspective. There is no failure in scientific experiments, for every process leads to a gain in knowledge regardless of its outcome. It may not be immediately apparent and may need to be worked out.

There have been countless attempts to explain the origin of life: How can the entropy of the physical universe suddenly give birth to a new form of self-organisation that ultimately leads to a self-awareness that raises this very question? One of these theories says that life evolved on the matrix of crystals. Crystals meet a number of pivotal definitions for life, e.g. that of self-organisation and reproduction. One specific formulation of this approach identifies clay minerals as a substrate for the first life forms. (Yet another theory describes microscopic spheres that evolved in the foam of the surf between sea and land, as a precursor form of the primeval biological cell.)

The aforementioned theory of the time-crystal proposed by Gilles Deleuze is based upon the writings of the German art historian Wilhelm Worringer, who was working on a dialectic theory of aesthetics drawing on the two antagonistic regimes of the organic and the crystalline at the start of the twentieth century. The dialectics between crystalline order and organically teeming uncertainty also runs through *The Ninth Biospherian*. The Biosphere brought together life in a wide range of different forms under its *space frame* of steel and glass inspired by Fuller. The light of the sun, the most important source of energy in this system, casts the crystalline shadow of the structure onto the biome. Every living organism is found in this projected structure that traverses the ground of the Biosphere day in, day out. This image is a powerful metaphor of the approach of the Biosphere builders, who analyzed the various ecosystems and artificially simulated their structures, their mutual conditions and dependencies: a network of plants, insects and vertebrates, pervaded with the fine-meshed, influential subsystems of microbes and their interactions with the soil and the atmosphere. It is this overall system of life on earth that Vladimir Vernadsky first described as a biosphere in the 1920s. The members of the Synergia group, who built the model of the second version of the earthly biosphere, were clever enough not to believe they could put together a perfect system. They relied on the self-organisation potentials of their design. Most of the experiments during the two-year mission were concerned with these very mechanisms of dynamic balance. But once again: Can such analyses not be seen as attempts to crystallize the organic? The shadow structures of the *space frame structure* are resumed in the project’s ideological interior.

Life as a dialectic relationship of the crystalline and the organic – we come across it again in Biosphere 2. And Layerson goes a long way to conveying the same relationship in his text. The text, the texts tell this story on a structural level: the text itself a symmetric crystal\(^3\).

Ordering life means crystallizing it, codifying it, creating a standstill. The representation of life – the pinning of the butterfly in a museum collection that any description perforce and inevitably entails. Roni Layerson perhaps resolves the dilemma of this long-negotiated topos by referring to the crystalline as a matrix of the sudden emergence of *New Life*.

For the production of his text, Layerson confronted himself very personally with the pivotal question

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3 Or rather a quasi-crystal. Cf. the excellent introduction to Penrose tilings and aperiodic three-dimensional crystalline patterns with five-fold rotational symmetry at [http://www.ams.org/featurecolumn/archive/penrose.html](http://www.ams.org/featurecolumn/archive/penrose.html)
What is life
– not as a scientific essay in the sense of Schrödinger, but rather as everyday practice, as exploration and investigation of his own condition, that often can hardly be referred to as life any more. Having worked in video game development for many years himself\(^4\), in a form of employment that is paradigmatic of post-modern alienation in late capitalism, the author sees the work on his book equally as an opportunity to redefine his own life. Logically, this personal level is incorporated in the text in many places – most clearly perhaps in the recurring theme of emptiness and the vacuum\(^5\). In this respect, *The Ninth Biospherian* is an odyssey through empty space, the author’s meandering voyage to his own work, but also – perhaps first and foremost – to his own life.

Soon, this much can be said for sure – and the notes in the appendix corroborate this –, Layerson begins a well-tried method of novel writing: He tries to put himself in the place of the Biosphere participants. He wants to become their negative entropy himself, the number nine. Layerson develops a fascination with glass houses that can only be termed manic. He travels and collects “life”, as the Synergias did before building the Biosphere. He begins pseudo-scientific experiments with plants and crystals. He becomes lost in increasingly endless research, looking into everything he encounters on his explorations. He does everything – except write. We learn much in the more than one thousand pages of the omnibus about the difficulty of sitting down at a desk and organizing things, writing them down. Layerson becomes lost in the organic. He finally turns to the crystalline derivates from chemical processing of the coca plant. That way he can write. Crystals through the nose, and letters begin to form into orderly structures, as if by themselves. A substrate of drugs.

Even if Layerson does not mention this expression, and he mentions a lot of things, we can nevertheless compare his way of working with a method described in visual art in recent years: performative research. Depending on the specific definition, the method describes a process-based artistic production of knowledge in which the participants make deliberate use of theatrical devices such as script, roles and props so as to transcend the horizon of their own established knowledge.

A few brief excerpts in which Layerson talks about an old job in theatre may tell us how well this interpretation may apply to his methodology. He describes his fascination with the early stage of rehearsal, when actors and directors translate a written text into three-dimensional space (i.e. actually four-dimensional, including time). Layerson turns the tables on translation, a Stanislawski method of narrative.

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\(^4\) For a long time, the former game developer Theresa Duncan was conjectured by certain groups to be the real person behind a possible *nom de guerre* Roni Layerson. Her longstanding partner, visual artist Jeremy Blake, could also have played a part in the construction of the author according to some proponents of this theory. This is backed up by the fact that Duncan was working on Alternative Reality Games for some time, but above all by Blake’s video work on the Winchester house in San Fernando, a building that is often cited in connection with comparable texts such as *House of Leaves* (Mark Z. Danielewski, 2000 – incidentally, another, albeit rather implausible candidate for the pseudonym). The discussion on the possible authorship of Duncan/Blake and Danielewski usually refers to a passage commonly referred to in fan circles as “Meeting Johnny at Tattoo-Bob”. The couple never commented on the rumours. Theresa Duncan died of an overdose of barbiturates and alcohol in summer 2007, Blake followed her one week later, drowning in the Atlantic.

\(^5\) Unfortunately, only in the appendix do we find a sketch of a further piece of the puzzle in interpreting *The Ninth Biospherian*: It is based on Lem’s *Solaris* and turns the Biosphere into a place where psychological moments are materialized. Fredric Jameson correctly recognizes the meaning of this ephemeral draft when he writes in Archaeologies of the Future:

> “So who is this Ninth Biospherian but a final inversion of the mechanisms in Solaris, the dystopia of that dystopia? In Solaris, every crew member is haunted by its memories come alive, sent by the enigmatic planet below the space station. In The Ninth Biospherian, there is no crew left and the space station is the haunted image of planet Earth’s own replica. The eponymous figure is an evacuated ghost, a memory left in the vacuum of time, the non-echo of the past’s future [my emphasis].”
Theatre and performance play a key role in *The Ninth Biospherian*. A recurrent ghostly scene is a small play performed by the core team a few weeks before the first mission commenced. The sketch was called *The Wrong Stuff* – after Tom Wolfe’s *The Right Stuff*, a book about the heroic beginning of the American space programme. In *The Wrong Stuff* the crew members act out their future life in the Biosphere. The play is a collection of slapstick sketches in which everything that can go wrong does go wrong. A premonition of things to come.

By taking this performative approach, Layerson possibly also tackles an old problem of theatre: the difference between the situation as depicted and the situation as created. Am I describing the world to the audience or am I producing it for them – and, more importantly, with them? It is not hard to recognize the dialectics of the crystalline and the organic here again. To the extent that the author increasingly involves himself and his work situation, it becomes increasingly difficult for the reader to distinguish between auctorial and post-auctorial narrative positions, the author and the protagonist. We become witness to a quasi-psychotic movement. And what is a psychosis if not the imagination’s way out of a dilemma? In the stories of Philip K. Dick we all too often find descriptions of such a psychotic state. Dick’s basic theme is the indistinguishability of fiction and reality, and Layerson readily declares himself his fan in many places.

I could list countless other aspects of every single chapter, citing references from Gilgamesh to Frankenstein, esoteric allusions to Kabbalah and occult geometric interpretations of the number 9. “Gimmicks”.

For the sake of incompleteness, I would like to leave it at one aspect that is often the focus of discussions of Layerson’s book: Between the lines there is an occasional hint of Joseph Conrad’s *Heart of Darkness*, often barely perceptible, then in the form of Francis Ford Coppola’s *Apocalypse Now*. Armed with this code, Layerson suddenly appears quite clearly as Marlow/Willard, and the madman in the jungle, Kurtz, also known as Aguirre – this is his number nine. Conrad’s novella and Coppola’s film are discourses between these two antagonistic figures, dialogues between order and chaos, civilisation and unrestraint, and we know that it is equally the inner dialogue of the author of *The Ninth Biospherian*. In Layerson’s book, the river journey, that age-old mythical metaphor, becomes an exploration of an impenetrable delta.

Surprisingly little is written in all discussions and reviews concerning the role of texts in *Heart of Darkness* and *Apocalypse Now*. Half-way to his destination, Marlow finds a book, a navigation manual left behind in a hut by one of Kurtz’s fanatical followers. Kurtz, in turn, is working on his own treatise, Nietzschean, full of unknown fervor. In *Apocalypse Now*, Willard reads a file on Colonel Kurtz during the journey. He is also working on his own book. In neither version is Kurtz’s text published. Marlow’s superiors try to confiscate the manuscript, and the US army can be assumed to have done likewise. It takes the publications of Conrad and Coppola to publish this fictitious text, and be it in a second-hand translation: Marlow’s story is based on Conrad’s own experiences in Africa; the Apocalypse of Coppola’s film production has been discussed in depth elsewhere. The pattern we recognize tells of a germ that crosses over from fiction to the reality of the production, spreading and replicating its structure. Kurtz’s original text remains unpublished, and disappears from the surface, but it retains an uncanny presence, concealed by the versions of Marlow and Willard, Conrad and Coppola.

This brings me to the aforementioned problematic publication history of *The Ninth Biospherian*.  

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We must not forget that the Synergia group formed as a performance ensemble in San Francisco in 1967 and travelled the globe with their productions for several years. Later, the members used forms of theatres for self-evaluation, an early form of today’s methods of managing human resources.
Various versions of the *Ninth Biospherian* are circulating, usually under-the-counter sheaves, passed on from academic hand to academic hand, not without ulterior motives, not without allowing enough time to pass to write an additional article that the next person must quote; fragmented scans in file sharing networks, which you can only access by receiving a personal invitation and submitting to initiation rites; various passages published briefly in forums; genuine and fake videos of readings by the author on YouTube, shaky, poor resolution, a fetish of splinter groups of radical groups associated with the New Left, of environmental and other liberation groups; first refusal for publication rights and patents in the drawers of the entertainment industry; files in the think-tanks of post-democratic party headquarters to be used as proof of the involvement of (already, soon or at some distant point in time) troublesome individuals; copied slips of paper having travelled from one copyshop to another, with superimposed notes by various readers in Latin, Cyrillic, Indonesian writing systems, carefully laid under the night-time pillow, hidden in the fourth subfolders of a system folder masquerading as a file, again with a false name and different extension, with 128-bit password protection (no password hint), often forgotten, deleted, forever lost in a system crash, unrestorable.

I can say with great certainty that the version before me is not the version that Layerson thought – even for a brief moment – might be the one that he could leave as is, that would let him rest.

I will incorporate this uncertainty of the original. I celebrate it. For translating such a text is not a matter of words, it is a matter of life. I will approach the original with my performative translation by exploring its background, by diving into Layerson’s flooded terrain step by step – no, river bend by river bend. I will do what he did in order to write the text; I will do what needs to be done. I have saved up some money, I have no work obligations, I do not pay any rent in a strange town, I collect source material, primary, secondary, vulgar, films and books, I have laid the ninth Tarot card for myself. A week ago I bought plants and herbicides; I found a local laboratory supplier online – glass flasks used and new ex stock, chemicals on order. Sugar solutions crystallize slowly and form viscous ice, sodium chloride more quickly, it accumulates in thick crusts around the opening. Glauber’s salt – or was it Seignette’s? – crystallizes in seconds. (Like watching time-lapse.)

Not to forget: clay. Vast quantities of clay.

Translation: Richard Watts

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7 Cf. Things that ask to be done, ________________________________