

Everywhere the Process of Crystallization is Advancing

World reduction, extra-cultural surprise and the crystal as counter-image in Ann Lislegaard's *Crystal World*

By Lars Bang Larsen

In his essay "World Reduction in Le Guin" (1974), Frederic Jameson adds the technique of reduction to the variety of narrative experimentation in science-fiction literature. Thus, in Ursula K. Le Guin's novel *The Left Hand of Darkness* (1969) the sci-fi poetics of extrapolation (developing a situation's inner logic to its logical conclusions) and analogy (establishing alternative genealogies and realities that connect laterally to a reality principle) is thus extended by Jameson with the notion of 'world reduction'. This is a surprising approach to science fiction, connecting to what is beyond the known and is sensed through explorative forms of speculation and behaviour, but which is typically considered excessive or *too much*, like other art forms that proceed in a similar way, such as occult and psychedelic art.

Jameson writes about how Le Guin proceeds through elimination:

...Le Guin's experiment (...) is based on a principle of systematic exclusion, a kind of surgical excision of empirical reality, something like a process of ontological

attenuation in which the sheer teeming multiplicity of what exists, of what we call reality, is deliberately thinned and weeded out through an operation of radical abstraction and simplification which I will henceforth term *world reduction*.ⁱ

On the narrative level this concerns how, on the planet Gethen described in *The Left Hand of Darkness*, animal species other than the androgynous humanoids who inhabit the planet are 'conspicuously absent' from its hostile polar environment. This is propounded by the facts that in the feudal Gethenian society, capitalism does not exist even though this society is technologically advanced, and that its inhabitants can choose and change their gender:

It becomes difficult to escape the conclusion that this attempt to rethink Western history without capitalism is of a piece, structurally and in its general spirit, with the attempt to imagine human biology without desire (...); for it is essentially the inner dynamic of the market system which introduces into the chronicle-like and seasonal, cyclical, tempo of pre-capitalist societies the fever and ferment of what we used to call progress. The underlying identification between sex as an intolerable, well-nigh gratuitous complication of existence, and capitalism as a disease of change and meaningless evolutionary momentum, is thus powerfully underscored by the very technique – world reduction – whose mission is the utopian exclusion of both phenomena.ⁱⁱ

Jameson detects a drive in Le Guin towards a utopian rest, "an ultimate 'no-place' of a collectivity untormented by sex or history", and he concludes that Le Guin's world reduction ultimately goes beyond a discussion of how a utopian imagination can protect itself from a "fatal return to just those historical contradictions from which it was supposed to provide relief".ⁱⁱⁱ Rather the book's deepest subject "would not be utopia as such, but instead our own incapacity to conceive it in the first place."^{iv}

Now, this is a surprising and somewhat blunt conclusion in relation to the expectations we usually have of the sci-fi genre. Is it not sci-fi's most important role to allow us to make leaps of the imagination that enable us to see culture from the outside, rather than curtail the conception of new worlds? However, what is particularly strange about Jameson's conclusion to the idea of world reduction in Le Guin is not that he links utopia's failure to imagination's incapacity, but the way he sees the impossibility of an operative utopian order *not* as being due to things being muddled up every time humankind has tried to institute the great ideas that were sketched out on the utopian drawing board, but instead due to the fact that we cannot imagine utopia. Indeed, Jameson does not say that humankind cannot carry out what we are capable of imagining (has humankind been historically capable of realising what it has imagined, then?). In this way, Jameson's argument teeters between imagination's failure and historical meaning. One can thus detect a messianic undertone in Jameson: if Le Guin's fiction according to Jameson throws the towel in the ring on the subject of solving 'historical contradictions', it would seem that we are acting on the horizon of a loss of meaning, as outcasts from the Promised Land.

The question that remains is what is the status of what has been imagined in the extra-literary utopias of modernism? Following Jameson's own line of argument, the utopian imagination – with the full historical and political implications of this notion vis-à-vis a transformation and reconstruction of the edifice of society as we know it – might in itself be a form of world reduction (or world abstraction, you might say). In the late 1960s, the hippies wore button badges that read "Reality is a crutch"; perhaps the super-real idea of utopian society is no less of a crutch, no less of a prosthesis? What happens when utopian imagination falls apart and we meet the world anew is, seen in this light, what we can learn from Ann Lislegaard's digital animation *Crystal World* (2006).

Lislegaard's work takes its title from J.G. Ballard's novel *The Crystal World* (1966) in which a viral crystal that petrifies all organic material is discovered in the Amazonian jungle from where it threatens to spread to the rest of the world. The narrative is trademark Ballard, with a storyline à la Joseph Conrad's *Heart of Darkness* in which the fabric of civilisation is unravelled and the reader is finally delivered to 'the horror, the horror'. Frederic Jameson states that Ballard's writing

... is suggestive in the way in which he translates both the physical and moral dissolution into the great ideological myth of entropy, in which the historic collapse of the British Empire is projected outwards into some immense cosmic deceleration of the universe itself as well as of its molecular building blocks.^v

It is certainly relevant to read entropy ideologically, and Jameson's analysis has some truth to it since there are undeniably residues of

colonial 'enlightenment' in Ballard. However, Jameson's determinist reading does not account for the imaginary force of the crystal's geological will to power. In any case, what is Western in Ballard is in Lislegaard's video juxtaposed with elements from Brazilian modernity, such as architecture by Lina Bo Bardi, and the new power balance in Lislegaard's version of the crystal world redresses not only Ballard's ethnocentrism but moreover establishes a new range of interpretive parameters.

Quoting a letter from Ballard's main protagonist Sanders and spaced out as a kind prose poem, these are the captions in Lislegaard's *Crystal World*:

what surprised me the most / is the extent to which / I have
accepted the transformation / everywhere the process of
crystallization is advancing / trees are covered in white frost /
and the empty buildings form a labyrinth of crystal caves /
sealed off / as if the exterior world is losing its existence /
already memories have faded / progress has become pointless /
white shadows are closing and unfolding / even the light seems to
be unable to make up its mind

true, to begin with / I was as startled as anyone / making the first
journey up the river M / but after the initial impact of the forest /
I quickly came to understand / that its hazards are a small price to
pay / there are immense rewards to be found / in this
phantasmagoric place / as more and more time leaks away /
everything gleams with a spectral brightness / lit by some interior
lantern / indeed, the rest of the world seems drab and inert by
contrast / a faded reflection of this bright image / forming a grey
penumbral zone / like some half-abandoned purgatory

The menacing world of crystal in Ballard's description also falls within the framework of world reduction, as defined by Jameson. It is static and inaccessible as a myth and a lost paradise where immobilised figures are abandoned to eternity, like the way the splendours of Pompeii have been frozen in time.^{vi} Hence Sanders speculates that the "...illuminated forest in some way reflects an earlier period of our lives, perhaps an archaic memory we are born with of some ancestral paradise where the unity of time and space is the signature of every leaf and flower."^{vii} Or, as also implied in the descriptions of the illuminated forest, it could be a pathological condition that is revisited upon the world: "...in our microscopes, examining the tissues of those poor lepers in our hospital, we were looking upon a miniscule replica of the world I was to meet later in the forest slopes..."^{viii}

Importantly, Lislegaard's *Crystal World* is located on the brink of visibility, negating the way the crystal forest in Ballard "is more visual than anything else". In its mimetic yet abstract universe of digital coordinates, her video instead produces a space without luminous caverns and a thousand rainbows, negotiating the retinal plethora in Ballard to settle in a strange shadow-imagery where time and built space, light and shadow contrast, overlap and lapse into abstract patterns. Of course, Lislegaard would have run the risk of entering a zone of kitsch if she were to have followed Ballard's exalted descriptions of the crystal forest as a verbatim score for her work. As it is, the image in Lislegaard's work keeps the beholder at bay with its silence and the way the images fade in and out of definition, opening up achromatic kaleidoscopic vistas like snow crystals that are suggestive of leaps between dimensions.

The captions flicker, black on white and white on black, like a solitary and muted human voice in a desolate world.^{ix}

The tropical jungle – in Ballard a dramatised environment into which the European dissolves and loses physical and psychic autonomy – has in *Lislegaard* been reconfigured into a re-engagement with the environment of a different order, a multiple and shifting perceptual field. Time has started flowing again, seeing how the interiors are literally flooded by water and the camera is set adrift. The codes and coordinates that were detained in the crystal grip of Ballard's petrified forest have now been released. Spatio-temporal identities are about to be made available again, yet are still in a disembodied and chaotic form and narrated by the restless movements of the split-screen installation's twinned gaze.

Lislegaard seems to be more interested in Ballard's narrative seen as a drama of time, space and (post-)utopian speculation, rather than as a narrative of psychic decay. The most striking feature of the rampant, viral crystal in Ballard is the way it stops movement and makes time its servant, just like the modernist, techno-rationalist master plan of production or urban space aimed to chart movement and fix spatiality in an order sealed off from otherness. However, Ballard ultimately psychologises the narrative and locates the crystal forest in the mind, through his descriptions of it as a "phantasmagoric" place, lit by "some interior lantern", in a kind of psychedelic delirium; yet the crystal forest continues to represent a strange ecstasy which is not entropic in the way we usually understand the term, but rather a stopping of time that makes for a collapse into a mythical state.

The world reduction in Ballard can be said to reflect a utopian imagination, if we understand by this, in the words of David Harvey, "some kind of spatial construct (usually a bounded space

and an internal spatial structure) [which serves] to control social processes in beneficial ways.”^x This was the way that modernism tried to assure us that we can step in the same river twice. The rationale of the utopianism of spatial form, then, is that it is perceived to be capable of redirecting the chaotic motions of historical change, “so as to maintain the social order in a state of preferably harmonious equilibrium. It often seems as if the aim is to use space to avoid historical changes, to still the dialectic of becoming in favour of maintaining a state of just being.”^{xi} Or, as the media theorist Joseph Vogl puts it: we can perhaps only conceive of the tyrant as somebody who says no to time.^{xii}

After the spatial utopia has been instituted once and for all, “progress has become pointless”, to use Sander’s words. The crystallised forest can be seen as the image of a static utopianism’s perversion that has stilled the dialectic of becoming and appears to have achieved a self-present and harmonious, if extremely rigid, equilibrium. In this way we can reply to Jameson that Ballard’s work is not just the British Empire’s swansong, but can also be discussed in terms of the onslaught of a blind constructivist utopian imagination and its desire for a fixed world order. (In this regard, an example of the crystalline relevant to a London writer would be Joseph Paxton’s architectural sensation from 1851, the Crystal Palace, the invention of the glass house that followed in the wake of the industrial revolution.) In Ballard, nature – and eventually human civilisation too – is suspended or sublimated into crystal, but the theme of utopianism versus degeneration is perhaps most obvious in *Highrise* (1975), in which the inhabitants of a modernist tower block take the opposite direction of the route of spatial-utopianist enlightenment promoted by their environment, and

collectively regress to an archaic stone-age micro-society inside the high rise.

We should not forget that *Crystal World* also appealed to Robert Smithson, who created his mirror pieces based on Ballard's novel. In fact, Robert Smithson also has quite a modernistic understanding of the crystalline, as he sees it as a possibility for transgressing history:

What is it about crystal structure that delivered Smithson from his "preoccupations with history"? Crystallography provided Smithson with a new understanding of time itself, one that resembled his earlier ideal of a timeless state but that suggested a way of incorporating and neutralizing history rather than attempting to evade it through spiritual appeals. In crystallography, Smithson found a way of placing history [...] "in suspension." [...] "The Natural world is ruled by the temporal (dynamic history), whereas the crystalline world is ruled by the atemporal" (non-dynamic time).^{xiii}

The crystal in Ballard and Smithson can in this way be seen as a trope that in different ways reflects a utopian ideality and purity. If, according to Foucault, the mirror exerts a sort of counteraction on the position that I occupy by twinning the world in real and unreal, the virtuality of the crystal is of another order as its transparency promises a new and improved conclusion to the world in an achieved form that is capable of containing the noise of history. Hence crystal and glass became tropes for the 20th-century architecture that augured a new horizon for living environments. This holds true both for those architectural schemes that took the

high road of a techno-rationalist spatial order, as in Le Corbusier's attempt to locate the golden section of built space that could predetermine ideal and universal measures for harmonic edifices; or, in a more humanistic way, by emphasising the "small pleasures of life" as Alison and Peter Smithson put it, by making buildings that would "allow for a glance through the window, a view of vegetation and sun streaming through the house."^{xiv}

Departing from a similar idea of allowing for a clear relationship between house and nature, Lina Bo Bardi designed her Glass House (1950), the source of the building inside which our gazes float in Lislegaard's *Crystal World*. Poised on slender pillars on a hill above a forest outside São Paulo, Glass House offers an ordered and rational residence which, through its stunning material lightness, opens up to a dialogue between nature and artifice, public and private space, air and ground. The term 'glass house' was a key concept for the Soviet communal residence as conceived in the 1920s, the *Dom-Kommuna*. The historian of architecture Olivia de Oliveira writes that this

...comprised small individual cells and vast collective spaces for eating, relaxing, leisure and cultural activities. Among the ideas in force in Brazil in the 1950s were "art as the organisation of life", proposed by [Russian avant-garde poet] Mayakovsky, and the Trotskyist concept of "culture as a way of life." ...Contemporary with the Glass House, Lina [Bo Bardi] prepared one of her first projects for mass housing, The Economical Houses, as transparent and crystalline as those found in Moscow in the 1920s, and designed to be communal. These single-family detached houses were identical, built in a group,

and glass was the dominant element, exposing all the collective life of the house. However, as in her home [the Glass House], the private part of each house was kept behind walls, and it was visible only to an extent she considered to be suitable.^{xv}

Walter Benjamin considered living in a glass house as nothing less than “a revolutionary virtue par excellence”, but also “an intoxication, a moral exhibitionism, that we badly need.”^{xvi} To make a brief return to our science fiction theme, the *Dom-Kommuna* of Soviet Russia and Bardi’s Economical Houses were foretold in the Russian author Yevgenij Zamyatin’s early, dystopic science-fiction novel *We* (1920-21), which describes life in the totalitarian 26th-century OneState. The inhabitants of OneState, ruled by the almighty Benefactor, are ensured “Mathematically infallible happiness” by a rigidly regimented society that has eliminated private life, the architectural metaphor for which is the fact that all edifices in OneState are built entirely in glass – “our splendid, transparent, eternal glass”.^{xvii} However, D-503 begins to realize that “...even we haven’t yet finished the process of hardening and crystallizing life. The ideal is still a long way off,” and subsequently joins the revolutionary underground movement.^{xviii}

For Bardi, however, the Glass House was no pristine and hygienic white cube but a place for the coexistence and unexpected juxtapositions between “personal items, handicrafts, sculpture, statues, pictures and furniture of various periods and origins”.^{xix} Shown alongside each other, these things may look “inconsistent and irrelevant” but they are what a human being needs because they are “full of life”. Oliveira links this filling-up of modern space with inconsistent things to Peter Smithson’s humanist idea of the

“extra-cultural surprise... a kind of wide-eyed wonder of seeing the culturally disparate together and so happy with each other.”^{xx}

Lislegaard can be said to elaborate the heterogeneous logic of the extra-cultural surprise by confronting Bardi’s architecture with quotes from art history (in the video we catch glimpses of artworks by Eva Hesse and Robert Smithson amidst domestic objects), but she also radicalises it beyond the unexpected juxtapositions of cultural material, as she brings together under the same roof the cultural as well as the natural world (liana, water, uprooted tree trunks). In the video, the vista out of the windows confronts massively dense vegetation that encroaches on the house, as if in an echo of the interior, mental space of Ballard’s description of the crystal forest. No overview is available, as it was in Bardi’s Glass House.

As everybody who has seen her works will know, the deconstruction of visuality is a recurring concern in Lislegaard. Her strategies for this range from the hallucinatory blurring of perspective and localisation in *Nothing But Space*, to what is seen with the mind’s eye in the series of drawings carried out under hypnosis *Liberty Bells*, in which rudimentary sketching betrays the unseen workings of the subconscious. If Lislegaard here plays with suspending subjective integrity and artistic authority wholly or in part through hypnosis, in her *Crystal World* she takes it upon herself to piece together a different image of the world as “an architect of our own fates and fortunes.” Even if time is here collapsed, space turned upside down and we are allowed glimpses of crystalline dimensionality, the virtual universe of *Crystal World* assures some stability of representation. If all harmony has been exploded in her postdiluvian interiors then the binary codes that constitute the piece lend it abstract buoyancy that ties together

different mental faculties – the shapes of dreams and the harmony of pure thought, the cognitive as well as the visual – in order to re-engage with the ways we see the world. The chaos and loss of coordinates that are depicted is made bearable through the engagement with the constructed-ness of the representation, in which the flow of messy, transformative images meets the painstaking procedure of programming.

Where new technologies are often blamed for alienating people by speeding up the velocity of life, Lislegaard here uses them descriptively. In other words, she is here on a par with Le Guin when the latter points out that science fiction is descriptive (not predictive).^{xxi} This means that any engagement with empirical reality that wishes to take care of the world in order to promote and stimulate the resources and energies that live within it must set aside control and teleology in order not to reduce it through representation. The type of description/re-construction we see in her video is not a mirroring of the world: it is a taking stock of the world from the inside in order to maintain the shivering and the free movements of its forms.^{xxii}

Indeed, it would seem that Lislegaard in her *Crystal World* has depicted not the crystal forest, but what Sanders describes as “the rest of the world”, that “seems drab and inert by contrast / a faded reflection of this bright image / forming a grey penumbral zone / like some half-abandoned purgatory”. It is not the *fata morgana* of “reflections reflecting reflections”, as in Ballard and Smithson, but quite literally the *rest* of the world, an afterimage of the fading away of the “immense rewards” of a phantasmagorical utopia, but at the same time a new beginning of the world. While Jameson states that in utopia humankind is freed from determinisms, the flickering and floating state of things in

Lislegaard's *Crystal World* shows the flipside of this argument by illustrating that to be freed from determining parameters – which would also imply the absence of universal rights, ethical codes, language and so on – ultimately does not assure anything but chaos, in which no human community can expect to be represented.^{xxiii} The world reduction in Lislegaard, then, challenges us to look at the world without the imaginary gratification of utopia. This is a relevant critical approach and an exercise in thinking that is not as easy as it sounds, seeing how utopian expectations in a general sense are woven into the way we in everyday life pass judgement about how we live and how things ought to be. However, the work's most fascinating stratagem is that at the same time it re-conceptualises the world without empirical fact. *Crystal World* is a counter-image in Ludwig Wittgenstein's sense of this term. When we are held captured by habitual conceptions, Wittgenstein says, 'ein Bild hielt uns gefangen' (we are captured by an image). When that is the case, we must intervene with a counter-image:

Ich wollte dies Bild vor seine Augen stellen, und seine Anerkennung dieses Bildes besteht darin, dass er nur geneigt ist, einen gegebenen Fall anders zu betrachten (...). Ich habe seine Anschauungsweise geändert.^{xxiv}

To Wittgenstein, the usefulness of the thought experiment as counter-image is not the way it may gain knowledge of something that has been unknown, but rather consists of the way that it brings about a loss of *idées fixes* and tired theoretical truths. The thought experiment is thus not about the object that we want to know something about, but rather about what we thought we knew about it. In this way, after a successful thought experiment we will usually

know *less* about a given object than before, but we can now ask our questions about the object in a better way. According to Robert Pfaller, “Empirical experiments deliver answers to questions; thought experiments, on the other hand, facilitate the asking of questions where we previously only had premature answers.”^{xxv}

Hence the almost frozen neutrality of the images in Lislegaard’s *Crystal World*: it is a way of taking stock of the plenitude of things in the world and the way they interact with each other over time, but it refuses to gratify and hence capture us within any representational regime. We can project our desire for exploring ourselves through transforming our world into the crystal world’s deserted interiors and liquid crystal.

ⁱ Frederic Jameson: “World Reduction in Le Guin” (1974), p. 271, in: Frederic Jameson: *Archaeologies of the Future. The Desire Called utopia and Other Science Fictions*. Verso, London 2005.

ⁱⁱ *Ibid.*, p. 277.

ⁱⁱⁱ *Ibid.*, p. 279.

^{iv} Jameson P. 280. The idea of world reduction is an interesting supplement or corrective to earlier and symptomatically breathless definitions of the literary sci-fi genre's syncretistic potential. For example Reginald Bretnor writes in 1952 in his critical anthology *Modern Science Fiction*: "In science fiction, man is the proper study of the writer – man, and everything man does and thinks and dreams and everything man builds, and everything of which he may become aware – his theories and his things, his quest into the universe, his search into himself, his music and his mathematics and his machines. (...) Science fiction's emergence as a genre is rooted in our failure to understand the scientific method and to define it adequately. (...) This new awareness (...) is growing, despite educational conventions which inhibit it, despite a literary convention which almost universally excludes it. (...) Eventually, we will again have an integrated literature. It will owe much, artistically, to non-science fiction. But its dominant attitudes and purposes (...) will have evolved from those of modern science fiction." (Quoted from Judith Merrill (ed.): *SF12. New dimensions in science fiction, fantasy, and imaginative writing*, pp. 9-10. Dell Publishing, New York 1968). Where Jameson reads Le Guin in terms of a materialist dialectics, Astrid Deuber-Mankowsky arrives at a quite different conclusion in her gender-oriented reading of *The Left Hand of Darkness*; as opposed to Jameson's world reduction she defines the philosophical quest through foreign knowledge as a *Realitätsgewinn*, a gaining of reality. (Astrid Deuber-Mankowsky: "Planet der Geschlechtslosen. Über Ursula K. Le Guins phantastische Roman Winterplanet," in Thomas Macho and Annette Wunschel (eds.): *Science & Fiction. Über Gedankenexperimente in Wissenschaft, Philosophie und Literatur*. Fischer Verlag, Frankfurt 2004.

^v Jameson, p. 269.

^{vi} The crystallised forest is reminiscent of "the place inside the blizzard" that Ursula Le Guin describes in *The Left Hand of Darkness*, a kind of ominous garden of Eden inside the perennial snowstorm at the planet Gethen's North Pole. Escaping from his community, the outcast Gethenian flees to the pole and ends up inside the blizzard: "After a long while the snow ceased to fall around him, and the wind to blow. The sun shone out. He could not see far ahead as he crawled, for the fur of his hood came forward over his eyes. No longer feeling any cold in his legs and arms nor on his face, he thought that the frost had benumbed him. Yet he could still move. The snow that lay over the glacier looked strange to him, as if it were a white grass growing up out of the ice. It bent to his touch and straightened again, like grass-blades. He ceased to crawl and sat up, pushing back his hood so he could see around him. As far as he could see lay fields of the snowgrass, white and shining. There were groves of white trees, with white leaves growing on them. The sun shone, and it was windless, and everything was white." (p. 23.) The place inside the blizzard – this blindingly indifferent space where existence is lost – is where those who have killed themselves dwell.

vii (pp?)

viii (pp?)

ix In other works, of course, Lislegaard has explored colour before form, such as her digital animation *Bellona* (2005) and *Dahlgreen Images for Backdrops* (2007), a series of iridescent prints that function like stage-set elements in the white cube, an import of slices of unknown spaces.

x David Harvey: "Spaces of Insurgency," p. 53, in John Beverley, Phil Cohen, David Harvey: *Subculture and Homogenization*. Fundació Antoni Tàpies, Barcelona 1998. Harvey contrasts the utopianism of spatial form with what he calls the utopianism of social processes, namely Adam Smith's idea of a purely functioning marketplace.

xi Harvey, p. 53. As Harvey writes, the architect has been deeply enmeshed throughout history in the production and pursuit of utopian ideals. Harvey insists on the architect as a figure of self-empowerment, when this figure is understood as the imaginative planner of the future: "... we can all equally well see ourselves as architects of a sort. To construe ourselves as "architects of our own fates and fortunes," is to adopt the figure of the architect/planner as a metaphor for our own agency as we go about our daily practices and through them effectively preserve, construct, and re-construct our lifeworld" (pp. 56-7). The architect's way of pursuing a progressive social order that does not ossify is to propose the construction of alternative possibilities. However, Harvey quotes Marx as saying that what "distinguishes the worst architect from the best... is this, that the architect raises his structure in imagination before he erects it in reality" (p. 87). In this way, Harvey concludes, "We have no option except to explore ourselves through transforming our world" (p. 87), a conclusion that seems apt for the state of lurking potentiality the moment before a new process – and presence – of becoming in Lislegaard's *Crystal World*. It is in an environment that is transformed by ourselves that we can best recognise who we are.

xii Quoted from "Zeit ohne Raum. Ein Gespräch zwischen Alexander Kluge und Joseph Vogl", p. 242 in Thomas Macho and Annette Wunschel (eds.): *Science & Fiction. Über Gedankenexperimente in Wissenschaft, Philosophie und Literatur*. Fischer Taschenbuch Verlag, Frankfurt am Main 2004.

^{xiii} Ann Reynolds: *Robert Smithson. Learning from New Jersey and Elsewhere*, Massachusetts 2003, p. ?? Ann Reynolds writes about the connection between Smithson and Ballard, "Smithson's model for his perceptual alchemy is the satellite. In the margins of a drawing entitled *Three Works in Metal and Plastic* (...), Smithson notes that "it has been reported that the Mariner camera showed Mars to have surfaces like mirrors", and later, when again referring to the Mariner photographs in a letter, he concludes: "Sometimes I think the whole universe is a Hall of Mirrors. Reflections reflecting reflections. The New Jersey of 'The Crystal Land' appears to be part of this hall of mirrors, but the way Smithson represents it has more in common with science fiction than science proper. More specifically, his description resembles the satellite's transforming eye of light in J.G. Ballard's contemporary novel, *The Crystal World*. Tracing the logic of Ballard's vision reveals the significance of this type of reflective vision for both authors." Ibid., pp. 80-82.

^{xiv} Olivia de Oliveira: *Subtle Substances. The Architecture of Lina Bo Bardi*, p. 71. Editorial Gustavo Gili, Barcelona 2006.

^{xv} Ibid., p. 42.

^{xvi} Walter Benjamin, 'Surrealism', in *Selected Writings Vol. 2*, p. 209. Harvard University Press, Harvard 2003. Oksana Bulgakowa sums up the modernist fascination with crystal: "The symbolic vocabulary of transparency was developed in the eighteenth and nineteenth centuries and correlated with light, glass, crystal, water and nakedness in contrast to stone, veiling and deception. The transparency of nature was seen in contrast to the opacity of the social world; but it was unclear where to place a human being. Modernity was fascinated with the idea of transparency. According to German architect Bruno Taut, a glass building would establish other relationships between people and the universe, modifying their visual perception and habits. The Constructivists hoped a transparent building would help in the creation of transparent relationships and destroy the distinction between public and private." (quoted from Oksana Bulgakowa: "Eisenstein, the Glass House and the Spherical Book. From the Comedy of the Eye to a Drama of Enlightenment". I have quoted from an abridged and modified version of a chapter from her Sergej Eisenstein. *Drei Utopien – Architekturentwürfe zur Filmtheorie [Sergei Eisenstein – Three Utopias: Architectural Drafts for a Film Theory]* Berlin: PotemkinPress 1996, pp. 109-125).

^{xvii} Zamyatin, pp. 6 and 28.

^{xviii} Ibid., p. 25.

^{xix} Oliveira p. 71.

^{xx} Ibid.

^{xxi} Introduction to *The Left Hand of Darkness*, p. xii.

^{xxii} Andzrej Gasiorek notes that Ballard too denounces the prescriptive: “[Ballard’s] ‘inventions of imaginary landscapes’ are attempts to ‘place oneself, to find oneself, to give oneself a certain sense and a set of map references, so one knows where one is’, but this form of cartography is not prescriptive – it creates ‘road signs’ that ‘point to possible directions’, a way of thinking that aligns this process with the Deleuzian ‘map’ rather than with the ‘tracing’.”
Andzrej Gasiorek: *J.G. Ballard*, Manchester University Press, Glasgow, 2005, p. 5..

^{xxiii} Jameson, p. 275.

^{xxiv} Ludwig Wittgenstein: *Philosophische Untersuchungen*, 2nd edition., p. 147 (§265).
Suhrkamp Verlag, Frankfurt am Main 1980.

^{xxv} Robert Pfaller: “Doppelte Böden”, in: *Science & Fiction*, p. 267.