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The Spectra of Technological Alienness: Around Stanislaw Lem's *The Invincible*

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ABSTRACT

This paper's thematic axis and purpose is to outline the technological alienness embodied by self-replicating microrobots—as the central singularity of Stanisław Lem's (1921–2006) *The Invincible* (1964)—from the perspective of Bernhard Waldenfels' (b. 1934) xenological thought. Starting by recognising speculative fiction as the most complete space laboratory for probing the categories of *otherness* and *alienness*, this article examines the various levels of their manifestation in the novel, as well as exploring the implications of meeting the Unknown. The closing section is devoted to the problem of encountering the actual and upcoming technological Other, with its probable consequences.

KEYWORDS

Stanisław Lem | The Invincible | Bernhard Waldenfels | otherness | alienness | xenology | self-replicators | nanorobotics | evolution | machines | astrobiology | science fiction studies

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I. SCIENCE FICTION: TOWARDS AN APOLOGY

Among the various branches of literature in general, speculative fiction—to the greatest extent, in all its imaginative and world-building potentials, liberating itself from the mimetic imperative that constrains realistic literature*—most comprehensively provides the foundation for both the author's and reader's imaginative endeavours. Concurrently, it constitutes the most significant nexus between the *factual* or the *factual-realised* and the *imagined* or the *imagined-unrealised* (i.e. *ex natura rei* encompassing a more or less legitimate promise of potential future realisation).** Consequently, through a departure from *passéisme* mimesis, it facilitates constructing spaces within which the exploration of *otherness* and *alienness* ("The other is yet to become alien, but alienness is not an inherent feature of otherness",*** as Ksenia Olkusz and Krzysztof M. Maj write, outlining

* For a more detailed exploration of realist imperialism, understood as its hegemonic positioning within theoretical-literary discourse, see Linda Hutcheon (1987: 4) and Krzysztof M. Maj (2017: 15–22; 2018: 148).

** As a simplifying generalisation, it can be proposed that within the taxonomic framework of speculative fiction, for instance, fantasy appears as an emanation primarily of the *imagined*, soft science fiction as an amalgam of the *imagined* and the *unrealised* with the dominance of the former, and hard science fiction as a parallel amalgam, albeit in opposite proportions. Brian Stableford offers a more detailed exploration of this categorical division of SF and its validity (2006: 226–228, 462–468).

*** *To, co inne, dopiero może stać się obce, ale obcość nie jest inherentną cechą inności.*

the xenological and xenotopographical thought of Bernhard Waldenfels (Olkusz & Maj 2018: 25; cf. Waldenfels 2011: 11–12; see also Waldenfels 1997: 16–109; Maj 2014: 72–95)) can extend to its furthest reaches, focusing on the phenomena realised therein, similarly *imagined* or *imagined-unrealised*. The nature of both alienness and otherness exhibits gradation,* with their spectrum (from an anthropocentric perspective, since "there are as many aliennesses as orders"** (Waldenfels 1997: 35; cf. Olkusz & Maj 2018: 15–44)) extending from manifestations of the latter—most proximate to us in terms of ontological status—to the aporic and "radical" biological*** technological (e.g. Gajewska 2010) exemplars of the former, regarding "everything that remains outside

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* Waldenfels claims that "firstly, other is what occurs outside one's own territory (cf. *externum*, *extraneum*, *peregrinum*; *ξένον*; *étranger*; *foreign*) . . . Secondly, what belongs to another is other (cf. *ἀλλότριον*; *alienum*; *alien*). Thirdly, that which is of a foreign nature and is considered as foreign appears as other (cf. *insolitum*; *ξένον*; *étrange*; *strange*). It is therefore the three aspects of place, possession, and nature that characterise other as opposed to familiar. These characteristics can vary independently" [*Fremd ist erstens, was außerhalb des eigenen Bereichs vorkommt (vgl. externum, extraneum, peregrinum; ξένον; étranger; foreign) . . . Fremd ist zweitens, was einem Anderen gehört (vgl. ἀλλότριον; alienum; alien). Als fremd erscheint drittens, was von fremder Art ist und als fremdartig gilt (vgl. insolitum; ξένον; étrange; strange). Es sind also die drei Aspekte des Ortes, des Besitzes und der Art, die das Fremde gegenüber dem Eigenen auszeichnen. Diese Merkmale können unabhängig voneinander variieren*] (1997: 20; cf. Olkusz & Maj 2018: 25–29).

** *So viele Ordnungen, so viele Fremdheiten.*

*** The kaleidoscopes of possible radical realisations of biological alienness are comprehensively discussed by Elana Gomel and Anna Wieczorkiewicz, among others (see Gomel; cf. Gomel 2018: 57–68; see also Wieczorkiewicz 2019).

of any order and confronts us with events that question not only a certain interpretation, but even any 'possibility of interpretation'"* (Waldenfels 1997: 36–37). These apogees of strangeness (and at the same time of otherness) find their most genologically accommodating habitat precisely in the (un)boundaries of speculative fiction and—viewed through the prism of the *imagined-unrealised*, *par excellence* —in science fiction (SF).

According to Darko Suvin, SF is

> . . . a literary genre whose necessary and sufficient conditions are the presence and interaction of estrangement and cognition, and whose main formal device is an imaginative framework alternative to the author's empirical environment. (1972: 375)

Constituting a sphere of the *novum* (see Suvin 1972) unrestricted by the mimetic imperative, SF contributes to a rapprochement towards the Unknown or "the Unimaginable" (*l'inimaginable*) (Caillois 1987: 46). In parallel, operating with technological imaginative-empirical instrumentation, it becomes a space for mapping futurological predictions and extrapolations (nevertheless, it is still "concerned with the tensions between *Civitas Dei* and *Civitas Terrena*, and it cannot be uncritically committed to any mundane City" (Suvin 1972: 379)), sometimes taking the form of an anamorphic mirror reflecting

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* *. . . all das, was außerhalb jeder Ordnung bleibt und uns mit Ereignissen konfrontiert, die nicht nur eine bestimmte Interpretation, sondern die bloße 'Interpretationsmöglichkeit' in Frage stellen.*

"the anxiety of an era fearful of advances in theory and technology" for which "science, no longer a protection against the *Unimaginable*, increasingly appears as a vertigo that drives us into [it]"* (Caillois 1987: 46).

However, *a contrario*, the positive assessment of SF regarding the effectiveness and relevance of its futurological-predictive suppositions resonates with the pejorative echoes of contestation. Probably their most vivid intellectual emanation is Lem's *Science Fiction and Futurology* (*Fantastyka i futurologia,* 1970), reflecting—as the author himself writes in the afterword—an unintentional "hammer of science fiction"** (Lem 2012b: 538):

> Science fiction is characterised by second-order trashiness and kitsch. Trashiness is a poor solution to a task that can be overcome by other means and another method; kitsch is the bastard child of fascination and banality; it is information relegated to the level of ultimate simplicity . . . The state of science fiction is made particularly pathetic by the fact that it contradicts its intention to aspire to the pinnacles of thought . . . There will be no shortage of its readers because it is nice to acquire the conviction of participating in the greatest truths of being at a cheap cost.*** (Lem 2012b: 538, 544)

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* *[A son tour, le récit d'anticipation reflète] l'angoisse d'une époque qui prend peur devant les progrès de la théorie et de la technique. La science, cessant de représenter une protection contre l'inimaginable, apparaît de plus en plus comme un vertige qui y précipite.*

** *. . . młot na SF . . .*

*** *Science fiction odznacza się drugorzędnością tandety i kiczu. Tandeta jest kiepskim rozwiązaniem zadania, które można pokonać innymi środkami i inną metodą; kicz to bękart fascynacji i banału; jest on informacją zdegradowaną do poziomu ostatecznej*

According to Lem, SF literature thus seems at best a mirage-like surrogate of attempts to "understand where our world is heading"* (Lem 2021a: 495–496), having no intellectual "tops"** or "inspirational" potentials (Lem & Bereś 2019: 200). The clearest verbalisation of this view can be seen in a conversation with Stanisław Bereś:

> There is absolutely no inspirational force in science fiction . . . I have spoken well of the Strugatsky brothers. Amosov is primarily a surgeon, his scientific concepts are weak, and he is mediocre as a writer. Asimov is not a creative mind at all. He has written some unbelievable rip-offs . . . Clarke is indeed quite a mind, engineering rather than abstract-theoretical, but he has had some excellent ideas. As a writer, however, he is quite weak . . . An original and interesting mind was Philip Dick . . . But, to be honest, I don't see any titans of the spirit in science fiction.*** (Lem & Bereś 2019: 200–201)

łatwizny . . . Stan SF jest szczególnie żałosny przez to, że sprzeczny z jej intencją aspirowania ku szczytom myśli . . . Nie zabraknie jej czytelników, ponieważ miło jest nabywać tanim kosztem przeświadczenie o uczestnictwie w największych prawdach bytu.

* *. . . zrozumienia, dokąd świat nasz zmierza . . .*

** "There's probably just as much rubbish [in science fiction], only the tops aren't there, since there are Himalayas of Dostoevskies, Tolstoys, and Manns hovering above normal [sic!] literature. In science fiction, there is no even a bit of them" [*Szmelcu jest pewnie tyle samo, tylko wierzchołków nie ma, bo nad normalną literaturą unoszą się Himalaje Dostojewskich, Tołstojów i Mannów. W fantastyce naukowej tego nie ma nawet w namiastce*] (Lem & Bereś 2019: 203).

*** *Inspiracyjnej roli SF nie ma żadnej . . . O Strugackich wyrażałem się dobrze. Amosow jest przede wszystkim chirurgiem i jego koncepcje naukowe są słabe, fantastą zaś jest przeciętnym. Asimov to w ogóle nie jest twórczy umysł . . . Naknocił nieprawdopodobne chały . . . Clarke to rzeczywiście umysł niezły, raczej inżynieryjny niż abstrakcyjno-teoretyczny, ale miał parę doskonałych pomysłów . . . Jako pisarz jednak jest dość*

He then continues:

> [In science fiction] there are other worlds, there is science, there is outer space! But the other worlds are falsified! The space is falsified! Physical parameters are falsified! Human characters—falsified! The mechanism of scientific discoveries—falsified! Political actions—falsified! Everything from the beginning to the end is falsified! The average crime novel contains a higher percentage of truth than this nonsense . . . I cannot stand drivel! I have become allergic to science fiction.* (2019: 204)

Ultimately, contemplating the works of Herbert George Wells or Jules Verne, Lem has to admit that in general "a catalogue of all the technical inventions made by science fiction would be impressive"** (Lem 2012a: 521). The total negation of the predictive possibilities' twinkling diapason represented

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słaby . . . Oryginalnym i ciekawym umysłem był Philip Dick . . . Ale prawdę powiedziawszy tytanów ducha w SF nie widzę.

* *Są inne światy, jest nauka, jest kosmos! Ale inne światy są sfałszowane! Kosmos jest sfałszowany! Parametry fizyczne sfałszowane! Charaktery ludzkie — sfałszowane! Mechanizm odkryć naukowych — sfałszowany! Działania polityczne — sfałszowane! Wszystko od początku do końca sfałszowane! Przeciętna powieść kryminalna zawiera większy procent prawdy niż te bzdury . . . Nie znoszę bredni! Stałem się alergicznie uczulony na SF.*

** *Imponująco przedstawiałby się katalog wszystkich wynalazków technicznych, jakich dokonała science fiction.* In a similarly meliorative spirit, Roger Caillois (1987: 38–48) and Kim Eric Drexler (2006: 18, 215–216, 464–467 etc.)—for example—write about the anticipatory role of SF. Turning my attention to this aspect of the genre and based on contemporary empirical data, I briefly analysed the hypothetical possibilities of the realisation of the *imagined-unrealised* "trained bacteria" as a Lemian idea presented in *The Investigation* (*Śledztwo*, 1959) (see Świerczyński 2022: 107–136; cf. Lem 1974: 136–137).

by this branch of speculative fiction (especially "hard" SF) might thus at most stem from either ill will or illogically arbitrary antipathy (fictophobia?), ignorance, or the parallel entanglement of these factors as residua of realist imperialism's axiomatic paradigm.

II. "THE INVINCIBLE": TOUCHING THE TECHNOLOGICAL ALIENNESS

From a Waldenfelsian *xeno* perspective, Lem's prose—as well as speculative fiction *per se* in its entire taxonomic landscape—can be *in extenso* seen as an imaginative laboratory of the interplay between the *self* and *other* with the observation of its further implications. As Elana Gomel writes, Lem "espouses . . . 'the ethics of metamorphosis' in which an encounter with the totally Other triggers a transfiguration of the human agent into a post/trans/nonhuman. This transfiguration is ethical, even religious, but not moral" (Gomel: 7; cf. Gomel 2018: 63; see Gomel 2014). The kaleidoscope of Lemian otherness (and at the same time, alienness) is realised on both the biological (e.g. in *Solaris* (1961) or *Fiasco* (*Fiasko*, 1986)) and technological planes (e.g. in *The Invincible* (*Niezwyciężony*, 1964) and *Golem XIV* (1981)), sometimes appearing to blur the boundaries between the two. Attempts to contact the Other-Unknown—inherently rooted

in anthropocentric presuppositions*—always result in more or less serious failures in his writing.** The most striking example is the emanation of the "*Ding an sich*, the Unreachable, the Thing in Itself, the Other Side that cannot be accessed [and understood]"*** (Lem & Bereś 2019: 155) is undoubtedly the Solarian Ocean—"a fundamental being . . . transcendent and unknowable in its essence" (Krabbenhoft 1994: 216).****

* Lem outlines their core in the sixth chapter of *Solaris*: "We see ourselves as Knights of the Holy Contact. That's . . . falsity. We're not searching for anything except people. We don't need other worlds. We need mirrors" (2011: 75). This is indirectly related to the concepts of Johann Fichte and Georg Hegel, which Roger Scruton briefly describes: "my self-identification as 'I' is in some deep way dependent on my encounter with and identification of others" (2017: 56).

** Furthermore, the "exploration of the topic of the alien encounter" (Gomel: 6; cf. Gomel 2018: 62)—or *sensu largo*, the Other—together with its aura of empirical incomprehensibility, contributes to the modelling of both homo- and heterodiegetic chaosphere (cf. Csicsery-Ronay 1991: 244–262). Consequently, a complete interpretation of the Other is never attainable for Lem's characters or readers.

*** *. . . Ding an sich, Nieposiężnego, Rzeczy w Sobie, Drugiej Strony, do której przedostać się nie można*.

**** "I wanted to wall up all the paths of reasoning leading to the humanisation of the Being that is the Solarian Ocean"—writes Lem—"so that it would become clear that contact with it cannot be realised in an interpersonal way, although at the same time, in a strange and different manner, it still takes place" [*Pragnąłem zamurować wszystkie ścieżki rozumowania wiodące do uczłowieczenia Istoty, jaką jest solaryjski ocean . . . aby się okazało, że kontakt z nią nie daje się zrealizować na sposób międzyludzki, choć równocześnie w jakiś dziwny, inny sposób jednak zachodzi*] (2017: 552).

With its biosphere, Solaris is not the only utterly *alienated** planet, *terra incognita*, or *terra aliena* (Waldenfels 1997: 184–207) in Lem's oeuvre, as is the necrosphere (cf. Lem 2021b: 166, 169) of desert Regis III,** albeit *a contrario*, by means of an inverted parallel. This is the world where the eponymous "class II cruiser" (Lem 2021b: 1) lands, constituting the actual *terminus a quo* of *The Invincible*'s plot and where the overall action of the novel takes place. Microrobots with a crystal-like structure embody the novel's central singularity (cf. Świerczyński 2022). The category of otherness is fulfilled multifariously here, since they are (1) emanations of the technological thought of an alien and long-extinct Lyran civilisation,*** (2) have self-replicating and (3) evolutionary potential,

* Namely, calculated to be extremely distant and unfamiliar in all its aspects from an anthropocentric perspective.

** "This is not a regular sub-delta-92 class planet . . . We need to maintain degree three procedures, and run tests on the land and the ocean. I think we should commence geological drilling, and at the same time take a look at the water here" (Lem 2021b: 20–21).

*** From an anthropocentric perspective, it is even further because it was likely non-anthropomorphic (Lem 2021b: 112) and—in the eyes of the Invincible's crew—quasi-fabulous or apocryphal: "'I heard this story . . . Well, it's more a kind of fable. About the Lyrans.' 'That's not a fable. They really existed. Akhramian has a whole monograph about them.' . . . 'Were they humanoid?' 'Akhramian thought so . . . But it was only a hypothesis. Even less remained of them than of Australopithecus.'" (Lem 2021b: 45–46). The microrobots themselves are therefore some kind of *machinae ex Deo*.

and (4) function based on swarm intelligence, while (5) remaining in a peculiar symbiosis with the rest of the planet's necrosphere, primarily quasi-plants.

> Each [of the beings] had a perfectly symmetrical tripartite shape that resembled the letter Y, with three pointed arms joined at a thicker central node, black as coal in direct light, while in indirect lighting they shimmered dark blue and dark green, like the abdomens of certain terrestrial insects that are composed of multiple tiny surfaces like the facets of a cut diamond. In their innards they contained a microscopic structure that never varied. Its components, several hundred times smaller than a grain of sand, constituted a sort of central nervous system in which semi-autonomous subsystems could be distinguished.
>
> The smaller part, which occupied the inside of the arms of the Y, oversaw the movements of the insect, which in the microcrystalline structure of those arms possessed something along the lines of a universal rechargeable battery cum energy transformer . . . An individual crystal didn't so much fly as drift in the air . . . Whereas when it joined with others by touching the tips of their arms together, it created an aggregate that had greater ærodynamic capabilities the more numerous it became.
>
> Each crystal could link with three others; it was also able to attach the tip of one of its arms to the central node of another crystal, thus making possible a multilayered construction for the growing assemblages . . . The overarching whole, that probably arose only when a huge number of elements joined together, was the actual motor driving the actions of the cloud . . . Neither the cybernéticians nor the computer scientists knew of any equivalent construction elsewhere, that is to say, an infinitely expandable brain that adapts its size to the magnitude of its purposes. (Lem 2021b: 142–144)

From the standpoint of self-replicating machines studies,* according to Tim Taylor and Alan Dorin's categorisation, the microrobots inhabiting Regis should be taxonomically assigned to the subgroup of *evo-replicators* (*evolable self-replicators*), i.e. "machines that can not only reproduce, but can also evolve by the natural selection of heritable variations to become better adapted, smarter and more complex over time" (Taylor & Dorin 2020: 3; cf. Drexler 2006: 121–125 etc.).** The foundations of intellectual speculation on necro-evolution (using Lem's (2021b: 169) nomenclature) can be traced back to Samuel Butler's works inspired by Darwinian theory (e.g. 1914: 179–185; cf. 1955: 222–260). In the case of *crystals*, what is distinctive is the reference to simplifying (reductive) evolution (which at the same time dœs not contradict Dollo's law (see Marshall, Raff, & Raff 1994: 12283–12287; Collin & Miglietta 2008: 602–609) and—which Lem could not know—is hypothetically possible among living organisms (see Ramos, Barker, & Ferrier 2012: 1951–1956)):

> What is the foremost principle of homeostasis? To survive in changing circumstances, however difficult and hostile these may be. The major threat to the later forms of this evolution of self-organizing metal systems was not that presented by local animals or plants.

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* The flagship monograph of this branch of science is noteworthy here, i.e. *Kinematic Self-Replicating Machines* by Robert Freitas and Ralph Merkle (2004).

** In the case of *The Invincible*, for the sake of terminological accuracy one should perhaps consistently speak of reproduction rather than replication, with the latter not allowing for evolutionary change in the case of successive generations (see Sipper 1998: 237–257; Taylor & Dorin 2020: 8; cf. Griesemer 2001: 67–80).

> They needed to find sources of energy and materials from which they could produce replacement parts and new organisms . . . There must have been a severe energy crisis, and I believe it led to conflict among the devices. A struggle for survival, for existence, quite simply. After all, that's what evolution is about. Selection. The mechanisms that were highly developed in terms of intelligence, but ill-suited for survival, because of their dimensions let's say, which required large quantities of energy, were unable to compete with others that were less advanced as far as intelligence is concerned, yet were more economical and efficient when it came to energy . . . In this evolution the victors were firstly systems that miniaturized themselves most effectively . . . These mechanisms are nowhere close to being any kind of mental powerhouse, they're simply perfectly suited to the conditions of the planet. (Lem 2021b: 113–118)

Overall, the microrobots from *The Invincible* can be regarded as a simplified and relatively technically primitive exemplification of subsequent Drexlerian "assemblers" (see Drexler 2006: 76, etc.). However, they do not exploit the nanoscale but rather the microscale, and are probably incapable of building anything other than their own copies. Lem most comprehensively explores similar issues in *Weapon Systems of the Twenty First Century or the Upside-Down Evolution* (1983/1986), outlining a futuristic vision of a nanorobotic dispersive army* composed of "synthetic insects (synsects)" (Lem 1986: 56):

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* "The nonliving, synthetic 'locust' was incomparably more lethal, since it was made that way by its designers. It possessed a preprogrammed autonomy, so that communication with a command center was unnecessary. The pseudo-locust could be destroyed, of course, by an atomic attack, but this would have an effect like that

> The microarmy was one giant flowing or flying aggregate of self-assembling elements. It started out dispersed, approaching its objective from many different directions, as strategy or tactics demanded, in order to concentrate into a preprogrammed whole on the battlefield . . . The simplest example was a self-dispersing atomic weapon. Any missile launched from land, ship, or submarine could be destroyed from space by a satellite laser. But it was impossible to destroy gigantic clouds of microparticles carrying uranium or plutonium that merged into a critical mass only at the target. En route to the target, they were so dispersed as to be indistinguishable from fog or dust . . .
>
> Just as germs invisibly invade an organism to kill it from within, so the nonliving, artificial microbes, following the tropisms built into them, penetrated the gun barrels, cartridge chambers, tank and plane engines. They corroded the metal catalytically, or, reaching the powder charges or fuel tanks, blew them up. (Lem 1986: 57–58)*

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of shooting at clouds with nuclear weapons: great holes would open, only to fill again with more cloud" (Lem 1986: 57).

* The forthcoming practical realisation of nanorobotic dispersive armies—according to one of Lem's technological axioms ("No dam can be put up to 'progress'. . . The things that have been possible have always been realised" [*Żadnej tamy „postępowi" nie da się postawić . . . Realizowało się zawsze to, co było możliwe*] (Lem 1996: 93))—seems more than certain, which is confirmed by the directions of development and the current state of knowledge of both aerial and swarm robotics (see Arvin et al. 2014: 635–640; Saska, Kasl, & Přeučil 2014: 1228–1233; Chung et al. 2018: 837–855; Kagan, Shvalb, & Ben-Gal 2020). A detailed consideration of the hypothetical possibilities regarding their appearance exceeds the scope of this study.

"The interpretation"—as Wilhelm Dilthey writes—"would be impossible if the expressions of life were completely alien. It would be unnecessary if there were nothing alien in them"* (Dilthey 1979: 225). Nonetheless, yet this is precisely what they appear to be, hermetic in nature and surrounded by a nimbus of impassable alienness, both in *Solaris* and —*mutatis mutandis*—*The Invincible* (it is not without reason that Lem's most popular novel is sometimes regarded as "a metafictional parody of hermeneutics" (Csicsery-Ronay 1985: 7)). In the case of the plasmic Solarian Ocean, in addition to the neutrino visions of phantom-simulacra experienced by Kelvin, they take the forms of mimoids, foam-clouds, or symmetriads—"an immense glass flowers" (Lem 2011: 184; cf. Kaptur 2011: 24) ("A symmetriad is unlike anything on Earth . . . A symmetriad is millions, no, billions, to the n^{th} power; it is unimaginability itself" (Lem 2011: 123)). Similarly, in *The Invincible*, in defiance of the crew members rationalising the phenomena that they encounter and Doctor Lauda's theoretical outline of the instinctive, *non*-intelligent (Lem 2021b: 111–127; cf. 1986: 50–53) nature of the "crystals", the final manifestation of the Regis necrosphere —witnessed individually by Rohan ("Experiencing *the alien* turns into the alienation of the experience, as well as into

* *Die Auslegung wäre unmöglich, wenn die Lebensäußerungen gänzlich fremd wären. Sie wäre unnötig, wenn in ihnen nichts fremd wäre.*

the *self*-alienation of the experiencer. The alienness is contagious"* (Waldenfels 1997: 10))—takes a radical form, deconstructing the previous deductive pyramids.

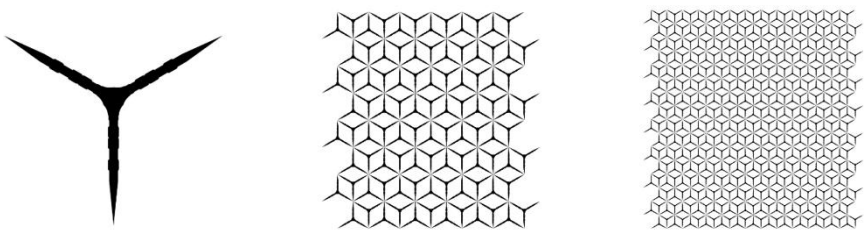

Figure 1. Visualisation of (1) a single Y-type microrobot, and (2) two-dimensional swarms composed of 96 and (3) 415 microrobots. Source: author's own work.

According to Waldenfels, the call of the alien "has no meaning, and it dœs not follow any rules. Rather, it provokes meaning by disrupting existing references to the meaning and ruining the systems of rules"** (1997: 52). The closing sentences of the novel read:

> The clouds . . . covered both sides of the ravine; an organizing current seemed to pass through their black swirls, for they thickened at the edges, forming into almost vertical columns, while their inner parts bellied out toward one another and drew closer and closer. It was exactly as if some titanic sculptor were shaping them with extraordinarily rapid movements of his hands . . .

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* *Erfahrung des Fremden . . . schlägt um in ein Fremdwerden der Erfahrung und ein Sich-Fremdwerden dessen, der die Erfahrung macht. Fremdheit ist . . . ansteckend . . .*
* *Die Aufforderung des Fremden hat keinen Sinn, und sie folgt keiner Regel, vielmehr provoziert sie Sinn, indem sie vorhandene Sinnbezüge stört und Regelsysteme sprengt.*

> The two sides of the black ocean joined together and interpenetrated one another, quivering in infinite tension. The air beneath them darkened as if the sun had set; at the same time bizarre, rapidly moving lines appeared in them, and it was only after a while that Rohan realized these were grotesquely distorted reflections of the rocky floor of the ravine. In the meantime, these airborne mirrors on the underside of the cloud undulated and stretched, till all at once he spotted an immense human figure, the top of its head extending into the darkness, that was gazing at him without moving, though the image itself trembled and danced without cease, as if it were continually being extinguished and then relit in a mysterious rhythm. And again several seconds went by before he recognized his own reflection floating in the empty space between the dangling sides of the cloud. He was so stunned, so paralyzed by the cloud's inconceivable action that he forgot about everything else. The thought flashed through his mind that perhaps the cloud knew about him . . . but this thought too failed to frighten him, and not because it was too fanciful—he no longer thought anything was impossible—but because he simply wished to participate in this ever more shadowy mystery, whose meaning—of this he was certain—he would never comprehend. His vast reflection . . . was beginning to dissolve. (Lem 2021b: 212–213)

Rationalising theories are giving way to new and unfamiliar cosmic necrosemantics, and fear and anger caused by incomprehension and the impossibility of reception to a mysterious amazement full of fascination and a desire to participate. "The alien *manifests itself by eluding us*. It haunts us and makes us uneasy even before we let it in or try to fend it off"* (Waldenfels 1997: 42).

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* *Das Fremde zeigt sich, indem es sich uns entzieht. Es sucht uns heim und versetzt uns in Unruhe, noch bevor wir es einlassen oder uns seiner zu erwehren trachten.*

Its experience is surrounded by a glow of ambivalence based on an amalgam of temptation and threat (cf. Waldenfels 1997: 42–45). The initial anthropocentric paternalism (see Jarzębski 2021: 252) towards the Other is abandoned or—as Jerzy Jarzębski writes—Rohan "disarms himself . . . of his sense of moral superiority", and further: "There is no longer any pride of his own heroism in him, nor any desire for retaliation, nor any revulsion towards *the enemy*.* There is solely the belief that otherness can only be experienced through an individual experience involving the whole body and the whole spirit"** (Jarzębski 2021: 256). Although the Other can opalesce hypnotically with a beauty only understood by itself, its *thanatic* call often kills. Rohan was not only lucky but also "it seemed to him that he knew what he was capable of [or literally: *what he could allow himself to do*]" (Lem 2021b: 211), hence avoiding death. The crossing of the threshold of which Waldenfels writes (e.g. 1997: 20–27) as separating *self* and *alien* remains unnoticed:

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* What is significant here is the rudimentary, blind desire for potential retaliation, vivid in the Invincible's crew members, even against the awareness of the futility of fighting with—according to Lauda's hypothesis—the instinct-driven mindless necrosphere of Regis. It seems that it only dims with the defeat of the Cyclops, the engineering *magnum opus* of Earth's art of war.

** *. . . rozbiera się . . . z poczucia moralnej wyższości . . . nie ma w nim już . . . ani dumy z własnego bohaterstwa, ani pragnienia odwetu, ani odrazy w stosunku do «wroga». Jest jedynie wiara, że doznać Inności można tylko na drodze indywidualnego, angażującego całe ciało i całego ducha doświadczenia*.

> Strange to relate, he felt no fear. His attitude toward it [the cloud of crystals] had undergone a remarkable transformation during a single day . . . True, he himself did not fully understand the change that had taken place within him, for he could not recall the exact moment when for the first time, as the black bushes on the cliffs sparkled with every shade of purple, he had noticed their dismal beauty. But now, when he saw the black clouds—two of them were approaching, swarming from the slopes on the far side—he made no move, no longer sought shelter with his face pressed against a boulder. (Lem 2021b: 211)

The result of the genuine touching the otherness is a kind of silent, non-interpretative understanding and acceptance or acquiescence arising from such an act:*

> Rohan rose on unstable legs. He suddenly seemed ridiculous to himself, with the Weyr cannon he had snatched from the dead man; more, he felt unnecessary in this landscape of perfect death, where only inanimate forms could survive and carry out their inscrutable actions that no living eye would ever see. It was not with horror but with stunned admiration that he had taken part in what happened a moment before. He knew that none of the scientists would be capable of sharing his feelings, but now he wished to go back

* The Other is the New and thus also the Unknown. Acknowledging it is not tantamount to idealisation or affirmation, one who is oriented towards *alien* often has to abandon one's *own* (as Waldenfels writes, "none of us is ever on both sides of the threshold simultaneously" [*Dabei steht keiner von uns jemals auf beiden Seiten der Schwelle zugleich*] (1997: 21)). Discussing the concept of ideological parasitic memes as described by Dawkins (2016: 245–260; cf. Aunger 2002), Drexler argues that the oldest principle of the *human mind's immune system* is to "believe the old, [foresightedly] reject the new" (see Drexler 2006: 114–119).

> not only as a messenger bearing news of the destruction of the missing men, but also as a person who would demand that the planet be left alone. Not everything everywhere is for us, he thought as he walked slowly downhill. (Lem 2021b: 214)

Eventually, the conscious probing of otherness forces us to semantically redefine or—more broadly—reconfigure our way of seeing, and it makes its indelible imprint on us in this sense. Rohan dœs not return to the deck of the Invincible being incredibly changed, but rather being *different*.

III. DECERNENTES DICTA

With the development and dissemination of more advanced varieties of artificial intelligence (AI) culminating in the emergence of artificial general intelligence (AGI) and advancements in robotics—especially in manufacturing anthropomorphic social robots—the cogitation of contact with technological alienness will lose its apparent triviality. The hermetisation of science—particularly technical sciences—combined with the (outwardly *ad infinitum*) increasing acceleration of both technological progress and the accumulation of new knowledge will contribute to the growth of neo-Luddhist sentiments and tendencies (cf. Jones 2006) in the long-term, including the popularisation of movements implementing anarchist and eco-terrorist paradigms, such as *Individualistas Tendiendo a lo Salvaje* (see Individualists Tending toward the Wild 2012; cf. Chartier & Van Schoelandt 2021: 29–30), which actively advocate for violence against technological infrastructure and scientists.

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