The first time I watched the BBC’s Blue Planet documentary series, I was fascinated by deep-sea footage of a dark, calm pool of water whose surface was carpeted by a bed of mussels. How could there be a second surface of water—underwater? David Attenborough’s voice patiently explained that this was in fact a deepwater brine lake:

During the Jurassic period, the water here was shallow and became cut off from the ocean. The area soon dried out, leaving a thick layer of salt and other minerals up to 8 km thick. When the ocean water returned after the region rifted apart, the super-saline layer at the bottom of the Gulf became an underwater lake. Now brine, which is continually released from a rift in the ocean floor, feeds the lake.¹

Seeing this underwater lake, I began to rethink my spatial intuition. The ocean, for us, is commonly conceptualized as a Cartesian volume that can be gridded and measured, with a surface only at the top.² This dominant metaphorical sense of “depth” as the below and “surface” on top is based on the normal position of a human observer. By surprising us with a

¹ *The Blue Planet: Seas of Life.* Nar. David Attenborough (2001; London: BBC, 2002), DVD.
² Philip Steinberg’s *Social Construction of Ocean Space* (Cambridge: Cambridge University Press, 2001) discusses more historically specific conceptions of ocean space in relation to culture and economy.
counterexample of a unique “surface” within the depths, Blue Planet reveals both the pervasiveness of our land-based perspective of surface and depth and how it colors the terrestrial metaphors we live by. We expect a surface on top and depth underneath in both reality and in figurative language, but there may be other possible senses of these terms. The underwater lake example suggests a stigmatism, or misalignment of the figurative and the literal figures, which produces a similar kind of cognitive estrangement as we see in science fiction about oceans and aquatic beings.

This chapter discusses how the cognitively estranged environments of SF challenge our terrestrial senses of surface and depth. As case studies, I focus on two texts: Polish writer Stanislaw Lem’s seminal 1960 novel Solaris and Greg Egan’s novella “Oceanic.” Solaris imagines a sentient ocean and its responses to scientific investigation, while “Oceanic” imagines smaller scale ocean microbes whose chemical excretions produce religious feeling. In both texts, oceans disrupt human practices of symptomatic reading and valuation of depth. Gender and sexuality also play key roles, for in both texts a feminized “nature” no longer accommodates the kind of scientific penetration that would accompany a deep reading. Instead the feminine—as a character, and the element of water—disorients male protagonists in both texts, such that they rethink their relation to transcendental or “deep” knowledge and epistemological limits. In the following analysis, I hope to churn up the “clean” model of surface versus depth through science fictional estrangements, using Solaris as a diagnosis of habitual figurations of depth, and “Oceanic” as the story that imagines how the mutual relations of human and non-human suggest alternative relations to depth and interpretive practices. Rather than considering depth as a single definable concept, the participation of non-humans in both stories introduces other possibilities that suggest an ecological and participatory sense of figurative meaning.

3 George Lakoff and Mark Johnson, Metaphors We Live By (Chicago: University of Chicago Press, 1980).
Solaris

Stanislaw Lem’s seminal novel *Solaris* (1961) dramatizes scientific attempts to penetrate and understand the ocean-planet Solaris according to the classic model of surface/depth, provoking a crisis that is jointly scientific, masculine, colonial, and terrestrial. The novel begins with psychologist Kris Kelvin, an expert on “Solaris studies,” moving from a transport ship to the space station above Solaris in a kind of embryonic pod. The space station, hovering from an Archimedean standpoint above the planet, would seem to offer the scientists an ideally objective location from which to study Solaris. Yet Solaris has long been suspected of sentience on a planet-wide scale: it may be altering its own orbit in space, and it routinely throws up radiant, geometrically complex structures from its surface. In one early description, Kelvin calls the Solaris ocean,

...a monstrous entity endowed with reason, a protoplasmic ocean-brain enveloping the entire planet and idling its time away in extravagant theoretical cogitation about the nature of the universe. Our instruments had intercepted minute random fragments of a prodigious and everlasting monologue unfolding in the depths of this colossal brain, which was inevitably beyond our understanding.\(^4\)

Here, Kelvin draws an analogy between psychological and oceanic “depths,” reading the ocean planet as both a geological and psychological text where visible currents and large three-dimensional surface structures might be seen as evidence of “thinking”—a sort of distributed cognition throughout the planetary body. Yet the legibility of the planet-as-text proves elusive, for the planet-ocean Solaris enacts an insistent *détournement* against scientific legibility,

psychoanalysis, and symptomatic reading, deflecting human attempts to understand the Solaris ocean as either a physical environment or a colossal brain. Solaris modifies the instruments scientists submerge into its ocean, producing, “a profusion of signals—fragmentary indications of some outlandish activity, which in fact defeated all attempts at analysis.”\(^5\) Lem’s fantastic ocean resists both physical and epistemic human penetration, an impervious mirror surface with depths that remain cognitively out of reach to whatever extent they even exist at all. Fredric Jameson calls this Lem’s “Unknowability Thesis,” in which Solaris “resists scientific inquiry with all the serene tenacity of the godhead itself.”\(^6\)

Yet what we miss if we see only the resistance of Solaris is the depth reading that it practices on Kris Kelvin and the other scientists from the very beginning of the novel. The clearest example of this involves the arrival of unexpected visitors on the space station. After bombardment of its surface with X-Rays during one test, the ocean begins to read the brainwaves of the human scientists themselves while they sleep, producing physical “phantoms”—also described as “simulacra” or “phi-creatures”—which are intimately tied to each individual’s unconscious. Kris Kelvin’s uncanny visitor is Rheya, a simulacrum of his deceased wife on Earth who had committed suicide. Although she looks and speaks like the Rheya from Earth, the hyperreal Rheya has no calluses on her feet, perfect skin, and also possesses superhuman strength. “Born” amnesiac, she does not know she is a copy, her own memory based on what Kelvin remembers of Earth’s Rheya.\(^7\) While on Solaris, every scientist gets such a visitor, projected from the depths of their own repressed memories. We could say that Solaris gives the

\(^5\) Ibid., 21.
\(^7\) She also cannot be permanently killed. When Kelvin panics at her first appearance, she tricks her into entering a space shuttle alone, and then remotely programs the shuttle to launch into space, a clean death. Yet after his next sleep cycle, a new simulacrum-Rheya returns with no memory of having arrived before.
scientists access to a different register of depth—their own psychological depths—by turning the mirror on them. Is this not a classic example of symptomatic reading? In their critique of a hermeneutics of suspicion, Best and Marcus define symptomatic reading as “a mode of interpretation that assumes that a text's truest meaning lies in what it does not say, describes textual surfaces as superfluous, and seeks to unmask hidden meanings. For symptomatic readers, texts possess meanings that are veiled, latent, all but absent if it were not for their irrepressible and recurring symptoms.” The question here is: what is Rheya’s ontological status? Does she embody a kind of depth “reading” that Solaris performs on Kelvin? Is she a memory, an individual, an extension of the Solaris ocean, or an interpretation of Kelvin’s unconscious?

Both the failure of symptomatic readings and the possibility of other kinds of depth reading hinge on Rheya. Ann Weinstone’s insight that Rheya “occupies a gap” can extend further. Rheya occupies not only the gap between Kelvin’s memories and Solaris’ materiality, but also a gap in scale between macro and micro, life and death, object and subject, environment and organism. One scene that specifically addresses Rheya’s ontological suspense occurs in chapter seven, where Kelvin decides to give Rheya a medical examination and takes a sample of her blood to analyze under a powerful neutron microscope. It is a moment when Rheya becomes, for him, a landscape. Part of what compels me to look at the microscope scene is because of the way that Rheya’s body is rendered as a surface (literally placed on a slide) for the benefit of a male observer. Bending over a microscope, Kelvin says:

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8 Stephen Best and Sharon Marcus, “Surface Reading: An Introduction,” *Representations* 108.1 (Fall 2009): 1-21 (1). Clearly in response to Fredrick Jameson’s *Political Unconscious* and strategies of reading for ideology, Best and Marcus aim to broaden, “the scope of critique to include the kinds of interpretive activity that seek to understand the complexity of literary surfaces—surfaces that have been rendered invisible by symptomatic reading.”

I could hear Rheya’s voice, but without taking in what she was saying. Beneath my gaze, sharply foreshortened, was a vast desert flooded with silvery light, and strewn with rounded boulders—red corpuscles—which trembled and wriggled behind a veil of mist. I focused the eye-piece and penetrated further into the depths of the silvery landscape.\[10\]

The fact that Kelvin cannot “hear” Rheya or take in what she is saying privileges the visual and objective over the aural and subjective; he also ignores her as a legitimate subject worthy of response. His comment also draws on the long history of equating women’s bodies with landscapes, of forcefully penetrating into the secrets of a feminized “nature”—a silvery, ethereal one at that. Yet like Solaris itself, Rheya’s blood resists Kelvin’s total comprehension. Looking further, Kelvin notices an anomaly: a deformed erythrocyte, “sunken in the centre, whose uneven edges projected sharp shadows over the depths of a circular crater. The crater, bristling with silver ion deposits, extended beyond the microscope’s field of vision.” Curious, Kelvin enlarges the resolution, expecting, “At any moment, I should reach the limit of this exploration of the depths; the shadow of a molecule occupied the whole of the space; then the image became fuzzy. There was nothing to be seen. There should have been the ferment of a quivering cloud of atoms, but I saw nothing.”\[11\] In attempting to gaze into Rheya’s physical structure, to know what makes phi-creatures different, Kelvin gets simply nothing.

Incredulous as to what he’s not seeing, Kelvin performs another test to examine the materiality of Rheya’s blood. He drops congealed acid onto the “coral tinted pearl” of blood; it turns grey, “a dirty foam rose to the surface,”\[12\] and then the blood surprisingly re-creates itself. Kelvin’s attempt to disintegrate the blood sample only results in a stubborn reintegration, a reterritorialization of its structure. Kelvin then answers the call to be part of a three-way

\[10\] Solaris, 98.
\[11\] Lem, 98.
\[12\] Ibid., 99.
teleconference with the other two male scientists on board—forming a kind of triangular solidarity between them, exclusive of Rheya. During this conversation, Kelvin proposes that the blood is in fact, 

... a camouflage. A cover, in a way, it’s a super-copy, a reproduction which is superior to the original. I’ll explain what I mean: there exists, in man, an absolute limit—a term to structural divisibility—whereas here, the frontiers have been pushed back. We are dealing with a sub-atomic structure.\textsuperscript{13}

The sub-atomic structure Kelvin infers—from not being able to see a structure beyond the erythrocyte—is the neutrino. Importantly, Rheya’s ontological difference does not appear through visual signs, but only the absence of known signs. Rheya—and by metonymic association, Solaris—continues to resist scientific depth reading, her concreteness only inferred. That Kelvin only sees human blood cells suggests that he can only relate her difference in terms of what he knows. In a telling line earlier in the novel, one of the other scientists, Dr. Snow, tells Kelvin, “We are only seeking Man. We have no need of other worlds. We need mirrors.”\textsuperscript{14} This line resonates with a central crisis of the novel: that human beings can only know what is other through existing frameworks of cognition and linguistic means.

While this interpretation would be sympathetic to Jameson’s thesis that Lem’s ocean is ultimately unknowable, suggesting a kind of asymptotic limit to what the human can understand, such a reading misses the entire affect of the scene. The scene is particularly difficult to bear reading if one’s sympathies lie with Rheya rather than the scientists—to endure a kind of isolating scrutiny and scopic vivisection by scientists whose aim is to tell you what you are, what you are made of. If one sympathizes with Rheya, it becomes clear that the primary reason why

\textsuperscript{13} Ibid., 101.
\textsuperscript{14} Ibid., 72.
the version of depth reading performed here ultimately fails is not because Rheya is entirely unknowable, but because the entirely wrong questions are being asked of her without regard to the relational nature of knowledge. Earlier in the novel, we learn that Rheya’s phantom-like existence depends upon Kelvin and his memories; she finds it physically painful to leave his presence, and violently breaks down barriers between them if restrained by objects like doors. Kelvin even considers if she might be a projection from his mind, for it is clear that her existence depends on physical proximity to him. However, Kelvin entirely neglects his own role in Rheya’s existence when he looks into the microscope into the silvery landscape of her blood cells, with the intention of investigating what she is made of—not what she is in relation to himself. The critical problem that *Solaris* dramatizes is the cul-de-sac of scientific investigation that brackets the observer out of the dynamic relation between phenomena/other and self.

At this point, I want to distinguish between symptomatic and depth reading, and suggest that *Solaris* introduces the possibility of other kinds of “deep” reading, where depth ceases to be synonymous with penetration, mastery, and vision, but instead shifts into a register of experience based on curiosity, tactility, and the production of meaning in a particular moment. Depth understood this way—as bi-directional, heading to the waters and the sky—unfolds in the last scene of the novel where Kelvin interacts with an ocean wave. Although throughout the text Kris Kelvin never visits the surface of Solaris—which should be surprising considering that he is an expert in Solaris studies—he finally decides to make a trip down to the surface after Rheya dies.¹⁵ After descending to the surface and exploring a Mimoid (large surface structure with a finite life-span), Kelvin realizes that, “I had flown here not to explore the formation but to

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¹⁵ Specifically, I mean the second simulacrum Rheya.
acquaint myself with the ocean.” Kelvin continues on to describe his encounter with a wave at the edge of the Mimoid:

...when the next wave came I held out my hand. What followed was a faithful reproduction of a phenomenon which had been analyzed a century before: the wave hesitated, recoiled, then enveloped my hand without touching it, so that a thin covering of ‘air’ separated my glove inside a cavity which had been fluid a moment previously, and now had a fleshy consistency. I raised my hand slowly, and the wave, or rather an outcrop of the wave, rose at the same time, enfolding my hand in a translucent cyst with greenish reflections. I stood up, so as to raise my hand still higher, and the gelatinous substance stretched like a rope, but did not break [...] a flower had grown out of the ocean, and its calyx was molded to my fingers.

Kelvin’s approach to Solaris studies shifts dramatically from positioning himself as a distant observer to becoming a participant in mutual exploration and experimentation. Although Kelvin calls it a “faithful reproduction of a phenomenon” observed before, his description suggests that the wave acts in the moment, according to its curiosity: “the wave hesitated, recoiled, then enveloped my hand.” Kelvin’s observations show the wave as active and agential through these verbs, rather than as passive, as object; it exhibits “cautious but feral alertness, a curiosity avid for quick apprehension of a new, unexpected form.” That the wave envelops Kelvin’s hand, rather than the other way around, suggests that the wave is partially in control of the situation and literally grasps/apprehends Kelvin by itself.

Recalling that none of the accounts of Solaris he had read, “prepared me for the experience as I had lived it, and I felt somehow changed,” we see a distinct shift in Kelvin’s...
descriptions of Solaris that relate to the singularity and affect of lived experience. This leads into a brief moment of identification: “the contrast was inexpressible between that lively curiosity [of the wave] and the shimmering immensity of the ocean [...] I sat unseeing, glided down an irresistible slope and identified myself with the dumb, fluid colossus.”19 No longer bracketing himself out of the experimental situation, Kelvin’s experience with the wave leads him to momentarily identify with the larger Solaris ocean—an ocean silent (dumb) but expressively tactile. Although we might doubt Kelvin’s success in doing this, the moment is significant as the only time in the entire novel that Kelvin feels compelled to identify with any form of an Other, or imagine their point of view.

Thus at the “surface” of the planet, we see the possibility of knowledge production that takes place at the interface between beings that share mutual curiosity. Yet the interface is by no means flat; it too can take on a sense of depth, of dimensional relation. Departing from a model of depth reading that we saw at throughout most of the novel, which involved the interpretive efforts of a distant observer seeking to uncover secrets of a reticent subject (Rheya, Solaris), the narrative ends with the possibility of a new practice of gathering knowledge that shifts from an aerial/visual sense to a liquid/tactile one. Whereas the aerial/visual method of investigation allowed Kelvin to bracket himself out of the observed phenomena, such as with his studies of Rheya’s blood, the liquid/tactile method of investigation at the end of the novel implicates Kelvin in the co-production of knowledge. The wave encircling his hand responds directly to Kelvin’s movements, such that what Kelvin observes is entirely contingent on his own participation—and ecology of knowledge production. Kelvin’s question shifts away from, “What is it?” or “What are you?” but rather, “What are you in relation to me when I am here?”

19 Ibid., 203.
The Solaris Ocean opens the possibility of depth reading as the unfolding of a dimensional relation between two or more entities who mutually respond to each other.

“Oceanic”

If “depth reading” in Solaris ends on the possibility of the unfolding of a dimensional relation, “Oceanic” offers yet another alternative for understanding “depth” in relation to both a terrestrial and oceanic point of view. Just as Solaris trained us to look for the way “depth reading” could change from a one-way to a relational process, “Oceanic” suggests that we investigate how the figurative meanings of depth—religious, gendered—also find their meaning in relation between ocean and land. Egan’s novella takes place on a planet called Covenant, set at an unspecified date in the future after human beings achieve both space travel and the ability to live forever without material bodies. The mythic “crossing” had taken place long enough ago that the people of Covenant no longer know why the “Angels” chose to incarnate into material bodies again, nor why there was a significant decrease in technology soon after they terraformed Covenant. The title “Oceanic” transparently alludes to the “oceanic feeling” coined by Romain Rolland and popularized by Sigmund Freud in Civilization and Its Discontents. Freud begins with a friend’s description of the feeling, which he does not feel himself, and goes on to relate it to the unbounded feeling of the ego’s original unity with Nature and the maternal body.20 Egan both

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20 Relating a friend’s description, Freud writes, “it is a feeling which he would like to call a sensation of ‘eternity’, a feeling as of something limitless, unbounded—as it were, ‘oceanic’. This feeling, he adds, is purely subjective fact, not an article of faith; it brings with it no assurance of personal immortality, but it is the source of the religious energy which is seized upon by the various Churches and religious systems, directed by them into particular
literalizes and fictionalizes Freud’s oceanic feeling, imagining a religion in which a drowned and resurrected Beatrice figures as Jesus, and in which religious feeling is experienced most intensely during and after a brief baptism in the depths of the ocean. “Oceanic” dramatizes the religious crisis that occurs when the ocean depths cease to signify a holy, mysterious connection to Beatrice and instead become knowable through the pharmacological effects of indigenous microbes. This ultimately suggests an ecology of metaphoric meaning in which depth ceases to be legible as a stable concept, but evolves in relation to multiple factors that include science, gender, religion, myth, the ocean and its microbes.

The story begins with the protagonist Martin slowly falling asleep on a boat to the rhythm of the waves. Martin’s brother Daniel suddenly asks him if he believes in God, admitting that he has joined the Deep Church and taken literally the following piece of scripture: “‘Unless you are willing to drown in My blood, you will never look upon the face of My Mother.’ So they bound each other hand and foot, and weighted themselves down with rocks.” The way to acquire true faith, Daniel insists, is through immersion deep in the ocean, for “In the water, you’re alone with God.”

In Daniel’s view, a literal baptism enables real, spiritual faith. Martin’s consensual drowning repeats the language of Freud’s oceanic feeling: “Suddenly, everything was seared with light... as if I was an infant again and my mother had wrapped her arms around me tightly. It was like basking in sunlight, listening to laughter, dreaming of music too beautiful to be real.”

This moment of oceanic feeling merges the spiritual and the physical, taking the ocean as the site or wellspring of religious feeling and faith. The Mother (God) and the mother ocean are channels, and doubtless exhausted by them. One may, he thinks, rightly call oneself religious on the ground of this oceanic feeling alone, even if one rejects every belief and every illusion... I cannot discover this ‘oceanic’ feeling in myself.” See Sigmund Freud, *Civilization and its Discontents*, trans. James Strachey (New York: Norton, 1961): 11-12.


22 Ibid., 8.
taken as one, where Martin is able to both feel the immenseness of the universe and, ecstatically, experience himself as inseparable from it.

The main conflict of the story revolves around Martin’s disenchantment with the Deep Church once he begins studying science. His work on Covenant’s pre-Angelic fauna, or life before the arrival of human colonists, threatens to demystify “true” cause of the oceanic feeling by pinning it on microbes rather than a relationship with holy Beatrice. Martin finds that, “rather than rain bringing new life form above, and ocean-dwelling species from a much greater depth had moved steadily closer to the surface, as the Angels’ creations drained oxygen from the water.” In other words, the process of what the story calls “ecopoiesis”—or the terraforming that made Covenant hospitable to human colonists—creates conditions that end up being favorable to a specific kind of benthic microbe:

Zooytes that had spent a billion years confined to the depths had suddenly been able to survive (and reproduce, and mutate) closer to the surface than ever before, and when they’d stumbled on a mutation that let them thrive in the presence of oxygen, they’d finally been in a position to make use of it. The ecopoiesis might have driven other native organisms into extinction, but the invasion from Earth had enabled this ancient benthic species to mount a long over due invasion of its own. Unwittingly or not, the Angels had set in motion the sequence of events that had released it from the ocean to colonize the planet. 23

Covenant’s human modifications lead to a parallel set of planetary changes put into effect by the benthic microbes. Martin doesn’t push the potential implications of this further, until he attends a conference and notices one of the paper titles: “Carla Reggia: ‘Euphoric Effects of Z/12/80 Excretions.” All at once, it hits him: this microbe could be responsible for religious feeling:

23 Ibid., 28-29.
Z/12/80, Carla explained, excreted among its waste products an amine that was able to bind to receptors in our Angel-crafted brains. Since it had been shown by other workers (no one recognized me; no one gave me so much as a glance) that Z/12/80 hadn’t existed at the time of the ecopoiesis, this interaction was almost certainly undesigned, and unanticipated.24

In this passage, Martin suggests that the religious experience of drowning has a material basis in waste products of the microbes. To put it crudely, Martin wasn’t simply drowning in the holy love of Beatrice, he was drowning in the potent drug of Z/12/80 excrement. Religious feeling moves from the sacred to the profane, a matter of absorbing abject products from ocean microbes.

This disturbing conclusion shakes Martin’s faith in the reality of Beatrice, and in order to see if Z/12/80 really does produce a sense of religious love, he travels to a holy bay of water known to have particularly high concentrations the microbes. He pushes past local stewards guarding the sacred waters and lays down flat in the water, covering his face: “The love of Beatrice flooded into me, and nothing had changed: Her presence was as palpable as ever, as undeniable as ever. I knew that I was loved, accepted, forgiven.” Yet as he confirms the material cause of this feeling of love, he comes to the conclusion that, “it said no more about my place in the world than the warmth of sunlight on skin. I’d never mistake that touch for a real hand again.”25 Beatrice, now a physical phenomenon like the warmth of sunlight on skin, is nothing mystical but the name given to an explainable, physical quality of Covenant’s microbes. The Z/12/80 microbes, understood as a source of “oceanic feeling” and spirituality, have in fact been at the surface—literal, and figurative—all along. The potential readings have inverted: that

24 Ibid., 30.
25 Ibid., 35.
which had been symptomatically read (religious feeling, transcendence) is now accessible for being read at the surface (level of observable scientific phenomena). That which was read as surface (the physical traits of microbes) can now be experienced as depth (feeling of religious love).

It would be easy to view this story as a straightforward narrative about science explaining away religious feeling. However an important detail about sexuality, easy to forget after the revelation of the microbes, is key understanding the changing conception of depth. Early on, Egan drops hints that sexual intercourse means not simply inserting but *exchanging* the phallus, which the people of Covenant call a “bridge.” When the Angels incarnated into new bodies, they designed the bodies with a bridge that could be passed between people. When a man had sex with a woman, she would take the bridge and he would grow a new vagina. Our first introduction to this is just prior to Daniel’s wedding, when Martin meets another teenager named Lena. She proposes sexual intercourse and coaches him through it, clearly the more experienced partner. During the experience, Martin reflects: “It wasn’t any better than my Drowning, but it was so much like it that it had to be blessed by Beatrice.”

Martin’s observation draws a clear parallel between sexual union, oceanic immersion, and spiritual connection with Beatrice. It also relates vaginal depth and oceanic depth, which immerses Martin as a male subject. Reading sexuality in “Oceanic” alongside its religious, scientific, and aquatic dimensions suggests a conception of “depth” as female, as capable of receiving a bridge.

While the characterization of water as a feminine element has ancient roots, what is new is Martin’s post-coital anxiety that ties together feminine depth, chemical penetration by

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26 Ibid., 20-22.
microbes, and loss of his original phallus. After Martin and Lena both reach orgasm, Egan graphically describes the withdrawal where Martin’s bridge breaks off and passes to Lena. Martin proposes marriage, but Lena declines and tries to assuage his feelings:

Lena said, “What do you think, you can never get married now? How many marriages do you imagine involve the bridge one of the partners was born with?”

“Nine out of ten. Unless they’re both women.”

Lena gave me a look that hovered between tenderness and incredulity. “My estimate is about one in five.”

I shook my head. “I don’t care. We’ve exchanged the bridge, we have to be together.”

Lena’s expression hardened, then so did my resolve. “Or I have to get it back.”

Lena’s comment suggests that the people of Covenant are—sexually—similar to microbes: just as microbes laterally transfer genes, the people of Covenant pass the “bridge” from person to person, in what we might read as a queer act no matter which sexes it involves. In fact the whole concept of stable sexes falls apart at the notion of passing bridges and the widespread practice of male pregnancy. Marriage, then, becomes a way of tethering and securing a single “bridge” between two people, preventing it from wandering within larger networks. While it would be fair to question whether or not Freudian/Lacanian psychoanalysis—theorized on the relations of distinctly male and female bodies—would or should apply to the people of Covenant and their

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28 “Oceanic,” 22.

29 Lateral gene transfer refers to the condition in which genes are not only passed from parent to offspring, but parent to other parents, within the same lifetime.
phallus-exchanging bodies, Martin’s resolve to get back his original bridge is clearly a response to castration, the literal as well as symbolic loss of the phallus.

Much more could be said about sexuality and Egan’s novum of a phallus-exchanging society in which men and women can equally bear children, but one conclusion we may draw involves the relation of depth to loss of the phallus, where feminine depth implies masculine vulnerability, castration, and existential crisis. We see this in a very physical way when Martin regains his bridge from Lena through intercourse, where she takes on the male role. The ocean microbes, symbolically allied with the feminine, also parallel Lena’s role: they too penetrate through Martin’s skin chemically and spiritually through their excretions. Thus, the ocean depths are not only a place where one penetrates, but a place where one is subject to chemical penetration by the drug-like excretions of microbes. Martin’s discovery of the effects of Z/12/80 microbes fractures not only his relation to Beatrice and the Deep Church, but to the feminine that Beatrice, now aligned with microbes, symbolizes. Whereas Martin’s initial sense of depth (joining the “Deep Church”) implied unity with Beatrice and the deepening of sacred knowledge, by the end of the story, the sacred “depths” have been rendered “surface” (the known, accessible, literal, secular), as Martin realizes that there is nothing spiritual or transcendental beyond the physical ocean, only microbes producing their all too material excretions. To quote playwright Bertolt Brecht out of context, the ocean turns out to be “just depth” after all, the wellspring not of a mystical religious feeling, but only of microbes. For Martin, depth as “just depth” forestalls curiosity about any spiritual beyond. The ocean, no longer the sacred place of transcendence, becomes mundane, explainable.

30 “You’ve got to look around in Kafka’s writings as you might in such a wood. Then you’ll find a whole lot of very useful things. The images are good, of course. But the rest is pure mystification. It’s nonsense. You have to ignore it. Depth doesn’t get you anywhere at all. Depth is a separate dimension, it’s just depth—and there’s nothing whatsoever to be seen in it.” Quoted by Walter Benjamin in Understanding Brecht (London: New Left Books, 1973): 110.
Despite these revisions of a depth as a place and a concept, I want to end on a final scene from “Oceanic” that recuperates the “oceanic feeling” as sense of unity and connection.

“Oceanic” challenges us further to consider concepts of surface and depth not as anthropocentric, but as trans-species in origin. After the incident at the bay of concentrated microbes, Martin wanders over to the steps of a church to sit down in despair. A church member calls out to him and asks, “Do you need a room? I can let you into the Church if you want.” Martin declines, but as the man walks away, Martin asks him, “Do you believe in God?” The man hesitates before replying,

“As a child I did. Not anymore. It was a nice idea... but it made no sense.” He eyed me skeptically, still unsure of my motives.

I said, “Then isn’t life unbearable?”

He laughed. “Not all the time.”

The man’s offer of shelter is key. Because “Oceanic” ends on this extension of hospitality, we could say it offers an alternative possibility that an oceanic feeling doesn’t have to be guaranteed by a divine being such as Beatrice. Instead, the oceanic feeling might be generated by human relations, a sense of home, of being together, anchored by human community, a situation where life isn’t unbearable all the time. Although the source may change, the feeling might remain. However since Martin declines the church member’s invitation and extension of hospitality, it seems that the secular oceanic feeling is not a precondition of existence, but a conscious choice to develop community.

Another reading would be more radically ecological: the discovery that religious faith is the product of microbial excretions chemically affecting humans suggests that spiritual depth depends on microbes; it is a relational, trans-species phenomenon that literally does connect

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31 Egan, 36.
Martin with his home planet in a physical and intimate way through a chemical that he takes out of the environment into his body. What oceanic feeling indicates then is not the holy presence of Beatrice, but the sublime presence of microbes as they affect human beings. Furthermore, the new ecological basis for oceanic feeling is fundamentally \textit{unnatural}, since Covenant’s Z/12/80 bloom only happened as a response to human terraforming of the planet. In this way, “Oceanic” dramatizes a shift from an anthropogenic view of embodied metaphor to a more expansive sense of how non-human others might influence the way that human subjects experience embodiment and depth.\footnote{I want to qualify my use of “human” here by reminding the reader that the people of “Oceanic” are biologically different from Earth’s humans, because males can give birth, and the phallus can be passed between any couple.} Going beyond Lakoff and Johnson’s thesis that human embodiment informs the metaphors we use to cognize our world, Egan’s fiction opens the door to thinking about ways that non-humans (microbes) might influence—or might already be influencing—human figurations and metaphors of depth. In this way, both science fiction and metaphor theory relate to the provocations of S. Eben Kirksey and Stefan Helmreich’s article, “The Emergence of Multispecies Ethnography,” which calls on anthropologists and other humanists alike to consider how the lives and deaths of non-human organisms affect human social worlds. I read \textit{Solaris} and “Oceanic” as narratives that suggest a practice of literary criticism that opens to multispecies relations, particularly sensitive to the ways that the metaphors we use depend on particular framings of ecological interconnection. If we take Egan’s microbes seriously as co-producers of the depth, then we need to think about the trans-species creation of metaphorical meaning. This perspective suggests that the non-human already inheres in the human, where metaphor is not only informed by vertebrate embodiment but also by a multitude of other beings that live, die, and become with us in the world.
Depth and Ecologies of Metaphor

In this chapter, we looked at how *Solaris* moved away from a hermeneutics of suspicion (as practiced on Rheya), a model of reading that probes for the hidden or masked meanings of a text, and instead explored the possibility of “depth reading” as the co-creation of meaning practiced by two aware participants in a moment of mutual curiosity. This repositioned Kris Kelvin from being a distant observer on the surface-looking-down to being an immersed participant in the process of deepening a relational knowledge between himself and the curious ocean wave he interacted with. “Oceanic” also built upon this relational sense of meaning, continuing to move us away from a sense of the depths as a site of transcendent knowledge. Once Martin discovered the Z/12/80 microbes and linked their pharmacological effects with the deep-water baptism he experienced as an adolescent, he lost faith in holy Beatrice. That which was deep (oceanic-religious feeling/sexual awakening) was exposed as surface (knowable, not transcendent, secular). Yet the ending of the story suggests that despite being knowable scientifically, Covenant’s microbes still play a role as co-producers of “oceanic feeling”—oceanic feeling the immanent ecological relation of members of a community.

*Solaris* and “Oceanic” share a similar methodology: through the medium of science fiction, they denaturalize the relationship between literal and figurative depths. By experiencing other relationships to the ocean depths than that presumed by the “depth reading” metaphor (with the interpreter on top, meaning hidden below), these texts offer alternative spatialities of interpretation by putting fictive protagonists and the reader in a different relationship with water. Note that both narratives end in the liminal space of the coastline, between solid ground and ocean: *Solaris* next to ocean waves, “Oceanic” at the site of a sacred bay. Ending in such a space
of dynamic change and negotiation, these new relationships with water move us away from a hermeneutic practice that brackets out the observer and instead towards considering the relationality of knowledge production. A model of interpretation based on the terrestrial observer above is not inevitable just because it is in our way of speaking; these science fiction stories ask us to rethink the way that we position ourselves in relation to the waters, to others, and how the dynamic tidal space of contact might offer an alternate and more mutualistic space for interpretive practice and sensing ecologies of metaphor.33

33 Although from a different literary and critical tradition, Kamau Brathwaite’s “tidal dialectic” and Elizabeth Deloughrey’s elucidation of the concept in Routes and Roots: Navigating Pacific and Caribbean Island Literatures (Honolulu: University of Hawai`i Press, 2010) also offer valuable perspectives on figurations of the tides.