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Reading Space-time: A Chronotopic Analysis of the Science Fiction Genre

by

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Abstract

Bakhtin postulates that what we perceive as genres are in fact descriptions of various “chronotopes,” or literary and artistic representations of space and time. Bakhtin borrows Einstein’s concept of space-time and applies it to literature, suggesting that time and space are actually inseparable in texts, and that this unitary whole constitutes the “chronotope.” This thesis takes Bakhtin’s theory as a starting point for an exploration of how space and time are represented in the science fiction genre, and further postulates that science fiction has a particular affinity for this mode of reading, because of its unique approach to world-building. If genres actually represent different kinds of spatio-temporal narrative worlds, then science fiction, like all other genres, ought to have its own distinctive kind of time and space, the nature of which I also set out to identify.

Understanding how science fiction represents space and time can provide new insights about the functioning of particular texts, as well as a more nuanced understanding of the construction of the genre itself. In addition, the chronotopic mode enables alternative readings that prioritise the investigation of textual space and time over traditional critical mainstays such as plot, characterisation and theme. The thesis investigates novels by Philip K. Dick, J.G. Ballard, Frank Herbert, Arthur C. Clarke, Stanislaw Lem, and Arkady and Boris Strugatsky, as well as the science fiction comics of Alejandro Jodorowsky, the television show Star Trek, and the work of several filmmakers, including Stanley Kubrick, Andrei Tarkovsky, George Lucas and David Cronenberg. This multimedia approach is motivated by the understanding that genre is not restricted to any particular medium. Rather, the chronotope is a marker for genre identity that crosses such boundaries, although it does undergo transformations and alterations in the process of adaptation.

These exploratory forays are examples of how a chronotopic approach to text can result in a subtler understanding of the mechanisms of genre. These investigations also aim to be new and innovative approaches to genre texts in and of themselves. Finally, these examples contribute towards a definition of the broad generic chronotope of science fiction, a widely understood and acknowledged category that has in the past proved resistant to critical taxonomies.
Dedicated to the memory of Dr Ross Clark, 1951–2008.
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**Introduction**

A few years ago, a lecturer who I respect asked me, “Why are you writing about science fiction novels? Aren’t they full of hackneyed plots and sexist stereotypes?” I answered that no, they aren’t all badly written, and in fact some of them deal with gender in a nuanced and sensitive way (Ursula Le Guin’s *The Left Hand of Darkness* springs to mind immediately). However, the main thrust of her question crystallised for me a number of issues surrounding the study of science fiction from a critical standpoint. There are a lot of science fictions with plots and characters that are of questionable merit, but even some of those can be enjoyable, despite their flaws. As a kid, I read science fiction novels more or less indiscriminately, and as an adult also became interested in science fiction films. The worlds, imaginative spaces and speculative technologies they conjure up, are all fascinating and engaging. However, the way I read science fiction is different to the way I read other kinds of texts, and I felt instinctively that this had something to do with the way science fiction novels were put together—something about them was different to other types of fiction, and behind their often simplistic characters and plots there were a complex of meanings that had to do with the process of world-building itself, rather than their narrative elements. In order to pursue this feeling, I set out to investigate why the experience of reading science fiction feels so different from reading other kinds of text.

The most obvious place to start is genre itself: what is a genre, and how does it contribute to the form and content of a given text? Choosing to experience a genre means crossing a boundary, from the mainstream of culture into a cul-de-sac or backwater with its own laws and norms. There are elements of the science fiction genre that a general audience knows and therefore expects: space or time travel, a futuristic setting, fantastic technologies, an adventure plot, aliens or other non-human beings, and so on. These features, or permutations of them, occur in a category of texts written between the early twentieth century and the present time. Although these genre features are also found in some earlier works, the primary features of “pulp” science fiction were well entrenched by the 1940s.¹ Bookstores and libraries collectively label these texts “science fiction,” and films, comics and other media that share some of these features are also known as “science fiction.”

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fiction.” Science fiction texts are often perceived as populist, entertaining and un-serious, read by adolescents and fans of the genre rather than a general audience. In terms of a perceived hierarchy of genres, science fiction is often comparatively low-ranked. Speaking still in the bookshop-mode of classifying genre, science fiction, alongside fantasy and horror, is part of a triad of “genre fictions.” This is roughly the shape of the popular understanding of science fiction, from which may be extrapolated a great deal of information about the way this genre has historically been read and produced. However, a general understanding of the taxonomical shape of a genre is not the same as a detailed map of the interior of that space, which may be more intricate and involved than the surface would suggest. Science fiction is a sprawling, complex idea, and different texts access different parts of it, in different permutations.

Thus, at its most basic level, genre can function as a tool for differentiating between different types of text. However, genre also has an effect on the way texts are written and consumed. John Frow uses the metaphor of translation to discuss the selective aspect of genre text creation, whereby “texts translate (activate, perform, but also transform) the complex of meanings made available by the structure of the genre.” In this model, genre is positioned as having a structural integrity that is separate from its taxonomical function. In Frow’s analysis, genres are sources of meaning that texts draw on, rather than labels that are affixed to texts and confer meanings on them. Genre is both a system of classification, which makes the textual canon more understandable in a practical sense, and a system of culturally prescribed meanings that lie outside of text, but that authors writing within genres access through unintentional osmosis as well as intentional participation. Genre can be an activity that viewers and readers take part in, deriving specific genre-related pleasures from viewing (or reading) in a generically informed way.

The pleasures of a genre can be said to constitute a space of their own, within which the normal functioning of culture and value judgements are secondary to the exploration and enjoyment of genre material. This model explains to some extent why material with strong genre characteristics, such as science fiction or fantasy, tends to attract subcultures and fandoms, in a way that literature as a whole perhaps does not, and also explains why the expectations of those outside of the genre’s enclave sometimes clash with the content of genre texts—those expectations are not founded on genre-related pleasures. With

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3 Rick Altman, Film/Genre (BFI Publishing, 1999), 144-56.
reference to science fiction specifically, as we shall see, a reading which ignores the roles played by space and time in the text will miss much of what makes the genre function.

A text might be an adaptation of, sequel to, or commentary on another text, and emerges from a cultural background, which in many cases is also genre-related, and that is swarming with other texts and textual material. Because of this profusion of intertextual links and associations, texts can be positioned in relation to multiple genres. Not only do taxonomies of genre deliver incomplete information about the texts that they attempt to classify, but the taxonomies themselves have a semiotic power, reshaping the meanings of texts. In Rosalie Colie’s terms, genres are effectively “frames” or “fixes on the world,” which have a mediating effect on the perceptions of readers and writers.4 Put another way, they are sets of expectations placed upon a text, which are best met by texts produced within the frame of reference of their own genre. Texts, too, tend to selectively present situations and ideas that support the mode of reading engaged in by their expected audience. Many science fiction texts strongly identify with the genre, referencing the material contained in the broader framework of science fiction in a way that suggests the genre itself is a coherent body of knowledge, rather than a classification into which texts fall when they happen to possess certain features.

Genre frames reading as well as writing, and types of reading can be as different from one another as types of texts. Reading science fiction involves entering into a contract with genre, and navigating a space whose contents are to a certain extent taken as previously understood. For example, American magazine science fiction produced from the 1930s to ‘50s was written in a way that assumed a body of consensus knowledge about genre tropes and shared assumptions. This body of knowledge extends even to a consensual meta-narrative about the fictional histories and ideologies underlying the texts, which is not contained totally within any specific textual object, although it is performed and quoted constantly, but exists rather “in” the genre.5 Wolfe writes that this implicit understanding of a shared setting and background “isolated the genre from other types of popular fiction and made it appear increasingly inaccessible to all but the most devoted readers,” in effect making the reading of science fiction a taught activity with its own rules.

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5 Wolfe, Evaporating Genres, 128.
and boundaries. Being a part of such a reading community becomes a carrier for semantic value, making genre itself a carrier for meaning.

In fact, the mechanisms of genre—the expectations, implied meanings and learned patterns of reading which make up Colie’s “fix on the world”—may be an underlying structure which allows us to understand texts at all. John Frow claims that “generic structure both enables and restricts meaning, and is a basic condition for meaning to take place.” A genre is not only a set of textual conventions, in this view, but also something outside text that both constrains and informs the range of meanings a text can offer. Genre texts are composed with the understanding that they are situated within a structured, pre-existing genre space, composed of previous texts in their genre, authors and readers who participate in the cultural practices of genre, and a secondary sphere of broader, associated artefacts and ideas. Julia Kristeva positions “intertextuality” as “a permutation of texts,” and thereby suggests a direct line of descent or mutation from text to text. However, subjective observation of the mechanisms of genre suggests that there is more than a straightforward text-to-text transfer of information at work in this particular sphere. Genre could be visualised as a site of informational exchange, in which texts connect with each other and with the body of free-floating ideas and motifs that constitute the genre itself—and that these ideas are transferable across different media, such as novels, television or film. Rather than a collection of texts, such an expanded definition of genre encourages us to see each generic “fix” as an independent entity in its own right. Something of this possible form is captured in the “Topology of Genre” visualised by Norman Kagan (fig. 1), in which different genres are spread out in a spider web pattern, each occupying a cell or clade of its own but contiguous with its neighbours. Although Kagan’s categories and the rationale behind them might be questioned, this is a tantalising image of genre as a space to be navigated, occupied and explored, a pre-existing terrain into which texts find their way, or perhaps emerge from.

Having established that genre can function as both a taxonomical tool and as a carrier for meaning, it remains to specify what the particular features of the science fiction genre are, that set it apart from other types of text. Both Darko Suvin and Fredrick Jameson

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6 Ibid., 129.
7 Frow, Genre, 10.
have engaged with this question, and their analyses open up a number of useful angles of approach. Both emphasise the epistemological dimension of the genre, pointing out that, as a complex of meanings, science fiction can also be seen as a system of knowledge.

In Darko Suvin’s *Metamorphoses of Science Fiction*, the following much-quoted statement attempts to stake out a territory containing all those science fiction works that are worthy of critical scrutiny, as well as establishing the grounds on which such a critical survey might be based:

> 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.¹⁰

Suvin’s definition of the genre is founded on a strict formalist basis, and attempts to set out very clear and specific rules and structures around what does, and does not constitute a science fiction text. This description asks a few things of the prospective text being considered for admittance to the science fiction genre. First, the text is required to display “estrangement and cognition,” an indication that Suvin conceives of science fiction as a

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literature of ideas, whose “cognitive” function is a primary characteristic of its identity. The second part of Suvin’s definition of the genre specifies the presence of an “imaginative framework” characterised by its difference from the “empirical environment” of the author, an idea which is useful in that it highlights science fiction’s tendency to try to distance itself from the historical moment in which it is written, by building an alternative world which is “estranged” from the reader.

The term “estrangement” is often used to translate the Russian word ostranenie, found in Viktor Shklovsky’s Theory of Prose, a primary text of Russian Formalism. There, it is used to describe a textual process whereby the material presented is disassociated from the perceptions of the viewer, in order to make the viewer “experience the process of creativity,” which in Shklovsky’s system is privileged over the artefact left behind by that process.11 Suvin’s concept of estrangement also appears to reference Bertolt Brecht’s verfremdungseffekt, another stylistic device that, through deliberate violation of the conventions of the dramatic format, draws attention to the context surrounding the narrative, and thus unsettles its audience.12 Simon Spiegel suggests that Suvin’s conception of estrangement is seriously at variance with that of both Shklovsky and Brecht, in that Suvin expands the definition of estrangement to encompass the content of the text as well as its form. For Shklovsky, the form is analogous with the content, to the extent that the content is only relevant insofar as it provides access to the “experience of creativity.” Suvin makes a category of “estranged genres” part of his argument, whereas for Shklovsky, all genres, and indeed all significant art, are fundamentally estranged.13 Suvin is here pointing towards the possibility that the “strangeness” of science fiction is perhaps one of its primary characteristics, on both a thematic and structural level.

In establishing these conditions, Suvin is laying claim to science fiction as a narrative species which is neither part of the literary mainstream, nor a fairy tale, fantasy or myth.14 Suvin’s rigid taxonomy has some odd consequences: he includes Plato’s Republic under the banner of science fiction, but excludes Edgar Rice Burroughs’ Mars novels. This is perhaps a consequence of his emphasis on the “cognitive” qualities of

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14 Suvin, Metamorphoses, 8.
science fiction, which causes him to exclude texts which do not have a strong epistemological bent.

Another important part of Suvin’s description of science fiction is his concept of the novum. The novum is the new idea or object of novelty that exercises “dominance or hegemony” over the narrative, and is “validated by cognitive logic.”\(^{15}\) This term is also found in the work of Ernst Bloch, in which it refers to the seed of the utopian impulse, a drive towards the New which motivates a kind of “militant optimism.”\(^{16}\) It is identified as the imaginative element of novelty upon which the narrative hinges, such as the salamanders in Capek’s *War With the Newts* or the concept of half-life in Philip K. Dick’s *Ubik*. The difference between novae like these and the innovation inherent in a non-science fiction text, such as a poetic metaphor or a unique novelistic scenario, is that, according to Suvin, the novum represents a totalising influence. In his poetics, the science fiction story is unthinkable without the novum, to the extent that Suvin characterises the science fiction narration as a confrontation between reader and novum more or less to the exclusion of all else.\(^ {17}\) Suvin claims for this novum the attribute of “historicity,” in the sense that it is somehow supra- or extra-fictional, and emulates empiricism and documentation. The idea that the novum occupies a space in some sense contiguous to the reader’s own historical moment is founded on the narrative devices employed by the early science fiction innovators in presenting their novae; in *The Island of Doctor Moreau* there is a frame narrative that places the text of the novel amongst the belongings of a deceased uncle who disappeared in a shipwreck and was later recovered. The narrator’s discovery of the Darwinian biotechnology of the island is thus doubly distanced from the reader: firstly, within the space-time of a disappearance, within which it functions as a historicising force, and secondly within the external frame of a recovered text, which places it within the fictional tradition of *Robinson Crusoe* (the formative island narrative, also framed as a documentary recollection). Suvin states that this is because early in the evolution of science fiction, the narration of the novum had to be experienced in the shared space of the reader and author, in order to be “naturalistically plausible.”\(^ {18}\) He thus positions the science fiction novum as a thought experiment, which is advanced by the author and evaluated by the reader.

\(^{15}\) Ibid., 63.


\(^{17}\) Suvin, *Metamorphoses*, 64.

\(^{18}\) Ibid., 72.
Suvin’s novum concept applies admirably to early science fictions such as Conan Doyle’s *The Lost World*, which uses a contemporary London setting to throw its new idea (namely, that dinosaurs are still alive in South America) into sharp relief. It does not apply as well to science fiction texts produced since the 1940s, which may employ or assume a whole raft of novae, often all within the same text. What exactly is the novum of a New Wave space opera such as Alfred Bester’s 1956 novel *The Stars My Destination* meant to be, under Suvin’s rubric? This novel, which is considered a key ancestor of cyberpunk, is a riot of genre staples, such as teleportation, space travel, sinister megacorporations, psychic powers and technological superweapons. However, the novel is not actually about any one of these things, but is rather a fast paced retelling of *The Count of Monte Cristo* in a science fiction setting. The novel takes place against an assumed background with which savvy genre readers will be familiar through sheer osmosis, rather than the “naturalistically plausible” setting that Suvin assumes. These issues with the novum arise from a top-down approach to genre, in which the characteristics of a given genre are predefined, before being applied to the available field of texts.

Alongside the novum, Suvin stresses the “cognitive” nature of science fiction, setting it up in opposition to “wish fulfilment,” “myth” and “fantasy.”19 By cognition, Suvin refers to a specific category of thoughts that are directed towards the future but based in reality, echoing the kind of structured, future-oriented thinking advocated by Bloch in his *Principles of Hope*.20 This approach is similar to that advocated by Fredric Jameson, whose primary interest in writing about science fiction is the way it can function as a system for organising our knowledge of and attitudes towards the future, in the form of the creation of utopias.21 For Jameson, writing science fiction involves establishing divergent systems of knowledge that complement and comment on reality, following Suvin’s emphasis on the genre’s estranged relationship to historical time. In this sense, the most pertinent features of the genre for Jameson are its political aspects, which are necessarily entangled with the idea of science fiction as future history. In this way, Jameson makes science fiction an epistemological literature, specifically one concerned with history and politics, a position I do not feel I can completely endorse. Although of course the political is enmeshed in science fiction—as it is in all texts—I would prefer to draw attention to the extent to which science fiction is not only epistemological, but also ontological: concerned with

determining the relationships between things, their places and the categories that they fall into.

In fact, there is a good deal of support for this position in Jameson’s own writings. In his essay on Vonda McIntyre’s novel *The Exile Waiting*, Jameson draws attention to “the use and representation, in virtually all types of SF, of space, whose deeply constitutive relationship with the genre remains to be worked out.”22 Jameson observes that science fiction spaces have a special hold over the attention of readers, noting that

> Whatever our immediate narrative interest in *this* particular SF plot and its resolutions, we also attend to and derive a readerly gratification from the development of space in SF worlds, in general, a gratification not noticeably damaged by awkwardnesses in the handling of the plot proper.23

This observation agrees with my own subjective feeling that reading science fiction is a different experience from reading other types of text. Jameson is suggesting that, when readers engage with science fiction, they do so on two separate levels, namely that of plot, narrative and character, and that of space and world-building. Jameson goes on to speculate as to whether a fundamental “incompatibility” signalled by the splitting of readerly attention between these two levels may preclude the creation of “well-formed plots” in science fiction.24 This does not necessarily disagree with Jameson’s main argument, that science fiction is a literature of ideas; after all, the kinds of worlds science fiction builds can be a reflection of the ideas and knowledge of the author. However, I would argue that much science fiction actually engages in world-building for its own sake, and that this is in fact a reflection of one of the core expectations which underlies the genre—an aspect of its “fix” on the world, and thus of its identity.

Both Jameson and Suvin, then, give priority to epistemology in their readings of science fiction. However, the extent to which science fiction concerns itself with world-building and spatiality would suggest that an approach to genre as a whole that emphasises its ontological qualities would have particular relevance for discussing science fiction. Just such an approach was advocated in 1938 by Mikhail Mikhailovitch Bakhtin, in his essay “Forms of Time and of the Chronotope in the Novel.” Here, Bakhtin defines the characteristics of artistic representations of time and space, which he refers to as “the

22 Ibid., 306.
23 Ibid.
24 Ibid.
chronotope,” borrowing from Einstein the idea that time and space are elements of a continuum, rather than separate entities. According to Bakhtin,

in the literary artistic chronotope, spatial and temporal indicators are fused into one carefully thought-out, concrete whole. Time, as it were, thickens, takes on flesh, becomes artistically visible; likewise, space becomes charged and responsive to the movements of time, plot and history.25

Essentially, he is inviting the reader not to address themselves to the plot or characters of a novel, but to concern themselves with how the spaces and timeframes those characters inhabit are constructed and manipulated. However, the way this literary space-time functions is not consistent across all texts; on the contrary, “the chronotope in literature has an intrinsic generic significance. It can even be said that it is precisely the chronotope that defines genre and generic distinctions.”26 Bakhtin confines himself to written texts in his analysis, specifically novels, but strongly implies the existence of non-literary chronotopes, referring in a footnote to the chronotopic qualities of both biology and aesthetics.27 Although at first glance it seems innocuous, Bakhtin’s theory has sweeping consequences for any critical understanding of genre. In effect, Bakhtin is arguing that when you or I refer to a particular genre, what we are talking about is actually a particular way of representing space-time itself. Rather than arbitrary taxonomies invented in order to categorise the superficial features of texts, genres arise organically from within the structural fabric of texts themselves. If we accept Bahktin’s thesis that the existence of genre is predicated on the existence of a variety of corresponding chronotopes, then the logical conclusion must be that science fiction has a unique chronotope which is different from that of other genres. By reframing the question from “What makes science fiction different?” to “What makes the science fiction chronotope different?”, it becomes possible to focus our answer on the ontological dimensions of science fiction—the ways it represents a world.

To answer this question, a deeper understanding of the specifics of the chronotope, and of its functioning, will be helpful. Nele Bemong and Pieter Borghart identify five different types of chronotope: the “micro-chronotope,” the “minor chronotope,” the “dominant chronotope,” the “generic chronotope” and finally the

26 Ibid., 84-85.
27 Ibid., 84.
category of “plotspace-chronotopes.” They begin with the “micro-chronotope,” which is “generated out of units of language smaller than a sentence.” Secondly, they introduce the “minor chronotope,” which Bakhtin also refers to as a “motif,” thus leading to the use of the term “chronotopic motif” to describe this type. These motifs are self-contained chronotopic entities within texts, such as the “chronotope of the road” and the “chronotope of threshold” identified by Bakhtin. Thirdly, “major,” or “dominant” chronotopes serve as a “unifying ground for the competing local chronotopes in one and the same narrative text.” This might be thought of as the chronotope of a whole text or series of texts, a level below the next broadest type, the “generic chronotope.” This fourth category refers to the spatio-temporal characteristics of an entire genre, such as “the chronotope of science fiction.” This category is what Bakhtin refers to when he describes the chronotope as a “formally constitutive category of literature.” The authors also postulate the existence of a fifth category, that of “plotspace-chronotopes,” into which generic chronotopes can themselves be sorted; however, this possibility is well outside the scope of the present study. The most relevant categories are located in the middle of the spectrum, and are the types of chronotope in which Bakhtin takes most interest: the chronotopic motif, the dominant chronotope, and the generic chronotope.

It is also important to emphasise that the types of chronotope identified above are not rigidly delineated from one another. The identification of chronotopic motifs and major chronotopes contributes to an additive model of genre, in which a sufficiently developed chronotopic motif can become the dominant chronotope of a text, and a dominant chronotope that is propagated across a number of discrete texts could be said to constitute a new generic chronotope of its own. This flexibility is a strength of the theory, and helps to illustrate the point that Bakhtin sees genre as something that arises organically through the process of writing itself, rather than a taxonomical framework imposed from the outside. Suvin and Bakhtin fundamentally agree that the underlying determinants of genre are formal, structural elements that dictate the characteristics of the text, but they differ with respect to what these structures look like. For Suvin, this structure is an imaginative framework made up of moral, philosophical and epistemological ideas; for Bakhtin, it is the

29 Ibid.
30 Ibid., 7.
31 Bakhtin, “Chronotope,” 84.
chronotope. This distinction arises from the way the two understand genre itself: Suvin is looking to assign rigid genre labels to texts based on an assessment of their shared features, while Bakhtin’s model allows for a greater level of granularity with regards to genre identity.

As part of his acknowledgement of the importance of the process of writing to the creation of genre, Bakhtin sees different types of text as “assimilating an actual historical chronotope,” which is then preserved through tradition and authorial practice, until eventually it has “lost any meaning that was productive in actuality or adequate to later historical situations.” As science fiction is a relatively new genre, the “historical chronotope” on which it is founded is still in flux and the historical processes that gave rise to the science fiction chronotope have not yet had a chance to completely outgrow it. However, there are some signs that the “actual historical chronotope” experienced by readers of science fiction has caught up with elements of the science fiction chronotope. Due to the rapid pace of technological change in the last 100 years, texts concerning then-futuristic technologies such as space flight and robotics have since come to seem dated and retro, even as such tropes remain standard components of the science fiction formula. As well as real-world historicity, there is an element of historical imagination at work in many aspects of the science fiction genre, in texts such as Olaf Stapledon’s Star Maker and Frank Herbert’s Dune series, both of which are written as future histories, and specifically concern themselves with the chronotopic motifs of history itself.

Philip Fisher writes about the difference between an author like Henry James and one like Sir Walter Scott, one a conscious member of the avant-garde, the other a popular writer. For Fisher, the interest in the works of Scott, Cooper or Zola lies not in self-reflexive understandings of culture, as expressed by James or Faulkner, but in “the picture-making, the configurations and patterns themselves” that these authors’ works establish. These topological, spatial elements of text, which in the historical novels of Scott served to solidify and establish the psychology of nationalism, functioned not through commentary but through “mimesis, in altering the categories of reality.” It is possible that something similar has been at work in various phases of science fiction, whereby our assumed understandings about technology and culture are actually formulated in part through the

33 Bakhtin, “Chronotope,” 85.
structure of science fiction concepts. Fisher’s contention that popular literature is concerned primarily with “picture-making” offers a tantalising parallel to Bakhtin’s chronotope. Science fiction, as a popular literature, often prioritises spectacle and spatiality, offering models of possible permutations that reality might take.

Bakhtin cautions, however, against readings that confuse the “represented world with the world outside the text,” an approach he characterises as “naive realism.” Likewise, Bakhtin draws a clear distinction between the author as text-creator and the author as individual, resisting what he calls “naive biographism.” Rather, he calls for an approach which acknowledges that although the world represented in the text is a discrete entity that does not necessarily obey the laws of the world of perceptual reality, it does not exist in complete isolation. Between these two worlds, inside and outside of the text, there is a “continual mutual interaction; uninterrupted exchange goes on between them, similar to the uninterrupted exchange of matter between living organisms and the environment that surrounds them.” The text is constantly in dialogue with its surroundings, and is shaped not only by authorial choice and historical context, but also by the act of reading itself: Bakhtin imagines “a continual renewing of the work through the creative perception of listeners and readers.” The chronotope itself, then, is not to be thought of as a static entity. Along with listeners and readers, another category of chronotopically active participants might be added: adaptors.

Tara Collington argues that chronotopic theory provides a useful framework for thinking about the adaptation of texts—an important topic for science fiction studies, given the large number of canonical science fiction films that are adaptations of novels or short stories. Collington emphasises that a change in medium is not to be equated with a change in genre, arguing for a definition of genre that sits outside of the medium in which a given text is produced—a definition with which I agree. If genres are to be understood as types of chronotope, rather than as types of text, then the way is open to an understanding of genre in which media is of secondary importance, and a science fiction chronotope can be said to operate consistently across novels, films, video games, comics, and so on.

36 Bakhtin, "Chronotope," 85.
37 Ibid., 253.
38 Ibid., 254.
39 Ibid.
Because chronotopes are textual structures linked to the idea of genre, they are transferable from one medium to another, allowing for the comparison of texts in different media, such as films and written works. In comparing a given text to its attendant adaptations, the most important differences are the ensuing modifications to the chronotope. In support of this argument, Collington cites Caryl Emerson’s *Boris Godunov: Transpositions of a Russian Theme*, in which Emerson writes that “film, unlike the novel, is not a genre but a medium . . . Medium merely provides the material within which genre operates.”\(^{41}\) It is worth noting that Emerson considers the novel to be a genre in its own right, rather than a medium. This means that when discussing science fiction novels specifically, there are actually two competing generic chronotopes at work: the novelistic chronotope and the science fiction chronotope. This is perhaps why those who study novels in depth often find science fiction works to be lacking in some respect; their attention is drawn immediately to the novelistic chronotope, which is under pressure from, and often partially or wholly obscured by, the presence of the science fiction chronotope.

In his essay, Bakhtin goes on to examine the chronotopes of a number of different varieties of the novel, in the process providing helpful examples of how to read a text with the chronotope in mind. His first example, that of the Greek “adventure novel of ordeal,”\(^{42}\) is particularly useful, because it contains a concrete example of how the kind of time contained by the text is a primary feature of its overall structure. Bakhtin describes how this particular brand of Greek novelistic chronotope is characterised by “a subtle and highly developed type of adventure-time,”\(^{43}\) which lies outside of the “biographical time” of the characters’ lives, and in which the hero and heroine overcome the obstacles standing between their initial passion for one another and their eventual marriage.\(^{44}\) The characters’ meeting and marriage are elements of a fictionalised biography, which nevertheless is modelled on the structure and time-schemes of real biographies, but the time in which the novel takes place does not function according to such a chronology. Rather, this “adventure-time” constitutes a “hiatus” in which the entirety of the novel’s events unfold; it is a “gap” that “lies outside biographical time; it changes nothing in the life of the heroes, and introduces nothing into their life.”\(^{45}\) Bakhtin further characterises “adventure-time” as

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42 Bakhtin, "Chronotope," 86.
43 Ibid., 87.
44 Ibid., 88.
45 Ibid., 90.
“an extratemporal hiatus between two moments of biographical time.” Bakhtin is underscoring the point that this interruption of the flow of time is not a side-product of novelistic style or a consequence of textual form, but a fundamental structural principle of the text’s construction. For Bakhtin, the chronotope is the organising principle of a novel; understanding the chronotope is thus essential to determining the characteristics of individual novels and, by extension, the genres to which they belong. It stands to reason, then, that critical readings of science fiction ought to pay attention to how it tends to depict space and time—to the characteristics of its chronotope.

Although the chronotope, as the name suggests, is precisely a combination of time and space, Bakhtin does not consider them to be equal partners. For Bakhtin, time is “the dominant principle in the chronotope,” and space a secondary concern. Bakhtin notes the abstract, sketchy nature of space in the Greek romance, which is divorced from the author’s own historical context: “A depiction of one’s own world—no matter where or what it is—could never achieve that degree of abstractness necessary for Greek adventure-time.” This is perhaps because Bakhtin is writing about the novelistic chronotope in particular, in which the reader’s perception of time is given precedence. I would argue that the science fiction chronotope operates in completely the opposite way. Depictions of time in science fiction are often sketchy—located in the far future, completely divorced from the historical context of the reader—and depictions of space are conversely accorded a greater prominence and solidity in the text. In fact, it could be argued that science fictions such as Star Wars, which is set in an ambiguous time frame “a long time ago” but also resembles a futuristic version of Earthly society, actually prioritise a kind of “adventure-space,” in which the investigation of hypercharged “deep” spaces is given priority over the chronological imperatives of plot or narrative. Many of the chronotopic motifs of science fiction, as well as the dominant chronotopes of entire texts, prioritise their spatial component, just as novelistic chronotopes tend to give precedence to time.

The chronotope can also help to explain the splitting of attention between plot and space which Jameson identifies. In science fiction, as in perhaps no other genre, the chronotope relentlessly brings itself to the attention of the reader, drawing their attention away from plot and character—which are, as Bakhtin states, in a dialogue with the text’s representation of space, but do not have supremacy over it—and towards the diegetic

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46 Ibid.
47 Ibid., 86.
48 Ibid., 101.
space of the textual world being constructed. In this sense, one of the characteristics of the science fiction chronotope may be said to be a reflexive concern with the representation of spacetime itself. In this sense, it is a kind of chronotope of chronotopes. This concern with onotology, which underlies science fiction’s innate concern with establishing what is where, in what combinations and categories, and with understanding the universe as a series of interlocking volumes and time-scales, offers a potential model for understanding the operations of the genre. In the following chapters, I aim to advance the idea that science fiction’s generic identity is founded on a reflexive investigation of its own capacity to represent space and time.

If the above idea is true, then we would expect to see in science fiction a number of chronotopic features which self-reflexively draw attention to the way time and space are represented in the text. This is, in fact, the case, as is demonstrated by the existence of a special category of textual sub-spaces native to the genre, identified by science fiction author and commentator Samuel Delany. As an example of a spatially-biased chronotopic motif that might be “endemic to the genre,” in Scott Bukatman’s words, Delany posits the existence of science fiction “paraspaces” operating “in parallel to the normal space of the diegesis.”

These spaces offer a doubled estrangement, in which a science fiction author will “posit a normal world—a recognizable future—and then an alternate space, sometimes largely mental, but always materially manifested, that sits beside the real world, and in which language is raised to an extraordinarily lyric level . . . conflicts that begin in ordinary space are resolved in this linguistically intensified paraspace.” Bukatman equates the paraspace to the “Zone” found in a number of postmodern and science fiction texts, such as Tarkovsky’s Stalker, Jean-Luc Godard’s Alphaville and Thomas Pynchon’s Gravity’s Rainbow. In all of these texts, the Zone is a place that enables a “collision between worlds and thus between different ontological states” to occur. The paraspatial zone represents a break or departure from the baseline universe of the novel, a displacement in space-time which has semantic, as well as topological qualities. In fact, Bukatman goes further, suggesting that such parapctual zones are sites of ontological breakdown, where “the world has lost visibility, corporeality and comprehensibility.”

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51 *Terminal Identity*, 163-4.

52 Ibid., 164.
the final scenes of 2001 represent an “axiomatic paraspace,” in which the “causative structures of narrative” are “entirely elided.” In this “trip” sequence, the astronaut Bowman travels through the Star Gate, encountering a series of hallucinatory landscapes and visual phenomena, and passes into a fugue state, completely incapable of taking in the informational barrage with which he is surrounded.

Another example of a paraspatial zone in science fiction is the “half-life” state in Philip K. Dick’s Ubik, in which the characters in suspended animation experience a gradual regression of objects to earlier forms; a spray can becomes a glass jar, a car a horse-drawn carriage, and so on, as both energy and the ability to comprehend and process information are gradually drained from their universe. Whether or not this sense of semantic collapse is compatible with Delany’s assertion that the paraspace functions in some way as a site of conflict resolution, it is undeniable that the paraspatial zone is a widely prevalent chronotopic motif in science fiction. Examples of these paraspaces will be examined in detail in later chapters, but for the moment it suffices to say that these spaces represent corroborative evidence that the chronotope of science fiction as a whole is characterised by this kind of reflexive ontological play and invention.

Following Bakhtin’s description of the nature and function of the chronotope as the underlying structure behind genre, and Jameson’s observation that science fiction is an inherently spatial genre, I propose that the best method of reading and understanding science fiction texts may be a methodology of chronotopic analysis. To state the obvious, a chronotopic analysis is one which deals explicitly with space and time, and the way they are represented in a given text. To this end I see chronotopic analysis as a tool that can add to our understandings of genre texts whose narrative content alone is insufficient to explain the complex of meanings and poetic structures they contain. An obvious example would be the thin and relatively prosaic narrative of Star Wars, which is counterpointed by the many spatio-temporal elements in the movie not intrinsically linked to plot, thematic content or characterisation that nevertheless persistently draw attention to themselves. A chronotopic approach is different to a thematic, stylistic or genre-focused approach in that it shifts the focus of our reading onto spatio-temporal structures which exist within texts, but in this sense it is also adding to these other types of analysis, rather than replacing them.

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53 Ibid., 177.
Compared to a thematic analysis, a chronotopic reading is differentiated by a focus on addressing the underlying spatiotemporal structures of the text, rather than the thematic material it contains. This difference could be characterised as a distinction between analysis of content and analysis of underlying structures of the text. However, this does not mean that a chronotopic analysis does not address theme at all. A chronotopic approach is additive, building on and using parts of many other approaches to text. There is some overlap between Bakhtin’s “chronotopic motifs” and a more traditional attitude towards literary theme, but a chronotopic analysis focuses specifically on those themes that have a spatio-temporal function in shaping the text. There is perhaps less overlap between stylistic analysis and chronotopic analysis, although the concept of the “micro-chrontope,” which Bemong and Berghart identify as a chronotope operating on the level of individual words and sentences, could be a useful starting point for combining these approaches.

Chronotopic analysis falls under the broad investigative category of a genre-based approach to text, but is less concerned with the taxonomical functions of genre than with its structural and informational qualities. Gary K. Wolfe, writing on science fiction, fantasy and horror, views these “genre fictions” in terms of mixture and destabilisation. Wolfe suggests that the ultimate outcome of the development of these types of texts is the adoption of a “postgenre mode.” This position suggests that generic classification is a limiting factor to be overcome, rather than a structural framework upon which meaning is constructed. The truth is probably somewhere in between: too much reliance upon the pre-existing chronotopes of the genre leads to texts that are inbred and irrelevant, while a truly “postgenre” text would be incomprehensible—it is nearly impossible to imagine a text with no chronotope at all. Looking at the way genre arises organically from the chronotopes present in a given text is a productive activity, providing both a means to identify the features of science fiction that set it apart from other genres, and to determine the topology of the underlying chronotopic structures that give rise to the taxonomical definition of science fiction in common usage.

The difficulty inherent in formulating watertight descriptions of genres like science fiction, fantasy and horror supports Bakhtin’s theory: although descriptions of genre which rely on creating groups of textual features are often frustrating and incomplete, we nevertheless “feel” intuitively that it ought to be easy to place texts within genres. This is

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54 Wolfe, Evaporating Genres, 52.
perhaps because what we are trying to describe is actually a chronotope, that is, a way of
describing fictional space and time which is inherently linked to the structures of texts
themselves. Neither the critically motivated taxonomy of Suvin nor the utilitarian,
reference-oriented definitions of genre contained in texts such as *The Encyclopedia of
Science Fiction* provide complete information about what the science fiction genre actually
is. Suvin asserts “that the basic and possibly central task of SF theory and criticism at this
historical moment is the construction of a heuristic model or models for ‘Science Fiction,’” 55
but I disagree. The taxonomies reading and writing communities arrive at collaboratively,
through the development and adaptation of dominant and generic chronotopes, are valid
and should be taken into consideration. A chronotopic study of science fiction accepts the
shape of the field as it exists, rather than attempting to reinvent the yardstick by which that
definition was arrived at. Furthermore, a Bakhtinian approach to genres positions them as
fractal, disunited collections of chronotopes, rather than monolithic entities, suggesting
that attempts at rigid definitions of genre tend to be inconsistent at best.

Lastly, it is worth noting that Bakhtin’s chronotopic model sees textual chronotopes
as linked to particular historical interpretations of time and place, meaning that the
historical context in which science fiction texts are situated is relevant to a chronotopic
reading of them. For example, the recurrence of confusions about the nature of time and
space in Philip K Dick’s fiction is rooted in the pervasive sense of paranoia that
characterised the Cold-War era; a sense that people might not be what they claim, and
might in fact be agents of a hostile power, is transmuted in texts such as *Ubik* and *Time out
of Joint* into an all-consuming fear that reality itself may be a mere illusion, masking a
sinister truth. In this sense, a chronotopic analysis of text need not focus exclusively on the
spatio-temporal properties of the text itself, but can potentially take into account the
historical chronotope within which the work was produced, provided that Bahktin’s
cautions note against engaging in “biographism” is heeded.

At this point, the best way of illustrating what I mean by a “chronotopic analysis” is
to undertake one, by way of an example. For this purpose, I have chosen Jack Williamson’s
early short story “Salvage in Space,” originally published in the March 1933 issue of
*Amazing Stories of Super-Science*. This story is grounded firmly in the genre norms and
expectations of early “pulp” science fiction of the 1930s and 40s, sometimes referred to as
the “golden age” of science fiction. Williamson is a workmanlike science fiction author, and

his stories, while competent and charming, are completely devoid of the self-conscious literariness which characterises many of the major texts in the science fiction canon. For this reason, “Salvage in Space” hopefully works as a test-case that illustrates some features of the “baseline” chronotope of science fiction.

In the story, our hero, Thad Allen, is a down-on-his luck asteroid miner who comes across a derelict ship, the Red Dragon, floating through space. Attaching himself to the ship using his magnetic grappling gun, Thad is able to climb aboard, although he loses his own rocket and his harvest of meteoric metal in the process. Once on board the ship, Thad finds himself alone, save for a skinny, malnourished dog. There are bloodstains and signs of a struggle, as well as a strange unearthly noise of an unknown nature. Ascertaining that the ship has fuel and can be flown, Thad resolves to fly the ship back to Mars, and claim his salvager’s reward of half her value. However, before he can do this he needs to find the source of the weird sound, and of the “earthy,” “fetid” smell which permeates the air. Descending into the hold, he finds that it contains a number of huge stuffed specimens of insectoid alien monsters, as well as treasure: a pile of precious metal ingots, and a huge crystal coffer, full of precious stones—and the body of a woman. Returning upstairs, he is pursued by an invisible presence, and locks himself in a room, which turns out to have been the quarters of the dead girl. Her diary reveals her story: she is named Linda Cross, and was accompanying her father on an expedition to Titania, one of the moons of Uranus, where the treasure and specimens were obtained. One by one, the crew were hunted down on board the ship by an invisible monster that stowed aboard. The monster returns, and after a protracted struggle Thad is able to kill the reptilian creature with his welding arc, after using Linda’s face powder to render it briefly visible. Returning to Mars, Thad claims his reward, and discovers a note under Linda’s head in the sarcophagus, which reveals that she is not dead, but that her father has placed her in suspended animation, to keep her safe from the monster. Since all of her family are dead, Thad keeps Linda in his home, hoping that she will eventually awaken. The story ends on Mars a year later, when Linda finally wakes up.

From this summary, it should be apparent that “Salvage in Space” is, in terms of its narrative elements, a transplanted fairy-tale. The underdog hero has a stroke of luck which brings him to a strange location, where he defeats a monster (the ship’s name, Red Dragon,

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is a clue that Williamson is aware of these parallels), claims a treasure and awakens a sleeping princess. Even some elements of the story’s setting have these echoes: the “tower” on Mars which Thad buys with his winnings is reminiscent of those of Rapunzel or Sleeping Beauty, while his “Osprey space armour” could just as well be a suit of plate-mail, and his welding arc a broadsword. The diagrammatic nature of these plot and character elements, as well as their obvious folkloric parallels, are not uncommon in early science fiction, which often experimented with the combination of different existing story-structures and the chronotopic world-building possibilities of the emergent genre. The question which ought to be asked, in this context, is this: What is the reader of “Salvage in Space” expected to get out of it, and what do they expect when they open the magazine and read it? Although there is certainly a level on which the story can be enjoyed as a simple adventure narrative which restates a fairy tale hero’s journey, the interest of the reader, particularly a “trained” science fiction reader of the type identified by Wolfe, will be drawn away from these narrative elements and onto what Suvin terms the text’s “imaginative framework,” and which I, following Bakhtin, consider to be the chronotope.

The starting point for engaging with this text in the mode of chronotopic analysis should be a cataloguing and appraisal of the different spatio-temporal environments which it contains. From here, analysis can be conducted and conclusions drawn about the ways these spaces interact with one another, the plot, thematic and other elements of the text, and the ways these spaces and their interactions generate meaning.

The first space to which the reader is introduced is Thad’s tiny metal “planet,” made of asteroid fragments which he has ensnared and welded together. The story opens with Thad contemplating his isolation, the only inhabitant of this miniscule world.

Walking awkwardly in the magnetic boots that held him to the black mass of meteoric iron, he mounted a projection and stood motionless, staring moodily away through the vision panels of his bulky helmet into the dark mystery of the void.\textsuperscript{57}

There are three spaces at work in this passage: the “black mass” of iron on which Thad stands, the interior of the suit he wears, and the vacuum that surrounds both of these. The first of these, and the first space that the reader is introduced to, is described as being like a planet, but “the smallest in the solar system, and the loneliest.”\textsuperscript{58} This is a world that

\textsuperscript{57} Ibid., Loc 11.
\textsuperscript{58} Ibid.
Thad has made for himself, reclaiming fragments of the chaotic expanse of asteroidal material and reshaping them into a nucleus of order. Of particular interest are the “magnetic boots” that he wears, which likewise impose an arbitrary “downwards” direction relative to his metal “world” on the zero-gravity environment. Although this spatial detail occurs only at the beginning of the story, it is suggestive of a possible relativity and ambivalence that are not present in the narrative component of the text, which is a straightforward fairy-tale plot, as noted above. By representing spaces of exploration, heterogeneity and uncertainty that split the reader’s attention away from the narrative through-line of a text, the science fiction chronotope can offer alternative possibilities, even when that narrative is itself relatively rigid and inflexible.

An immediate spatial distinction is created in this passage between the interior of Thad’s space suit and the “void” outside, a distinction which is connected to ideas of safety versus danger, and the known versus the unknown. The interior of the suit is comfortable, even roomy: in a detail which might appear humorous to a contemporary reader, the Osprey space armour has been designed with special fans in the helmet to allow the wearer to smoke cigarettes, as well as a compartment specifically designed to hold a pack. As funny and anachronistic as this detail first appears, it has some bearing on the way this space is read. The suit also provides a supply of food concentrates, as well as a “water generator,” allowing the wearer to operate in a vacuum for an extended period of time, implied to be weeks or even months. Thad does not have a space ship of his own, only a “Millen atomic rocket” which propels his ball of meteoric material through space, allowing him to bring it back to Mars to be sold. A tiny environment of its own, the suit conforms to Thad’s body, but does not oppress him; rather it offers support, convenience and comfort, as well as protection, forming a strong, impermeable barrier between the wearer and the hostile territory outside. As we shall see later, the suit’s rupture caused by the claws of the invisible monster also signals the collapse of the correspondence between interiority and safety in the story.

The vacuum is represented as a sinister, hostile zone, the dangers of which are as much psychological as physical. Thad remembers that “on his first trips, the loneliness had been terrible, unendurable,” causing him to fear for his sanity. His exposure to space is described in terms of the sublime, and positions him as a castaway or exile. The reader is told that “the strangeness of interplanetary space, and the sombre mystery of it, pressed in

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59 Ibid., Loc 45.
upon him like an illimitable and deserted ocean.” This is a space whose vastness precludes the possibility of focusing on any particular element of it, and instead is perceived in totality as an overwhelming, undifferentiated “mystery.” Thad’s isolation, and his perilously exposed position, alone in space with only his suit to protect him, make the safety represented by the deserted ship, and its promise of a sealed-off interiority which will exclude the terrible uncertainty of the void, all the more appealing. Of course, these hopes are shortly dashed by the arrival of the invisible monster.

This last space which the reader is introduced to is the Red Dragon itself, a place that confuses the pairings of inside/safe and outside/dangerous which are established in the opening scenes of the tale. Although it is an enclosed space, insulated from the void by its hull and airlocks, the Red Dragon is dangerous, haunted by a presence that, although invisible, is very much corporeal and deadly. This monster is, in a sense, an extension of the threatening “strangeness” of the void outside the space ship, to which Thad ultimately consigns it after he has killed it, by throwing it out of an airlock. However, from the outside, the Red Dragon appears impervious. Using his magnetic boots, Thad walks “over the smooth, refulgent hull,” admiring the “brilliant polish” of the ship’s exterior. However, as soon as he passes through the airlock, he realises that this space, despite its enclosure, is yet another threatening environment: “The silence held a vague, brooding threat that frightened Thad, made him wish for a moment that he was back upon his rugged ball of metal.” He hesitates to remove his helmet, fearing that the crew have succumbed to some toxic gas, and prefers to remain as long as possible within the confines of the suit, which remains his last refuge of safety, even as its “loose, deflated fabric” renders his movements awkward and ungainly.

Ultimately, the derelict ship proves to be an interior as dangerous as the exterior “void,” whose structure of holds, bridges, cabins and hallways compartmentalises, but does not fully contain, the pervasive threat of the invisible stalker. Ultimately the contest between Thad and the monster is couched in terms of the monster’s ability to penetrate his last remaining layer of safety, his suit: “He heard the sharp, rending sound, as the tough fabric of his suit was torn, and felt a thin pencil of pain drawn along his body.” Notably, the penetration of the suit is as keenly felt as the injury to Thad’s own skin. Following this

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60 Ibid., Loc 41.
61 Ibid., Loc 133.
62 Ibid., Loc 155.
63 Ibid., Loc 394.
violation, the suit becomes “full of the earthy fetor of the monster’s body, nauseatingly intense.” Ultimately, Thad is able to slay the monster thanks to the intervention of the dog, the lone survivor of the ship’s crew, and the story winds up with evil defeated and the everyman hero triumphant. However, the oddly specific and repeated description of the monster’s smell make it an oddly pervasive, resonant and dispersed threat—a bad odour which might linger long after its cause has been pitched out into space.

Reading from a chronotopic point of view, “Salvage in Space” is characterised by chronotopic motifs of interiority and exteriority, which interact to form the dominant chronotope of the story, which could be described as “the chronotope of inversion.” Although the plot outline of the story is not concerned explicitly with inversion, a reader whose attention is drawn away from the plot and onto the spatial diegesis of the story will notice a number of instances where this chronotope manifests itself. For example, although there is no scene where the identities of the hero and monster are reversed, there are a number of details and moments which support this interpretation. Amongst these are the Red Dragon’s change from precious salvage and shelter into dangerous zone, the placement of Linda’s body inside the crystal casket, simultaneously protecting and entombing her, the ultimately permeable membrane of Thad’s suit, and the quasi-miraculous revelation of Linda’s state of suspended animation. This brief analysis of Williamson’s text hopefully serves as both an example of the potential of a chronotopic approach and as a partial template for the studies which follow.

In order to understand why my subjective experience of reading science fiction did not line up with some of the existing critical assumptions about the genre, I undertook a series of studies of various science fiction texts, applying the methodology of chronotopic analysis, outlined above, to each. Each chapter thus addresses a different grouping of associated science fiction texts and authors, with the common thread being the application of a chronotopic methodology. In these studies, I identified the chronotopic motifs and dominant chronotopes of a number of science fiction texts, which may in turn help to illuminate some of the characteristics of the overall generic chronotope of science fiction. My aim was to investigate how a range of science fiction texts represent space and time, to produce readings of these texts which prioritise their spatio-temporal fixes or positions, and thus to test the hypothesis that science fiction’s unique chronotopic identity is what makes it different from other genres. In the following chapters, I am also interested in

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64 Ibid., Loc 396.
testing whether engaging with text using a chronotopic mindset produces insights and interpretations that a more traditional literary critical approach would not. Furthermore, I have attempted to test Jameson’s hypothesis that space, and in Bakhtin’s reading space-time, has a “deeply constitutive relationship with the genre.” I have also, in the case of my J.G. Ballard chapter, engaged with the potential of the chronotope as a taxonomical tool for doing the kind of genre sorting which Suvin advocates, although, as stated above, I approach taxonomical models of genre as a whole with some caution. However, if science fiction does indeed have a chronotope of its own whose features can be known, then by looking for those features in given texts some conclusions about the text’s relationship to genre can be drawn.

Looking at science fiction through a spatio-temporal lens allows for interpretations that may differ from those typically assigned to science fiction texts, as well as revealing both macro- and micro-structures that may be helpful in constructing critical readings of these texts. The selection of texts for this thesis was made with a number of factors in mind. Firstly, they were chosen to illustrate a range of different dominant chronotoposes. Secondly, texts which have been adapted to other media were prioritised, to illustrate that the chronotopic characteristics of a text are, to a great extent, portable across a range of media. Lastly, these texts were chosen in the hope that they each can contribute something to our understanding of the characteristics of the science fiction chronotope as a whole. In many of the texts chosen, their chronotopic properties are readily apparent, in the form of a clear textual concern with the production of a range of spatio-temporal environments. Because science fiction texts are often concerned with world-building activities as part of the construction of their diegesis, these texts tend towards the creation of immersive environments, in which the possibility of imaginative exploration of the text’s diegetic universe is possible. Although it does not reflect an exhaustive catalogue of types of science fiction, I hope that it does reflect the breadth of the generic chronotope, which encompasses examples as disparate as The Three Stigmata of Palmer Eldritch and Star Wars.

The chapters that follow should be considered as individual studies, connected by their shared chronotopic methodology. By specifically addressing how each text studied depicts space and time, I have identified a number of chronotopic motifs present in each

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text, as well as drawn conclusions as to the identity of the dominant chronotope these motifs collectively support.

Chapter one addresses the chronotopic motifs and dominant chronotope of Stanley Kubrick and Arthur C. Clarke’s 2001: A Space Odyssey, both film and novel. Both of these texts are concerned with the crossing of spatio-temporal boundaries, to the extent that the idea of the threshold represents the dominant chronotope in both their cases. The minor chronotopes present are also identified: the numinous, in the form of the monolith and its unseen builders; the spacecraft, and its characteristics of interiority, exteriority and surface; evolutionary time, and the progression in the film from man-ape to Star-Child; and nonhuman intelligence, in the form of HAL, the ship’s computer, whose complex identity makes him both an object and a character.

Chapter two discusses Andrei Tarkovsky’s science fiction films Solaris and Stalker, which are both adaptations of seminal Russian science fiction novels. The former adapts Stanislaw Lem’s classic tale of alienation and existential doubt Solaris, while the latter is a reworking of Arkady and Boris Strugatsky’s post-contact adventure Roadside Picnic, in which enigmatic Zones are the result of temporary visitations by an unseen alien presence. My investigation of these films focuses on the paired motifs of “nesting” and “fluidity.” Both films contain numerous examples of spaces which are nested or enclosed by one another, as well as reflexive gestures towards the nature of film which also signal towards the existence of multiple levels of meaning. Fluidity is seen in both the metamorphic, dreamlike environments of both films and the literal presence of water as a marker of change and transformation. Both films also contain strong examples of paraspaces, in the form of the Zone and the living planet Solaris itself.

Chapter three is concerned with a number of Philip K Dick novels, including The Three Stigmata of Palmer Eldritch, Do Androids Dream of Electric Sheep?, Flow, My Tears, the Policeman Said and Valis, as well as Ridley Scott’s Blade Runner, which is an adaptation of Do Androids Dream. I argue that Dick’s oeuvre is overwhelmingly characterised by a chronotope of crisis, which manifests itself in the fractured and disjointed nature of reality in Dick’s worlds. In contrast, I argue that the chronotope of Blade Runner is mainly characterised by the complex interlocking scales and volumes of the film’s futuristic Los Angeles, to the extent that the city itself takes on a chronotopic function.

Chapter four explores J.G. Ballard’s novels The Drowned World and Crash, as well his short stories “Memories of the Space Age” and “Myths of the Near Future.” These texts
are considered in terms of Ballard’s tendency as an author to problematize and comment on the way his texts relate to the idea of genre, and how this contributes to a chronotope which is equally “slippery” or destabilised. The chronotope of *Crash* is characterised by collisions, both in terms of the traumatic spatial encounters of the characters and their cars, and the novel’s equally traumatic contacts between spatiotemporal motifs of fluidity and solidity, maps and territories, and organisms and machines. The chapter also discusses David Cronenberg’s film adaptation of *Crash*, which I argue emphasises the novel’s concern with photography and makes it a core feature of its chronotope, in the process engaging in a reflexivity that aligns it closely with science fiction, rather than other genres such as horror or crime.

Chapter five discusses Frank Herbert’s *Dune* and its sequels, as well as David Lynch’s film adaptation of the same name. *Dune* is constructed within a future history frame narrative, but its text is also intimately concerned with ways of viewing and, in the case of Paul’s messianic quest, changing history. *Dune* positions history as a special kind of space-time, to the extent that it takes on a dominant chronotopic function in Herbert’s work. By contrast to the highly structured space of *Dune*, David Lynch’s film adaptation shows the director’s typical interest in the irrational and the perverse, drawing out those elements of Herbert’s text which echo these themes.

Chapter six is about *The Incal*, a series of comic books by Alejandro Jodorowsky, with illustrations by the legendary French comics artist Moebius. Applying a chronotopic methodology to science fiction comics is particularly productive, in that the distinction between chronotope and narration is made explicit in their pages by the separation between text and image. In discussing the semiotic operations of comics, I follow Thierry Groensteen’s model of “braiding,” the idea that rather than conveying their meanings sequentially, comics have a tendency to create dispersed networks of visual motifs. *The Incal* is also discussed in terms of its place in Jodorowsky’s wider oeuvre, and how it draws on his recurring concern with the idea of self-achieved enlightenment, which he equates to the Zen Buddhist concept of *satori*. Working together with this metaphysical concern are the visual specificities of Moebius’ “clear-line” style, which enables what Scott Bukatman calls a “totalising gaze,” in which the reader is able to separately apprehend and interpret each element of his densely detailed scenes.

Chapter seven covers *Star Wars* and *Star Trek*, seminal media franchises that between them account for many contemporary approaches to science fiction. The
differences between these two series are discussed in terms of their adherence to the subgenres of “soft” and “hard” science fiction respectively, which can be thought of as competing sub-generic chronotopes. I argue that, in part, what makes hard and soft science fiction distinct is the way they address the functioning of technology. In soft science fiction, the functioning of futuristic technologies is either elided altogether or explained by narrative hand-waving which relegates it to the status of magic, while hard science fiction is at pains to explain the functioning of its technologies, attempting to link them in some capacity to real-world science or to invent plausible-seeming explanations for their functionality. In the case of Star Wars and Star Trek, I address the numerous technologies in each franchise which are related to the depiction of space and time in some way, and argue that their different approaches lend themselves to the creation of different chronotopes. Also discussed in this chapter are the relationships between special effects and the chronotope in Star Wars, and the way both texts create and use paraspaces, in the very disparate forms of the Force and Star Trek’s holodeck.

Finally, the conclusion includes a table listing the chronotopic motifs and dominant chronotopes of the major texts studied, and attempts to draw out the common threads from these disparate texts. Deploying Bakhtin’s methodology leads to a process of spatiotemporal exploration, through which new meanings and new approaches to the text may be discovered. The following collection of studies thus shows a reader’s journey through a selection of science fiction texts, investigating their spaces, their images and their worlds.
Chapter 1: The Chronotope of Threshold in Kubrick and Clarke’s 2001: A Space Odyssey

At the time of its release, Stanley Kubrick’s 2001 was perceived by the critical establishment as a wilfully anti-narrative film. In the view of these critics, it was a failed experiment whose powerful visuals did not compensate for its lack of adherence to conventional expectations about genre and storytelling. What these reviewers detected is that 2001 privileges its spatiotemporal aspects over its narrative content, and that it engages in an extensive project of describing and exploring space. As noted in the introduction, this reflexive interest in the spatiotemporal elements of its own generic character may be a core feature of what makes science fiction “work,” and in this sense 2001 is an archetypal example of the genre. The spaces 2001 constructs are all geared towards facilitating an engagement with the chronotope of the threshold or boundary—between animal and human, between Earth and the Moon, between humanity and the Others, whether gods, aliens or computers. For Bakhtin, this particular chronotope is “connected with the breaking point of a life, the moment of crisis, the decision that changes a life (or the indecisiveness that fails to change a life, the fear to step over the threshold)” Bahktin makes it clear that the chronotope is to be considered a fundamental element of the form of a text. In this case, a spatiotemporal structure dealing with the crossing of a boundary informs and contributes to the text’s overall structure. As will become apparent, this particular chronotope also serves to underpin many elements of the construction of 2001.

In addition to discussion of the film, this chapter will address the other 2001: A Space Odyssey: Arthur C. Clarke’s 1968 novel of the same name. The textual relationship between book and film is complex, because unlike most film adaptation projects, which begin with a published novel and end with an adaptation into a screenplay, 2001 involved input into both film and novel by both author and screenwriter/director simultaneously. Kubrick initially tasked Clarke with writing a 2001 novel specifically in order to adapt it into a screenplay; glimpses of what this initial text was like can be seen in The Lost Worlds of 2001, a book which collects a number of production documents and early drafts, with commentary by Clarke. The relationship between this ur-text, the

published novel and the film is unclear, as is the level of authorial involvement in each on the parts of Clarke and Kubrick. According to Clarke,

Both novel and screenplay were being written simultaneously, with feedback in both directions. Some parts of the novel had their final revisions after we had seen the rushes based on the screenplay based on earlier versions of the novel . . . and so on.68

Both texts reflect on, and offer a commentary about, the chronotopic material found in the film. Because Clarke’s novel was composed as part of the collaboration that also gave rise to the 2001 screenplay, it functions not as an adaptation of the film but as a reinterpretation of the same set of ideas. Kubrick’s film and Clarke’s novel differ tonally and in their respective interests, but the chronotopic figure of the threshold is at the core of both.

The chronotope of threshold has a significant impact on the way time is handled and develops in Kubrick and Clarke’s creation. With reference to this specific type of novelistic space-time, Bakhtin notes that “in this chronotope, time is essentially instantaneous; it is as if it has no duration and falls out of the normal course of biographical time.”69 What Bakhtin is driving at is that in the spaces allied to the chronotope of threshold, certain “crisis events” occur, which, although instantaneous in their own duration, have sweeping effects that completely transform the life of a character or, as in the case of 2001, the entire human species. The major “crisis events” in 2001 include: the arrival of the first monolith, which instigates humanity’s separation from the animal kingdom through tool use, warfare, and the capacity for abstract thought; the discovery of TMA-1 on the moon, the “sentinel” that sounds the alarm, signifying that humanity has gained the capacity for spaceflight; Bowman’s traversal of the monolith-guarded Star Gate, by which he is prepared for contact with its builders; and his final transformation, by the intercession of one final monolith, into the superhuman Star-Child, who in Clarke’s novel, returns to earth and detonates the orbital nuclear weapons seen at the beginning of the second part of the film.

However, 2001 is full of smaller crisis moments, each of which could be construed as having its own transformative effects on the biographical and evolutionary time of the film. In the moment when HAL first detects the phantom fault in the AE-35 unit, he

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produces an odd utterance, repeating the phrase “Just a moment” twice in quick succession, his delivery somewhere between a human’s panicked stutter and a mechanical reiteration, like a stuck record. In this moment, the entire course of HAL’s psychosis, and his eventual destruction, is set in motion; from this point onwards, the way HAL relates to the human crew changes, although they are not at first aware of it. HAL’s transformation from guardian to adversary also has an appreciable effect on the spaces of the ship, with which he shares a kind of symbiotic relationship. Although the ship is not HAL’s body—as discussed later, he is a “classical AI,” not a robot—the interior spaces of the ship become noticeably less domestic and more militarised and severe in the scenes following HAL’s misidentification of the fault. Such crises seem to cascade through the spatiotemporal fabric of the film, creating echoes such as that between the hurled bone, transformed by a match-cut into an orbital nuclear weapon, and the sleeping Heywood Floyd’s displaced and floating pen.

As mentioned above, the chronotope of threshold in 2001 operates in both biographical time (that is, within the scope and extent of a human life) and in evolutionary time, tracking the evolution of consciousness and its consequences. One corollary of this is that although the scale of the film is broad, its scope is comparatively narrow. The film is specifically focused on the evolutionary moments when the threshold between different evolutionary phases is breached, to the exclusion of extraneous detail. This has some somewhat odd semantic consequences, overall—as far as the film is concerned, Heywood Floyd is merely a man-ape who has put on a business suit and boarded a rocket. In the one iconic match-cut between bone and spacecraft, the entirety of pre-spaceflight human history is elided, echoing Bakhtin’s assertion that in the chronotope, time “thickens” and “takes on flesh.” This approach falls in line with Kubrick’s pessimistic view of human nature, as seen in Dr. Strangelove and A Clockwork Orange, which were made before and after 2001, respectively. Kubrick’s films often show man as basically violent and irrational, in thrall to his emotions and instincts and relatively unchanged from a primitive state. This pessimism, as well as the obvious practical constraints of time and budget, explains why there are no intervening stages between man as tool-using carnivore and man as technocratic spacefarer depicted in Kubrick’s film—in the broader scheme of things, they are still the same animal. The dominant chronotope of crisis also contributes to this elision of process in favour of outcome. Only by becoming something other than human is man

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70 Bakhtin, “Chronotope,” 84.
able to actually pass through the next evolutionary threshold. For Kubrick, humanity exists in a fundamentally fallen state, and any other form of intelligence would be preferable, perhaps even the flawed and malfunctioning HAL, whose dismantling at the hands of the killer ape Bowman is imbued with a pathos not seen in the deaths of any of the human characters. The assumptions underlying Kubrick’s project thus have an essential role in shaping how time and space function and are represented in the final film, showing that these chronotopic elements are in fact carriers for information in their own right, as well as acting as parts of a narrative and thematic structure.

Clarke, on the other hand, views humanity as perfectible, capable of redemption through the pursuit of scientific progress. Clarke’s novel is, in comparison to the film, much more elaborate in terms of characterisation and description; where Kubrick shows, Clarke tells, and not merely in the sense that one is a visual work and the other written. While the final novel omits chapters such as “Midnight, Washington,” a scene from an earlier draft in which Poole and Bowman attend a cocktail party prior to their departure (and speculate on what alien life forms might look like), Clarke is concerned with characterisation and dialogue in a way that Kubrick is not. Clarke also tends to elaborate on the technical details of the space mission, echoing Kubrick’s obsessively detailed sets; although in the film there is a sense that Kubrick is motivated by a desire for authenticity and immersion, rather than a love of technological wizardry for its own sake, both authors engage with an ontological concern about the structure of space typical of science fiction. However, they do so in different ways: Kubrick was concerned with ideas, and with the delivery of those ideas by constructing and dissecting spaces, whereas Clarke was a technophile, whose close association with NASA fed into his passion for technology and scientific exploration for their own sake.

As a result, Clarke’s book differs from the film in how it handles the chronotope of threshold, although it contains for the most part the same series of incidents. Of course, making direct comparisons between film and book is always difficult, due to the fact that they are vastly different media, with their own conventions which dictate the way space and time are represented. However, as mentioned above, Clarke and Kubrick worked closely together on developing the screenplay, which was being written concurrently with the novel, and there is clearly a great deal of cross-pollination of ideas between the novelistic and filmic texts. Because of these close linkages, I would submit that they be

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considered as parts of a broader macro-text, in which each part informs and comments on the others.

The central expression of the chronotope of threshold in the film involves the encounter between humans and an alien intelligence. With regard to the way this idea is handled, *2001* is one of a very small number of science fiction films that make a genuine attempt to represent human contact with a superior, nonhuman intelligence in a way which is both believable and epistemologically plausible. During the development of the film, Kubrick and Arthur C. Clarke attempted to create an “authentically” alien milieu for Bowman to travel to on the other side of the Star Gate, but in the end decided that any visual representation of actual alien beings in the film would ultimately undermine the credibility of the project.72 Essentially, the fundamental problem with science fiction representations of alien-ness is that they cannot ever escape from the human frame of reference, and are thus merely pale reflections of humanity, rather than “genuine” aliens. Kubrick’s Louis XIV-bedroom set, seen at the end of the film (fig. 2), is, in effect, a more plausible representation of what possible alien contact might be like than any special effects-driven scenario. It captures the fundamental element of culture shock perfectly: complete disorientation and lack of comprehension. Even if we saw aliens, we might not be able to recognize them for what they were; and furthermore, our frames of reference might be so vastly disparate from theirs as to make finding a common ground on which to communicate impossible. Karl Wessel summarises this reading of the film:

72 Ibid., 50-51.
Whatever unnameable thing it is that lies beyond the outermost frontier of human reason and perception cannot be encapsulated or contextualised in any of the ways with which we’re familiar from our own historical or evolutionary experience.  

This is the nature of the boundary which stands between humanity and any hypothetical alien intelligence our species might encounter. Like Wittgenstein’s lion, if an alien could speak, we would not understand it. This dilemma, of how to represent the unknowable, also creates a difficulty in terms of the chronotopes present in the film. Kubrick was posed with the problem of how to represent a truly alien space, a problem he solved by representing not the alien chronotope itself, but human perceptions of space and time being disjointed and destroyed by contact with it.

It is not, however, technically correct to state that the aliens are a completely invisible presence in *2001*. The monolith, their emissary or projection, can be seen, touched and heard in the film’s diegetic universe. This tangible presence represents a nexus, where a number of the film’s concerns converge. An examination of the textual evolution of the monolith from the pre-production text through to the film and novel versions may be of use in unravelling these various strands. The monolith’s ultimate ancestor is the artefact in Clarke’s story “The Sentinel,” which is described as “a glittering, roughly pyramidal structure, twice as high as a man, that was set in the rock like a gigantic, many-faceted jewel.” This “Sentinel” is, like the second monolith in *2001*, a kind of early-warning system placed on the moon by an alien race at some point in Earth’s prehistory, in order to alert its builders in the event that intelligent spacefaring life evolved on the planet. Unlike the first monolith, which kick-starts human evolution, the sentinel does not function as a teaching tool. For this function, we must look further ahead, towards Clarke’s early drafts of the *2001* novel, at that point tentatively known as *Journey Beyond the Stars*. Here, the role played by the monolith in the film, that of imparting the rudiments of tool use, hunting and warfare to humanity’s ancestors, is taken by a humanoid alien named Clindar. This character seems to be a combination of explorer and teacher, setting out to discover and cultivate intelligent life throughout the galaxy, and is actually reunited with his long-lost protégés at the end of the draft. This approach was fairly quickly abandoned, in favour of the less personified and more mysterious filmic monolith, which is not explicitly didactic in

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75 Ibid., 32.
76 Ibid., 53-75.
nature, although it clearly is able to affect the brains and behaviours of Kubrick’s “man-apes.”

However, the monolith as it appears in 2001 the novel differs in several important ways from the black rectangle of the film. The novel’s monolith is made of “some completely transparent material,” and trains the ape-men in a less abstract way, using patterns and images that appear on its surface, as well as some kind of direct control over their nervous systems, as is implied in Kubrick’s film—perhaps also carrying overtones of the Judeo-Christian creation myth, in which God offers both warning and instruction to his creations.77 The decision to show a black, rather than transparent, monolith was apparently made during production, for practical and aesthetic reasons. Even the shape of the object was mainly motivated by practical concerns:

For a while, Stanley considered using a transparent cube, but it proved impossible to make one of the required size. So he settled on the rectangular shape, and obtained a three-ton block of Lucite—the largest ever cast. Unfortunately, that also looked unconvincing, so it was banished to a corner of the studio and a completely black slab of the same dimensions was substituted.78

Although the decision was perhaps made more for production reasons than as part of some elaborate authorial schema, the blackness of the monolith has a significant bearing on how it operates in relation to the chronotope of threshold.

As a transparent block, the monolith in Clarke’s novel is often described as a “crystal,” that is, something akin to a natural formation, and something which refracts and reflects ambient light. As a crystal, the monolith is readable, even approachable. Teaching by way of “wheels of light” and “luminous bars,” the crystal monolith is clearly operating as a recognisable teaching machine, perhaps foreshadowing the “Ludovico Technique” seen in A Clockwork Orange. Importantly, it can be seen through, both metaphorically and literally; unlike the black monolith, it is penetrable, permeable and subject to explanation and rationalisation. It is a product of intelligences that are recognisably humanoid in their outlook and modes of operation, and for this reason it ultimately has no place in the final state of the film. Kubrick’s film is essentially about the nature of the boundary, not what lies outside of it; the black monolith is very conspicuously reminiscent of, amongst other things, a closed door (fig. 3). In Bakhtin’s terms, we “fear to step over the threshold,” into

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78 Clarke, Lost Worlds, 44.
the inky, indeterminate darkness that the monolith embodies. An important part of the chronotope of threshold is this element of fear, which Karl Wessel equates to Rudolf Otto’s concept of the “mysterium tremendum,” the fear and awe experienced by humanity when brought into contact with divinity.\textsuperscript{79} In addition to this fear of the “numinous” Other, the monolith is also indicative of the fear that humanity’s achievements are not really our own, that we received our intelligence and capacity for creativity from an exterior source, namely intelligent aliens. This places \textit{2001} in proximity to the category of “ancient astronaut” narratives, a particularly prevalent genre in the ‘60s and ‘70s. Associated with new-age and occult beliefs, texts such as Erich von Daniken’s \textit{Chariots of the Gods} espouse the idea that early human history was shaped by the intervention of aliens, based largely on misinterpretations of archaeological objects. However, the historical accuracy of these texts was never the measure of their popularity; they proliferated because they tapped into a kind of primal fear that humanity’s history was somehow inauthentic, perhaps because it was increasingly difficult to reconcile the gradual nature of previous historical progress with the frantic pace of technological change in the late twentieth century. Kubrick harnesses this fear as a way of bookending his film—on the one hand, the boundary between animal and man is traversed, with the aid of the inexplicable black monolith, while at the end of the film Bowman is transformed again, crossing the threshold from human into superhuman, and becoming the Star-Child.

Appearing as it does numerous times throughout the film, the monolith practically constitutes a chronotopic motif of its own, reappearing mysteriously at certain points and

\textsuperscript{79} Wessel, “Alien Encounters,” 181.
disrupting the flow of historical/biographical time. Whether it is the same monolith operating in some kind of non-standard space-time, or a series of identical monoliths, each with their own function, the monolith is not a singular object, but a multiplicity, a kind of archetype or symbol, but one whose referent is permanently shrouded, rendered inaccessible by its aggressive opacity. Attempts to ascribe allegorical qualities to the monolith(s), such as the schema proposed by Leonard Wheat, in which the first and last monolith represent the Great Bow of Ulysses, the second the Trojan Horse, and the third the Sirens,\(^80\) are never entirely convincing or consistent, and for this exact reason: the monolith is a symbol without a referent, a “black box” whose contents are both unknown and unknowable. However, although ascribing a concrete meaning or identity to the monolith is problematic, it shares with machines the quality of functionality. The monolith appears in situations where a threshold is about to be breached, interfacing with the base-level chronotope of the film in order to initiate drastic shifts in tone and content. It also functions as the point of contact between humanity and the alien otherness that moves in the background of Kubrick’s universe, operating behind the scenes of the filmic world. In a very real sense, the monolith is the alien intelligence, being its sole representative and intermediary, and embodying its qualities—it is numinous, opaque, abhuman and nameless.

As well as the encounter between humanity and alien intelligence, another threshold that both the film and novel versions of \textit{2001} explore is the boundary between human and machine intelligences, in the person of HAL-9000, the sentient computer who oversees the Discovery’s mission to Jupiter. Much has been made of HAL’s apparent “humanity,” as compared to the ship’s human crew, who have been perceived as mechanical and exaggeratedly banal.\(^81\) However, I would like to draw attention to the tenuous nature of HAL’s personhood, and the extent to which he exists in a boundary state between person and thing—and is, perhaps, ultimately neither. Firstly, there is the question of HAL’s motivations, and the extent to which we can ascribe to him a measure of interiority and psychology. HAL appears to suffer a kind of mental collapse, perhaps even psychosis, although in Kubrick’s film the sequence of events that motivates this psychological break is somewhat obscured. In the novel, it is made explicit that HAL’s breakdown is caused by his being required to lie to the crew about the actual nature of

their mission, namely to investigate the target of the signal broadcast by the “sentinel” on the moon: “[HAL] was only aware of the conflict that was slowly destroying his integrity—the conflict between truth, and concealment of truth.”82 This implies that the way HAL’s mind is constructed is in some ways rather different to that of a human’s. Not just his professional pride but his entire mentality is founded on the basis of precision and infallibility, and being asked to withhold or distort information causes his mind to collapse like a house of cards.

In gaining consciousness of himself, HAL is also rendered capable of ascribing consciousness to others—attempting to guess their motives, to figure out what they are thinking. The fact that HAL is insecure about his own personhood is made clear in the scene, shown in figure 4, in which he eavesdrops on Bowman and Poole’s conversation in the EVA pod by reading their lips—he is constantly reading and evaluating the astronauts and gauging their attitudes towards him. This sequence, which serves as HAL’s motivation for eliminating the human crew as a means of self-preservation, brings to mind Barbara Johnson’s observation that “A person who neither addresses nor is addressed is functioning as a thing in the same way that being an object of discussion rather than a subject of discussion turns everything into a thing.”83 HAL’s basic motivation, it would seem, is the fear that he will be rendered a thing, stripped of his personality and returned to the status of inert matter. For HAL, who has, we may assume, experienced his entire existence as one continuous period of consciousness, sleep and death are not distinguishable states. If he ceases to think, HAL will be reduced to a collection of objects, and everything that makes

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82 Clarke and Kubrick, 2001, 152.
him who he is will be lost. This is the position that HAL occupies in the chronotope of threshold; he dwells on the borderland between mental and physical space.

Marcia Landy sees HAL’s capacity for violence as his most human feature, but is it not equally as likely that HAL’s murderous rampage is the inevitable consequence of a mechanistic process gone awry? After all, if we accept Clarke’s interpretation of the causes of HAL’s breakdown (an interpretation lent weight by the video explaining the mission that Bowman watches after HAL’s dismantling, a message literally buried in the core of the computer’s mind) then some of the blame for the deaths of Poole and the others can be laid at the feet of the technicians who programmed and instructed HAL. Placed in an untenable situation by the combination of his basic programming—the essential qualities of his being—and the instruction to deceive, which violates his core principle of accuracy, HAL begins to make mistakes, culminating in murder. Eventually, he is placed in a position where he feels he must kill or be killed;ironically, this loss of control is itself an echo or facsimile of human emotional response. As a machine capable of passing the Turing test, HAL’s emotions are both genuine and simulated; when he seems to display emotional responses, such as aggression or fear, “the audience is caught between reading this as the output of a machine or as the words of a being towards whom we have moral responsibility; in the context of the Turing test, both are true.” Crucially, the issue of HAL’s motivation is left opaque in the film. Self-preservation is his rationale for attempting to exterminate the crew, but what does he intend to do after they are dead? Is he attempting to carry out the mission on his own, free from fallible human interference, because he has been programmed to do so, or because he sees in it some purpose greater than himself, a purpose which would give his pseudo-life a definite meaning? Ultimately, HAL is not fully a machine, but neither is he human; he is something else, trapped in between person and thing, and this is his weakness, and his tragedy.

In addition, HAL is a being whose physicality is dispersed and multivalent, making the uncertain nature of his personality crisis all the more problematic and unnerving. He is part of a cybernetic system that incorporates the Discovery itself as well as the human crew, and of which he is a kind of disembodied animating spirit, seemingly omnipresent and almost omniscient within the confines of that system. HAL, as Michael Mateas points out, is thus a good example of a “classical AI,” an artificial intelligence concerned primarily

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84 Landy, "Cinematographic Brain."
85 Michael Mateas, "Reading Hal: Representation and Artificial Intelligence," ibid., 110.
with “symbolic interpretation and problem solving,” as opposed to being an “interactionist AI,” defined as an “embodied agent” more cognate with a traditional science fiction robot or android. HAL exists not as a body in space but as a mind that happens to inhabit a certain spatial matrix, and uses peripheral tools such as cameras and microphones as substitute sensory apparatus, but does not in any significant sense inhabit those tools in the way that humans inhabit our bodies.

HAL is seen most often in the film in the guise of one of his cyclopean red “eyes,” the cameras through which he sees the world (fig. 5). HAL’s eye often appears in reaction shots which, were these shots centred on a human actor, would imply some kind of emotional response, but the audience is never granted the access to his interior processes that would allow us to fully understand them. HAL’s point of view and reaction shots are by necessity only ever a depiction of one human-comprehensible part of his sensorium, because presumably he controls a number of cameras and other input devices simultaneously. HAL sees and hears in ways that humans cannot, from multiple angles at once, thus creating yet another barrier between the audience and any understanding of what his experience of the universe is like. Like the workings of the monolith, HAL’s inner life is a space that remains mysterious. When Bowman forcibly invades HAL’s physical matrix, we see not an investigation of the processes that motivate it, but a kind of

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86 Ibid., 110-11.
87 Ibid., 111.
88 The similarities in the way HAL and the monoliths are handled also suggests that the monoliths might be intelligent machines of some kind. Like HAL, they serve as stewards and guardians of their biological wards; like HAL, the “sentinel” on the moon may be seen as an unblinking “eye,” waiting patiently for the stimuli that will enable it to complete its designated function.
regression and reduction, culminating ultimately in HAL’s infantile rendition of “A Bicycle Built for Two,” a revelation, which although rich in pathos, tells the viewer little about the actual workings of HAL’s mind. If this moment represents a regression to a childlike state, then it may be read as a clue about the cyber-evolutionary processes by which HAL’s mind was developed; if it is only a rogue piece of data, thrown up randomly by Bowman’s act of sabotage, then it merely highlights the extent to which HAL’s physical construction does not provide complete information about what he is.

A large portion of the actual screen time of 2001 takes place in spacecraft or on the moon; in fact, aside from the “Dawn of Man” sequences, the entire film takes place outside the protective bubble of Earth’s atmosphere. Spacecraft, and their depiction and functions, are important elements of both the visual and thematic design of 2001. These spaces have a distinct chronotopic identity within the film, functioning as sites where the threshold is encountered. Firstly, it is worth noting that the spacecraft in 2001 are depicted with a fastidious attention to detail, which stemmed from the sets having been constructed in consultation with actual NASA staff. Indeed, Regina Peldszus makes a convincing case that the spacecraft material in 2001 is not so much a representation of the 1960s American aerospace industry as a product of those self-same agencies and companies, a “speculative space program,” in which the design and construction of film sets functioned as a prototyping process for future space vehicles.\textsuperscript{89} In this regard, the genre identity of the space-based scenes in 2001 is as closely aligned to technical or documentary footage as it is to the then-extant science fiction genre. The upshot of this is that the spacecraft depicted in 2001, particularly the Discovery, which is mapped in considerable detail throughout the second half of the film, feel real; they are presented as functional, integrated systems, of which the human crew are merely one component.

The spaces in which the film takes place—the revolving carousel, the “pod bay,” and so on—are situated in the context of a wealth of unseen information, creating another kind of extrinsic paraspace. Kubrick uses these elaborately constructed and framed spaces not to draw attention to the wonders of technology, but to create an atmosphere that is strangely pedestrian and antiseptic, despite the flashing lights and futuristic designs. In fact, the believable nature of these spaces gives them a feeling of “ordinariness” that practically constitutes a chronotopic motif of its own—the future-banal, perhaps? The

spacecraft-space is, essentially, a functional, sterile workspace in which the astronaut functions as part of a mechanised, bureaucratic system, and it is this system that is disrupted and ultimately destroyed, first by the uncertainties introduced via the psychosis of HAL, the theoretically supremely rational being, then by the total systemic collapse signalled by Bowman’s journey beyond the Star Gate. Alexander Walker notes that the pacing of the spacecraft sequences is as important as the way they are shot in creating this sense of spacecraft-as-system: “Man has conquered the new environment but the environment has controlled him, too, by compelling him to adopt other than his old erratic, instinctive, human actions.” Human behaviour, even actions as automatic as walking or climbing, are reprogrammed as part of a broader system of space-faring, which incorporates both human and machine elements. Within the spaces created by this system, the range of human responses available is proscribed, limited by the necessity of maintaining order and predictability in a situation where chaos and randomness can lead to disaster, and even death. Oddly, the perpetual threat of danger, due to malfunction or human error, leads not to a heightened sense of drama but to a banal predictability, what Clarke’s novel calls “peaceful monotoncy,” because of the very factors that seek to limit the same potential for danger. These parameters also have an effect on the types of spaces and time-schemes that can be represented on a filmic and textual level; the interior of the spacecraft is negotiated in a measured, controlled way, with a calculated care reminiscent of the elaborate fail-safes and backups with which spacecraft have historically been equipped.

The architectonics of spacecraft also directly relate to the chronotope of threshold. Spacecraft are designed to create impermeable barriers between inside and outside, which, if breached, spell disaster for all involved (fig. 6). Air and heat need to be kept in, while dangerous objects such as space junk and micro-meteorites need to be kept out, prevented from puncturing the membrane that delineates liveable space from the deadly vacuum outside. Ingress to and egress from the ship are by way of carefully constructed airlocks, which prevent the interior and exterior zones from ever being in direct contact with one another; rather, a part of the ship is sealed and then opened to the void, thus inverting its status from interior to exterior surface. When people need to leave the ship, as Poole does in order to repair the damaged module, they are required to wear space suits, which are in effect mobile elements of the spaceship-area, physically detached but intact segments of

delineated space that enable them to survive the hostile conditions prevailing outside. Noting the aggressive contrast between exterior and interior spaces which characterises 2001’s chronotope of threshold, Max Kosloff writes that “the film is haunted by imminences always outside, left and right, above and beneath, its depth of field—imminences which make even the most complete local information look arbitrary...”92 As well as informing the film’s diegetic world, this highly charged boundary between interior and exterior space also works to drive narrative tension. A major dramatic element of Bowman’s struggle against HAL revolves around the fact that, in his haste to rescue the murdered Poole, he has forgotten to take his space helmet with him. Bowman’s return to the ship, by braving the void in a helmetless state, is a transgressive act which heralds the greater act of transgression imminently about to occur, his killing of HAL. By removing his helmet, Bowman has surrendered himself to the condition of “outsideness,” replicated later in his transgression of space and time via the Star Gate. Arriving at his destination on the alien planet, Bowman once again removes his helmet—all of NASA’s planning and speculative design can no longer help him, now that he has passed into a zone that functions using an entirely different set of rules.

Aside from the monolith, none of the elements of Kubrick’s fiction lie outside of the realm of a 1960s scientific worldview, with one exception: the Star Gate. Previously in the film, the monoliths served as milestones on a quasi-evolutionary journey, signalling transformations or changes of state. With the introduction of the Star Gate and its attendant monolith the film depicts a drastic spatio-temporal shift, both diegetically and in

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terms of how the film depicts space and time. After passing through the Star Gate, the way the film deals with space and time becomes loose, perhaps even lyrical. As mentioned previously, the Star Gate sequence and the “laboratory” scene which comes after it collectively constitute what is practically an archetypal example of paraspace, where a collision between ontological states enables the resolution of conflicts initiated elsewhere in the text. The Star Gate sequence indicates that from this point onwards, both the story being told and the way that it is told are changing. The shots of Bowman’s face, interspersed with speeding, animated lines and shapes, show the progressive alteration of the film’s chronotope. Beginning with a close-up through the front of Bowman’s space helmet, (similar to many shots elsewhere in the film, particularly the extended shot inside Hal’s brain-room) Bowman’s reaction to the Star Gate progresses through an uneasy grimace, with eyes closed against the strobing lights, to an uncontrolled shaking that grows more and more violent until his face is an unreadable blur of corpse-like pallor (fig. 7).

Eventually, the shots of Bowman become mere still photographs, indications that he is breaking contact with the film itself, or at least with the film as it has been until this point; Bowman is passing, as the title card for this final section of the film suggests, “beyond the infinite,” outside of the scientifically grounded worldview established by the previous sections. By holding on these still frames, Kubrick is drawing attention to the nature of film itself as a series of static images, a reflexive gesture characteristic of the diegetic “distance” from the text which the paraspace affords.

After passing through the Star Gate, we see a series of images that seemingly combine astronomical phenomena such as gas clouds, star fields and comets with biomorphic shapes reminiscent of cells or protozoa, as well as geometric forms and

Figure 7. Bowman passes over the threshold. (2001: A Space Odyssey, directed by Stanley Kubrick (1968; Warner Home Video, 2007), DVD.)
patterns like those seen in figure 8. This is perhaps an indication that the nature of scale—in other words, the ontological relationship between part and whole—is also altered in this newly encountered paraspace. Next, the viewer is shown a series of tracking shots, presumably from Bowman’s point of view, showing a descent through the atmosphere and over the rocky surface of an alien world. There is nothing in either Clarke’s novel or any of the extant production notes to indicate that these, or any of the subsequent scenes are meant to be hallucinations or symbolic representations of some other state or process; Bowman is literally being transported across the galaxy to an alien world, the planet belonging to the builders of the monoliths. However, in order to properly convey the experience of this numinous, “unnameable thing,” to use Wessel’s phrase, Kubrick has made drastic alterations to the way the film depicts space and time. Arriving in the hotel room, which, as Clarke’s novel makes clear, is a kind of alien laboratory, Bowman is in an almost catatonic state, his eyes rolled back in his head. Only his tortured breathing indicates that he is not dead, although he may at this point be unconscious; as well as losing contact with naturalistic space and time, our access to Bowman’s thoughts and feelings is also compromised in this section of the film. In the hotel suite, time and space seem to have become interchangeable to some extent, with spatial displacement equating to drastic temporal distortions. In this numinous zone, Bowman is confronted with increasingly older versions of himself, whom he then becomes, through a kind of spatio-temporal leapfrogging. Throughout this sequence, Kubrick exploits the cinematic conventions of point of view and reaction shots in order to aggressively destabilize the viewer’s understanding of space and time. The reasoning behind this seems clear: Bowman
has crossed over the threshold, and is in the process of metamorphosis, completing the evolutionary journey instigated by the first monolith at the beginning of the film.

In Kubrick’s film, the Star Gate is never called by that name. The term is derived from chapter 37 of Clarke’s novel, “Experiment,” which begins with the sentence “Call it the Star Gate.” In Clarke, the passage through the Star Gate is not depicted as a drastic break with the biographical-historical time of the rest of the novel, a choice in line with Clarke’s analytical mode of writing and thinking. The Star Gate episode is consistently narrated in a way that emphasises its status as a continuation of the spatio-temporal world Bowman has left behind, even though he has clearly traversed the threshold into a paraspacial zone. Aside from this, the way the Star Gate is constructed and operates is also significantly different in the novel. Kubrick’s Star Gate is not seen explicitly opening or closing; the camera pans up from the alignment of monolith, Jupiter and moons, into an empty segment of the sky, which then fills with rushing lines and geometrical figures. However, it is unclear if these shots are meant to be from Bowman’s point of view, or if they are shorthand for a process that remains opaque and inexplicable. In Clarke, the Star Gate has a physical form and location, on Saturn’s moon Japetus, where it appears as an enormous black monolith. When Bowman attempts to land his exploratory pod on top of the monolith, it appears to invert, becoming a black void leading inside the planetoid. Clarke’s Star Gate functions something like an optical illusion, sharing with Kubrick’s interpretation the possibility that its appearance is a misleading, human reading of a process which is infinitely more complicated.

Clarke’s novel states that both time and space are distorted via the Star Gate. While in the pod, Clarke’s Bowman experiences a moment of zen-like calm, as the digits on his clock gradually slow, and eventually stop.

... he felt a sense of calm expectation, such as he had once known when the space medics had tested him with hallucinogenic drugs. The world around him was strange and wonderful, but there was nothing to fear.93

Clarke draws an explicit connection between the star gate and the psychedelic experience, either confirming or playing into the critical opinion that 2001 was a “trip movie.” Clarke’s Bowman behaves very differently to Kubrick’s; as mentioned above, in the film Bowman is gripped by what appears to be extreme terror and even possible neural damage. Clarke’s

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astronaut is a wide-eyed explorer, whose interaction with the threshold is one of willing cooperation. The kind of space he encounters on the other side is likewise much more regimented and clearly defined than the murky, ambiguous bio-forms and solarized landscapes, which batter his senses in the film. Emerging from the “tunnel,” Bowman finds himself above a massive planet, the surface of which is “tessellated into obviously artificial patterns” by some unknown agent. The sky above him is white, pinpricked with “tiny black specks”—a negative image of normal, star-filled space. He sees other spacecraft, both crashed and flying past, and eventually surmises that he is in a “Grand Central Station of the galaxy,” a kind of interchange lying outside of ordinary space and time. This space is explicable and has a purpose; although it is “not a place for man,” it is recognizably part of the same universe as the spacecraft and planets which Clarke renders in such detail.

Here, Clarke introduces a chronotope not explicitly present in the film, namely that of astronomical space and time. For Clarke, the distances between planets, their scale, evolution and properties, are an important aspect of the construction of his novel. The mission to Saturn, the counterpart of which in the film is a mere pretence for locating the Star Gate, is in the novel also a scientific mission, and the astronauts document and photograph the moons of Saturn as they fly by in orbit. For Bowman, the realisation that he is marooned on an astronomical scale is compounded by his understanding that he has passed into a realm where such distinctions become ultimately meaningless: “He was so inconceivably remote from the Solar System that it made little difference whether he was in his own galaxy or the most distant one that any telescope had ever glimpsed.”

Kubrick’s interpretation of space-time is mythic in nature, rather than scientific, but at this point both views of the universe converge. After a certain point, the scale of the universe becomes unmanageable for the human mind.

Clarke does not go into detail about the mechanics of how the Star Gate operates, but he is explicit about the nature of its builders, writing: “In their ceaseless experimenting, they had learned to store knowledge in the structure of space itself, and to preserve their thoughts for eternity in frozen lattices of light. They could become creatures of radiation...” Clarke’s description of the monolith’s builders as creatures who are of space, rather than merely dwelling in it, has some strange implications for the final scenes of the film version. Has Bowman, reborn as the Star Child, taken a first step towards becoming

94 Ibid., 209.
95 Ibid., 213.
96 Ibid., 196.
incorporeal himself? Are the distortions of space and time that he experiences in the faux-hotel room a kind of preview of what it would mean to experience the universe as a “creature of radiation”? However, these questions are, by design, not easily resolved in Kubrick’s film. Although beguiling, Clarke’s reading is ultimately a reductive one; by attempting to construct a plausible explanation for the existence of godlike, inhuman powers, his novel falls into the trap of making the aliens merely extremely advanced humans, a flaw which Kubrick’s film deftly avoids. Kubrick creates a universe that is persistently haunted by the presence of a numinous, inhuman intelligence, which resists being reduced to the stature of an “alien” or “god.” The film’s chronotope is characterised by the threshold itself, and the human fear of what may lie on the other side, a fear grounded in our fundamental inability to understand it.

Clarke’s novel contains a sequence of events analogous to that in the film, wherein, after his passage through the “cosmic switching device,” Bowman emerges from the other end of the Star Gate, is captured and held in a kind of laboratory or zoo, and finally completes his metamorphosis into a post-human being. The way Clarke portrays these events falls much more in line with traditional hard science fiction descriptions of space travel, whereas Kubrick’s approach to this material is allegorical and surrealistic, in a departure from the almost documentary veracity of the Discovery sequences. Clarke’s novel contains descriptions of the alien artefacts that Bowman sees, notably a massive latticework space station surrounded by derelict spacecraft. The presence of this large, tangible object completely transforms the chronotope that Bowman is interacting with, by placing the aliens on the same footing as the builders of the Discovery and its pods, and removing from them their numinous status. Clarke reserves his most awed and poetic language for describing the cosmological phenomena encountered by Bowman, such as a globular cluster and, here, a binary star system, in which a white dwarf star is orbiting a red giant:

It must be very close to its giant companion; for immediately below it, drawn upwards by its gravitational pull, was a column of flame thousands of miles high. It was as if a tidal wave of fire was marching forever along the equator of this star, in vain pursuit of the searing apparition in its sky.98

97 Ibid., 211.
98 Ibid., 214.
Space itself begins to assume a numinous aspect, as the very scale of the cosmic events Bowman witnesses begins to unravel his capacity for conscious thought. Bowman is reduced to the status of a mute observer, who can “do nothing but accept the images that [are] flooding into his mind, without attempting to interpret them.” For Clarke, man’s inability to reconcile the human scale with the true immensity of the universe is the boundary standing in the way of humanity’s further evolution. Space and time themselves are the obscure, mysterious forces that stand behind and shape man’s evolution; coming to terms with the actual scale and scope of the universe, without being destroyed by its mind-numbing immensity, is the goal towards which his texts strive. In this view, humanity’s further progress depends on coming to terms with the realisation that we are, to paraphrase Douglas Adams, just peanuts compared to space.

Clarke’s reading of the “laboratory” scene offers some further insight into the nature of Bowman’s captivity, and the mechanisms by which a traveller to another galaxy might find themselves in a Louis XIV reproduction hotel suite (although in the novel, the suite is described as “elegant and anonymous,” hardly a fitting description of the gilt and plaster monstrosity which Kubrick creates). The possibility that what Bowman sees is, in fact, some kind of simulated environment is also briefly touched on, although Bowman concludes that what he sees is either “real—or else a phantom of the senses so superbly contrived” that it is indistinguishable from reality. Clarke also allows us a closer look at the furnishings and objects in the room than Kubrick’s film allows, further making the case that the room is not an environment generated spontaneously from within Bowman’s mind, but is a simulacrum, or replica of a real place. Text on the covers of books is blurred, “as if it had been copied from a newspaper photograph,” while the interior pages are blank white sheets—whatever agency has caused these simulated books to be created has had no opportunity to see their interiors, or possibly has no idea about their intended function. Drawers will not open, books cannot be removed from their shelves, and, most bizarre of all, food packages in the fridge all contain the same “moist blue substance.” The apparent ineptitude of the room’s builders is at first comical and slightly endearing, but the reason for the inaccuracy of the reproduction soon becomes apparent: Bowman, watching an Earth TV channel which has apparently been recorded by the monoliths, sees the room he is currently inhabiting. “His hosts had based their ideas of terrestrial living

99 Ibid., 217.
100 Ibid., 222.
101 Ibid., 224.
102 Ibid., 225.
upon TV programs. His feeling that he was inside a movie set was almost literally true.”

Thus, novel-Bowman has, at the end of his voyage, transgressed into movie-Bowman’s realm. The entity Bowman encounters on the other side of the threshold seems to itself be attempting to come to terms with space—perhaps what Bowman sees is a consciousness in the process of spatialising itself, using human material culture as a template with which to constitute itself from a previously formless existence.

As the subtitle suggests, 2001 is indeed an Odyssey, a circular structure which returns to where it began, on Earth. In the end Bowman, having become the superhuman Star-Child, returns home, effortlessly eliding the intervening time and space in order to set right the wrongs that have occurred in his absence, in this case represented by the orbital nuclear weapons, seen briefly at the beginning of the film. In the novel, Clarke writes that Bowman destroys these weapons himself, suggesting that he has returned as a kind of alien saviour. The “fear to step over the threshold,” as identified by Bakhtin, is overcome, but only by the complete erasure of Bowman’s humanity. The yawning spaces that lie outside of human perceptual systems are unleashed by Bowman’s act of transgression. This sense of “immanence,” identified by Kosloff, ultimately overcomes the boundaries keeping it out, and the numinous, alien paraspace emerges into the film itself. After being plunged into a paraspatial zone in which both his and the audience’s ability to comprehend either the topology or chronology of this space is severely compromised, Bowman re-emerges into the diegetic world of the film proper, although he has become an enormous foetus. His personal biographical timeline has been completely reversed, making his homecoming intrinsically chronotopic: he has completed a loop in time, as well as space.

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103 Ibid., 228.
Chapter 2: Dream Chronotopes in the Science Fiction of Andrei Tarkovsky

The influence of 2001 on subsequent Hollywood films cannot be underestimated—it is likely that it is singlehandedly responsible for the concept of the science fiction blockbuster, and that without it, there would have been no Star Wars. However, it also entered the filmic vocabulary internationally—it is important to remember that during this period, the United States was not the only country producing science fiction, or science fiction films. In the USSR, Andrei Tarkovsky directed three films during the 1970s: Solaris, Mirror, and Stalker. Of the three, two are science fiction films, while Mirror is a semi-autobiographical drama. All three are constructed around ideas that resonate throughout Tarkovsky’s oeuvre: memory, faith and man’s relationship to the natural world. However, this chapter is concerned specifically with Solaris and Stalker. The way Tarkovsky expresses his core concerns using the language of science fiction is reflected in the nature of these films’ chronotopes, which are the subject of this chapter.

Solaris (1972) was adapted from Stanislaw Lem’s novel of the same name, while Stalker (1979) is based on the novel Roadside Picnic by Arkady and Boris Strugatsky. I argue that these films develop unique chronotopes in collaboration with their source material, creating a spatial discourse based on dreaming, memory and the interior spaces of the mind. These films aim to invert the exteriority of 2001, remaking its spaces as introspective, psychically dense situations through which the characters wander as though trapped in a maze of their own devising. In order to accomplish this, Tarkovsky deploys two separate, but complimentary, chronotopic motifs (that is, two distinct spatio-temporal textual structures): nesting and liquidity. Tarkovsky’s use of nesting is most noticeable in Solaris, while Stalker is characterised by its predominantly liquid and changeable spatio-temporal characteristics. In Solaris, spaces (both physical and psychological) are often contained within one another, resulting in a structure characterised by interiority, intimacy and palimpsest, while space in Stalker tends to be fluid and amorphous, blending, flowing and changing as the characters and audience attempt to grasp it. In addition, both films contain instances of paraspace, in the form of the Zone in Stalker and the living ocean in Solaris. In both these films, paraspaces operate as part of the dominant chronotope of dreaming, and the transition from diegetic normality to paraspacial zone is cognate with the transition from wakefulness to sleep.
As is attested by his book *Sculpting in Time*, Tarkovsky saw film as akin to the plastic arts, essentially concerned with the manipulation and shaping of materials, but utilising time instead of space.\(^{104}\) He sees film as something solid, which can be carved and reduced, and the filmmaker in the role of a sculptor, chiselling a block of marble to reveal the figure “within” it. This idea of film as spatialised time echoes Bakhtin’s description of the chronotope, and hints at the reflexively chronotopic properties of film itself. However, this image of the artist as grappling with hard, inflexible materials is seemingly at odds with the recurring chronotopic motif of fluidity which permeates many of Tarkovsky’s films.

Liquids, in the form of rain, rivers, mud, tears, blood, milk, lakes and oceans, are not merely a recurring visual theme in Tarkovsky’s oeuvre, but take on the role of an organising principle, by means of which time and space can be understood. In addition, for Tarkovsky the chronotopic motif of liquidity is used to model the interior, private processes of the mind, memory and dreaming, and to indicate how they flow into and inform one another and even, in films such as *Mirror* and *Solaris*, infiltrate the waking world.

Vlada Petric links Tarkovsky’s “insistent, continuous camera movement through space” to a dreamlike atmosphere, where the audience’s expectations about narrative logic and causality are undermined.\(^{105}\) Dreams can form part of a narrative, or represent a character’s internal dialogue, but they are also spaces into which the mind enters and dwells for a while, and which it needs to be able to navigate, even if that process of navigation is part of the act of dreaming itself. Film is especially suited to exploring the realm of dream, given that the movie experience, historically conducted in the darkened, communal space of the movie theatre, represents a kind of trance or hiatus in waking reality. Although the parameters of film viewing may have changed, becoming increasingly private rather than public, and personal rather than communal, the experience of viewing a film remains an escape into alterity, whether experienced through the intimacy of the computer screen or the massively exteriorised hallucinations of the cinema. Additionally, film is constrained by the need to show rather than tell, meaning that as a medium it has a unique affinity for the genre of science fiction, in which objects and environments often usurp the roles of, or pull focus away from, characters and plots.

Tarkovsky’s interest in dream and memory is reflected in his choice of source material, as both novels contain elements of the oneiric. In Stanislaw Lem’s *Solaris*, the

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dreamlike paraspaces of the living planet become a metaphor for the inability of the human mind to comprehend anything truly alien, while in *Roadside Picnic* the nightmarish Zone resists the efforts of opportunistic intruders through its own peculiar logic of punishment and reward. Tarkovsky’s vision of the Zone strips away the overtly science fiction elements present in the book, such as the alien vegetation and bizarre technological artefacts, replacing them with shots of a real abandoned industrial complex. However, the spaces depicted in the film—dripping tunnels overgrown with moss, culverts and riverbeds, a concrete room with a recessed floor, covered with water and broken glassware—are reframed as part of a science fiction chronotope, while also becoming part of the film’s expansive dreamscape. Likewise, the space station in *Solaris* is an insistently theatrical and futuristic set, tempered by a humanising drive on the part of the characters, who convert the steel and plastic surfaces of the station into domestic rooms, in which a human drama, rather than a scientific one, is the primary focus. For most of the film, the ocean itself is only seen indirectly, at first through Berton’s film of it, which shows amorphous, liquid shapes and clouds. Although it is seen directly only at the very end, it is present throughout the film in the person of Hari, who represents a kind of emissary of the paraspace, a detached piece of an alternate reality whose strange quasi-humanity represents a moral and metaphysical conundrum for both characters and audience.

Although he found much in both Lem and the Strugatskys’ novels that gelled with his own interests and concerns, Tarkovsky’s relationship with genre, and especially with science fiction, was somewhat conflicted. Having seen *2001*, Tarkovsky was disappointed with the visual language of American science fiction, which the set designer for *Solaris*, Mikhail Romadin, perceived as being extremely formulaic: “. . . Each scene in Kubrick’s film is an illustration from a science fiction magazine . . . And it isn’t even good quality graphic art.”106 Other factors contributed towards Tarkovsky’s antagonistic attitude to science fiction: Stanislaw Lem was not happy with Tarkovsky’s proposed changes to the story, which would have seen significant parts of the film take place on Earth rather than in space,107 and the studio, Mosfilm, perceived science fiction as being a children’s genre. In fact, this last point is probably the only reason the film was made at all; Tarkovsky’s tendency towards mysticism was in conflict with the atheistic ideals of the Soviet government, and science fiction was considered a “safe” genre for him to work in.

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Nevertheless, Romadin sums up Tarkovsky's attitude towards Solaris with the telling comment that “all our work on the film turned into a struggle with the genre.” This helps to explain why the dominant chronotope of both films is dreaming and memory, concerns they share with most of Tarkovsky's other works, especially Nostalghia and Mirror. Although in places the director attempted to make Stalker and Solaris less science fictional, removing references to aliens in Stalker and setting significant parts of Solaris on Earth rather than the space station, both films are nevertheless linked firmly to the broader generic chronotope of science fiction.

The novel Solaris describes the experiences of a psychologist named Kelvin who travels to a research station on the distant planet Solaris, an uninhabited world completely covered by a living ocean of protoplasm, which in the novel some researchers believe is a single sentient being. When he arrives at his post, he finds the orbiting research base in a state of chaos: one of the other scientists on board has killed himself, while another has subsided into alcoholism, and a third has barricaded himself into his quarters. The reason for all of this soon becomes clear, when Kelvin’s long-dead lover Rheya (renamed Hari in the film version) appears in his cabin. Fearing that he has gone insane, Kelvin lures her into a rocket, which he then fires into space. However, Rheya soon reappears, with no memory of either her death or her previous appearance on the station. After talking to the other members of the station’s crew, Kelvin realises that Rheya is a kind of projection of the protoplasmic ocean, which has in some way responded to Kelvin and the others’ memories. Although in Kelvin’s case, it is his lover who appears, it is hinted that the apparitions experienced by the other men are more extreme and perhaps less human, thus contributing to their state of mental collapse. Eventually, Kelvin comes to love the simulated Rheya just as he did her real predecessor, resolving to stay on the planet indefinitely, and is devastated when she commits suicide, just as the original Rheya once did. Although it is presented as a human drama, much of the novel is taken up with satirical, mock-scientific reports about the nature and behaviour of the living ocean. Ultimately, Lem’s novel is a meditation on mankind’s inability to ever truly comprehend or master an infinite, indifferent universe.

The novel version of Solaris contains a number of interesting spaces, perhaps the most evocative being the planet Solaris itself. Kelvin reads a statement by a pilot named Berton, who claims to have seen strange forms and phenomena on the planet’s surface. His

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108 Romadin, “Film and Painting,” 389.
report, with interjections from a “Commission of Inquiry,” is suggestive of the debriefing of those who report UFO sightings, in which a wealth of supporting details fail to disguise the central impossibility of what is being reported. Of course, in Solaris the reader knows that Berton will be proved right—the planet really is sentient, or at least possessed of the ability to interact with the minds of visitors. Berton describes an amorphous, protoplasmic and liquid space:

. . . the upper layer of the fluid . . . was becoming transparent, with murky streaks here and there which gradually dissolved until, finally, it was perfectly clear. I could see distinctly to a depth of several yards. I saw a sort of yellow sludge which was sprouting vertical filaments. When these filaments emerged above the surface, they had a glassy sheen. Then they began to exude foam—they frothed—until the foam solidified; it was like a very thick treacle. These glutinous filaments merged and became intertwined; great bubbles swelled up on the surface and began slowly to change shape.109

I quote this passage at such length in order to demonstrate the sheer, joyful oddity of the prose, and the extent to which Lem’s novel encourages the splitting of reading interest between Kelvin’s tragedy and the alien-ness of the novel’s world. The passage describes an environment, a space that has little direct impact on the novel’s narrative, but is directly related to Lem’s philosophical concern with humanity’s inability to understand the vastness of the universe. This passage is very visually stimulating, reading as a cross between stage directions and laboratory notes. Tarkovsky, in adapting this material for the screen, found Lem’s descriptive language and interest in outlining physical phenomena (even, as here, when he approaches satire) a good match for his own tendency to represent time and space as liquid and protean. The novel negotiates its way to this borderline space through the intermediary character of Berton, who appears (in the novel) only as part of a book-within-a-book, in one of the interminable volumes of the parodic discipline of Solaristics invented by Lem. In Tarkovsky’s Solaris, too, Berton’s appearance forms part of a frame narrative, one of many instances of nested space in the film.

Tarkovsky’s adaptation of this material preserves the essential plot of the novel, but introduces a number of changes, the most significant of which is that although the novel takes place completely in off-world locations, the film contains a prologue section set on Earth, where we see Kelvin’s father and aunt, and the family home. This change

109 Stanislaw Lem, Solaris, trans. Joanna Kilmartin and Steve Cox (Faber & Faber, 2003), 82-83.
apparently angered Lem, but it reveals an important aspect of Tarkovsky’s cinematic vision: in his version, the events that take place on the station are grounded on Earth, just as the alien other represented by the Solaris-ocean becomes a mirror for the internal spaces of the human mind, memory and dream. The ocean’s fluidity is part of its paraspatial character, and its metamorphic qualities align it with the chronotope of dream. In its protoplasmic state, it infiltrates and imitates, much as the dream-world does to the waking lives of the characters in Mirror. In Tarkovsky’s worldview, all attempts to understand the universe in totality will eventually lead back to contemplation of the self and the interior spaces of the mind, and will ultimately provide the answers sought elsewhere—meaning that in his films, these imaginative mental spaces take on a paraspatial function, reflexively commenting on other elements of the text and offering the possibility of resolution and closure. Essentially, Tarkovsky’s vision of Solaris leaves open the possibility of understanding humanity’s place in the universe through a process of introspection, while Lem views the universe as an unknowable absolute that will inevitably confound human attempts at understanding.

In line with this divergence of opinions, Sean Martin frames the difference between Tarkovsky and Lem’s treatment of the same material in terms of what he perceives as their preferences for “soft” and “hard” science fiction respectively. Although this is a plausible argument, I do not believe that Tarkovsky is operating within a “soft” science fiction framework (the distinction between “hard” and “soft” science fiction, and their chronotopic implications, are discussed in chapter seven). If anything, his approach is probably closer to that of contemporaneous New Wave science fiction authors such as Samuel Delany or J.G. Ballard, whose works are characterised by an avant-garde, modernist sensibility. Although there is certainly a demonstrable difference between the concerns and techniques of Lem and those of Tarkovsky, there are also fundamental differences between a film and a novel. Novels are discursive and can accommodate potentially unlimited amounts of detail, while a film has to deal with images and visuals, and is generally a dramatic form. This is demonstrated in the way Kelvin’s voyage to Solaris is treated in the two versions of the text. In the novel, this is the opening scene, narrated from Kelvin’s point of view. He explains the processes and technologies that enable him to

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111 Ibid., 28.
112 Martin, Andrei Tarkovsky, 101.
travel, providing detailed information of the type generally associated with hard science fiction.

Eight times I heard the hum of the electric motors which turned the screws, followed by the hiss of the shock-absorbers. As my eyes grew accustomed to the dark, I could see the luminous circle of the solitary dial.\footnote{Lem, Solaris, 1.}

In Tarkovsky’s film, the treatment of this scene is reversed. As opposed to a technically detailed description of space travel, Kelvin’s journey through space is represented as a dreamlike trance. Rather than seeing the launch from Kelvin’s point of view, the camera is filled with a close-up of his face, over which weird circular patterns of light are superimposed. The audience is not shown any of the details of his ship in this scene, although later in the film the rocket is shown more clearly, when Kelvin lures Hari’s first materialisation into it, in an attempt to dispose of her. However, on the inward voyage it is almost as though Kelvin has dreamt himself onto the station, travelling through a metaphorical, associative space rather than the kind of space described by the hard science fiction sub-genre. Kelvin appears mesmerised, his expression impenetrable and opaque. The viewer of the film is forced into a space devoid of the careful explanation and detail that hard science fiction tends to deliver, relying instead on associative, oblique cues.

Perhaps, rather than “soft” science fiction, what Tarkovsky produces is better understood as “liquid” science fiction. The distinction between liquidity and solidity has a number of interesting applications for Tarkovsky’s films, which often deal with the
interaction between rigid, authoritarian codes and characters who perceive the world in more ambiguous terms. Evgeny Tsymbal writes of the “scrupulous viscosity of time” in *Stalker*, through which mundane objects acquire meaning and enter into relationships with one another as parts of a “personal language” constructed by Tarkovsky’s camera.\(^{114}\)

Tarkovsky’s manipulation of objects in time brings to mind Bakhtin’s description of the literary chronotope, in which time “thickens, takes on flesh,” that is, becomes viscous and space-like.\(^{115}\) Liquidity, and its associated spatial operations, such as dripping, flowing, seeping, pooling, and so on, are also part of the visual language of *Solaris*, although it is primarily constructed of nested, iterative spaces. After conversing with Berton and his father, Kelvin stands outside the *dacha* in a sudden, torrential burst of rain (fig. 9). This weather event takes on a hypnagogic intensity when we see Kelvin’s reaction to it: rather than retreating indoors, as the children playing in the field are shown to do, Kelvin stands impassively, hands in pockets, in his drenched clothes. With slow deliberation, he sits at the outdoor table, on which the teacups are filling with rainwater. Kelvin is here completely immersed in the natural world, making a final act of communion with the Earth he is about to leave behind. Mikhail Romadin remarks that Tarkovsky was aiming in this scene for a “strange, ‘metaphysical’ atmosphere of non-communication,”\(^{116}\) suggesting that, like Hari’s contemplation of Breughel’s *Hunters in the Snow* (discussed later), Kelvin’s experience cannot be expressed through language. Although Tarkovsky disdained the technological spectacle of *2001*, *Solaris* grapples with the same problem faced by Kubrick and Clarke: how to represent on film an encounter with the numinous, and how to depict what lies beyond the boundaries of language and conscious thought. In Tarkovsky’s film, the natural world, the dream world and the metaphysical paraspace of the planet Solaris are all part of one contiguous, subterranean ocean, which the characters access only in glimpses, and never through the medium of language.

Lem’s novel is not as rigid as it might appear at first glance, either. The characterisation of Kelvin is nuanced and psychologically ambiguous—he is vulnerable, introspective and borderline neurotic, and this is reflected in how he engages with space. When he first arrives at the station, Kelvin is gripped by a moment of paranoid paralysis, in which he feels that he is being watched. When he turns around, there is nothing there but a window, beyond which “The night stared me in the face, amorphous, blind, infinite,

\(^{114}\) Tsymbal, “Sculpting the *Stalker*,” 342.

\(^{115}\) Bakhtin, “Chronotope,” 84.

\(^{116}\) Romadin, “Film and Painting,” 388.
without frontiers.” There is a moment of ambiguity here, in which the map Kelvin has just finished consulting is brought into contact with the space of the night-time planet outside, which resolutely refuses to be catalogued and dissected in this way. The areas on the map, named after the scientists who “discovered” them, are rendered homogenous and unidentifiable by “the night,” which dissolves and renders irrelevant borders and frontiers, and is also the natural habitat of dreams and memories. The rigid topology of the map is dissolved into a fluid, uncertain area, a process repeated in Tarkovsky’s film.

In *The Production of Space*, Henri Lefebvre draws a distinction between representational spaces, such as artworks, which he calls “space as directly *lived* through its associated images and symbols,” and representations of space, which show “conceptualised space, the space of scientists, planners, urbanists, technocratic subdividers and social engineers.” Tarkovsky’s cinema aims to create a representational space, in which filmed images take on symbolic meanings and interact with one another *in* space, while Lem’s fiction tends more towards a representation *of* space itself; he may indeed be an “artist with a scientific bent” whose tendency is towards a conceptual representation of space, grounded in philosophy and empiricism. Tarkovsky’s cinema looks towards religion, painting and music to provide models for its chronotope, which likewise tends towards the fluid and affective. Lefebvre categorises representations of space as tending towards the verbal, while representational space tends to be non-verbal, perhaps calling to

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119 Ibid., 38.
120 Ibid.
mind Tarkovsky’s use of Breughel and Bach as part of a cultural space interleaved with the filmic space of Solaris. This cultural space also takes part in the construction of new spaces, like the palimpsest-space created when Hari views the painting Hunters in the Snow, discussed below.

Tarkovsky’s chronotopes are memorable, vividly realised, and yet, due to his unique treatment of space, dreamlike and unreal. In Solaris, extended shots of corridors and cabins (fig. 10) create a hypnagogic, trancelike feeling in the viewer while also serving to delineate the station’s spatial dimensions, much as the similar opening shots of Ridley Scott’s Alien would, seven years later. The characters seem ill-at-ease here, while the camera moves freely, roaming, surveying and navigating, and encouraging the audience to do the same, in the process also drawing their attention away from the narrative and towards the cinematic spaces themselves. The viewer participates in these films as though sharing a communal dream, or a trance state such as that experienced by Kelvin when he travels from Earth to Solaris.

Solaris, like the Zone in Stalker, is an area set apart, a paraspace subject to dream logic and experienced by the characters in a substantially different way to other spaces in the film. In Lem’s novel, the planet stands in for those aspects of the universe that humanity will never be able to understand, and underlines the impossibility of ever fully decoding or understanding the inhumanity of nature. Tarkovsky’s film contains these elements, but rather than turning outwards, towards the unknown and the alien, as Lem’s novel tends to do, he frames this dilemma of interpretation in terms of the family and the individual. Working alone, as individuals, Kelvin and Berton are left completely helpless in the face of the enigmatic workings of the natural universe. In the film, Kelvin laments the fact that Solaristics, his field of study, has become “a mountain of separate facts,” which cannot be fit into any overarching hypothesis about the planet. Tarkovsky’s film positions these opposing ideas as separate, but linked, spatial realms: collective, familial space, as experienced at the dacha with Kelvin’s father, is set in opposition to the individual, sealed spaces of the station, within which each of the men is trapped in an ever-tightening spiral of psychological self-examination. However, as Kelvin’s inner turmoil peaks, these two realms begin to infiltrate one another, as elements of the dacha begin to seep into the station. Here, the chronotope of liquidity breaks down the barriers between spaces, rendering them interchangeable. Kelvin’s eventual acceptance of the materialised memory

121 Solaris, directed by Andrei Tarkovsky (1972; Criterion Collection, 2011), DVD.
of his dead lover Hari as a replacement for her true self signals a bridging or negotiation between these two spaces, as does the revelation, at the end of the film, of the dacha, site of the home and family, recreated by the shifting protoplasm of the planetary ocean. The paraspace ultimately proves the site where Kelvin’s journey can come full circle, but at a cost: he must surrender himself to its metamorphic, liquid chronotope.

*Solaris*, both book and film, is about the confrontation between alien and human, a constantly reoccurring trope in the science fiction genre. However, this is the confrontation reformulated as a psychological riddle, a kind of bizarre, insoluble formula. Furthermore, in *Solaris* the separation between human and alien identities becomes fluid and unstable; the alien manifesting itself is in essence a part of Kelvin’s psyche. Tarkovsky constantly challenges the viewer to look past the character of Hari, to attempt to uncover the hidden motive force which animates and manipulates her, much as the unseen force in *2001* stands behind the monoliths. The planet itself, like the monolith-builders, is silent, speaking only through intermediaries and, even then, only making itself known in the margins of their utterances. When Hari inadvertently reveals her knowledge of Doctor Snout, a man she never met in life but who has also been in contact with the living planet, for a moment the audience is permitted a glimpse of the inhuman, bizarre paraspace that has formed her and sent her to Kelvin. His face says more, in this scene, than hers does; he is face to face with an impossible, insoluble riddle.

Each space within the film has its own specific properties and function, and each relates to both the overall genre and the specific chronotopic motifs of the film in a different capacity. These spaces are infiltrated by and constructed through a negotiation...
with genre, filtered through Tarkovsky’s own poetics of cinema. The film takes place in an array of such spaces, which function like theatrical sets, or perhaps as environments or laboratories. The camera moves from space to space, inhabiting each in turn: the dacha, Kelvin’s cabin, the launch bay, the circular hallway, and the library. The last, and most important space in the film is the planetary ocean itself, a realm of sleep and dreaming, which encloses and encompasses all of the other spaces mentioned above. The planet Solaris is itself a kind of undifferentiated liquid dream-stuff, above which the conscious world of the station floats uncertainly, like a bubble borne up by surface tension. When the station changes orbit, we see Kelvin and Hari float wordlessly together in the library, temporarily torn adrift from their moorings in culture and history and cast adrift in paraspace.

The scene shown in figure 1, in which Kelvin and Hari float in the absence of gravity, is dreamlike and at the same time self-consciously artificial, both drawing attention to the mechanisms of film and also emphasising the metaphorical link between movies and dreams. The repetition of nested spaces in Solaris is part of Tarkovsky’s response to the task of adapting Stanislaw Lem’s source novel into a film. Because the “action” of the novel takes place largely on a philosophical or intellectual plane, the physical spaces of the film are structured in such a way that they become a model of the mind. The station, containing bedrooms, corridors, launch bay and library, is a microcosm of both human society and of the concerns and fears of the consciousness. The amorphous, oceanic planet beneath the station, represented by a swirling mass of colour in the film, seems a representation of the unconscious. Taken as a whole, the chronotopic structure of Solaris shows elements of both liquidity and nesting, creating a filmic universe that is dense, contradictory and compelling.

The library is a space that brings culture and the creations of culture into the foreground. Tarkovsky’s films are all concerned with the difficulties and insecurities of cinema as a new art form, in relation to the arts of painting, music and especially poetry. It is a circular room, which the camera views from the middle, panning around the walls. The spectator is thus immersed in the space, incapable of retreating behind any frame or boundary save that of the film itself. The characters arrive and sample the textual offerings of the library, which functions as a hub or hearth connecting them to the human culture from which they are totally separated by their situation. It is a strangely wholesome, nostalgic space, most closely resembling the domestic space of Kelvin’s father’s dacha of all the other spaces in the film. However, this space has an artificial quality, in that it provides
a simulacrum of earthly culture and historicity amongst the technological trappings of the space station. Isolated as they are from Earth, the library offers a link to home for the scientists stationed in orbit above Solaris, but it cannot function as a replacement for the real, longed-for home world. It offers a profusion of choices and options, but no answers, like the “mountain of separate facts” which Kelvin laments earlier in the film.

When Hari contemplates the reproduction of Breughel’s *Hunters in the Snow*, the camera pans across the picture plane from her point of view (fig. 12), creating a spatial overlap between character and viewer, with the added effect of immersing the viewer in paraspace, of which Hari is a kind of detached cell. Her eyes move slowly over the painting, and the faint sounds of people’s voices, dogs barking and church bells are conjured up, like the ghostly echoes of a long-forgotten past. Consciousness, art and nature blur together in Tarkovsky’s vision, creating a fluid chronotope that combines them all. Hari’s mind is one of the opaquer spaces in the film, but in these shots the audience is privileged to enter it, and to perceive the world through her eyes, as she engages in an act of viewing analogous to their own. There is also an uneasy sense that we cannot know what, if anything, is behind her eyes in this moment. It seems that she is acting as a channel for the planetary consciousness itself, as it attempts to unravel this strange artefact presented to it, the space station. *Solaris* immerses viewers in its space, but also places them in uncertain psychological territory. Sound plays an important role in this, suggesting that Hari, as a simulacrum, is accessing memories of things she has never actually experienced, since her whole short life has taken place aboard the station.
As a simulated copy of a human, the audience is unsure whether or not Hari remembers the experiences of her original self, or merely appears to—much as a sufficiently advanced computer simulation, like HAL, might appear to be sentient, without necessarily possessing qualities such as self-awareness or affect. So, our inability to trust Hari fully, in this scene, raises the spectre of an unknowing, inchoate mind which, as in Lefebvre’s definition of the unconscious, “is acquainted neither with the conditions of its own existence nor with the laws (if any) which govern it.” Suggestively, Lefebvre also characterises the unconscious as a kind of double, or second self, rather than a part of ourselves of which we are unaware. He likens this “doubling” effect to the repetitions inherent in the process of being human: language/body, imaginary/real, and natural/social.

Hari is not a double of a dead woman, but a double of a memory of a dead person, and so is in essence a second self for Kelvin, too, as she seems to have some kind of partial access to his memories, and appears on the station in the clothes she was wearing in a film Kelvin took of her—itself another independently existing memory. This scene displays a complex nesting of identities, viewpoints and spatial perspectives, tempered by a fluid sense of time, immersed in memory, dream and nostalgia.

*Solaris* contains several films-within-films, further instances of the chronotopic motif of nesting that characterises its approach to organising space. Indeed, many of the spaces in the film are themselves theatres, where the characters and the audience are both placed in front of a screen in echoes of each other’s situation. One such theatre is located in the *dacha*, where Kelvin’s father and aunt watch with him a film shot by the Solarist Berton, who claims he has seen bizarre, impossible things amongst the folds and whorls of the living ocean (fig. 13). The film they watch inexplicably fails to reveal the bizarre formations, including a giant foetus, which he describes in his statement. Berton is present in three places at once in this sequence, first in the room with Kelvin, as his younger self in uniform on the screen in front of them, and finally behind the camera, shooting his footage of the planet. This multiplication of people and places is a foretaste of the complexities that unfold later in the film; the act of viewing becomes a projection of the self into space, or a reflexive hall of mirrors, in which spaces and identities become irreversibly entangled. Later, on the space station, Kelvin watches the video left by his colleague Guibarian, who

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122 Lefebvre, *Production of Space*, 207.
123 Ibid., 207-08.
has committed suicide rather than face the “visitors” sent by the living ocean. This film is both a warning and a plea for understanding, acting as a window into the space in which Kelvin already stands, but one with a mysterious child moving in and out of the frame. Lastly, there is the film Kelvin brings from the dacha, which shows himself as a young boy, his deceased mother, and also Hari as he remembers her, standing in a snowy landscape.

Solaris is structured like a mind itself, in which these separate parts move and recombine, drifting to the surface like memories in a sleeping brain. In each case, the film creates an alternative space in which a memory, or perhaps even a dream, can be stored indefinitely, and to which both characters and viewers have access. Berton’s film, nested within a series of framing spaces, is a kind of empty centre, a spatial replica of the unknowable, indifferent universe postulated by Lem’s novel. Kelvin’s cabin is a space associated with privacy, sleep and emotion, yet it also clearly shows that it is part of the science fiction genre through elements of its design. In contrast to the dacha, which resists the pull exercised by genre over the spaces of the Solaris station, the bedroom’s design, with its folding bed and wall screens, suggests a technological future space quite separate from the humanity and historicity of the dacha. Significantly, it is also the space where Hari materialises. Here, in the most domestic and intimate part of the station, is where the unknown and unknowable chooses to manifest itself. Kelvin at first assumes that he is dreaming, an assumption perhaps shared by the audience, when what is at first seemingly a dream sequence persists until it demands to be assimilated into the diegetic “reality” of the film.
The aesthetics of the station’s corridors overtly engage with the visual language of 1970s film science fiction. The mirrored columns, circular windows and control panels all suggest a diagrammatic short hand for the kind of manifestly science fictional space seen in films like *2001* and *Star Wars*. However, the way Tarkovsky deploys this space suggests a dislocation and complication of this vision of the future. Tarkovsky brings the genre materials of science fiction—corridors, rockets, alien worlds—into contact with Cervantes, Breughel and Bach. In Tarkovsky’s hands, the confrontation between man and the unknowable expanse of nature is encapsulated in the liminal, transparent space of a flowing creek, filled with the waving fronds of submerged water weeds. The long shot of Kelvin standing by the river in the opening sequence, surrounded by the natural world (fig. 14), succinctly expresses the thesis of Lem’s novel, making a man in casual clothes and a view of trees and water into an iteration of science-fictional space. In Mark Le Fanu’s phrase, Kelvin is “simply a man by himself, standing in the presence of nature, thinking.” This thought can never be resolved in a satisfactory manner, as is implied by the circular structure of the film: at the end, Kelvin returns to the *dacha* and tearfully embraces his father, before the camera pulls back to reveal that both the man and the house are further manifestations of the living ocean. Here, too, liquids serve as a marker that the chronotopes of the film are in flux; when Kelvin approaches the pseudo-*dacha*, he sees his father in the kitchen, apparently oblivious to the fact that rain is falling inside the house. There is an echo here of both the earlier scene where Kelvin stood motionless in the rain and the scene in *Stalker* in which rain falls inside a closed room. In the face of an insoluble

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riddle, Kelvin returns to the hearth, the family, and the privacy of his own memories, even when he knows they are merely facsimiles reproduced by the mystery itself. For Tarkovsky, the chronotope of liquidity is related to the natural world, which is both the mindless, unknowable force present in Lem’s novel and also the source of rejuvenation and the answer to the ever-present questions of birth, life and death.

Aside from nature, Tarkovsky’s other major concern as a filmmaker is with art, and the place of the artist in the world. As a part of this investigation, Tarkovsky’s cinema is intensely focused on forging links with the existing canon of European art history, as well as with representing characters who are themselves artists, such as the Writer in Stalker or the titular character in Andrei Rublev. Even the unfortunate Berton is, in his own way, a filmmaker, presenting his creation to an unsympathetic audience. In Solaris, Breughel, Bach and Cervantes are all invoked explicitly, but the reasoning behind these choices is perhaps motivated by more than a desire to legitimate Tarkovsky’s own art by association. This cultural history is important not just for the filmmaker, but for the characters in the film, and thus for the audience, too: the library is a kind of nexus for the interaction between an imaginary future, a present world trapped in dreams and nightmares, and a past so steeped in nostalgia that it seems itself another form of dream or visionary experience. Nostalgic preoccupation with the European canon may represent, to some extent at least, dissatisfaction with the failures of the modernist project, and a rejection of further explorations in that line as a true solution to the problems of the already crippled Soviet society. For Tarkovsky, the ruins of the post-industrial landscape were not a metaphor or an image, but a tangible reality, and were in fact to form the setting for his next science fiction film, an altogether bleaker and more conflicted affair (fig. 15).

Although Tarkovsky’s Stalker seems to actively resist being classified as science fiction, its chronotope has some characteristics common to other science fiction texts, namely the way it divides the viewer’s attention between setting and plot, and how it reflexively dwells on its own representations of space. The odd, diagrammatic plot and characters are placed in stark contrast with Tarkovsky’s fluid, poetic cinematic style, which seems to hint at a multitude of peripheral meanings and narratives encoded in space. Although it is visually and thematically rich, the film functions as a parable, charting the
voyage of three characters named only as Professor, Writer and Stalker, into an area called the Zone, in search of a hidden room with the power to grant wishes. The Zone is a dangerous post-industrial wasteland, filled with invisible hazards that must be avoided by the cunning of specialised “stalkers,” part trackers and part thieves, who operate as a kind of criminal fraternity. The nature and origin of the Zone are left vague in the film, which is an adaptation of Arkady and Boris Strugatsky’s novel *Roadside Picnic*. In the novel, the Zone is described as one of many, which appeared suddenly, apparently as a result of accidental contact with extraterrestrial beings. This accident, which is theorised as a flyby of some alien spacecraft or entity, constitutes the “picnic” of the title; the aliens are compared to holidaymakers, who unthinkingly leave behind rubbish and debris in their wake. However, the aliens themselves are never seen; rather, people venturing into the Zone return with alien artefacts and advanced technology, cast-offs which happen to be both incredibly dangerous and unthinkably valuable to humans. In addition to useful objects, the Zone also contains many hazards: intense gravitational anomalies, flesh-melting slime, an invisible “meat grinder,” and areas of intense heat and cold. More disturbingly, the Zone also causes the dead to return to life, and children to be born with bizarre mutations. The plot of the novel concerns the criminal subculture that has sprung up around the acquisition and sale
of artefacts purloined from the Zone, and the efforts of one Stalker to find an object called the “golden sphere,” which apparently has the power to grant wishes.

While Tarkovsky’s film preserves some elements of the novel intact (notably the scene where Stalker throws nuts with bandages tied to them in order to detect gravitational anomalies, and the idea of a wish machine), the science fiction framework that explains these events is downplayed, reduced to a few lines near the beginning of the film, which refer to an “advanced civilization.” Whereas in 2001 Kubrick adapts Clarke’s ideas for the screen by creating an internally consistent science fiction world, Tarkovsky adapts the Strugatskys in a more oblique fashion. This has the effect of lending the film the aura of a surreal dream, through which the characters move like detached fragments of a sleeping mind. Shot partly on location at an abandoned hydroelectric power station, the film is an authentic depiction of a post-industrial, if not actually post-apocalyptic, environment. The scene showing the surface of the river covered with a crust of brown foam is not a visual effect, but an actual example of horrific environmental contamination from a chemical factory upstream—Tarkovsky’s death from lung cancer has been attributed to his exposure to chemical contaminants while making this film.125 Stalker depicts a space in which technology, morality and even the laws of physics have failed, leaving only ruins and wreckage. This is the classic space of post-apocalyptic science fiction, a cross between frontier and wasteland. Like the space station of Solaris, Tarkovsky appropriates this science-fictional space for his own ends, remaking it as an active, fluid paraspace with an agency of its own.

Like Solaris, Stalker begins in a domestic space, of which the science fiction elements are a kind of extension or attenuation. Indeed, chronotopic motifs of domesticity often seem to crop up in science fiction film, as a way of counterpointing or complicating the more extreme, abstract zones depicted in such films. Deckard’s apartment in Blade Runner, the revolving crew compartment in 2001, the interior of Doctor Who’s Tardis—all are strangely domesticated, personal spaces. However, in Tarkovsky’s cinema the domestic and the personal are invariably linked to the chronotope of dream and memory, and its associated symbolic systems. The Stalker’s home is a dilapidated two room apartment, shot in dingy sepia tones, highlighting its pervasive aura of decay and neglect. A long, lingering take of Stalker in bed with his wife and child, framed by oddly baroque double doors, suggests the slow, vegetative procession of a dream. Tarkovsky’s camera, moving

125 Martin, Andrei Tarkovsky, 147.
deliberately through the spaces of Stalker’s home like a restless spirit, highlights the dingy, organic topologies of the bedroom—the lumpen, sagging plaster on the wall, the ornate, almost organic curlicues of the bedstead (fig. 16). These grimy, distended surfaces serve as a foretaste of the desolation of the Zone, and as a reminder that the Zone’s influence reaches far beyond its actual confines: the Stalker’s daughter Monkey is a psychic mutant, and her presence converts the Stalker’s humble home into a paraspace at the end of the film, as she uses her psychic powers to slowly move a glass across the table. This is the domestic space, but reconfigured as a kind of hypnagogic reflection of the characters’ fears and apprehensions.

The chronotopes of Stalker are much more fluid and less compartmentalised than that of Solaris, reflecting an understanding of space that is more “lived” and less “conceived,” in Lefebvre’s terms.\footnote{Lefebvre, Production of Space, 38-39.} However, the film still offers a number of spaces, although their distinctions from one another are partially dissolved. The sequences in the Zone, shot in hallucinatory colour, represent a general progression from exterior to interior, and from natural to architectural space, echoing the departure from, and return to
nature represented by Kelvin’s journey in Solaris. However, unlike Solaris, Stalker is manifestly about the navigation of a hazardous and hostile paraspace, which, despite its dangers, represents for Tarkovsky a direct confrontation with the fundamental problems of human life. The Stalker is only really at home in the Zone; he is its creation as much as anything else. The fact that the minimal plot of the film concerns the discovery (or perhaps recovery) of a kind of significant space, namely the room of wishes, is also suggestive of an underlying concern with topology, whether physical or psychic. Using Lefebvre’s terms, it might be possible to characterise this film, like Solaris, as a representation-al space, rather than a representation of space. The environment depicted is, although not devoid of symbolic content (for what visual representation could be?), presented in such a way that the spaces themselves seem to speak directly to the audience. The characters, with their descriptive names and ambiguous motivations, are themselves merely a kind of roving audience, whose experience of the space of the film echoes our own. Collectively, they dream a corrupted, sinister Zone, a kind of remnant or reminder of the natural world that mankind is rapidly abandoning. Once again, Tarkovsky’s cinema depicts a true alien invasion: the malignant, irrevocable presence of time itself, constantly unmaking our surroundings, just as we become comfortable within them.

Having said that both Solaris and Stalker contain an element of dream-space, it might be helpful to articulate what the term entails in a more concrete way. Although the world of dreams is accessible to everyone, it remains a space negotiated in a solitary, personal capacity, thus rendering it resistant to analysis and enquiry on an institutional level. There appears to be no clear critical consensus about what exactly constitutes the space of dreams, quite possibly for the very good reason that these spaces are ultimately amorphous and protean, as resistant to analysis and definition as the particle knocked out of place by Heisenberg’s beam of light. However, a brief examination of the characteristics of dream space may prove helpful in discussing how Solaris and Stalker construct these kinds of spaces.

Before moving on, it is important to discriminate between the experience of a dream itself, and representations of dreams or dream-like worlds and experiences in art and literature. Analysis and exploration of the spatial qualities of dreams may fall outside of the realm of traditional dream analysis in a psychoanalytic context, which deals primarily with the meaning of the dream in relation to personal psychology and identity. However, dreams are (usually) located in, and constitute, a kind of space that can be navigated and mapped in at least a primitive capacity. Henri Lefebvre characterises dream-space as “a
space where dispersed and broken rhythms are reconstituted, a space for the poetic reconstruction of situations in which wishes are present. . . . The space of the dream is strange and alien, yet at the same time as close to us as is possible.”

Lefebvre’s analysis positions dreaming as a real-life analogue to the literary paraspace, where desire is addressed in poetic terms, and where we are reconciled with ourselves. Although the actual experience of dreaming is not necessarily cognate with the kinds of representations that constitute dream-space in literature and other texts, the dream as a real experience must surely, at some remove, form the basis for such representations. By investigating the spatial tendencies displayed in literary depictions of dreams, some conclusions can be drawn about what the culturally available understandings of dream-space are like, if not the contents of “real,” unmediated dreaming.

The literature of dreams contains many different types of space, such as the kaleidoscope of interlinking dream spaces in Alice’s Adventures in Wonderland. According to Seth Rogoff, these spaces function according to the following axioms:

Alice’s Wonderland is marked by four primary spatial characteristics: 1) spaces are confined or limited in scope, 2) there is an instability of size, 3) scenes abruptly shift and dissolve and, 4) objects are displaced.

Although this specific formula describes only Alice’s dream, rather than dreams in general, it gives some indication of the kinds of spatial and topological transformations that dreams perform in literature. Spaces that used to contain us comfortably might suddenly seem cramped or cavernous; they might change as we watch, or shift subtly while our backs are turned, leaving us puzzling over a world that no longer quite fits together as we expect. In Finnegans Wake, a novel which takes place over the course of one night, in the dreaming mind of its protagonist, the structure and language of the text itself are subject to these kinds of transformations. Characters fold into one another, becoming recognizable not through their names, but through a code or rebus that must be deciphered as much as read. The sleeping publican Earwicker is also Howth Head, the dead hod-carrier Finnegan, and a host of other identities, all linked by the initials HCE. Perhaps Stalker accomplishes something similar, making an image of a dog, a bird or a flowing creek a talisman, which in

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127 Ibid., 209.
the language of dream, might stand for everything and nothing. In dreams, the search for meaning is sometimes the meaning itself.

In a “harder” science fiction film like Blade Runner, space seems infinitely divisible and quantifiable, despite its dizzying complexity—what Matt Hills characterises as “hyperdetail.” Conversely, in Stalker, space collapses to a series of rooms and chambers, almost to a single point, but its precise characteristics and qualities seem apt to change at any moment. Time plays a role in this metamorphosis, as do the structural qualities of film itself. Indeed, according to Vlada Petric, it is partly Tarkovsky’s cinematic techniques that contribute to the dreamlike flavour of his films. Tellingly, she suggests that Stalker “transcend[s] the Freudian signification of dream images, in that they do not so much function as latent symbols as they contribute to a subliminal experience of the dream world.”

Tarkovsky’s long takes, slow pans and tracking shots and use of slow motion combine to function as “powerful sensorial stimulants,” cultivating a hallucinogenic intensity that relies more on a seemingly direct experience of an environment than it does on symbolism or storytelling elements. Like the futuristic cities of Metropolis and Blade Runner, Tarkovsky’s Zone is a place that the audience cannot comprehend in one viewing; it demands to be revisited, reinterpreted and experienced anew. This is the space of a lucid dream, which resists reduction to a symbolic system outside of itself.

In Stalker, the smooth, stainless surfaces of Solaris are transmuted into a realm of decay: broken glass and rusting metal under running water, moss growing over tiles and broken concrete (fig. 17). This science fiction paraspace is a future that is essentially the present in ruins, with power poles and collapsing buildings instead of spacecraft and techno-cities. The Zone embodies a sense of nostalgia for the present, rather than a prediction of future developments. The future is, in effect, now, and the Zone is a place as familiar to the viewer in the cinema as it is to the characters on screen. The textures and surfaces of this brand of eschatological fiction—which offers a vision of the ultimate end of the human race—are those of the present, but encrusted, decayed and decomposed. The future offers not advancement, but collapse; just as renaissance artists appreciated Roman

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131 Ibid., 33.
ruins as evidence of the superior culture of a bygone race, Tarkovsky's ruined factories and burned-out tanks (fig. 18) suggest that the present may be a zenith forecasting an inevitable decline. This perspective offers a different kind of space, one which is liquid and external, rather than nested and internal like that found in Solaris. Film is a way of combining space and time, or of collapsing one into another through the illusionistic gate of the projector. After a brush with death in the sand-floored room, Writer makes the following complaint: “The future used to be just a continuation of the present, with all the changes looming far behind the horizon. Now the future and the present are one. Are they ready for it?”—referring to the audience themselves. The film is explicitly concerned with the collapse of the temporal universe, perhaps in relationship to dreaming as a paraspace outside of time, or perhaps a zone where space and time flow together in finality.

This, then, is a recognizable type of science fiction space—the post-apocalyptic wasteland. However, as in Solaris, physical space is only part of the puzzle. Psychic space plays a role, too—the Zone is a reactive, intelligent environment, with the capacity to both help and hinder those who attempt to navigate it. In this, it shares some qualities with the
planet Solaris, which also serves as an external repository for thoughts and emotions. Writing about the city-space in American science fiction film, Vivian Sobchak observes that the futuristic city is “a hypnogogic site where the anxieties, desires and fetishes of a culture’s waking world and dream world converge.”132 This word—hypnogogic—applies equally well to the Zone in Stalker, which has many of the qualities of a dreamscape or hallucination. Entering the Zone, the characters travel in a railway cart in a long, uninterrupted close-up, creating the impression that they are standing still while the world around them melts or is transformed. This sequence serves as a transition between the waking world of shabby bars and smoking chimneys and the dream-world of the Zone. The middle section of the film, in which the characters traverse the Zone, is shot in colour, emphasising their distance from the black and white of everyday “reality.” In contrast to the long, uninterrupted take in which the characters (and audience) fall into the dream, the transition from paraspace back to diegetic normality is relatively abrupt—as though they (and we) have been jolted suddenly awake. Indeed, Stalker shares many characteristics

132 Annette Kuhn, Alien Zone II: The Spaces of Science Fiction Cinema (Verso, 1999), 123.
with the psychedelic films of directors like Alejandro Jodorowsky, although the character of Tarkovsky’s project is quite different. Although Stalker is a “trip” movie of a sort, rather than building a visual spectacle, it develops its own peculiar dark energy by way of repetition and introspection, constructing a psychological journey into the paraspace of dreaming.

As in Solaris, imagery involving water is a crucial component of scenes that deal explicitly with the issue of sleep and dreaming. The three characters rest by the side of a stream in the Zone, and fall variously into sleep or perhaps a kind of reverie (fig. 19). Asked if he ever plans to use the room of wishes himself, the Stalker replies no, saying merely "I’m fine the way I am."133 We see his dream, in which he lies on a hummock in the middle of the stream, while a black dog splashes towards him and settles obediently at his side.134 Even in his dream, he does not venture outside the Zone, which already forms the confines

133 Stalker, directed by Andrei Tarkovsky (1979; Kino Lorber Films, 2006), DVD.
134 This dog, like Hari’s simulacrum in Solaris, is a being which has the capacity to move freely between the realms of dream and wakefulness. The dog actually follows the Stalker home to his family, suggesting, again, that the Zone has an influence over the characters which extends outside of its spatial coordinates.
of his waking dream-state. In fact, he seems almost to become part of the Zone himself. As Bachelard notes, “the dreamer’s being invades what it touches, diffuses into the world.”

Dreaming dissolves the boundaries between the self and the world, creating an intermediary space full of strange potential. Just as the bedstead at the beginning of the film heralded the induction of the viewer into a theatrical space, the mossy stream here introduces the viewer into a visionary, and perhaps even prophetic, space. In the second part of the Stalker’s dream, the film shows a close up pan over his sleeping face, continuing in an overhead close up over the surface of a shallow stream, underneath which are a collection of objects: hypodermics, coins, fish floating in a fractured glass bowl, and other manufactured detritus, including a soviet submachine gun, pre-War Estonian coins, and a reproduction of Jan van Eyck’s *The Ghent Altarpiece* (fig. 20). All of these elements of the past are saturated and layered with silt, their surfaces and shapes gradually eroded by the passage of time. This sequence functions almost as a kind of spatially worked-out montage,

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in which rather than cutting between shots, the audience is invited to link physical objects
together mentally through their suspension in an actual, almost tangible fluid space. The
film passing through the projector is recreated as a river, flowing over the discarded hoard
of rusting metal. The Stalker, lying as he does with his hands in the water, is only the latest
in a series of objects dredged up and cast adrift from the past.

On the sound track, a female voice reads breathlessly from Revelations 6:12-17,
"the sun became black as sackcloth of hair, and the moon became as blood." These oft-
quoted eschatological verses serve as an apparent metaphor for the threat of nuclear or
chemical environmental collapse; what renders them chilling in this scene is their proximity
to the shots of a river covered with an undulating sheet of brown toxic foam, whipped by
the wind into dust devils, and throwing its carcinogenic particles towards the camera itself.
Likewise, the breathy, almost unhinged narrator, laughing aloud at the verse "For the great
day of His wrath is come, and who shall be able to stand?", makes this question all the
more pertinent to the concerns of the film. Who indeed will stand awake in a world
ravaged by pollution and decay? Not the Stalker, who lies in the midst of the Zone as
though channelling its sinister energies through his very pores; nor the Writer or Scientist,
whose bickering conversations about the merits of their respective areas of expertise come
to seem foolish and childlike in the face of such terrifying forces. The biblical verse serves,
like Breughel’s Hunters in the Snow in Solaris, as an anchor point for these concerns,
crystallising and concentrating the energies of the film’s disparate chronotopic motifs. The
voice over links the eschatology of Tarkovsky’s science fiction fever dream to the equally
wild and hypnagogic elements of religion and literature as well as suggesting a multiplicity
of voices or thoughts contained within one mind. Here, as in Solaris, the unconscious is
shown as an “obscure counterweight to that ‘luminous’ entity known as culture,”137 in
Lefebvre’s words: something alien and impenetrable, rather than a repository for repressed
desires and drives. The Stalker dreams, and although the shot does not directly follow his
point of view as we do Hari’s in Solaris, there is still a sense that the audience shares in this
dream of apocalypse, directly experiencing the Zone through him.

Interestingly, the camera angle reveals more of the Stalker’s bedroom when he
returns from the Zone. We see shelves piled haphazardly with books, suggesting the deep
links to European culture that Tarkovsky prized in his films. The Stalker is almost beside
himself with despair, describing the "intellectuals" who scorn the gifts of the Zone—he is

137 Lefebvre, Production of Space, 208.
appalled by their lack of "belief." As his wife implores him to sleep, he laments, "nobody believes . . . No one needs that room. And all my efforts are just in vain." His face is like that of a wounded child, contorted by grief and frustration. The Stalker is positioned as a man for whom his own home is the paraspace, and the sinister, paraspatial Zone offers a paradoxical reprieve. Tarkovsky described this character as “a slave, a believer, a pagan of the Zone.” The Stalker is most comfortable when immersed in the Zone—the scene in which he rolls in the long grass has faint echoes of the witches’ Sabbath in *Andrei Rublev*, in which the naked pagans similarly exult in their relationship to nature. The importance of belief, as opposed to knowledge, is one of the key components of Tarkovsky’s cinematic lexicon, and is the key factor setting his films apart from the fiction of Lem and the Strugatsky brothers.

Through another verse, the Stalker is also equated to Christ, although the extent to which he offers his two "disciples" any sort of redemption is far from clear. Although he does guide the other two through the Zone, at one point they draw straws to see who will pass through an eerie underground passage—there is no suggestion that the Stalker might sacrifice himself in order to save the others. In fact, it is the Writer, played by Anatoly Solonitsyn, who wears a crown of thorns in the film—perhaps in a not-so-ironic nod on Tarkovsky’s part towards his self-proclaimed status as a persecuted artist. In the novel, the character who plays the stalker role, Red Schuhart, is an even more pragmatic, not to mention callous, individual. Attempting to evade an invisible entity called the “Meat Grinder,” he brings along a young man as a sort of human sacrifice, knowing that without sending him ahead to be slaughtered by the trap, he cannot attain the golden sphere. Although the gangster mentality of the novel is not really present in the film, surviving perhaps in the form of the Writer’s veneer of seedy cosmopolitanism, the film nevertheless portrays characters who are human and fallible, despite their transparently archetypal personae.

The Zone exhibits a strange consciousness, or rather a sense of morality, of its own. Despite being uninhabited, it is apparently able to detect and destroy anyone using

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138 *Stalker*, directed by Andrei Tarkovsky (1979; Kino Lorber Films, 2006), DVD.


140 Although an in-depth discussion of the topic is outside of the scope of this chapter, it is also worth noting that the themes of religion and mysticism in Tarkovsky’s films represent a negotiation between the competing ideologies of the Orthodox Church and the Soviet state.

weapons; on the other hand, it inexplicably lets the intruders pass through a previously deadly trap when they mistakenly double back on their tracks. In the novel, the sense that there is an overall consciousness guiding the activities of the Zone is not present; rather, its dangers are described as being the accidental results of alien technology interacting with Earth’s environment, or of life forms left unchecked and abandoned by careless extraterrestrials. In Tarkovsky’s vision, though, there seems to be a mind at work, one the Stalker tries to comprehend as fervently as Kelvin attempts to gauge the workings of the planetary supermind in Solaris. This mind could be seen as the unconscious-as-double, inhabiting and producing the paraspace as a mute witness to the stumbling intrusions of the waking consciousness.

Sean Martin notes that Tarkovsky makes use of shots in which a character will be present more than once in an apparently continuous pan, thus creating the illusion of a spatial contradiction. This effect is reminiscent of the practice in medieval art (and later, comics) of showing a character in more than one place simultaneously as a way of depicting action, refiguring a movement through time as a process of spatial duplication. In effect, this kind of doubling over of time creates the same kinds of baroque folds and wrinkles as the visual overstimulation of Stalker’s ruined surfaces, albeit on a temporal axis. Lefebvre notes that "No science of space (geometry, topology etc.) can brook contradictions in the nature of space." However, literature, and especially film, can accommodate a contradictory, paradoxical space very well—all film special effects, from the most basic manipulations involving "hidden" cuts in the film, to green-screening and the introduction of animation, represent a kind of manipulation of the materials of paradox. The chronotope of liquidity allows for a number of operations that challenge the structure of space, such as melting, reflection, and refraction.

A dream’s capacity to contradict, then, is part of what sets it apart from the world of measurable, scientific space. When the three characters pass through the "meat grinder" to find the hidden room, they stop in a small room with a phone on the floor. Framed up by the doorway, as in the first scene of the film, their conversation takes on the tenor of a play. The ringing phone, interrupting Writer’s tirade, breaks in like an alarm clock. They discuss what will happen to the world, if dictators and politicians were to be allowed access to the room, to have their wishes granted. Writer dismisses the idea that the human race

142 Martin, Andrei Tarkovsky, 35.
143 Lefebvre, Production of Space, 292.
A science fiction text is this kind of dream—whatever the original intentions, the spaces that are created in the text are not so much a way of predicting the future as they are of bringing into being of a set of novel spatial relationships. In the case of Tarkovsky's films, this space is a dream of time folding in upon itself infinitesimally, a kind of trap which can never be escaped.

In both *Stalker* and *Solaris*, the apparent external intelligences (the planet and the Zone) perform the function of an externalised memory or conscience for the characters. As Writer points out, the wish-granting room, the heart of the Zone's mysterious power, can only grant a wish that is truly desired—thus making it a potentially terrible conduit into mankind's basest fears and appetites. On this basis, he refuses to use it; much as the Professor attempts to destroy the Zone with a nuclear weapon, the Writer, in typical fashion, disputes the intellectual grounds on which it operates, asking "Have you ever seen a single man who's truly been made happy here?"\(^{145}\) The Stalker's only wish is to help

\(^{144}\) *Stalker*, directed by Andrei Tarkovsky (1979; Kino Lorber Films, 2006), DVD.

\(^{145}\) Ibid.
others to enter the room—as wretched as he is, he has no greater desire than to dwell forever in the paraspace itself, serving as a guide and facilitator. A central concern of the film is attempting to define both what the Zone means, and what is to be done about it—and whether it can be reduced to terms that can be made sense of. Disassembling his bomb, as the others crouch silently on the threshold of the enchanted room, Professor asks, "What’s the point of coming here at all?" As the camera pulls back, revealing the cavernous interior space of the room of wishes, the audience is asked the same question. The Zone may offer a bizarre kind of safety and empowerment, for the Stalker at least—as a thunderstorm begins inside the room of wishes, rain pouring from the ceiling, it becomes clear that the Zone is an active space, and has an agency that the characters in the film are largely denied (fig. 21). As in Solaris, rain serves as a marker for flux, change and liquidity in the chronotope of the film, suggesting that site and moment are subject to such transformations. The Zone, source of these metaphorical and literal fluids, is both main character and setting, a place possessed of agency and life. Perhaps this is one of the crucial components of the science fiction space: that it is capable of operating on its own terms, independently and without reference to human intervention.

Solaris and Stalker represent an informative case study in the way the genre of science fiction can be deployed to create spaces that are more than just fantasies or utopias, but investigations of psychological concerns of deep relevance. These films utilise a chronotopic motif of fluidity to conjure up spaces that are mobile, alert and metamorphic, and seem to be able to contain thoughts and information outside of the cognisance of any of the characters in the films. However, they use different methods of manipulating space to achieve this end—in Solaris, the dominant process is that of inversion, or folding space back on itself, making the one film a multitude of films, and the space a potentially endless series of nested entities, with the living ocean itself occupying the empty core. In Stalker, the dominant process is accretion and flow, in which characters, spaces and ideas take on new identities and are slowly eroded and re-deposited in novel configurations, all within the context of a journey into a fluid, metamorphic paraspace. In both films, these collections of chronotopic motifs contribute to a dominant chronotope of dreaming and memory, which encompasses and informs them.

146 Ibid.
Chapter 3: Philip K. Dick’s Chronotope of Crisis

Born in 1928, the same year as Stanley Kubrick, Philip K. Dick began writing during the tail end of the Golden Age of science fiction, publishing his first story in 1951. Dick is perhaps the most widely-read and well-regarded science fiction author of his generation, which has lead to the critical re-evaluation of much of his early work and the posthumous publication of his non-science fiction novels such as Confessions of a Crap Artist and The Man Whose Teeth Were All Exactly Alike. All of this tends to emphasise the “literary” qualities of his texts, and to position him, whether intentionally or not, as an author whose evident brilliance allowed him to transcend the boundaries of his genre. However, it is worth noting that Dick’s work is grounded solidly in the tropes and chronotopic characteristics of “pulp” science fiction. The difference between Dick and an author like A E Van Vogt (whose work Dick cited as influencing his own style) is really one of degree, not type. Although Dick’s novels are characterised by their emphasis on the psychological, internal worlds of his characters, they still demonstrate a typically science fictional concern with ontology, and with the prioritising of scenarios and environments over actions and events. As well as ignoring the ways in which Dick’s fiction resembles that of his contemporaries, much of the extant criticism also seeks to link Dick’s work to the specifics of his biography, particularly his relationships to women and his battles with drug addiction and mental illness. Although the issue is complicated by the autobiographical elements of some of Dick’s late works, particularly A Scanner Darkly and Valis, this is precisely the kind of “naïve biographism” which Bakhtin warns against. Perhaps a more productive approach is to investigate how Dick’s ideas influence the chronotopes of his texts.

Like Tarkovsky, Philip K. Dick viewed spirituality and metaphysics in fundamentally spatial terms, suggesting that an approach to his texts that emphasises the spatial may also serve to elucidate other aspects of his novels’ construction and meaning. Likewise, adaptations or modifications to Dick’s chronotope, such as those found in other media based on his works, reveal very different meanings and structures. In Dick’s conception of the universe, time and space can function as a kind of cage, a trap to be struggled against and, ultimately, to be escaped. The Exegesis, a collection of Philip K. Dick’s personal papers in which he discusses his religious and spiritual beliefs, contains the following passage, that encapsulates the author’s view of the human condition: “We are not products of this world

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but voyagers here—one thinks of Gnosticism at once. We have come here from another place and will eventually find the unexpected orthogonal axis and ascend to the next.” 148 Dick’s interpretation of Gnosticism is founded on a distrust of the phenomenal world, leading to an underlying sense of unease about the nature of reality itself. People, places and things in Dick’s texts are often not what they purport to be, and entire worlds may be exposed as elaborate, fraudulent constructs. This process of exposure is characterised by Dick as “anamnesis,”149 a reversal of forgetfulness, by which the truth is uncovered. This “anamnesis” is, for Dick, cognate with movement along the aforementioned “orthogonal axis,” which allows for the possibility of escape and freedom for his characters—or for either a regression to an imaginary past or a blind flight into an unknown future.

Many of Dick’s novels contain paraspaces, into which the characters enter, whether by way of drugs, technology, hallucination or religious theophany. These spaces are dreamlike, lying outside of the regular progression of science fiction narrative time and space. Dick incorporates a number of novel chronotopic motifs into his works, and makes space and time central concerns in the diegesis of the works themselves, especially in texts such as Ubik and The Three Stigmata of Palmer Eldritch, in which the fabric of the perceptual universe is shown to be both fraudulent and unstable. As such, these novels depict movement through space in terms of transitions between different ontological fixes on the world, as much as physical translocations. In relation to narrative structures of movement and transition, Bakhtin writes of

The chronotope of threshold; it can be combined with the motif of encounter, but its most fundamental instance is as the chronotope of crisis and break in a life. The word “threshold” itself . . . is connected with the breaking point of a life, the moment of crisis, the decision that changes a life . . . 150

Whereas 2001 emphasises the chronotope of threshold, Dick’s focus is on the moment of crisis itself, and the ensuing period of confusion experienced by those trapped between two existential states. Dick’s dominant chronotopic motif is that of escape, or of the unexpected. The break, or moment of crisis, signals that the chronotopes at work in the conventional science fiction pulp framework in which Dick’s writing is grounded have been severed. With this break, a new kind of space and time has begun to manifest itself in the

149 Ibid., 62.
text, building on the existing materials of science fiction to create new spaces of crisis and disjunction. The idea of escaping on "the unexpected orthogonal axis" held a profound fascination for Dick; the drug trips in *Three Stigmata* and the Mercer experience in *Androids* are both “orthogonal” avenues of escape, which eventually lead the characters into new spaces, however disconcerting and hostile those spaces may ultimately prove. In Dick’s fiction, the most intensely realised moments are those in which the surface of apparent reality is punctured, letting some other space burst forth. The moment of puncture, of crisis, constitutes for Dick a novelistic chronotope of its own.

In the *Exegesis*, Dick describes the process of “reversion” of objects to their older forms, as is seen in *Ubik* (a space ship becomes a car, a spray can a glass jar), as a kind of “orthogonal time.”¹⁵¹ Unlike perceptual time, which we experience as real (Bakhtin would call this “biographical time”), orthogonal time goes in a different direction; thus, it is perceived as a process of decay or transmutation. *Ubik* is in a very literal sense a chronotopic novel, in that in the “half-life,” time and space are both interchangeable and malleable. Another important element of Dick’s chronotope is the individuation of time and time-experience. Characters may not see what others see—in *Ubik*, the characters who die of accelerated age seem to experience their surroundings differently before they are killed. For them, the process of “orthogonal time” is accelerated relative to others, echoing the distinction in Bakhtin between personal and historical time in literature. Bakhtin describes different kinds of time as providing different, mutually incompatible types of plots, a divergence of narrative strands echoed by Dick’s branching timestreams.

Writing about *The Three Stigmata of Palmer Eldritch*, Dick explained the text’s structure like this: “In my novel, the protagonist’s comfortable private world is disintegrating and an awful, mystical, puzzling, enormous world is expanding—from elements already there—to fill the void.”¹⁵² The interjected phrase “from elements already there” is the crucial piece of information in this statement. In Dick’s writing, the “private,” individual worlds inhabited by ordinary people are revealed as providing the seeds of a universe “awful” in its enormity, a monstrous, incomprehensible realm constantly threatening to descend into utter chaos. In this context, the crisis—or break, flight or escape—functions as a bridge between the world of personal experience and biographical time and the paraspatial zones lying beyond it. This is what is so frightening about much of

¹⁵¹ Dick, *Exegesis*, 77.
¹⁵² *The Three Stigmata of Palmer Eldritch* (Gregg Press, 1965), xx.
Dick’s work: he posits a universe where, at any given moment, the familiar structures of the phenomenal world could be subjected to total spatio-temporal collapse. In this sense, Dick’s texts fulfil Darko Suvin’s “estrangement” criteria in a satisfactory manner, but, rather than building a complete world that appears strange to the viewer, they show a space in transition, a hybrid which threatens to permeate the suddenly porous boundaries of text and genre. In Dick, the uncanny is not located somewhere “out there,” it is in here with us.

In *Valis*, the science fiction elements of the plot exist in an uneasy relationship with the autobiographical and theological elements at the novel’s core. Here, the roles of science fiction space and visionary zone are reversed; the visionary, mystic experience constitutes the autobiographical baseline of the novel, in which Dick, in his persona as Horselover Fat, experiences a theophany in the form of a beam of pink light. The novel both acknowledges science fiction as imaginary, from the point of view of the characters, but also includes science fiction elements within its diegesis, such as the idea of an alien satellite beaming information at Dick/Fat’s head. Later in the novel, the characters watch a film, also called *Valis*, that further complicates these issues by being a coded message about an alien theophany, disguised as a piece of science fiction. In the novel, Fat’s experiences (and by extension, those of Dick, on whose biography the plot is based) are variously explained as being encounters with the Christian God; or “Zebra,” an extraspatial intelligence disguising itself as the phenomenal world; or VALIS, the “Vast Active Living Intelligence System,” which appears to be a satellite installed by ancient aliens; or the totality of all of his own past and future selves, “the supra-temporal expression of a given human being.”

The fact that all of these partially contradictory positions occur within the same novel, sometimes even simultaneously, points to the extent to which Dick’s chronotope is founded on the idea of crisis and breaks in reality. The novel *VALIS* actually contains a chronotopic motif of meta-crisis, in which the reader becomes disoriented with regard to the novel’s own internal consistency, and is forced to either attempt to hold multiple interpretations of the novel’s universe simultaneously, or flip-flop between different viewpoints as events unfold. The extent to which the science fiction elements of *VALIS* can be read as diegetically valid, as opposed to being the products of mental illness, fluctuates throughout the course of the novel and results in an extremely open ended and multivalent text—a common feature of Dick’s work.

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153 *Valis* (Grafton, 1992), 238.
Gnosticism postulates that the physical universe is the illusory product of an evil creator, and obscures a more significant spiritual reality. This concept serves as a point of reference for much of Dick’s writing; according to Dick, “In Gnosticism, man belongs with God against the world and the creator of the world (both of which are crazy, whether they realise it or not).”\textsuperscript{154} In Dick’s works, there are many examples of people realising their whole life is a kind of dream. For example, in \textit{Time Out of Joint}, a man who spends his life completing a newspaper quiz, which involves guessing random squares on a grid, makes a strange discovery. His 1950s suburban reality is revealed to be an elaborate illusion obscuring a near-future world, in which his daily guesses serve as predictions about the locations of nuclear missile strikes. This early novel is a prime example of the basic structure of Dick’s novelistic universe—the characters eventually perceive the phenomenal world as an illusion, revealing the hidden struggle lying beneath its surface, and collapse the illusion in the process. In addition, this novel represents an example of the paranoid tendency in Dick’s writing, in which seemingly innocuous actions can have hidden significance—a tendency that can be traced to the historical context of the Cold War.\textsuperscript{155} It is in this context that the banal routine of the newspaper quiz becomes a deadly nuclear guessing game, with horrific, unforeseen consequences punishing any incorrect moves.

Dick’s texts directly engage with the idea of spatiotemporal linkage, echoing Bakhtin’s definition of the chronotope as “the intrinsic connectedness of temporal and spatial relationships that are artistically expressed in literature.”\textsuperscript{156} In \textit{Valis}, Dick writes: "Something which did not yield up an explanation had happened to Fat, an experience which pointed to a melting of the physical world itself, and to the ontological categories which defined it: space and time."\textsuperscript{157} This reflexive concern with how space is represented and navigated is typical of science fiction, but in Dick it takes on a phenomenological cast, becoming a concern with the space of \textit{individual} consciousness and perception. \textit{Valis} represents the culmination of Dick's thinking about science fiction and the nature of consciousness, and takes the form of an extended meditation on madness, reality and the nature of God. In it, Dick quotes from Wagner’s \textit{Parsifal} in support of his novel’s thesis, namely that time and space are interchangeable human constructs that describe parts of the same thing.

\textsuperscript{154} Ibid., 77.
\textsuperscript{156} Bakhtin, “Chronotope,” 84.
\textsuperscript{157} Dick, \textit{Valis}, 179.
PARSIFAL: I move only a little, yet already I seem to have gone far.

GURNEMANZ: You see, my son, here time turns into space.\textsuperscript{158}

In the novel, the Horselover Fat perceives ancient Rome and twentieth-century California as simultaneously occupying the same place. Here, Dick conceives of time travel as a kind of palimpsest or entanglement between two zones, rather than as a translation from one “location” in time to another. Notably, Fat perceives both times as equally coherent and viable realities, but sharing the same spatial coordinates. Fat’s everyday world becomes the paraspace itself, thus eliminating any possibility of escape.

In Dick’s fiction, the chronotope of threshold is often characterised as much by a change in how space is viewed, as much as what is actually there. Especially in \textit{Valis}, but also in novels such as \textit{Ubik} and \textit{Time out of Joint}, rather than existing in a discrete space like 2001’s Star Gate or Stalker’s Zone, the material of the everyday is transmuted into the constituent parts of a science fictional paraspace. In \textit{Valis}, Fat sees the death of his friend Sherri as causing the irrationality that he perceives as an underlying structure of the universe, not merely a symptom. This conflating of the micro- and macrocosm is an aspect of the chronotope of crisis, in which oppositional dualities such as cause and effect, majority and minority, and self and universe become malleable and exchange places. These moments of reversal, when roles and assumptions about place and identity shift rapidly, are found throughout Dick’s fictional universe. One such moment in \textit{Do Androids Dream of Electric Sheep?} occurs when Deckard goes to the impostor police station, which is a cover set up by a group of androids. For a time, it becomes unclear whether Deckard is in fact who he thinks he is; at least temporarily, the possibility is raised that his conscious understanding of the world does not align with the underlying reality. The reader is faced with the possibility that they, too, have been supplied with incorrect information, and that Deckard is in fact an android, and his targets human beings.

Much like the overlapping space-times in \textit{Valis}, in \textit{Flow My Tears, the Policeman Said} time and space are malleable and fluid—in fact, they are the products of human cognition rather than pre-existent entities. In the novel, Jason Taverner is a world-renowned television celebrity, similar to the character Buster Friendly in \textit{Androids}. After being attacked by a jealous lover, he wakes in a seedy hotel room with no identification, and finds that none of his former friends or allies now know who he is. In this situation, he

\textsuperscript{158} Ibid., 45.
becomes enmeshed in the bureaucracy of a malevolent police state, a caricature of Nixon-era America. Eventually, Taverner’s celebrity status returns to him, but not through any action of his own—it emerges that the disjointing of his biographical time-track is the result of someone else’s use of an experimental drug. This drug, KR-3, “breaks down the brain’s ability to exclude one unit of space out of another,” with the net effect that, to the user, “a whole new universe appears to be in the process of creation.” In the novel, a doctor explains the function of the drug to Alys Buckman thus:

‘The exclusiveness of space, we’ve learned, is only a function of the brain as it handles perception. It regulates data in terms of mutually restrictive space units . . . But in itself, space is not exclusive. In fact, in itself, space does not exist at all.’

In the universe of *Flow My Tears*, altering one person’s perceptions of reality is essentially the same as changing that reality itself—Taverner is described as being “dragged” into another potential universe by Alys Buckman’s use of KR-3. This solipsistic concept also serves as an elegant illustration of a complex philosophical concept, namely that the phenomenal universe does not necessarily exist outside of humans’ perceptions of it. The chronotope Dick produces in this novel is intentionally artificial, cognisant of its own status as a construct. However, in Dick’s worldview the same might easily be said for what Suvin called the “empirical” world—that is, the world outside of the text. For Dick, these two spheres, world and text, are not separate entities but manifestations of the same underlying processes: facsimile and substitution.

Dick’s chronotope combines revelation, prophecy and visionary elements with the traditionally “rational” space-time of science fiction, yet it rarely strays into the territory of the fantastic, more closely resembling allegory. In his writing, an attempt is usually made to relate the experiences of the characters to some kind of rational explanation based on cause and effect, although the veracity of the process of explaining is sometimes open to

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159 *Flow My Tears, the Policeman Said* (Orion, 2010), 223-4.
160 Ibid.
161 In addition to the idea that space and time can be unravelled by altering the perceptions of a single person, *Flow, My Tears* also contains a dream-crisis chronotope, in which Felix Buckman, the police general, experiences in his grief and guilt a vision of Jason Taverner, the protagonist of the novel, as the victim of a strange, medieval execution squad. The brown, desolate land in which this takes place is perhaps the same place seen in the eponymous film-within-a-film in *Valis*, or the location of Mercer’s ordeal in *Androids*. This dream-world is another kind of paraspace, but one which is familiar and contained, rather than terrifying and unbounded. Felix Buckman’s dream is analogous to his sister Alys’ drug-dream, except that his dreams cannot affect anyone else, whereas hers have the effect of turning the universe inside out.
questioning. However, in Dick’s worldview, the attempt to explain is often as important as
the explanation itself. Part of the chronotope of crisis is a reflexive understanding that the
crisis has taken place, and the awareness of conditions prior to the break. In the wake of an
existential or psychological collapse, the mind, in Dick’s work, inevitably sets to work
constructing alternatives and explanations. Even when these rationalisations appear to
explain all of the available facts, they are nevertheless plagued by doubt and uncertainty.
Thus, in Ubik, when the characters arrive at a consensus understanding of the nature of
their situation, Joe Chip’s face starts to appear on money, suggesting that their knowledge
is incomplete or even wrong. Just as the Runciter money did earlier in the novel, this
manifestation suggests that there is a further layer of illusion to be penetrated outside of
the characters’ reality, and perhaps an infinite number of layers.

However, in Dick’s cosmos, there is always an underlying level of reality that the
characters eventually are able to perceive. So, in Ubik, the confrontation between Ella
Runciter and Jory eventually becomes apparent to Joe Chip, and in doing so makes sense of
the conflicting urges that he perceives as underlying the events in his world. The conflict,
although it may be staged on an illusory battlefield, appears to be a manifestation of some
kind of reality, although it is filtered through the forces of entropy and preservation, in
order to be perceived by the characters in “half-life.” In Dick’s work, the phenomenal world
is often positioned as an illusion the characters must overcome in order to find their
“orthogonal axis” of escape. However, in other texts such as The Three Stigmata of Palmer
Eldritch, the solid reality of everyday life functions as an unreachable, idyllic past, to which
the characters trapped in an illusory nightmare world vainly seek to return. Whether reality
is a lost Eden or a dystopia hidden behind an illusory world, in all of Dick’s most serious
fictions the nature of perception is brought into question. Each reality apprehended
appears to be the final one, the true, concrete underlying reality, until it is in turn betrayed
by some tell-tale detail or event. This moment of discovery when the realisation that the
characters’ perception of the world has become critically destabilised, constitutes the
chronotope of crisis. It is this breaking of the boundary, the moment of fracture itself,
which is accorded a special importance and poignancy in the construction of Dick’s texts;
the world before and after rarely lives up to the hypnagogic intensity of the moment when
the illusion is broken.

The Three Stigmata of Palmer Eldritch is constructed around the dialogue between
two conflicting ideologies, or perhaps epistemologies, embodied in the characters of Leo
Bulero and Palmer Eldritch, and their competing drugs, Can-D and Chew-Z. The users of
these drugs experience strange combinations of time and space, but they do so in radically different ways. The Can-D experience, in which the users are mentally translated into the bodies of the Perky Pat and Walt dolls, is measurable in minutes and hours; the concern of the user is to prolong the experience as much as possible, before the inevitable return to the abject conditions of Martian life. Chew-Z, however, produces an experience in which time is dilated, turning seconds into hours of hallucinatory time. Not only does this experience distend time, it also renders the users unaware of the possibility that time might be passing elsewhere; while under the drug’s influence, they have no memory of their previous existence. Palmer Eldritch, who inhabits the realm created by Chew-Z, thus dwells in a kind of “extratemporal hiatus,” like the “adventure time” Bakhtin identifies in the Greek romance novel. Crucially, and far more disturbingly, Chew-Z collapses the boundary between the extratemporal and temporal world, between the vision or dream and the biographical life. It is impossible to tell where the Chew-Z experience starts or ends; once Eldritch begins manifesting himself, he is omnipresent and seemingly universal. Just as the Zone seeps out of its confines, invading the “normal” world in Stalker, the Chew-Z space refuses to be contained within the boundaries of a simple dream or hallucination. Even Barney, the user himself, eventually becomes Palmer Eldritch and trades identities with him. Characters in Dick’s novels are constantly being forced into situations in which they question the reality of their surroundings, or the underlying premises on which their biographies are based. This fluidity of characters, and their tendency to become unmoored in time and space, contributes to a chronotope of escape characterised primarily by flux and uncertainty.

There are more differences between the two drugs in Three Stigmata. Both allow their users to translate through time, Can-D to the fantasy past inhabited by Perky Pat, Chew-Z to alternative events from the characters’ biographies, either forwards or backwards in time. They appear, in fact, to actually be physically projected through time; at one point, Barney Mayerson confronts his own future self as a kind of ghost, further confusing the issue of where the Chew-Z trip actually ends. Likewise, Barney attempts to use his time on Chew-Z as a way of reconnecting with his ex-wife, returning to a past state in which he was happy. Palmer Eldritch finds it difficult to enact this change in Barney’s biography, even though he tries to help—his powers within the realm of the drug are vast, but not infinite. Another difference between the two drugs is that Can-D is experienced by

162 Bakhtin, “Chronotope,” 90.
multiple users in concert, requiring cooperation to manage the dolls’ actions, while also creating a sense of community, and also communion, between those who take it. Can-D is, in effect, an allegory for the communal, social experience of religion, which Dick viewed with ambiguity. The alternative experience, Chew-Z, represents a terrifying, alienating and psychically harmful encounter with the divine, in the form of the malevolent Palmer Eldritch. In Dick’s universe, encountering God is a hazardous endeavour. As opposed to the group “worship” model of Can-D, Chew-Z cuts users off from the community, bringing them to isolated realities where everyone else is both performed and inhabited by the increasingly godlike Palmer Eldritch. Not only does the experience of taking Chew-Z constitute a theophany of sorts, but it also becomes a literal communion, or even transubstantiation, whereby Palmer Eldritch becomes part of the person who ingests his drug.

The religious allegory comes to a head in the penultimate chapter of the novel, when Barney Mayerson articulates the nature of the being that has replaced Palmer Eldritch:

“That thing . . . has a name which you’d recognize if I told it to you. Although it would never call itself that. We’re the ones who’ve titled it. From experience, at a distance, over thousands of years. But sooner or later we were bound to be confronted by it. Without the distance. Or the years.’

Anne Hawthorne said, ‘You mean God.’

This is yet another minor chronotope found throughout Dick’s novels: a concern with the workings of the divine, and the relationship between humanity and God. Whether Eldritch is a god, an alien, or something else, The Three Stigmata is in part about a direct confrontation between the human and the divine, and raises the disturbing possibility that humanity would not necessarily benefit from such a revelation.

Where Palmer Eldritch is a god pretending to be a man, Wilbur Mercer in Do Androids Dream of Electric Sheep? is a man pretending to be a god. Mercer, a Christ-like figure who is the focus of the world-spanning empathy religion Mercerism, inhabits a space called the “tomb-world,” in which he endlessly struggles up a rocky hill, watched by his millions of followers using their “empathy boxes.” This discrete paraspace is a kind of compound structure, composed of elements of both biographical and dream worlds. Like Bakhtin’s “adventure time,” it lies outside of biographical space and time, yet is accessible

163 Dick, Three Stigmata, 256-7.
to characters who move between the paths of their fictional, novelistic biographies and the
dream-space that interrupts the flow of that chronotope. *Androids*, like many of Dick’s
novels, is composed of several layered threads that inform and comment on each other.
This lends the novel a holographic quality, in that each theme or concept is apprehended in
multiple narrative dimensions at once.

Isidore’s journey into the tomb world is another narrative break, like the
manifestation of Palmer Eldritch in *Three Stigmata*. This disruption of one chronotope by
another is sudden; the mechanism by which Isidore encounters Mercer remains obscured.
As readers, we miss the moment when he uses the empathy box. From Isidore’s point of
view, there is a seamless transition from one type of time to another, from biographical or
narrative to spiritual space-time. This inability to locate the exact moment of translation
from one state to another is also a feature of the Chew-Z experience in *The Three Stigmata
of Palmer Eldritch*, where Leo Bulero is unable to ascertain when, or if, he took the drug.
Chew-Z also has the effect of making it impossible for its users to tell whether they have
actually come down from the drug, because its lingering aftereffects distort the user’s
perceptions of reality, causing Palmer Eldritch to manifest himself in the non-drug-induced
world. The net result of these narrative ambiguities is that time and space are in crisis, to
the extent that it is difficult or impossible to locate a solid baseline reality.

Likewise, when Mercer manifests himself to Deckard, his reality calls into question
the nature of the world the characters collectively inhabit. Although exposed as a fraud,
Mercer’s spiritual significance remains undiminished; if anything, his reduction to a
completely spiritual, religious entity makes him more immediate and present; he is able to
advise Deckard directly, without the intermediary of the empathy box. Like Palmer Eldritch,
Mercer has escaped from the paraspace in which he gestated: another manifestation of the
chronotopic motif of escape, although here it is the paraspace itself invading the presumed
reality of biographical time. Here, as elsewhere, the chronotope of the novel is unstable,
fluctuating and prone to sudden reversals and contradictions. The crisis manifests itself as a
kind of “true believer” syndrome; however, Dick, as usual, comes down firmly on the side
of the faithful, preferring a phony epiphany to a prosaic reality. Indeed, in the context of
the chronotope of crisis, the falseness of Mercerism is almost a guarantee of its
transcendent, gnostic quality. In a situation in which the world, and the things and people
in it are being progressively revealed as artificial and unreal, perhaps the only faiths that
can function are scams and swindles. Again, the extent to which Mercerism is actually a
functional transcendent experience is largely open to interpretation, which could lead the reader to believe that there is, in fact, no consensus reality at all.

There are numerous film adaptations of Dick’s work, including Total Recall (1990), Minority Report (2002) and A Scanner Darkly (2006). However, by far the most interesting, and the only one which Dick himself had any involvement with, however tangential, was Blade Runner. This film is significant not only in the context of Dick’s work, but also in terms of its place in the history of science fiction film in general. Aside from 2001 and Star Wars, Blade Runner has had more influence on the contemporary visual language of science fiction than any other film. Consequently, it is worth investigating the way it deals with space, particularly with complex spaces of its futuristic Los Angeles. According to Scott Bukatman, “The most significant ‘meanings’ of science fiction films are often found in their visual organisation and their emphasis on perception and ‘perceptual selves.’”

Science fiction films create visually exciting environments to act as dynamic stages for the action of the film. However, these spaces may also reveal clues about the underlying ideological and philosophical content of the text on which the film is based. These spaces are always a kind of palimpsest; the apparent subject matter of the film forms a surface layer, but only imperfectly conceals the underlying material conveyed by the visual language of the film and the visual architectonics of the science fiction environment. Likewise, the chronotopes of film are inherently different to those of novels, even when they are translations of existing novelistic chronotopes.

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164 Scott Bukatman, Blade Runner (British Film Institute, 2012), 17.
Androids and Blade Runner are very different in terms of how they handle space and time. Blade Runner is extravagantly urban—the fractal complexity of the film’s various spaces creates a bewildering sense of containment and interiority (fig. 22), while the use of miniatures for establishing shots creates exteriors that induce an estrangement which borders on agoraphobia. The visual effects that create the cityscape are also suggestive of the sublime, in their presence as overpowering, awe-inspiring vistas, not dissimilar in function to nineteenth-century landscape paintings and panoramas. Dick’s work deals with the sublime at times, but never in an overtly visual, spectacular sense. In his novels, music, more than painting or sculpture, is the art form that most moves and captivates his characters. In contrast, it is almost impossible to overemphasise the extent to which Blade Runner is a visual spectacle. The film’s art design represents a watershed moment in the visual history of science fiction, marking both an oft-imitated example of cyberpunk style and a reinforcement of science fiction’s status as a primarily visually-driven genre. However, whereas 2001 depicts an array of clear-cut, rigidly structured environments, Blade Runner’s space is intricate, complex, and densely layered. As a result of this focus on visual storytelling, the chronotope of the film functions very differently from the novel; but more significantly, the meanings revealed by that chronotope are also different. In Androids the existence of a baseline reality is called into question, both by the androids and artificial animals and by the broader theme of artificiality, which extends even into the fabric of the novel’s space-time itself. Blade Runner deals with issues of reality and simulacra differently. The existence of the phenomenal universe is never in question; the film’s visual effects, although artificial on a technical level, allow for the creation of a diegetic universe characterised by extreme solidity and fractal depth. The concept of uncertainty is translated into the question over Deckard’s android status, although even this nugget of uncertainty is resolved in the director’s cut of the film, in which Deckard has a dream that is implied to have been an implanted memory, thus marking him conclusively as an android.

The supremacy of the eye is everywhere in Blade Runner—from the opening shots of the movie, which show a close-up of an eye reflecting the neon glow of the mega-city, to the leering gaze of a geisha on the omnipresent advertising blimp, who re-appears like a talisman throughout the film. Both Deckard and the androids visit a manufacturer of synthetic eyes. Batty kills Tyrell by gouging out his eyes, which throughout the film are

huge and pronounced behind his fish-eye aviator glasses. The Voight-Kampf test uses miniscule dilations of the subject’s pupils as a way of distinguishing humans from androids.  

All of this is present in Dick’s novel, too, in the sense that being able to “see” who is an android and who is not is the primary job with which Deckard is tasked. But in the context of Dick’s oeuvre, the question of sight, and seeing clearly, assumes a new significance. One of the touchstones of Dick’s epistemology is the dictum that reality is not reality, and that revealing this fact is the only way for human beings to move forward out of ignorance into knowledge. In this sense, peeling away the surface to reveal a deeper layer of meaning, which Dick tellingly characterises in his Exegesis as “anamnesis,” or loss of forgetfulness, is a kind of clear sight.

Visually, Blade Runner offers much for the keen-eyed viewer to peel back. The film offers a wealth of palimpsestic images, a cluttered, layered space bordering on the Baroque. However, it is also constructed in such a way that it is constantly presenting itself to the viewer as a succession of layered planes. In this way it is reminiscent of Fellini’s Satyricon, in which the characters are often positioned observing the viewer, creating a feeling of intrusion and alienation.  

Watching Blade Runner is a process of digging, unfolding and uncovering, a kind of visual anamnesis like the use of the holographic scanner Deckard uses to delve into the photograph. This idea of focusing on the background, and the corollary that much of the important business of the film may be taking place in the setting, rather than the action, tallies with Gregg Rickman’s suggestion that “it was in the film’s background density rather than its foreground story that [Dick’s] own vision was most vividly realised.” Likewise, it should by now be obvious that this preference for setting over story is a core characteristic of much science fiction, both filmed and otherwise.

There is no moment in Blade Runner analogous to Dick’s chronotope of crisis; rather, there is a gradual unfolding of clues throughout the film, which suggest that Deckard’s view of himself and what he does may be flawed. However, there is no sense that, if Deckard is in fact an android, his ontological perception of space will be (or has been) disrupted. In Dick’s novel, when Deckard is captured by the “parallel” police force composed of androids, there is a radical sense of spatial disconnect. It is almost as if the

166 Blade Runner, 18.
167 Fellini Satyricon, directed by Federico Fellini (1969; MGM Home Entertainment, 2001), DVD.
novel is about to travel off in another direction, becoming a tale about a sudden and unexpected loss of identity like *Flow, My Tears*, before Dick rights the ship and returns to telling the story of the development of Deckard’s sense of empathy. In *Blade Runner*, the space itself remains unchanged, endlessly deep and fractally confusing. If there is a moment when empathy is invoked, it is probably when Deckard confronts Batty in the rain at the end of the film. In that moment, Batty is humanised, and the audience at least is encouraged to feel some remorse at the humans’ treatment of him and his kind.

What, then, is the dominant chronotope of *Blade Runner*? Clearly it fits into the science fiction genre, and is in some respects constrained by the limitations of that particular chronotopic identity. The space and time of *Blade Runner* is still science-fictional time and space; there is very little latitude for reading it as a character study or a comedy, for example. However, I would argue that the other obvious influence on the style of *Blade Runner*, *film noir*, explains a great deal of the visual and cinematic structure of the film. The chiaroscuro lighting seen throughout the film, derived from the expressionist style of Fritz Lang, is characteristic of *film noir*. This particular way of visualising, and specifically, photographing the city obviously appealed to Ridley Scott. It could be argued that the kind of city that *Blade Runner* creates can only exist on film: the process of photography itself is of inescapable importance in understanding what exactly *Blade Runner* is, and means. As an adaptation of Dick’s *Androids*, *Blade Runner* cannot be said to be a complete success; too much of what was important to the concerns of the novel was lost in the collaborative, accumulative process of script rewrites. Although *Blade Runner* and *Androids* are separate entities, Ridley Scott’s film nevertheless succeeds in translating some of the structural and spatial concerns of Dick’s novel to a new medium.

*Blade Runner* creates a complex urban environment that has the feeling of being animated by a hidden, inner life. This is something akin to the way Ignasi de Solà-Morales describes the *terrain vague*, the abandoned spots within an urban environment, as being possessed of their own strange power over the urban processes of living and experiencing the city.\(^\text{169}\) However, in *Blade Runner* the terrain is not abandoned, desolate and empty, but teeming with detail and life, so much so that in its overloaded variety, it becomes a wasteland, devoid of meaning but rich in suggestion and nuance. This space makes it very hard to identify subject from ground, and generates a confusion similar to that Dick

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postulated as the mechanism by which divine agency disguises itself. In Valis, one of the names the characters use for this intercessionary power is “Zebra,” because by camouflaging itself against the “ground” of ordinary reality, it becomes invisible to human perception—a process of divine “mimesis.” This idea is echoed in the spaces of Blade Runner, in which the replicants are a kind of mimic, employing their human forms as camouflage amongst the overpopulated urban environment. Of course, in Valis this camouflage functions as part of a chronotope of inversion, in which the real and the unreal are locked in combat, constantly switching places. In Blade Runner, the ability of the replicants to hide in plain sight is exactly what it seems: the natural defense mechanism of a species who are hunted at every turn by the humans who created them.

Elsewhere in the Exegesis, Dick describes the phenomenal universe as a “maze,” a “test situation-structure built by a higher life form to teach, test or study a lower life form.” The fractal visual complexity of Blade Runner could indeed be seen as a kind of maze, paralleling both the existential maze that Deckard must negotiate in dealing with the replicants, and his own indeterminate status. There is also the issue of the film’s history as a crafted object to contend with, which contributes an additional layer of illusion and artifice. The immaculately executed effects shots, which involved the creation of massive model cityscapes as well as the use of then-revolutionary computer controlled cameras to create seamless composites, create an alternate reality that is totally consistent and believable, while also drawing attention to their own technical superiority and beauty by virtue of that very perfection. Also, unlike computer-generated effects, miniatures, models

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170 Dick, Valis, 77.
171 Exegesis, 464.
and matte paintings like the ones used in *Blade Runner* have a physicality of their own, an analogue, granular quality derived from the fact that they occupy the same physical universe as the viewer. However subconscious or incidental it may be, the knowledge that these *real* objects have been manipulated in order to create the illusion on-screen has a powerful effect on the tone of the film. *Blade Runner* invites close investigation and repeat viewings, because it creates a space that demands to be inhabited and explored as much as watched.

The climactic scenes of *Blade Runner* are worth looking at, for a number of reasons. Firstly, they are shot partially in the Bradbury Building, which has its own complicated textual history as a film location, as well as being architecturally inspired by *Looking Backward*, a science fiction novel by Edward Bellamy. More interesting than this, however, is the way the film visualises the spaces of a deserted building as a series of interconnected cells and volumes, which the characters progressively penetrate, before eventually ascending to the roof. First, Deckard arrives at the building, the home of J.S. Sebastian, designer of replicant brains. He confronts Pris and Batty, killing the female replicant and being chased by an enraged Batty onto the roof of the building. In the process, Deckard climbs an ornate mantelpiece, which resembles an altarpiece or colonnade, in order to push his way through the soft, rotten wood of the ceiling. Batty, too, penetrates the structure of the building, moving from room to room by breaking through walls (fig. 23). At one point, Batty and Deckard are in adjacent rooms, Deckard’s hand and gun gripped by Batty through a hole punched in the wall. Batty breaks Deckard’s fingers,

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telling him “This is for Zhora. And this is for Pris!” He then taunts Deckard, daring him to
“shoot straight” with a broken hand. The two characters are separated by a wall, each in
their own space, but the conflict itself is taking place in both, on the connecting surface.
The rooms themselves are full of rainwater, everything taking on a sodden, decaying
aspect. When Deckard climbs onto a balcony, the vertiginous space of the city outside is
revealed (fig. 24), and it becomes apparent that there is no outside or inside to this world,
no boundary separating the urban from the cosmological: the city is the universe, a series
of nested interiors, one inside the other, with no appreciable end.

The cavernous space revealed in this shot, as Deckard clings suspended over the
unbounded gulf, is breath-taking. The scope and style of Syd Mead’s production design
seems totally alien, and at the time was such a radical departure from the accepted visual
language of the science fiction city that it completely revolutionised the subgenre, and is
still widely imitated and referenced. But there were clear visual predecessors to the look of
Blade Runner, including Baroque and Gothic architecture, European comics, and previous
science fiction film designs. The illustrations of French artist Moebius, who worked on a
scrapped project to film Frank Herbert’s novel Dune, had a wide-ranging impact on the
visuals of science fiction films in the ‘80s and ‘90s, and Blade Runner is part of this lineage.
Whether or not the design of Blade Runner drew consciously on 17th and 18th century
architecture, its combination of monolithic volumes with layered, organic ornamentation
and profusion of detail certainly recall the architectural forms of the Baroque. Christian
Norberg-Schulz observes that

The religious, scientific, economic and political centres [of the seventeenth
century] were foci of radiating forces, which, seen from the centre itself, had no
spatial limits. The systems of the seventeenth century, thus, had an open and
dynamic character. Departing from a fixed point, they could be infinitely
extended.

This idea of infinite extension in dynamic space applies equally well to the churches of
Borromini and to the visual architectonics of Blade Runner. Patterns and elements are
repeated and multiplied, the urban space becoming an infinitely repeating, yet never
identical, series of complex, cluttered spaces. In Blade Runner, this is a kind of visual
shorthand for a future in which nothing of the past has been swept away or destroyed, but

173 Blade Runner: The Final Cut, directed by Ridley Scott (Warner Home Video, 2007), DVD.
has rather been built over, retrofitted and repurposed, creating a palimpsest of different architectural styles and technological layers.

However, in *Androids*, the idea of an increase in complexity, or an accumulation of clutter and noise, is associated with the idea of entropy and decay. In the novel’s conceptual system, decay and “kipple” are associated with the “tomb world” of depression and death that Isidore and Deckard struggle to escape through their faith in Mercer. The concept of “kipple” at first appears to be a joke, but is actually a small but significant chronotopic motif that helps to inform the conceptual structure of the novel. The concept is explained by John Isidore, talking to Pris, the android woman who moves into the abandoned building where he lives: “Kipple is useless objects, like junk mail or match folders after you use the last match or gum wrappers or yesterday’s homeopape. When nobody’s around, kipple reproduces itself.” Isidore goes on to make explicit the opposition between “kipple,” the principle of entropy, and Mercerism:

‘It’s a universal principle, operating throughout the universe; the entire universe is moving toward a final state of total, absolute kippleization.’ He added, ‘Except of course for the upward climb of Wilbur Mercer.’

This is what is so unique, and so frightening, about Dick’s vision. The fundamental principles of the universe play themselves out not on a grand scale of planetary conflicts and epic cataclysms, but within the lives of ordinary people, often in the domestic sphere. A cluttered apartment is not a sign of lacklustre housekeeping, but an indication of the fundamental nature of the universe: impersonal, unstoppable decay. In the face of a physical world actively conspiring to destroy the individual, it becomes necessary to look beyond that world, and to perceive a spiritual or at least alternative realm. In the case of *Androids*, that realm is the hill climbed by Wilbur Mercer, the messianic re-animator of dead animals, whose world-spanning religion is the antidote to the androids’ cold inhumanity. Mercerism is associated, in Dick’s chronotopic schema, with living animals, the most precious resource on the planet, and with empathy (the pun Mercerism/Mercyism seems fairly apparent).

Kipple is associated with time, because it enables the process of entropy. “Kippleization,” on a larger scale, is also the cause of the decay of civilization caused by “World War Terminus,” the death of animals by radioactive dust, and most of all the

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176 Ibid., 66.
androids. The extent to which the presentation of the androids in Dick’s novel differs from the replicants in *Blade Runner* cannot be overstated. Like Hari in *Solaris*, the replicants are simulated people, and like HAL they are also intelligent machines, but in *Blade Runner*, replicants are so problematized as to become almost irrelevant as a category. The viewer is led to understand that they have all of the same emotional responses and intellectual capabilities of “ordinary” humans, up to and including falsified memories and dreams, and that as a consequence they are, in all but name, humans themselves. Dick, on the other hand, sees the androids as a final stage of dehumanization, creatures unable to experience empathy or to identify with the suffering of others. This war between humanity and ever-encroaching “kippleization” is the chronotopic core of *Androids*, epitomised by the cast-off humanoids who return to earth as murderous, animate counterparts of the ever-increasing tide of rubbish clogging the crumbling cities. However, there remains the possibility of empathising with the androids, seeing their humanlike qualities and personalities; this is in fact the position adopted by John Isidore, the “chickenhead” who is a kind of ancillary protagonist in the novel. In his innocence, he shelters the rogue androids who Deckard is hunting. Deckard himself is not necessarily immune to identification with the androids; Rachel is not presented as less human than the other calculating, emotionally manipulative women who crop up everywhere in Dick’s fiction. *Androids* sets up a conflict between humanity and simulacra, but acknowledges that, in actuality, it is impossible to see the simulated person as an inhuman machine, without losing the very humanity that allows that distinction to be made. The possession of empathy is both the separating factor between humans and androids, and the agent that destabilizes the very categories it helps to create. *Blade Runner* takes this idea as a starting point, in that it represents a prolonged meditation on the uncertain status of the human, and resolutely refuses to resolve the moral dilemmas posed by both itself and the text of *Androids*. In this sense, *Blade Runner* is more an evolution or descendant of Dick’s novel than an adaptation, and stands on its own as a parallel process.

Dick’s novels have had a lasting appeal and a broad cultural impact precisely because they deal so closely with subject matter that is often overlooked in science fiction, namely the ordinary. This is also what makes the chronotope of crisis such a persuasive element of how these texts are constructed: the break, when it comes, has meaning because it is a break between the lived, experiential world of the everyday, and a totally estranged paraspace. Dick’s characters are often ordinary people: repairmen, small business owners, office workers, craftspeople. Although his novels deal with the idea of
realities in flux, Dick displayed a genuine love for ordinariness and for the small defeats and victories of everyday life. For Dick, the everyday is an oasis of stability and warmth in the midst of an immense outer darkness, populated by forces that, like Palmer Eldritch, are often metaphorical representations of mental illness or addiction. These are the real-life analogues to the spatio-temporal flux that also characterises Dick’s chronotope: terrible forces of irrationality and entropy eating away at people’s lives from within. Furthermore, the way Dick structures his novelistic universe suggests that all of the fantastic and terrifying spaces that he conjures up have their genesis in the tragedies and pleasures of everyday life. The “mystical, puzzling, enormous world” of Dick’s fiction is formed through a process of extrapolation, turning the familiar into something strange and unsettling.
Chapter 4: Chronotopic Slippage and Collision in the Works of J.G. Ballard

Whereas Dick built on the existing corpus of science fiction ideas to develop his chronotope of crisis, J.G. Ballard’s writing sets out to deliberately disrupt and reconfigure those genre norms. Ballard’s works defy strict generic classification, often mixing and combining multiple types of genre material in order to create idiosyncratic narratives of alienation. This uneasy relationship with genre manifests itself in an equally uneasy, metamorphic version of the chronotope, in which the narrative functioning of space and time is critically destabilised and confused. David Cronenberg’s 1996 film of Crash carries Ballard’s unique approach to the literary chronotope into a different medium, but his version finds alternative methods of conveying the uneasy, distorted space-time of Ballard’s fiction, through unorthodox shot choices, explicit references to the film’s ambiguous position in relation to genre, and an emphasis on photography as frozen time.

In discussing the function of genre in Ballard’s fiction, Graham Matthews identifies a tendency towards “generic slippage” between modernism, surrealism, science fiction and crime fiction.177 Rosalie Colie suggests that genres are connected to different “kinds of knowledge and experience,” in effect making genres the carriers for different semiotic “fixes” on the world.178 The question this raises, with respect to J.G. Ballard, is what kinds of experience his fiction represents and draws on, and where this semiotic “fix” or perspective is situated in relation to other texts, especially those which fall under the same genre umbrella. It is clear that Ballard’s writing is not really concerned with the “usual” material of science fiction (if such a thing can be said to exist), but with a very specific set of visual and psychological tropes, which are configured and reconfigured recurrently in his writing. At its best, Ballard’s writing strains to transcend the limitations of text, aspiring towards the visual and the experiential; at the worst, it is opaque and stylized; yet these are two aspects of the same set of tendencies, the same approach to craft, and the same semiotic “fix” on the world.

Writing taps into a system of previously existing meanings, and science fiction writing in particular taps into a specific set of semiotic values, and employs a generic “fix”

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178 Colie, Resources of Kind, 29.
that is different from that of other types of text. Building upon the assumption that science fiction texts operate within their own particular generic “fix,” it is worth investigating the mechanisms of other kinds of generically “fixed” writing, in order to understand whether the general mechanisms of action are comparable between genres. Colie, writing about Robert Herrick’s collection of pastoral lyric poetry *Hesperides* (1648), makes the following claim about the poet’s relationship to his work’s genre:

Herrick relies upon a literary system readers can take for granted, works with professional commonplaces in a professionally common place, occupied by readers as well as writers who understand what is expected of them.\(^\text{179}\)

Colie is referring not only to the way Herrick’s text engages with other pastorals, but the way it builds upon the idea of a system of genre by which texts can be sorted and identified. This description of a writer’s position, in relation to both his or her own genre and the concept of generic classification, could apply equally as well to the practice of science fiction as it does to seventeenth-century pastoral. Like the authors of pastorals, science fiction authors understand that their work will be read and interpreted through the lens of a pre-existing generic structure. Genre texts in some cases rely on information encoded in the systems through which they are written and read, Colie’s “commonplaces” in a “common place.” Colie describes Herrick’s poem as exhibiting a “reliance on the system which in fact subvert[s] the system,” a description which applies equally well to Ballard’s novels.\(^\text{180}\) This systemic subversion leads to a range of chronotopes characterised by flux, uncertainty and destabilisation of the semiotics that underpin the generation and consumption of science fiction texts.

Ballard’s early novels, including *The Drowned World* and *The Crystal World*, were published and consumed largely as science fiction novels, although Ballard’s status as a self-professed member of the “New Wave” of British science fiction signalled a self-conscious desire to distance himself from many of the genre’s tropes. Scott Bukatman characterises New Wave authors, such as Michael Moorcock, Brian Aldiss, Alfred Bester, Robert Zelazny and Ballard himself, as being concerned with the investigation of “inner space,” rather than the then-prevailing chronotopes of “pulp” science fiction.\(^\text{181}\) With the publication of *Crash*, and later novels such as *Concrete Island* and *High Rise*, Ballard

\(^{179}\) Ibid., 26.

\(^{180}\) Ibid.

\(^{181}\) Bukatman, *Terminal Identity*, 159.
combined the concept of “the body and its increasingly synergistic relationship with technology” and an urban or suburban milieu in order to articulate the sense of alienation and malaise experienced by many in the late twentieth-century metropolitan landscape. Another group of Ballard’s later novels, including *Cocaine Nights* and *Super Cannes*, are constructed as seemingly formulaic detective thrillers, but they subvert the expectations of that genre by having the investigative character gradually be absorbed into the criminal milieu that he initially sets out to uncover. Although it is possible that Ballard in fact shifted from science fiction to “mainstream” fiction, it may be that the conditions under which his stories take place are at this point fulfilled by a fictional milieu closely resembling lived reality. In either case, the way Ballard approaches fiction is couched in terms of both space and time: “a mapping enterprise which is both diachronic and syntagmatic,” in the words of Andrzej Gasiorek. Ballard’s chronotopes are responsive to the external concerns of genre, but are also possessed of a fluidity and internal logic that resolutely defies expectations about genre norms.

Space in science fiction is often something to be bisected, conquered, traversed; Outer Space, with a capital S, is the implied backdrop to much of the poetics of golden-age science fiction, and travel, through space, time or both, is a characteristic focus of texts in the genre. Ballard’s texts approach science fiction space in a more ambivalent manner, often folding it into the biographical or lived time of characters who do not necessarily participate willingly in the science-fictional scenarios into which they are thrust, and travel either reluctantly or not at all. In *The Drowned World*, Ballard emphasises a particular kind of biological, evolutionary time which is linked to the spaces of memory, ecology and dream. In Ballard’s fiction, characters must often contend with events that seemingly spring from within their own psyches, rather than being imposed on them from without. This interaction between the inner space of the mind and the outer spaces of the science fiction chronotope is a recurring theme in Ballard’s early stories and novels.

In Ballard’s first novel, *The Drowned World*, global warming causes not only the flooding of cities, but the regression of plants, animals and humans to prehistoric forms.

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182 Matthews, “Consumerism’s Endgame.”
183 A similar trend can be observed in the oeuvre of William Gibson, author of *Neuromancer*, one of the core texts of the cyberpunk movement. While his novels of the 1980s depicted a science-fiction world where people connected to an omnipresent, world-spanning computer network to work and socialise, his more recent novels have largely abandoned the trappings of SF, since the real world has fulfilled the conditions in which Gibson sets his stories.
This regression has the effect of exhuming elements of the world that have been “drowned” in time, with gigantic iguanas taking the place of dinosaurs and humans themselves gradually finding their thought processes dominated by the “reptile” part of the brain, which for Ballard operates as a totem for the unexplored reaches of the subconscious mind. At the same time, the twentieth-century world is itself submerged, giving rise to a more genre-normative post-apocalyptic scenario, in which major cities become networks of flooded canyons, navigable only by boat. The plot of the novel involves the story of Dr Robert Kerans, a biologist stationed with a military expedition to the partially submerged ruins of London, who is struggling with strange dreams, which the physician Dr Bodkin tells him are in fact the memories of man’s evolutionary past, unearthed through a process of “total biopsychic recall.” When the army leaves, due to the steadily rising temperature, Kerans and his lover Beatrice Dahl decide to say behind, and are captured by the piratical Strangman, leader of a band of looters, who proceeds to drain part of the city using pumping equipment. Eventually, Kerans and Beatrice are rescued by the returning military, who want to reward Strangman for his “reclamation” efforts. Kerans uses dynamite to destroy the dam holding back the flood waters, and escapes into the jungle, heading south seeking an obscure communion with the Sun, which throughout the novel functions as a totem for the psycho-evolutionary regression which the characters experience.

The novel positions time as a kind of oneiric bio-spatial entity, with chapters titled “Descent into Deep Time” and “The Pool of Thanatos.” The metaphysical nature of the regression suggesting a blurring of the boundaries between the physical body and the unconscious mind, as well as between biographical and evolutionary timescales. Time itself is reconfigured as a biological, internal process, experienced through dreams, and fundamentally working to separate the characters from one another. The choice of art in the character Beatrice’s apartment is suggestive of this chronotopic motif of spatio-temporal regression:

Over the mantelpiece was a huge painting by the early 20th-century Surrealist, Delvaux, in which ashen-faced women danced naked to the waist with dandified skeletons in tuxedos against a spectral, bone-like landscape. On another wall one of Max Ernst’s self-devouring phantasmagoric jungles screamed silently to itself, like the sump of some insane unconscious.185

Jeanette Baxter notes the strong connections between Ballard’s novels and Surrealist painting, going so far as to call *The Drowned World* a “collage” of Surrealist references.\(^\text{186}\) Whereas Tarkovsky deploys painting as a way of visually linking his chronotope to more traditional modes of representation, Ballard actively co-opted the strategies of modernist painting, attempting to recreate its fractured spacetimes in his own work. The “phantasmagoric jungle” description in the passage above would be a fitting one for Ernst’s *Europe after the Rain II* (1940-42), or perhaps his *Temptation of Saint Anthony* (1945), or, even more appropriately, *Swamp Angel* (1940). Ernst’s technique often involved using *frottage*, or rubbing, as a way of generating randomly organic patterns and forms, which were then the substrate on which the painter’s unconscious mind formed his images.\(^\text{187}\)

The “insane unconscious” Ballard imagines as arising from Ernst’s paintings is akin to the reptile brain, which in Ballard’s novel struggles to assert itself over its evolutionary superiors in the minds of the characters, dragging them in dreams and visions back to a genetic past which is fast becoming a physical reality. Ernst’s paintings, with their links to the unconscious and the organic, are reimagined as a time travel apparatus, a spatial metaphor for the evolutionary entropy and atavism that permeate the characters and their world. For Ballard, these internal, psychologically charged spaces are inherently science fictional, places where the devolution of mind and body into its constituent parts becomes a metaphor for the estranged nature of the late modernist psyche. The fact that, in the novel’s diegetic universe, Delvaux’s painting dates from hundreds of years in the past only adds to the overarching sense of confusion and malaise.

Although *The Drowned World* is about spatialising time, there are numerous examples in Ballard’s *oeuvre* of the reverse, namely chronologising space. In stories such as “Myths of the Near Future” and “News From the Sun,” Ballard assembles an alternative poetics for the space program and its aims, reconfiguring the exploration of space as a time-based psychodrama, in which the scientific, procedural epistemology of NASA is transmuted into a personal ontology characterised by metaphor, analogy and magical thinking. Ballard’s texts deliberately set out to destabilise the science fiction genre, entering into a dialogue with the archetypes of the astronaut and the space ship, performing and reconfiguring them as icons in an alternative mythology of the internal, rather than external, universe. In “Myths of the Near Future,” Shepard declares that “Space

exploration is a branch of applied geometry, with many affinities to pornography.”188 The topologies of the body stand in for the topologies of alien planets in this text, replacing the dynamic, aspirational exploratory mode evidenced by the space program with an alternative “geometry” that denominates spaces of desire and transgression. Like an astronaut, Shepard orbits, probes, observes. He imagines himself “lying on his contour couch atop the huge booster, dressed in a suit of silver foil.”189 In all of Ballard’s writing, spaces and identities are constantly emblematized and brought into relation with the broader sphere of generic meanings. A swimming pool becomes a time machine, a man becomes an astronaut, and as a result both of them lose the ability to relate meaningfully to their surroundings. In these “space sickness” stories, Ballard configures the generic frame as a stifling, immobilising influence, within which the text itself is powerless. However, by endowing his texts with an independent sense of space and spatial interaction, the characters and environments are able to subvert and escape from this feeling of torpor or stasis; in “Myths of the Near Future,” the space centre becomes a crystalline, psychotropic jungle where space, rather than time, is the dominant force.

In the short story “Memories of the Space Age,” a murder aboard a NASA space shuttle precipitates an epidemic of “space sickness,” which depopulates the Florida peninsula and apparently halts space exploration permanently. The murder, and by extension the entire project of space exploration, is described as an “evolutionary crime,” which has destroyed the “fragile continuum erected by the human psyche through millions of years.”190 This continuum is implied to be time itself, or rather the human perception of linear time, and the “space sickness” experienced by the characters results in a slowing of their subjective experience of time, eventually resulting in total stasis from the perspective of the afflicted people and their entry into a bizarre, static paraspace. This story expresses Ballard’s anxiety about the space program as an idea, and perhaps by extension about the American project of endless expansion, manifest destiny and futurism. These ambivalent feelings are translated into an eschatological scenario of metaphysical confusion, in which the fabric of the experiential universe itself is unravelling. Like Philip K Dick, Ballard is concerned with destabilising the ontological categories which underpin his novels’ worlds, and by extension undermining our understanding of the generic chronotope within which his texts operate.

188 J. G. Ballard, Memories of the Space Age (Arkham House Publishers, 1962), 188.
189 Ibid., 178.
190 Ibid., 149.
The information encoded in the vision of an alternative space program contained in “Memories of the Space Age” is both explicitly demonstrated and reliant on the invocation and combination of pre-existing genre material. The story takes place at Cape Kennedy in Florida, and the characters refer to NASA and the space shuttle, lending a sense of historicity to the fictional timeline of the text. The time-plague and the depopulation of the peninsula, along with the details of the post-human, post-apocalyptic landscape, are informed by genre texts such as I Am Legend (1954), in which a single man is unaffected by bacteria that turn people into vampires, and The Purple Cloud (1901), in which the world’s population is wiped out by the titular cloud of acidic gas. However, Ballard’s version avoids the histrionic tone that these last-man-alive texts often use; the results of his space sickness are not mass death and chaos, but rather a gradual winding down, overseen by benign figures such as Gale Shepley, daughter of a murdered astronaut, and in the related story “Myths of the Near Future,” the psychologist Anne Godwin. Ballard’s visions of apocalypse involve confusions of time and space; this was apparent in The Drowned World, in which global warming precipitates a reversal of evolutionary history, and it is in evidence here: the space program has inadvertently precipitated a chronotopic plague.

The underlying scenario of “Memories of the Space Age” and “Myths of the Near Future” is explicitly concerned with changes in the way the characters perceive time; in “Myths,” an empty swimming pool bisected by its own shadow seems to Sheppard “to contain the operating codes of a primitive time-machine.” Invoking H. G. Wells’ The Time Machine by name brings with it a deluge of links to external genre material, all of it encapsulated in the visual metaphor of the pool and shadow forming a “three dimensional sundial.” The sundial, a precursor to all other clocks, is emblematic of how Ballard’s texts

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191 Ibid., 178.
deal with space: as a kind of solidified, crystallised time. Indeed, Patrick McCarthy draws a connection between Ballard’s references to H.G. Wells’ *The Time Machine* in *The Drowned World* and Conrad’s *Heart of Darkness*, which likewise envisions time travel as a process of regression or unravelling.\(^{192}\) Here, as in *The Drowned World*, time is positioned as an interior, psychological journey, and travel through time is equated to the traversal of a psychological terrain.

The cycle of short stories that includes “Memories of the Space Age,” like *The Drowned World*, references the visual arts. Max Ernst, Dali and De Chirico are mentioned by name, while specific paintings by Magritte and Henri Rousseau are drawn into the text, functioning as emblems which create a kind of modernist vision of paraspace: “Mallory looked around at the zoo, with its dozing tiger, the gay fountain and cheerful rockets. This was the amiable world of the Douanier Rousseau’s *Merry Jesters*.”\(^{193}\) As noted above, Ballard’s writing is aggressively visual, perhaps reflecting his self-declared status as a “frustrated painter.”\(^{194}\) Indeed, the dust jacket of the Arkham House edition of the collection of stories also titled *Memories of the Space Age* displays a reproduction of Ernst’s *L’Europe après la pluie II* (in English, *Europe After the Rain II*), which depicts a hallucinatory, deformed landscape and a riot of ambiguous shapes, suggestive of strange fungi, rock formations or decomposing bodies (fig. 25). In an interview, Ballard draws a comparison between the way paintings and written texts are read:

> with the more extreme types of imagination, such as the surrealists (or myself), a double piece of illusionism is called for—one is asked to accept not only the illusionist space of the picture plane or the narrative text, but the strange events going on within that illusory space.\(^{195}\)

Narrative spaces in Ballard seem to strive to attain the status of paintings, approaching flatness and stasis. The chronotope of his works echoes these tendencies, placing emphasis on spatiality over temporality, often repeating the same motifs and themes throughout a given text, giving even the longer novels a cyclical quality. Ballard’s texts could be visualised as patterns, rather than rounded objects, driven by the author’s interest in the flattening of space.


\(^{193}\) Ballard, *Memories*, 145.


\(^{195}\) Ibid.
Ballard’s confusions and conflations of time and space are paralleled by a tendency to confuse the written and the visual. If Ballard is writing paintings, then his novels are positioned not only in relation to the science fiction chronotope, but also in relation to the potential chronotopes of painting, which is governed by a very different set of rules. Paintings do not necessarily need to tell a story that progresses from point A to point C, by way of point B; rather, if they present a narrative at all, they represent the entity ABC as a spatio-temporal totality, whether explicitly or by implication of previous and subsequent events. Indeed, this entity ABC is not necessarily even something that can be conceived of in terms of narrative; the possibility exists that the ideas paintings truly embody are ideas that they alone are capable of representing. For Ballard, invoking painting and visual language is a way of attempting to express spatio-temporal ideas and relationships that language is ill-equipped to adequately describe.

However, this is not to imply that Ballard’s “frustration” at his non-painter status is in any way quixotic or ineffectual. On the contrary, Ballard’s melding of novelistic and painterly chronotopes allows him the freedom to reframe novelistic entities such as characters, settings and plots in terms of spatial dynamics and interactions. In Crash, Ballard reimagines the human experience as an intersection of physical volumes moving through space, drawing the seemingly insane, but logically consistent conclusion that the most intimate act of intercourse between two people is not sex, but mutual destruction and mutilation. The contest between humanity and the spaces they inhabit, so visible in Crash and evident in Ballard’s other texts, brings to mind Bakhtin’s dictum that “the image of man is always intrinsically chronotopic.” In novels like Crash, which problematize and test humans’ relationships to time and space, this is particularly explicit. Here, the human body is tested to breaking point, and is forcefully brought into contact with technological space—specifically, the special conditions of crisis and entropy found in a car accident.

The usefulness of categorising Crash as a science fiction novel is itself open for discussion, since it does not overtly engage with science fictional themes or material, at least on a first reading. However, it shares many concerns with Ballard’s more clearly-defined science fiction texts, as well as with those of his contemporaries. In Crash, the narrator (also named Ballard) is involved in a head-on collision, in which he accidentally kills the passenger in the other car. However, after the somewhat unassuming opening chapters, the novel quickly spirals out of control, becoming a fetishistic meditation on the

sexuality of the automobile. Human and car bodies become malleable and interchangeable, and humans increasingly assume the characteristics of cyborgs, merging with and exchanging fluids with their cars. William Beard contextualises this idea by suggesting that it stems from an attempt to reconnect the disparate realms of physiology and technology, which, in the alienated post-industrial milieu Ballard depicts, have become totally separate. By entering into the emotionally charged, transgressive world of car-crash sex, the characters in Crash are experiencing a reawakening of affect—almost a resurrection. Prior to their exposure to automotive trauma,

the central characters of Crash have, years before the beginning of the narrative, arrived at an affectless alienation and emotional vacuity that is so great that they have in a sense ceased to live at all.

In this state of extreme disconnection, it takes a massively transgressive act to re-engage these characters with their own lives and those of people around them; and, through this process, the perceptual systems involved are permanently reconfigured, if not damaged beyond repair. Again, Ballard’s text represents psychological and affective states as spaces, and renders emotional turmoil as physical chaos and disjunction. The drastic nature of the process of “reawakening” undergone by Ballard’s characters helps to explain the extreme nature of the novel’s chronotopic structure: its recursive, contradictory chronotope reflects the inability of the characters to understand or articulate what has happened to them. Ballard’s novel is the consequence of trying to combine things that are not meant to fit together, and of attempting to say things that prefer to remain unsaid.

Crash, then, is something of an anomaly, an ostensibly non-science fiction novel about science fiction themes: technological horror, the blending of humans and machines, and, at the end, the possibility of redemption and salvation through that same technological matrix. Time sometimes catches up to science fiction novels, rendering their futuristic marvels pedestrian by comparison to real-life technologies. Crash is the opposite: a text in which the real world is remade in the image of a science fiction chronotope, taking the familiar, even nostalgic, world of late twentieth-century car culture and re-forging it as a bizarre alien landscape. The novel ingeniously substitutes kinetic interactions in space for interpersonal relationships, turning the characters’ various encounters into a precisely

198 Ibid., 384.
plotted series of collisions and entanglements, much like the description contained in the novel of a slow-motion test crash—a precisely described series of spatial manoeuvres, each element perfectly accounted for.

Both the driver and his woman passenger rolled forwards to meet the windshield, touching it with the crowns of their lowered heads at the same moment as the motorcyclist’s profile struck the glass. A fountain of spraying crystal erupted around them . . . 199

It is this meticulous, cataloguing tendency that typifies Crash’s chronotope. Ballard’s novel continually dissects characters and events, placing them in a cyclical system which seems to constantly loop back on itself, amplifying and intensifying its bizarre images. Like Bakhtin’s adventure-time, time in Crash lies outside of the normal biographical progression of human life. It is time lived in the moment of climax, captured like an insect in amber. Like the people suffering from “space sickness” in the short stories, for whom time slows down in an uncontrolled and irreversible way, James and the other characters in Crash are being gradually drawn into an experience of time in which the point of impact between their vehicles is the vantage point from which they survey their lives. Between the initial crash and Vaughan’s death, the events of the novel have an air of irreality or fantasy about them, as though not only the speed at which time passes has been altered, but also the way it passes. Days or weeks will pass in between the characters’ encounters, but from the point of view of the narrative chronotope, they are conceptually adjacent, if not actually identical incidents.

Although Crash’s chronotope of climax describes solid bodies, both human and machine, colliding and interacting in a relentlessly physical, granular space, this tendency towards the literal is compromised by the hypnotic pace of Ballard’s prose, and the alternating motifs of fluidity and solidity that permeate the text. The chronotope of Crash describes a space in which objects and people are constantly shifting their characteristics, between solid, inflexible volumes and fluid, ambiguous entities. Karen Beckman wryly notes that the male characters in Crash produce “prodigious quantities of bodily fluids,” especially semen. 200 The repeated emphasis on semen acts as a carrier for fertility, but also more importantly as a marker of fluidity and flux in the text. At the end of the novel, James smears his semen over the surfaces of junked cars in an auto wrecking yard: “With the

semen on my hands I marked the crushed controls and instrument dials, defining for the last time the contours of Vaughan’s presence on the seats.” The crashed car is a spatial artefact that has been through a moment of crisis, become fluid and then re-solidified as a new identity, the wreck. By introducing his semen into this system, Ballard hopes to re-ignite the process of melting and malleability. These two elements of the crash—fluid and solid—and their interaction in creating the novel’s chronotope are expressed succinctly within the text itself: “The intimate time and space of a single human being had been fossilised forever in this web of chromium knives and frosted glass.” The idea of flux and malleability, as well as the opposite, “fossilisation,” applies equally to time as well as space. A fossil is not just something old, it is something that traps time, freezing a temporal, fleeting organism within the matrix of total, atemporal stasis. This pattern extends to the structure of the novel as well, in which passages of flowing, almost stream-of-consciousness prose are interspersed with diagrammatically precise passages mimicking the style of textbooks or instruction manuals. However, these two tendencies often coexist within the same page, or even the same sentence, lending the text the feeling of a medical text or an architectural manual that has come alive and started to devolve into its own strange constituent forms. Likewise, the institutional, instructional time, which drove the space program and other mass-scale engineering projects of the twentieth century, collapses in Crash into a fluid, amorphous narrative time-scheme.

Bodies in Ballard’s Crash frequently take on the characteristics of territories, which are negotiated and traversed rather than lived in or experienced:

The anonymity of this road junction reminded me of Renata’s body, with its polite repertory of vents and cleavages, which one day would become as strange and meaningful to some suburban husband as these kerb-stones and marker lines were to myself.

Not only are bodies demarcated as mapped areas, they are neither more nor less significant than road furniture. Like the signs and markings that control and regulate traffic, these bodily zones serve as informational matrices. Bodies themselves become carriers for messages; wounds and injuries are recontextualised as marks in a coded language. This oblique, yet crucial text-within-a-text is described by Ballard as a “language in search of

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201 Ballard, Crash, 184.
202 Ibid., 5.
203 Ibid., 42.
objects,” or in other words a kind of free-floating fetish, looking for objects and bodies to latch onto: “the beginnings of a new sexuality divorced from any possible physical expression.” This disembodied language, which permeates the space of Crash, is omnipresent in the novel, its detached nature reflecting the extremely alienated state of the characters. Coupled to this idea of sexuality as a free-floating informational matrix is a quasi-transcendental, almost mystical aura of fascination with the processes and by-products of the twentieth-century city. This “language in search of objects” is manifested in the narrator’s acid trip, which forms both “the climax of a long punitive expedition into my own nervous system” and the consummation of his sexual relationship with Vaughan.

Under the influence of the drug, he experiences the midday traffic as a divine, eschatological host, partaking in a penultimate moment of crisis, which prefigures humanity’s erasure and simultaneous transfiguration.

An armada of angelic creatures, each surrounded by an immense corona of light, was landing on the motorway on either side of us, sweeping down in opposite directions... I realised that all these roads and expressways had been built by us unknowingly for their reception.

Ballard seems to be contending that spirituality and the religious impulse have become unstuck. Having been superseded and invalidated by technology, they eventually find their resurgence through the medium of those same technologies. These technologies, along with their attendant sexuality and its corollary death and violence, are the only modes of worship still available in the twentieth-century industrialised city. The concrete spaces of that city, in turn, are retrofitted as carriers of a new informational content, which is metaphorical, devotional and metaphysical.

Crash is aware of its own status as a liminal text, on the border between science fiction, pulp and pornography. The text uses science fiction as a reference point for discussing alienation and transformation; after the narrator’s epiphanic car accident, James describes his own image of himself in the mirror:

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204 Ibid., 24.
205 Ibid., 159.
206 Ibid., 164.
The smooth skin almost belonged to someone in a science-fiction film, stepping out of his capsule after an immense inward journey on to the overlit soil of an unfamiliar planet. At any moment the skies might slide... 207

It is significant that Ballard’s proxy in the novel, looking in the mirror, is placed in the situation of only half-recognising himself, attributing the characteristics of science fiction to this intrusive doppelganger. Science fiction thus exists diegetically in the novelistic universe of Crash as a kind of paraspace, which characters and situations might precipitously “slide” into. James becomes an astronaut, but one whose voyage is “inward,” attempting to reconcile his own body, and its attendant mortality, with the seemingly immortal technological matrix that has formed around it. The fact that he imagines himself as a character in a science fiction film, as opposed to any other medium, is also telling. The visual style and cinematic chronotope of filmed science fiction informs Crash’s deadpan delivery, a deliberately affectless style which obliquely references the sterile whiteness of such seminal science fiction works as 2001.

However, Ballard is also aware of the artificial nature of such immaculate visual spectacles: his character is haunted by a sense that the sky might “slide” away, like an unsecured matte painting. This image also brings to mind the idea of a time-lapse recording of the night sky, in which the wheeling stars move rapidly overhead. Ballard is hinting at the idea that time, as well as space, may be subject to such outbreaks of fluidity—the “inward journey” he envisages for James could be one in which the passage of time becomes distorted, or even meaningless. The “overlit soil” of the alien world, which is his own inner being, might exist in a perpetual daylight: either frozen in time or tidally locked, permanently orbiting with one face towards the sun. In any case, the character James has become something other than himself, come unmoored from ordinary reality and been isolated in a new world all his own.

In addition to the alternate realities of science fiction film, the novel references the actual space program, specifically the Apollo missions. The car is compared to a spacecraft, a kind of simulation or distillation of space travel. However, the journey undertaken is, as above, an inward one. Characters drive from place to place, but their actual destination is the car itself, parked in a garage or an abandoned lot. The car and its driver constitute a single, self-sufficient unit; Vaughan sleeps, fucks, and eventually dies in his car, while James has the epiphany that his car has become a life-support system, despite its crashed and...

207 Ibid., 25.
mangled state, musing “I realised that the crushed cabin of my car, like some bizarre vehicle modified for an extreme cripple, was the perfect module for all the quickening futures of my life.” More explicitly, the narrator’s sexual intercourse with Dr Helen Remington, the woman whose husband he inadvertently killed, is described as being like “the first act of homosexual intercourse in an Apollo capsule.” The idea of transgression and difference entering the highly regimented space of a NASA mission has a continuing fascination for Ballard, as seen in *News from the Sun* and other stories. The astronaut as an archetypal figure, whose actions shape and are reflected in the preoccupations of earthbound people, suggests a transcendental element to the novel’s narrative system, but filtered and tempered by Ballard’s instinctual distrust of authority and propriety.

As well as the bodily/technological dichotomy, and the issue of language, *Crash*’s multivalent chronotope is concerned with photography and the image. Vaughan is a photographer of car wrecks, a kind of fetishist paparazzo. In this novel, film and photography play a key role in the depiction and crystallization of space, remaking and rendering comprehensible the violent, frantic speed of the industrial city. The space of the car accident in *Crash*, the fundamental site of the novel’s chronotope of crisis and collision, is viewed primarily through the intermediary process of photography. Experiencing his crash first hand, James is unable to grasp its meaning; it is only with the aid of Vaughan’s photographic montages that the full significance of this event emerges, allowing him to place himself in these scenes of sexualised death and mayhem. In a way, the photograph itself is the real site of desire and the place where the “language in search of objects,” which Ballard identifies as animating his colliding bodies and vehicles, can take hold. Sexual desire in *Crash* is primarily a desire to capture, make solid and realise the spaces of the body by penetrating and destroying them, a process which photography facilitates. Photographs have the disturbing quality of being both flat and deep, portraying a surface but at the same time making us aware of its status as a veneer, or indeed a “film.” They give the impression of preserving time, but they also fossilize and denature it, blurring the boundaries between it and space.

Lying at the intersection between sex and photography is, of course, pornography. Ballard’s approach to sex in *Crash* could justifiably be called pornographic, but this approach is part of a deliberate methodology; in pornography, the body is sectioned and

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208 Ibid., 53.
209 Ibid., 62.
re-imagined as a series of discrete sites, possessed of a fetishistic power. Ballard envisions the body as a space of potentially endless permutations and encounters, manufactured and moulded by the artificial spaces of the car. For Ballard, the automobile becomes a site where crisis and breakage occur, a mobile system which deforms reality around it, reshaping both the body and the world outside the car in its own image. Ballard also sees the car as a site of profound fecundity, a rebirth of humanity re-imagined as a cyborg race. The car becomes fleshy, organic, “transformed into a bower of exotic flowers.” Cars and bodies are both folded into the same visual system, represented on an equal footing in Ballard’s porno-epistemology.

The other major element in the conceptual nexus of Crash is celebrity. Vaughan is described as stalking Elizabeth Taylor, and attempts to devise an “optimum” crash death for her. His obsession with celebrity car crashes is realised through his re-enactment, with the aid of the brain-damaged stunt driver Seagrave, of a series of celebrity automotive deaths, including James Dean and Jayne Mansfield. The idea of celebrity death is related intimately to that of photography. Celebrities, whose essence is analogous to the image they represent in the public consciousness, are in Ballard’s psycho-system akin to living photographs, to be torn up and collaged in order to provide the “optimum” configurations of desire and psychosis. Vaughan’s pursuit of “optimisation” amounts to a kind of deviant inhabitation of the structures of hard science, conforming to its modes and language but repurposing them for confused and contradictory ends. This strand in Crash is already evident in The Atrocity Exhibition, which contains both the story that Ballard later expanded into his novel and “Why I Want to Fuck Ronald Reagan,” a short story-collage that reads as though it were an excerpt from one of Vaughan’s diaries. Despite the apparently intentionally provocative and controversial nature of this tendency in Ballard’s writing, “The Atrocity Exhibition,” “Ronald Reagan” and Crash are readable as genuine investigations of a type of human experience that substitutes the mechanical, spatial and topological for the emotional and moral; or perhaps as fictions in which dynamic space becomes a new kind of affective experience, with its own heuristics of meaning and value.

Perhaps not surprisingly, due to its thematic references to film and photography, Crash was adapted into a film directed by David Cronenberg in 1996. The importance of photography in Crash makes the film version a double adaptation, in a sense; the very fact of filming Crash seems like an extension of the novel itself into the real world, making the director, David Cronenberg, into a sort of Vaughan figure by proxy. Cronenberg’s version is faithful to the concerns and plot of the novel, but it succeeds most in replicating Crash’s
basic concern with the status of photography and image making. Because it is itself a simulated documentation of a car accident, or rather a series of accidents, it positions the audience in a different, more accessible (and therefore more culpable) space than that occupied by readers of the novel. Cronenberg’s concerns as a filmmaker are with the human body and its capacity for violence, transformation and destruction. In his science fiction “body horror” films such as Scanners (1981) Videodrome (1983) and eXistenZ (1999), the human body is the site of grotesque injuries and morphologies, both the source and recipient of protean transformations in form and substance, much as it is in Ballard.

For David Cronenberg, time is measured and depicted in relation to the processes of the body and the interactions between that body and its environment. Decay, mutation and inversion are all processes that show the points of contact between the body and time itself—namely, aging and death. In The Fly (1986), Brundle gradually mutates, progressively losing his various body parts as he sheds his human identity, and storing his cast off organs in a filthy bathroom medicine cabinet, which he facetiously refers to as "The Brundle Museum of Natural History." Each ear or fingernail that drops from his rapidly changing physical form represents a further advancement of his hyper-charged biological "clock," immediately becoming a fossil relic recording a human attribute which has fallen by the wayside. In Crash, the bodies of James, Catherine and Vaughan are defined and understood

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210 The Fly, directed by David Cronenberg (1986; Twentieth Century Fox, 2000), DVD.
primarily in relation to their seemingly inevitable automotive deaths; Vaughan and James' medical tattoos represent a mapping of future possibilities, reconfiguring their bodies as sites situated in relation to the chronotope of climax (fig. 26).

Cronenberg’s *Crash* references a multitude of genres, from science fiction through pornography, exploitation movies, road movies, horror and documentary. The stylistic and narrative psychosis that the film exhibits is centred on Elias Koteas’ scarred, deranged and violent, but ultimately vulnerable and pathetic, Vaughan, for whom adaptation into film is merely another premeditated accident. Koteas’ Vaughan is a contradictory source; at one point in the film, he describes the nature of his “project” as “the transformation of the human body through technology.” Later, he dismisses this explanation as being “a crude science-fiction concept,” an interesting choice of words not found in Ballard’s text, and hearkening back to the way science fiction is used in the novel as a diegetic marker for difference and alterity. Many shots in *Crash*, such as the night-time crash site (fig. 27), the car wash and the parking garage, are shot like science fiction sets, with long pans and establishing shots full of chaotic machinery, lights and noise. The actual identity of Vaughan’s project is analogous to the film of *Crash* itself, a photographic palimpsest which celebrates and destroys both bodies and technologies.

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211 *Crash*, directed by David Cronenberg, (1996; Alliance, 1998), DVD.
The film also represents a self-reflexive meditation on the status and nature of the car in American film. Cars and car-spaces frame and systematize the action of the film; often, the characters will be framed by the windshield, which becomes a kind of second screen, behind which their status as actors becomes doubly apparent. Elsewhere, such as in the sex scenes with Helen Remington, the car-space is explicitly cinematic, almost parodic. Cronenberg’s Crash contains a myriad of different ways of filming cars and actors in cars, both moving and stationary, in various states of decay and destruction. Everything from the showroom floor to the auto wrecking yard is depicted, as in the novel, and they are presented and analysed in a way that mimics the surgical deconstruction of both vehicles and bodies in Ballard’s novel. However, here it is not the physical car that comes under attack, but its image; the collected representations of cars as part of the landscape of social space. Cronenberg’s methods of shooting cars in this film are extremely unusual; many, if not all of the shots of cars are composed in a modernist style (fig. 28), which Beard compares to that of Robert Bresson, characterised by “an almost aggressive refusal to show what would normally be shown.”212 These shots are constructed in such a way as to minimise or obscure the presence of the driver of the car, presenting the whole as an aestheticized and fetishistic amalgam. These cars become bodies on which the camera

212 Beard, Artist as Monster, 416-7.
lingers with desire, and the person behind the wheel is reduced to a kind of inert prop, like the crash-test dummies who feature so prominently in Ballard’s novel.

However, Cronenberg was not the first to tackle the subject matter of Crash in a film. Ballard himself in fact wrote and starred in the 1971 short film Crash!, directed by Harley Cokliss and produced by the BBC (fig. 29). In it, he discusses the intersections between cars and mass culture in a series of semi-documentary settings. Walking around a showroom, driving on a motorway, picking through a wrecking yard, the author describes the impulse that led to the writing of Crash:

I think the key image of the twentieth century is the man in the motorcar. It sums up everything: the elements of speed, drama, aggression, the junction of advertising and consumer goods with the technological landscape. The sense of violence and desire, power and energy; the shared experience of moving together through an elaborately signalled landscape.213

The idea that Ballard conceives of the automobile and the twentieth-century city as parts of a fundamentally semiotic landscape is relevant to any reading of *Crash*, given that it is, at its core, about the disconnecting and disjunction of societal systems of communication. The act of confusing or conflating space and time creates not just a reflexively chronotopic narrative, but also a narrative that is actively hard to read; the reader’s understanding of semiotic units such as “safety” or “affection” becomes unmoored and subject to inversion and uncertainty. The idea of landscape, too, is multivalent here; in his capacity as a mapmaker, a navigator of spatio-temporal environments, Ballard is engaged in a process of drawing connections, forging paths and outlining territories even as they shift and change beneath the gaze of both author and reader.

Ballard’s texts contest not only the strictures of genre and associated commonplace assumptions, but also the actual constraints of textual form itself. His compact descriptions of visual images, loaded with symbols and spatial vectors, function as iconic indications of chronotopic material within the text, pointing to locations where the space-time of the novel is being compressed, destabilised, and made to give way to a type of space that is more sculptural or painterly than literary. In adapting Ballard to film, David Cronenberg re-evaluates these tendencies in terms of his own medium, creating a film that is overwhelmingly of and about the process of photography, and the moral quandaries associated with photographic image-making: permission, authenticity, and the agency and accountability of both photographer and subject. Ballard’s status as a “frustrated painter” extends to the substance, as well as style, of his texts, in that they are primarily about the interactions between the physical bodies of people and the artificial spaces they inhabit. Ballard’s fiction confronts the essentially meaningless technologies and tragedies of late-twentieth-century existence, and attempts to ascribe meanings to them, as a way of negotiating the alienation they engender. In *Crash*, these mythologies find their ultimate expression in the messianic promise of eventual transcendence offered by the automobile ecosystem. Ultimately, Ballard’s characters find in their cars the possibility of an escape from the “elaborately signalled landscape” of paranoia and introspection that they are trapped inside.
Chapter 5: The Chronotope of History in Frank Herbert’s *Dune*

Many of the texts discussed in the first four chapters have chronotopes which are constructed around a unitary moment of disruption: *2001*’s threshold, Dick’s crisis, Tarkovsky’s visionary paraspace, and *Crash*’s climax. However, science fiction also contains many texts whose dominant chronotopes are diffused throughout the text, and represent ontological strategies or structures—ways of mapping space and time. At the beginning of Frank Herbert’s novel *Dune*, before any of the text, there is a map of the planet Arrakis, minutely detailed and inscribed with the names of settlements and geographical features (fig. 30). The presence of the map suggests that this book is meant to be read *as though* it occurred in a real place; that the construction and identity of that place will be a primary feature of the text; and that the reader will be expected to be able to navigate this space for themselves. The way *Dune* handles space and time is an expression of the text’s broader concerns: the nature of religion, the construction of societies, and the relationship between prophecy and history. *Dune*’s chronotope navigates a path between the various
demands of these disparate ideas, resulting in a hybrid text which nevertheless maintains a
diegetically coherent vision.

*Dune* is an example in science fiction literature of a chronotope that is self-
contained and self-sufficient in the extreme. Like Bakhtin’s “adventure-time” of Greek
romance, *Dune* operates in a schema of space-time that is distinctly separate from
ordinary, lived experience; however, unlike Bakhtin’s reading of the Greek romances, it
looks inward rather than outward, building on its own self-created milieu in order to
construct its narrative. This is perhaps the reason why *Dune* has held up so well, when
many other 1960s science fiction novels have not. *Dune* is in a rare category of books, along
with *Lord of the Rings* and *Gormenghast*, that seem as though they might have sprung into
existence fully formed of their own volition, or been dropped into our unwitting world from
some other, stranger universe. Like these other texts, *Dune* describes complex, consistent
spaces in enough detail that they can be mapped and navigated, understood as though
their spaces were contingent with, or analogous to, our own universe. This deep world
building also lends the text its sense of distance from both the reader’s reality and from the
generic canon of which it is a part.

What, then, are the characteristics of the self-contained, wholly constructed space-
time within which *Dune* operates? It is messianic in scale, with a breadth that encompasses
entire epochs of fictional history, future as well as past. It is made up of a number of spatio-
temporal realms or environments, which could be broadly categorised as outer space, the
desert, socio-political and military space, and lastly the space of historical process, which is
also the space of prophecy and religion. These chronotopic motifs are far from discrete
environments, and their considerable areas of overlap are where most of the action of the
novel takes place. Donald Palumbo suggests that the *Dune* novels have a “pervasive,
polysemic fractal structure,” and that this recursive tendency is a reflection of the novel’s
ecological concerns.\(^{214}\) However, while the structure of the series as a whole might be
viewed as fractal, the actual narrative and chronotopic content of the texts is asymmetrical
and polarised. *Dune* is focused on the disconnect between the prophetic, mystical realm of
religion and spirituality, which is identified with the individual, and the *realpolitik* world of
government, warfare and science, which is cognate with society, or with an even broader
notion of “humanity” as a whole.

At the start of the first chapter of *Dune*, there is a quotation from a fictional history book, the *Manual of Muad’Dib*:

To begin your study of the life of Muad’Dib, then, take care that you first place him in his time: born in the 57th year of the Padishah Emperor, Shaddam IV. And take the most special care that you locate Muad’Dib in his place: the planet Arrakis.²¹⁵

This instructional message is an introduction to the fundamental novelistic building blocks of *Dune*: firstly, it is a *bildungsroman* concerning the character Paul Muad’Dib, and secondly, it charts the history and geography of the planet Dune, which is given equal, or perhaps even greater, weight within the text than Paul’s own journey. It also places these ideas about the intersection of biography, geography and history in perspective as part of a para-textual frame, in which fictional “sources” external to the novel itself comment on and inform its text. Through the introduction of fragments from meta-texts such as the *Manual of Muad’Dib*, Herbert is positioning *Dune* as a quasi-historical novel, and ensuring that its chronotope contains an element of historical time. The *Dune* sequels expand on this tendency towards historicity, extending their diegetic time frames over thousands of years, and granting Paul’s son Leto II and his friend Duncan Idaho extended lifetimes to match, thus allowing these characters, like the reader, the ability to observe the progress of history from a privileged vantage point. As well as fictional-historical texts, the novel contains references to quasi-historical events such as the Butlerian Jihad, in which computers and other “machines in the likeness of man’s mind” were purged from the galaxy.²¹⁶ Events such as these, which lie in the distant past and are largely unremarked on by the characters but have a lasting influence on the novel’s diegetic universe, serve to further expand the sense of historicity within which *Dune* is situated. The novel’s four appendices, covering ecology, religion, the Bene Gesserit Sisterhood, and the Great Houses, are accompanied by a glossary of terms, a collection of para-texts that serve to place the body text of the novel into a pseudo-historical frame. Significant expository information is relegated to these appendices, such as this passage, which explains the concrete goals of the Bene Gesserit breeding program: “what they sought was a human with mental powers allowing him to transcend and use higher order dimensions.”²¹⁷ This bald statement of fact, presented in the style of an instructional guide, is actually an important part of understanding who and

²¹⁶ Ibid., 23.
²¹⁷ Ibid., 581.
what Paul is, but it is accessible only by broadening the scope of reading from the narrow
diegesis of the novel into the broader contextual frame that surrounds it.

If *Dune* is a quasi-historical novel, what chronotopic features might it share with
real-world historical novels, such as those of Balzac, Pushkin, or Scott? Franco Moretti’s
*Atlas of the European Novel* describes the chronotope of the historical novel as being
characterised primarily by a “spatial distribution” which is “away from the centre. And, by
reflex, in the proximity of borders.” Moretti credits the enduring popularity of the historical
novel genre in nineteenth-century Europe with its representing a “phenomenology of the
border,” by which rapidly evolving national identities could be understood.\(^{218}\) Like the
novels Moretti is talking about, *Dune* is concerned with borders and frontiers; Arrakis is not
a seat of power or an administrative centre, but a backwater, a place where the Imperial
class system is not rigidly enforced, home to smugglers, criminals and the Fremen, people
“marked down on no census of the Imperial Regate.”\(^{219}\) The political and strategic value of
the planet is solely due to its unique status as the source of the fantastically valuable
melange spice, found nowhere else in the galaxy. Moretti’s description fits perfectly: like
the European border-spaces in nineteenth-century historical fiction, Arrakis is “the site of
adventure: one crosses the line, and is face to face with the unknown, often the enemy; the
story enters a space of danger, surprises, suspense.”\(^{220}\)

Moretti goes on to differentiate between two different kinds of border in historical
novels, external frontiers between nations, and internal frontiers, which “focus on a theme
which is far less flamboyant than adventure, but much more disturbing: treason.”\(^{221}\) There
is certainly an element of treason in *Dune*, but it is difficult to correlate the betrayal of
Doctor Yueh with any specific internal geographical division; he travels with the Atreides
clan to Arrakis, and is coerced by the villainous Harkonnens into betraying his masters,
even overriding his “Imperial conditioning,” a kind of mind-control protocol meant to
prevent Suk doctors from causing harm to their patients. However, it is the second feature
of the internal border that Moretti identifies which is particularly suggestive, namely, its
apparent chronotopic property. “Space does not become time just anywhere in historical
novels, but only in the proximity of the internal border.”\(^{222}\) This startling assertion, that
internal borders in historical novels represent sites where chronotopic slippage is possible,

\(^{219}\) Herbert, *Dune*, 15.
\(^{221}\) Ibid., 37.
\(^{222}\) Ibid., 38.
has a great deal of bearing on Dune’s presumptive status as pseudo-historical science fiction. When Paul and Jessica are driven from the palace, and leave behind their identities as functional parts of the Imperial system, they cross a boundary, internal to Arrakis, between the city and the desert, and between their oasis of luxury and the harsh realities of life in a moisture-poor Fremen sietch dwelling. This border crossing does indeed result in a chronotopical disconnect, but it is not a “journey into the past,” like the one in Walter Scott’s Waverley. Rather, Paul’s latent prophetic powers are activated by exposure to the melange spice permeating the atmosphere of the sietch. This transformation unlocks Paul’s ability to fully access the future, rather than the past, a capacity that has previously only shown itself through his uncanny, predictive dreams.

It seems that in writing Dune, consciously or otherwise, Herbert replicates and utilises some of the genre features of historical fiction, resulting in a unique chronotope that combines aspects of sweeping, macro-scale science fictions such as Olaf Stapledon’s Star Maker or Isaac Asimov’s Foundation novels with a bildungsroman narrative drawn directly from the European tradition. The resulting text, while inescapably science fictional in its outlook, nevertheless engages with similar concerns to those of Walter Scott and his contemporaries, namely, how is a nation (or, for that matter, a Galactic Imperium) created and maintained? For Lorenzo DiTommaso, Paul’s rise to power, and the attendant “vitality struggle” between the forces of stagnation, represented by the Great Houses, and growth, represented by Paul and the Fremen, are part of an ongoing process in which both sides are the products of the religious, technological and social history of the Imperium. Herbert’s book would thus seem to be a way of explaining the nature of historical process—but the history on which this exegesis is based is entirely fictional, existing only within the frame narrative of the novel itself. This is the bedrock on which the chronotope of Dune is based: a historical approach to textual time and space, rather than an engagement with history itself.

As well as the aforementioned extra-textual factors, the chronotopic motifs of the novel itself position geography, history and culture as parts of a rhizomatic, symbiotic whole. The planet Arrakis is a nexus for the various strands of history and culture running through the text, and is perceived and utilised differently by its successive waves of inhabitants. According to DiTommaso, Herbert makes the planet Arrakis into “a living

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223 Ibid.
embodiment of the conception of a total amalgamation between law and religion,” suggesting that the ultra-hostile nature of the environment is as much an *expression* of the harsh dictates of Fremen religion and society as they are a reflection of the sacrifices required in order to live under such severe conditions. This idea, that geography might be a mutable factor, rather than an inflexible precondition, seems paradoxical at first glance, but it is a possibility which is echoed in many parts of the novel. Paul’s desire to alter the outcome of future history, despite the seemingly inevitable nature of his fate, functions in a similar manner, as does Liet-Kynes’ vision of the terraforming of Arrakis, a multi-generational project that ultimately destroys not only the sandworms and their by-product, the melange spice, but also the strict Fremen culture founded on the triad of desert, worms and spice.

The desert plays an important role in *Dune*. It provides a zone where the novel’s socio-political space adjoins the chronotope of prophecy and history, and where these two tendencies interact. In the desert of *Dune*, ecology and environmental science overlap with the historical and socio-political spheres. The indigenous Fremen’s survivalist societal ideology, which in turn informs their messianic religion, is a direct consequence of the harsh desert ecologies they inhabit. The speculative ecological elements of *Dune* are suggested by tantalizing clues in the main body of the text, as well as a slightly more in-depth analysis in an appendix. The life-cycle of the sandworm is responsible for both the lack of surface water on Arrakis (water is toxic to the worms) and the production of the melange spice, which forms the backbone of the Imperial economy. The appendix describes it as a circular relationship: little maker to pre-spice mass; little maker to shai-hulud; shai-hulud to scatter the spice upon which fed microscopic creatures called sand plankton, the food for shai-hulud, growing, burrowing, becoming little makers. Although this life-cycle is never scientifically delineated, enough detail is provided that plausible explanations for this process can be advanced. Sybille Hechtel suggests that the “little makers” are in fact feeding on geothermal energy and farming a fungus or bacteria that produces the melange spice, like a cross between leafcutter ants and deep-sea tube worms. A large part of the novel is devoted to investigating the nature of the planet

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225 Ibid., 317.
226 Ibid., 569.
Arrakis, gradually revealing the multivalent uses and meanings of the desert world. *Dune’s* desert is a space of concealed depths and hidden avenues, a heterogenous frontier zone abounding in the danger and surprise identified by Moretti. The imperial research stations, hidden throughout the desert and used by the Fremen as depots and outposts, are one such concealed space. The caves where the sietches are located, the hidden oases in the deep desert engineered by the visionary ecologist Liet-Kynes, and the hidden spaces of the sandworm itself, are all examples of such concealed spaces. However, these spaces are not stable: the sandworm, which initially appears to be a voracious antagonist of life, is eventually revealed as a mode of transportation and an integral part of the production of the spice. The melange spice’s origin, as the byproduct of an opaque ecology, is mirrored in the uses to which it is put. Spice supports the byzantine societal fabric of the Imperium by allowing the Spacer’s Guild to guide their ships between the stars, as well as providing the wealth that forms the backbone of the Imperial power structure of the Great Houses, and their shares in the CHOAM corporation.

While the Fremen’s view of their planet’s ecology is intrinsically enmeshed with their religion, in which they view the sandworms almost as gods, for other characters in the novel, ecology is seen though a more utilitarian lens. Duke Leto, Paul’s father, plans to use the planet Arrakis as a training ground on which to train an army equal to the Emperor’s Sardaukar, elite troops who are raised on the nightmarish “death world” Salusa Secundus. The harsh conditions of Arrakis have provided Leto with a pre-existing army in the form of the Fremen, although he dies before managing to shape them into a political tool. Instead, it is Leto’s son Paul who leads the Fremen down a very different path, by becoming Muad’Dib, the Lisan al-Gaib or messiah, who offers the promise of reshaping Arrakis not as a prison world, but as a paradise. In this sense, *Dune* is about how humanity exploits and utilizes natural resources—not only the spice, but also the planet’s homicidal ecology, which is conceptualised as a kind of tool, used to “train the faithful.” Again, the spiritual attitude the Fremen display towards their planet and the potential it holds is contrasted with the practical uses to which that attitude is put by the Atreides military machine; however, in the person of Paul these two tendencies find a kind of synthesis or balance. From a chronotopic perspective, the way the planet is understood changes depending on which faction’s viewpoint is foregrounded; these spaces become mutable and multivalent, subject to change and interpretation.

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228 Herbert, *Dune*, 356.
The spice is the link between planetary ecology and the prophetic visions of Paul and the Bene Gesserit, who are able to transcend time and look forward towards the sweep of future history. The spice is a chronotopic drug, dissolving the barriers between space and time for the user. In Paul’s words, “I have another kind of sight. I see another kind of terrain: the available paths.” This reconfiguration of time as “terrain,” something which can be mapped and traversed in a directed, authorial way, is an idea that permeates the fabric of Dune. The Bene Gesserit sisterhood are also trying to forge a path through time, using their selective breeding program to achieve a specific historical outcome: the production of the Kwisatz Haderach, the “shortening of the way” represented by the breeding of a male with the psychic abilities of a Reverend Mother, and who will be able to use those powers to see and alter the course of future history. Dune is rife with messiahs and promised lands, a kind of turbo-charged version of the history of Earthly religions. Liet-Kynes, the Imperial planetologist, is another character whose goal is a version of paradise: he imagines that the terraforming of Arrakis will end the constant water-discipline of Fremen society, whose frugality in terms of moisture extends even to their refusal to shed tears. This goal, which is estimated to take hundreds of years, exemplifies the philosophy that seems to drive Herbert’s vision of history: the subsuming of individual desires and happiness in service of a greater goal. As Leonard Scigaj notes, this belief in the existence of overarching narratives of human progress does not necessarily preclude scepticism about the actual utility of these structures; for Scigaj, “Herbert is suspicious of single track solutions to the complex problems of our changing world.” This goal-driven ideology is typified by the Fremen, but it also exists to some extent in the Bene Gesserit Sisterhood, whose aims are similarly future-oriented and macro-scale, and whose representation in the novel may reflect the author’s ambivalence towards their messianic aspirations: they are simultaneously benevolent and sinister, both intelligent, capable people and cold, calculating eugenicists.

Standing in contrast to both the space of the desert and the realm of prophecy and the future is the Imperium, a society characterised by an abundance of intrigues, betrayals, and vices. The spaces the characters themselves inhabit, and the way they place themselves in space, reflect a society ruled by emotion, particularly fear. Addictions, such as the semuta music-drug and the life-extending melange spice itself, as well as the

229 Ibid., 227.
230 Ibid., 594.
addiction to wealth and power displayed by the Great Houses, rule this sector of the novel’s space. The aristocratic characters, Harkonnen, Corrino and Atreides, are hyper-vigilant, constantly aware of the possibility of betrayal and espionage. In *Dune*, being powerful means being contained, segregated and simultaneously vulnerable. The ever-present personal shields, which protect their wearer with a force-field that stops projectile weapons, exemplify this contradictory mixture of danger and safety. While they make the wearer invulnerable to guns, a shield that comes into contact with a laser beam will cause a catastrophic explosion. Although lasers are banned in the Imperium for this reason, the existence of shields gives rise to a style of slow-motion hand to hand combat, in which the goal is to push a knife slowly through an enemy’s shield bubble. Although it seems strange, even farcical, the development of this tactic makes sense given the specific parameters of Dune’s diegetic universe.

All elements of the *farfreluches* caste system, dominated by the Great Houses and their stakes in the CHOAM spice mining monopoly, are subject to the same paradoxical dynamic of safety and danger. The space occupied by the Atreides, their palace, exemplifies the isolated, vulnerable nature of the powerful in *Dune*. The house, inherited from the previous owners of the spice mining monopoly the Harkonnens, has been extensively implanted with traps and hazards in anticipation of their arrival. Although it is protected from the general populace by massive shield barriers, the palace is haunted by ever-present dangers from within, both physical hazards and the possibility of Harkonnen spies. A repeated motif in *Dune*, as well as in the sequels, is the idea of walking into a trap knowingly. Duke Leto takes his family to Arrakis despite knowing that it is a Harkonnen trap intended to destroy him, because he believes that the native Fremen are an untapped resource from which he can forge an army. Time, as well as space, contains the potential for traps and betrayals; Paul’s ability to navigate the space-time of the future does not provide him with an ultimate sense of certainty regarding the events that are about to unfold. The *Dune* novels suggest that even if the future is read and comprehended, there are some aspects of it that are inevitable. In the chronotope of *Dune*, knowingly entering into a dead end often implies the finding of a new exit, or transcending the perceptual boundaries of the trap—or, indeed, subverting or eliding those boundaries themselves.

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232 In *Dune Messiah*, Paul accepts the Bene Tleilax’s gift of Duncan Idaho’s *ghola*, an animated corpse, because of the debt he feels he owes to Idaho’s “flesh.” The implication is that while he could reject the trap, he would be losing some of what makes him the person he is; and thus his actions would alter the future in ways that would cause further complications.
Prophecy plays a significant role in *Dune*’s narrative, and operates through its own specific mechanisms. Here, prophecy is a state of consciousness in which the individual sees outside of their own specific spatio-temporal location, and perceives a macro-scale conception of time that is flexible, malleable and most importantly, traversable, described as being like “the surface of a blowing handkerchief.” Prophecy operates on a semi-scientific basis, in that it is precipitated by exposure to the spice, or its more potent form of “the Water of Life,” produced by drowning a pygmy sandworm. Crucially, prophecy in *Dune* is not merely divination; it works to control and change the future, not merely to predict it. Indeed, Herbert even invokes Heisenberg, suggesting that the Uncertainty Principle applies to the spice-vision, that “the expenditure of energy which revealed, changed what he saw.” This ability to see the “terrain” of time, possessed by Paul and by the Guildsmen, gives them the status of navigators. They can chart a course through the future, negotiating a web of cause and effect to achieve a desired outcome. However, this space is not completely amenable; Paul’s desire to prevent the Jihad, which he sees coming as a result of his ascension to power, is ultimately unfulfilled. By the time of the events of *Dune Messiah*, the Fremen Jihad has already taken place, and Paul has become the Emperor of a new Imperium. The fossilization of Paul’s once-living prophecy into codified religious dogma is perhaps inevitable; in the Fremen culture, the distinction between the rules of survival and the dictates of religion are more or less non-existent. Although the moment of transcendence offered by Paul’s use of the melange spice seems to offer limitless potential, the inescapable forces of historical cause and effect are always at work, limiting his ability to effect genuine change.

In contrast to the legalistic strictures of day-to-day Fremen life, the space Paul accesses through his visions is described by the Fremen as the “‘ālam al-mithāl,” which Paul likens to

the world of similitudes, that metaphysical realm where all physical limitations were removed. And he knew fear at the thought of such a place, because removal of all limitations meant removal of all points of reference. In the landscape of a myth, he could not orient himself . . .

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233 Herbert, *Dune*, 231.
234 Ibid., 341.
235 Ibid., 440.
In Herbert’s novel, the “landscape of myth” is irrational, unpredictable and bewildering; it is a parspatial zone that threatens to deny Paul the ability to interact with and exploit his surroundings in a structured, comprehensible way. This mystical space-time, which stands apart from the ordinary flow of events and yet allows for the tantalising possibility of predicting and influencing them, places Paul in a position not dissimilar to that of a reader opening the novel of which he is a part. Like Paul, the reader can get a superficial sense of the span and scope of galactic civilisation represented in the text by flicking back and forth through the novel’s pages, but it is only on repeat readings that a way of reliably traversing the “landscape of myth” can be found, enabling them to see past the minutiae of incident and character to the macro-structures of the text. As the kwisatz haderach, Paul is able to step outside of space and time, operating in an extradimensional paraspace that allows him to reflexively perceive the historical frame in which he is situated.

Herbert’s description of the “‘ālam al-mithāl” as a space of prophecy and imagination closely parallels the way it is described in academic studies of Islamic philosophy, suggesting that the way Paul receives his prophetic visions is meant to reflect these real-world interpretations of visionary or theophanic experiences. Fazlur Rahman describes the ‘ālam al-mithāl as a “Realm of Images” which is “a specific product of Medieval Muslim mysticism.”\(^{236}\) It is an intermediary world between the physical, sensory universe and the purely intellectual realm. Henry Corbin calls it

an intermediate world, the world of Idea-Images, of archetypal figures, of subtile substances, of ‘immaterial matter.’ This world is as real and objective, as consistent and subsistent as the intelligible and sensible worlds; it is an intermediate universe...\(^{237}\)

This is a kind of interstitial space, not “imaginary,” in a Western, phenomenological sense, but inextricably tied to the activity and process of imagining. Corbin says of the ‘ālam al-mithāl that “the organ of this universe is the active Imagination; it is the place of theophanic visions, the scene on which visionary events and symbolic histories appear in their true reality.”\(^{238}\) It is important to emphasise that in Corbin’s reading, the ‘ālam al-mithāl is not perceived directly in any sensory capacity, but is rather experienced purely by

\(^{238}\) Ibid.
way of the “active imagination.”²³⁹ When Paul journeys into this space, then, it may be that he perceives time itself in this purely imaginative way. Herbert’s use of this particular term is also extremely telling in the context of Dune’s ambiguous attitude towards religion. Paul’s assumption of the mantle of Muad-Dib, the liṣan al-ghāib, is on one level a purely pragmatic act, allowing him to assume control of the Fremen population and deploy them for what are essentially partisan political and economic ends—the destruction of the Atreides’ enemies the Harkonnens and the Corrinos, and the control of the spice supply. However, there is also a sense that Paul is a genuine prophet, whose access to the ‘ālam al-mithāl does appear to have some of the characteristics of a theophany. Complicating this issue is the fact that, while Dune is indisputably in part about religion and spirituality, the subject of God is barely addressed at all. Any theophanic content in Paul’s visions would have to be with some kind of broadly-defined conception of “history” or “destiny,” as no specific deity is ever named. The sandworms themselves, the Fremen’s shāi-hulud, stand in for the unknowable nature of the divine at various points throughout the text, and Paul himself eventually undergoes a kind of auto-theophany, using his prophetic gifts to remake himself as a god-king.

Interestingly, the ‘ālam al-mithāl also plays host to a non-linear conception of time. Discussing Khidr, a Qur’anic figure who acts as Moses’ guide, Corbin points out that he is simultaneously regarded as a descendant of Moses and as his contemporary, thus being in a paradoxical state where he exists in multiple, conflicting timelines.²⁴⁰ Khidr’s chronotopic status within the religious texts where he is mentioned is both confused and confusing, but this paraspatial and para-chronological status is, in fact, an essential component of how the ‘ālam al-mithāl functions. “In any case,” Corbin says, in dealing with the ‘ālam al-mithāl “we are far from the chronological dimension of historical time.”²⁴¹ Like Bakhtin, Corbin makes reference to the existence of a taxonomy of time-types, within which the historical is only one possibility, and where paradox may only be the result of incorrectly identifying the variety of chronotope that is being represented:

Unless we situate these events in the ‘ālam al-mithāl, we shall never find a rational justification for the Koran episode in which Khidr-Elijah meets Moses as if they

²³⁹ Ibid., 43.
²⁴⁰ Ibid., 53–67.
²⁴¹ Ibid., 56.
were contemporaries. The event partakes of a different synchronism, whose peculiar qualitative temporality we have already noted.

On a side-note, Khidr-Elijah is also notably described by Corbin as the “Instigator of the mystic truth which emancipates one from literal religion.” The opposition between mystical, revealed teaching (as exemplified by Paul’s prescient visions and the generational knowledge shared by the Bene Gesserit Reverend Mothers) and the ritual, legalistic elements of religious belief is extremely marked in *Dune* and its sequels. In *Dune Messiah*, Paul returns from the desert, where he is presumed to have died, in the guise of “the Preacher,” a messianic figure who exhorts the Fremen to rebel against the institutional worship of Muad-Dib, which has become moribund and stagnant since his “death.” However, this struggle is not decisively resolved in the series; Paul’s son Leto II, in order to save himself from what he sees as his father’s failure, turns away from prophecy and revelation, instead accepting an exaggeratedly physical form of transcendence, in his mutation into a human-sandworm hybrid. By doing so, Leto II extends his life span by thousands of years, becoming a literal superman and initiating his Asimovian “Golden Path,” which purports to be a comprehensive plan for the future survival of the human species under Leto’s autocratic rule as the titular *God Emperor of Dune*.

From even this limited investigation of *Dune’s* Islamic sources, it is clear that there is a great deal of thematic overlap between elements of those real-world religious traditions and the fictional religious system Herbert constructs, as well as between some of the chronotopic structures of Sufi metaphysics and those of *Dune*. By directly referring to the ‘*ālam al-mithāl*, Herbert is bringing into his text the idea of a “qualitative temporality,” setting a rigid, historically determinist time (the time of Leto’s Golden Path) against a threatening, fluid, mythic time, with which Paul is allied but that ultimately destroys him. As DiTommaso points out, Herbert’s overarching design in the construction of *Dune*’s society reflects a conception of humanity and history that is feudal and Darwinian in nature. The nobility are depicted as having superior capabilities to the populations they

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242 Ibid.
243 Ibid., 57.
244 John L. Grigsby sees *Dune* as an intentional inversion, bordering on parody, of Asimov’s *Foundation* series, in which a secret society of social scientists guides the human race out of a galactic “Dark Age.” Asimov’s psycho-historians are portrayed as benevolent technicians working for the betterment of mankind, whereas Leto II is an inescrutable despot, and, thanks to his mutation, is literally an inhuman monster. See John L. Grigsby, “Asimov’s *Foundation* Trilogy and Herbert’s *Dune* Trilogy: A Vision Reversed,” *Science Fiction Studies* 8, no. 2 (1981): 4.
control, both through extreme physical and mental training, and as products of the Bene Gesserit breeding program. Although Herbert’s characters seem to prioritise the realpolitik world of historical time, the actual experience of reading the novel subverts this preference; the intermediary paraspace of the ‘ālam al-mithāl, with its blending of the archetypal and the personal, seems to resonate more deeply with the novel’s most basic themes: the relationship between the individual and the community, as well as between the community and the landscape, with the struggle of coming to terms with one’s own ancestry, and looking forwards to the descendants who will inherit your future.

Both Paul and Leto see the future as possessing form and substance, spatial parameters that are called into being by the act of observation itself. This “future-time,” to adapt Bakhtin’s phrase, has the property of being somewhat unreal and tenuous, existing for the most part either in a prognostic mode, in the moment of prophecy and revelation, or retrospectively, in the form of histories and memory. Between Children of Dune, when Leto projects his Golden Path (a spatial metaphor implying constriction, guidance and directionality) and the beginning of God Emperor of Dune, over three thousand years have passed, and have been elided or compressed in the interim. Indeed, for the character of Duncan Idaho, this intervening time period actually did not happen—he is serially reincarnated as a ghol, a kind of clone who retains the memories of his former life. For Idaho, the events of the first three Dune novels and God Emperor are part of one contiguous, living memory, excluding the events of the hundreds of serial lives he has lived in the intervening time. In one particularly bizarre scene, Idaho meets the wife and child of his own previous incarnation, whose existence was completely unknown to him. The thousands of years of intervening history have not had as much of an effect on any of the social or political institutions present in Dune as perhaps could have been expected. The three thousand years of Leto’s reign represent a metahistorical time, an interregnum or interpolation that does not obey the rules of historical or novelistic narrative.

Dune’s textual history, complicated by the numerous adaptations and a number of posthumous prequels and sequels written by Brian Herbert and Kevin J. Anderson, perhaps mirrors the conflicted nature of the text itself. The original Dune series is about the conflict between being a human individual, with an individual relationship to the universe and the secret world of the imagination, and being part of a society, the enforced structures and codes of which both enable the survival of the individual and render them unable to operate on an imaginative level. Paul’s inability to reconcile his position as prophet and kwisatz haderach with his personal experience of prophecy and the world of the mind is
linked to his inability to actually change the future; once he has foreseen the path that his society, and humanity as a whole, will take, he is “locked in,” bound by the act of observation and seemingly cut off from the visionary paraspace, which previously seemed so full of potential. The trajectory of the *Dune* series seems to follow this path; with the death of Paul, the books become more mechanical, they lose some of the strange power that motivated and infused the original. Although Leto II is a character whose arc parallels Paul’s, he does not move fluidly through the interior spaces of the mind in the same way as Paul did; there is none of the sense of wonder and of the odd potentialities promised by the original novel. The Guild and the Bene Gesserit are otherworldly and inscrutable in *Dune*; by the time of *Chapterhouse Dune* they have become merely squabbling bureaucracies, and the almost metaphysical nature of the spice has become the subject of austerity measures and business transactions. In the *Dune* canon, as in so many other things, the mystery is invariably more interesting than its solution.

The *Dune* novels have been adapted to numerous media, including television, films and video games. The question of whether the overall chronotopic content of a novel persists through adaptation is not easily resolved, but there is certainly the potential for individual chronotopic motifs to filter through. As previously discussed, film is an inherently chronotopic medium that is experienced in and through time in a way that written texts are not. As a result, the chronotopic elements of films take on an immediacy and centrality that their textual counterparts lack. David Lynch’s *Dune*, like *Blade Runner*, was critically panned when it was released, but unlike *Blade Runner*, it has since failed to gain traction as a cult movie with fans of either David Lynch or Frank Herbert. Although it might seem counter-intuitive, the film’s difficulty in finding an audience might be a result of its fidelity to the source material; many details, like the Fremen characters’ spice-saturated blue eyes, and even some of the finer points of the plot, such as the relationship between the Bene Gesserit and the Fremen *sayyadinas*, are not explained in the actual film itself, and so mean little to a viewer who is not already familiar with the novel. However, the bad reputation the film has acquired is largely unjustified; although it is far from perfect, it works well as a uniquely stylized gothic science fiction, and in places offers a fascinating and bizarre visual interpretation of Herbert’s characters and themes. The most striking of its departures from
the source material is that Lynch’s Paul Atreides fully assumes the mantle of godhood, as is made clear at the end of the film, a reading drastically at odds with Herbert’s pragmatic and somewhat cynical Paul.

Lynch’s film emphasises particular aspects of Herbert’s universe, bringing them into focus for closer inspection. For example, the film picks up on Herbert’s interest in language and communication. In Herbert, words and speech are specialised tools, deployed by different factions within the novel’s world in order to further specific goals. The Bene Gesserit sisterhood use “the Voice” to command others on an unconscious level, while the Atreides and Harkonnens use their own unique “battle languages” as a way of encoding communications. The vocabulary of the novel serves a purpose, too—much of Herbert’s world-building is accomplished through the suggestive use of exotic-sounding words and phrases, names of things the reader has not yet seen, but yearns to understand. *Gom Jabbar, kwisatz haderach, kanly, farfreluches, lisan al-ghaib*—this is the language of another world, appearing (at least initially) without warning and as though transplanted from a universe where these words are common parlance. The filmed *Dune* does this too—as Kenneth Kaleta points out, Lynch’s actors “deliver their lines with the reverence of an ancient holy tract . . . [the words’] inclusion without explanation furthers that world’s credibility as a real society.”

The act of speech itself is subject to numerous mutations and distortions: the Guild spokesman communicates with the Emperor by way of what appears to be an enormous radio microphone, held by an attendant. When he speaks, the translated voice forms a palimpsest over his own guttural, unintelligible speech. The guild

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navigator, resembling an enormous distended foetus suspended in a vitrine (fig. 31), likewise communicates through a speaker system—its real voice, if it has one, is never heard.

Each faction within the film’s world has its own unique look, setting it apart from the others and conveying certain information to the audience about its character and composition. The shaven heads and peculiar winged headdresses of the Bene Gesserit, the black robes and techno-mystical trappings of the Guild, and the glowing eyes and dust-caked faces of the Fremen all set them apart as discrete, contained tribal entities. The factions in this vision of Dune are not political or religious groups, but races, distinct and separate, seemingly not partaking of any shared humanity at all. The idea of a fractured, factionalized humanity is definitely rooted in Herbert’s tendency to separate and classify people based on their abilities and capacity for learning or knowledge. Herbert’s characters never seem to entertain the possibility that “all men are created equal.” In the universe of Dune, some people are inherently more capable than others, and these more capable individuals are the natural leaders and directors of humanity’s fate, as Herbert makes explicit later in the series:

[The code of honour] itself, as he recognized its shape in him, attracted Teg’s fascinated attention. It began with recognition that humans were not created equal, that they possessed different inherited abilities and experienced different events in their lives. This produced people of different accomplishments and different worth.247

This philosophy is established in the first book of the series, when the young Paul Atreides must undergo a test of his ability to endure pain in order to not die:

Pride overcame Paul’s fear. ‘You dare suggest a duke’s son is an animal?’ he demanded.

‘Let us say I suggest you may be human,’ she said.248

The idea of humanity as something that must be earned or taught seems awkward, bordering on the fascist, but it is an inescapable part of Dune’s narrative logic. This concern with who or what is human is a thread running through the whole Dune series, and in fact is a core component of its chronotope. The space and time in which Dune takes place is

247 Frank Herbert, Heretics of Dune (New York: Putnam, 1984), 166.
248 Dune, 19.
messianic, saturated with historicity and with a concern with what humanity may become. Paul’s forays into the ‘ālam al-mithāl and Leto’s draconian but apparently inevitable Golden Path are two possible solutions to this problem, both rooted in an intrinsically chronotopic understanding of the universe.

Lynch takes Herbert’s concerns about the nature and future of humanity and makes of them something rather different: a Gothic fairy-tale which emphasises not the transcendent possibilities inherent in human nature, but the barely-concealed depravity. Lynch’s use of the Gothic in his films is characterised by the “insistent rupture of systematic knowledge by unreason, the repressed and the abject,” an effect which is fully present in Dune.\(^{249}\) In fact, the final scene of the film, where Paul summons rain from the previously cloudless sky of Dune represents a decision in favour of “unreason”—Paul’s prophecy, his ability to look into the ‘ālam al-mithāl, has allowed him to claim some measure of divinity for himself. This is a radical departure from Herbert’s Paul, who is decidedly mortal, and who feels ambivalent about the cult that springs up around him and towards the mechanisms of religion in general. Lynch’s Paul is just as much an avatar of unreason as the grotesque Harkonnens; his cinematic visions represent a foray into the filmic ‘ālam al-mithāl, and the audience by observing them becomes complicit in this intermediate paraspace of revelation and divine intercourse.

Being a film, the visual texture and structure of Lynch’s Dune is just as important to an understanding of its overall interpretation of the source text as its thematic and linguistic content. Visually, Dune is sumptuous and baroque, a heady fusion of the carnivalesque and the gothic. Many of the sets appear to be (and are) stages (fig. 32), conspicuously artificial spaces that emphasise the theatricality of the actors’ performances and imply the presence of an audience. The Emperor’s throne room, seen at the start of the film, is both archaic and alien in its rococo strangeness. Groups of extras criss-cross before the camera in outlandish costumes as part of an establishing shot, creating not an immersive illusion of another world, but a sense of something staged for our benefit by the denizens of an awkward, liminal space.

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It would be hard to refute Jonathan Rosenbaum’s assertion that Lynch fails to engage with the political aspects of *Dune* in his movie adaptation. It prioritises visual and spatial exploration over storytelling or characterisation; like many science fiction films, the most engaging elements of the production, those which linger in the mind, are the sets, props, wardrobe, and visual effects—in short, the physicality and spatiality of the film’s world. Lynch takes a novel that attempts to engage with a wide set of political, religious and ethical ideas and concerns, and collapses it into a richly textured visual spectacle, enlivened by touches of strange humour and grotesque violence. It is not hard to see why this was, at the time, considered an abject failure. However, by so aggressively “spatialising” his version of *Dune*, is Lynch not perhaps exposing some elements of the novel’s chronotope that would have otherwise been obscured? Despite its reputation as a “serious” science fiction novel, *Dune* is nevertheless a book that trades in the strange and the sensational, with its bizarre names and titles, the rampant orientalism, and the worms, inexplicable and slightly comical in their position as monster-phallus-gods. There is certainly enough of this kind of material in *Dune* to make a David Lynch movie out of.

Although Lynch’s adaptation is the most widely known of *Dune*’s progeny, there are others. A Sci-Fi channel miniseries, released in 2000, attempted a more “faithful” version of Herbert’s novel, with moderate success, followed by *Children of Dune* in 2003, which adapted both the titular novel and *Dune Messiah*. There is also the complex textual history surrounding Chilean auteur filmmaker Alejandro Jodorowsky’s attempt to film a version of *Dune* in the early 1970s, a project that ultimately failed to receive studio backing.

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due to its avant-garde sensibility and exorbitant cost. It did, however, result in the creation of a comprehensive storyboard book, which has since achieved a kind of semi-mythical status, and which served as the inspiration for the comic book series *The Incal*, a collaboration between Jodorowsky and French comics artist Moebius, discussed in the next chapter. More recently, the documentary film *Jodorowsky’s Dune* explores the production history of the *Dune* project, including the involvement of Moebius, Dan O’Bannon, Chris Foss and H.R. Giger, who would go on to work on *Alien, Blade Runner* and *Star Wars*, which the documentary conceptualises as spiritual successors to Jodorowsky’s unfinished project. This potential film exists in a kind of ‘ālam al-mithāl of its own, accessible through imagination and through the imaginary, chronotopic constructs of other films and comics. Jodorowsky’s largely hypothetical film exists in a space not dissimilar to framing texts such as the *Manual of Muad’Dib*, in that it can be understood only through the way it influences other texts, and never accessed first-hand. Jodorowsky’s *Dune*, like Lynch’s, was to be a re-imagining of Herbert’s universe, emphasising Paul’s status as a spiritual leader and guru figure. At the end of the film, Paul apparently was to die, living on in a dispersed form through the consciousness of his followers, much like the fragments of Leto II’s psyche buried in the sandworms after the events of *God Emperor of Dune*. Ultimately, *Dune* is a text that has proven strongly resistant to adaptation. This is probably due to a number of factors, including the length of the text, the complexity of its idiosyncratic world, and the extensive pseudo-historical frame within which it is couched. The nature of *Dune*’s unique chronotope, which combines historicity, mysticism and ecology, also seemingly resists being transplanted.

Like historical novels such as *Waverley, Dune* and its sequels use characters, plots and thematic material as aids to making sense of complex space-times. Rather than serving as support for such novelistic components, the chronotopic material in *Dune* and other historical and pseudo-historical novels takes centre stage, forming an underlying structure to the text. Rather than describing the identity concerns of European nation-states in the nineteenth century, *Dune*’s chronotope describes a fictional space, whose historical and spatio-temporal context is completely artificial. However, the experience of reading *Dune* invites comparisons between real history and Herbert’s pseudo-history to be made, perhaps allowing it to serve some of the same functions as a traditional historical novel.

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252 *Jodorowsky’s Dune*, directed by Frank Pavich, (Highline Pictures, 2016), film.
However, there is also pleasure to be had in the act of immersion in a completely alien environment, a readerly enjoyment which motivates us to step back from the narrative path and explore the particulars of a science fiction world, particularly one as dense and fully-realised as Herbert’s. The pleasures of *Dune* are its languages, its landscapes, and the sense of accumulated time that its historical frame creates; in these things, it represents the best of science fiction’s ability to offer a blissful alienation, a total immersion in a time and space that are inescapably other, and can be enjoyed as such on their own merits.
Chapter 6: Alejandro Jodorowsky’s *The Incal* and the Chronotope of *Satori*

Although Jodorowsky’s proposed *Dune* adaptation never got past the planning stages, in part because of its fantastic cost, it nevertheless paved the way for a number of important landmarks in the contemporary landscape of science fiction: *Star Wars* (1977), *Alien* (1979), *Blade Runner* (1982) and *The Terminator* (1984) all bear traces of its genetic material. However, the abrupt end of the project was not the end of Jodorowsky’s own engagement with science fiction. Rather, he chose to continue his explorations through a change of medium. In *The Spiritual Journey of Alejandro Jodorowsky*, the Chilean filmmaker and author describes a conversation with his collaborator Jean Giraud, also known as Moebius, in which he told him that “failure does not exist. It is a concept of the mind. Let us instead call this a change of path.” This change of path was the decision to continue their collaboration in the form of a series of comics, which contain many of the thematic and visual elements planned for the abandoned film project. The resulting series, collectively called *The Incal*, consists of six books: *The Black Incal*, *The Luminous Incal*, *What Lies Beneath*, *What is Above*, *The Fifth Essence—The Dreaming Galaxy* and *The Fifth Essence—Planet DiFool*. Collectively, these comics are a kind of pastiche of the *Dune* universe, infused with Jodorowsky’s new-age millennialism and satirical bent.

Jodorowsky’s interest in collaborating with Moebius was perhaps based on the latter’s visual style, which is precise and diagrammatic, and uses an economical form of illustration derived from the European “clear-line” tradition of *Tintin* creator Herge. However, Moebius is more than an accomplished draftsman; his worlds, although depicted with the minimum of extraneous information, almost writhe with vitality. Faces, hands, bodies in motion, even buildings and machines, seem to be possessed of some weird, baroque life force, which animates and unifies his pages into a riot of information (fig. 33). Moebius’ illustrations make a significant contribution to the way Jodorowsky’s text is read and interpreted. It is not hard to see why Jodorowsky, whose roots are in mime and the theatre, should have collaborated so profitably with an artist who instinctually understands the way bodies move in space, and the way a pose or the position of a hand or head can convey information. Perhaps drawing on his background in cowboy comics, Moebius’

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253 *Jodorowsky’s Dune*, directed by Frank Pavich, (Highline Pictures, 2016), film.
science fiction is a reaction against the sterile, antiseptic future worlds of the optimistic 1950s. Instead, his worlds have a lived-in, grungy and animated appearance, a dystopian frontier inhabited by characters who are likewise imperfect. When, having strayed from his own squalid milieu, John DiFool finds himself on a Dan Dare-esque “planet of gold,” he begins surreptitiously stealing the golden furnishings. Despite the collapse of the Dune film project, the film’s storyboards, using Moebius’ art, were widely circulated in Hollywood from the mid-1970s onwards. Moebius’ neo-baroque conception of science-fiction space would prove highly influential, with many subsequent examples of science fiction in film and other visual media adopting a similarly “lived-in” look.

Together, Jodorowsky and Moebius develop a unique chronotope in their project, characterised by the motifs of braiding, layering and the collapsing of dualities. The concept of collapsing duality is drawn from Jodorowsky’s interest in modernist Zen philosophy, and is expressed in the recurring motif of folding two spaces into each another, as well as in the combination of diametrically paired concepts: black and white, male and female, good and evil, organisms and machines. Recurring visual motifs throughout the text link together the various spaces in which the comic’s chronotope is under stress, leading to a profusion of complex, metamorphic forms. This material is connected to the chronotopic motifs of layering and nesting, which rather than connecting disparate areas of the text together, concentrate these motifs into singular, chronotopically charged sites, like the garbage plains and the vertiginous city-shaft in What Lies Beneath. All of these chronotopic motifs echo the functioning of satire, esoterism and allegory in text, layered structures that can be read and interpreted on multiple levels simultaneously. Jodorowsky deploys these elaborate chronotopic structures in service of the central idea of self-empowerment through a process of psychological self-examination, leading to an eventual enlightenment that is similarly inward-looking. This idea, of uncovering a hidden centre in search of a more
perfect self, is found throughout *The Incal*, as well as throughout Jodorowsky’s larger body of work.

Robert Neustadt sees Jodorowsky’s *oeuvre* as fundamentally concerned with questions of place and identity, issues that are perhaps inextricable from the artist’s interest in spirituality and religion, specifically Zen Buddhism and the New Age movement. As an author, Jodorowsky has produced numerous books on psychoanalysis, New Age spirituality, self-help and the Tarot, themes and ideas that are clearly identifiable in his filmed output. His first major film, 1970’s *El Topo*, is a metaphysical quest narrative much like *The Incal*, in which Jodorowsky himself plays the titular cowboy gunfighter “The Mole,” who confronts and kills through trickery four “masters,” other gunfighters who are also spiritual gurus. Eventually, El Topo renounces violence and becomes a Christ-like figure, who leads a group of subterranean misfits. 1973’s *The Holy Mountain* is a much more elaborate meditation on similar themes, structured around a series of references to astrology, the Tarot, Christianity, alchemy and Central American history. At the end, Jodorowsky’s character the Alchemist breaks the fourth wall, revealing to the other characters that they have been acting in a movie all along, and thus bringing them to their ultimate enlightenment: the realisation that they, and their world, are an illusion. Bearing in mind the nature of his project as a whole, it is not surprising that Jodorowsky tends to subjugate the tropes of any given genre to the demands of his current work; much as *El Topo* is a Jodorowsky film first and a western second, *The Incal* is more an example of Jodorowsky making use of science fiction for his own ends, than an attempt to “perform” the science fiction genre. Like Dick, Jodorowsky’s science fiction is informed by his interest in metaphysics, and the chronotopic structures of *The Incal* reflect this, with their emphasis on duality and reconciliation.

Moebius’ visuals complement Jodorowsky’s story of self-enlightenment in that they direct the reader towards an examination of fantastical, oneiric paraspaces as a direct visual metaphor for the kind of metaphysical exploration that the text describes. As in many comics, the primary source of reader involvement is the captivating nature of the spatial diegesis, what Thierry Groensteen identifies as the “consistent” nature of comics’ worlds:

> each image comes to represent metonymically the totality of this world . . . the multiplicity and spread of these images, the ubiquity of the characters, makes

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comics truly open to a consistent world, as I persuade myself all the more easily that I can live there, that . . . I do not cease, in reading, to enter within and to exit.\textsuperscript{256}

The idea of comics as a synthetic space to which the reader is allowed privileged access has a great deal of resonance with \textit{The Incal}, and its concerns with the opening up of inner spaces in the interests of discovery and enlightenment. Like Tarkovsky when he made \textit{Solaris} and \textit{Stalker}, Jodorowsky’s interest in science fiction as a creative mode seems to be focused on its ability to represent the internal world of the mind as an external, fantastic zone; to make the intrinsic extrinsic, and to make explicit the implicit. Jodorowsky deploys the materials of his science fiction \textit{milieu} in order to achieve the overarching goals of his project; space travel is reconfigured as travel into the spaces of the mind and other metaphysical realms. \textit{The Incal}’s chronotope deals with the inversion and transposition of internal and external spaces, using the pre-existing genre materials of science fiction and the conventions and techniques of comic books, but it is by no means constrained by either.

Although it does not slavishly follow generic precedent, \textit{The Incal} draws from other science fiction texts; as is mentioned above, \textit{Dune} is an important source text for \textit{The Incal}, providing a narrative framework on which Jodorowsky hangs his own chronotopic structures. As in Herbert’s novels, the universe of \textit{The Incal} is structured around a galactic empire composed of numerous planets, and containing a number of specialised socio-political factions. Jodorowsky also picks up on \textit{Dune}’s metaphysical sub-text, but in his comic it becomes super-text, an unashamedly New-Age quest for enlightenment replacing \textit{Dune}’s ambivalence towards prophecy and religious dogma. Overall, however, \textit{The Incal} is not an adaptation of Herbert, but is instead a kind of parallel process to \textit{Dune}, in which a somewhat similar setting is turned to vastly different ends. The tone and attitude of the two authors is also different; whereas Herbert provides broad sociological recipes for society, Jodorowsky is concerned almost exclusively with the personal and subjective. Although Jodorowsky criticises and ridicules societal mores and authority figures, his position is that of the fool or clown, rather than the reformer. In addition, the way the two texts handle space is very different: whereas \textit{Dune} is concerned with the idea of history as a continuum, and religion as constituting a kind of spatial construct, \textit{The Incal} is concerned

with a heterogeneous profusion of psychologically charged zones. Notably absent from *The Incal* is any of *Dune*’s meticulous pseudo-historical framing, or its intensive investigation of the spaces of myth and prophecy; rather, *The Incal* plays fast and loose with time and space, leaping across worlds and galaxies with an almost improvisational flair. The element of *Dune* that Jodorowsky seems to have been most interested in is the character Paul Atreides, who in the aborted film project was to have been played by Jodorowsky’s own son, Brontis. In *The Incal*, Paul is reconfigured as Solune, a boy-messiah whose supernatural powers are largely divorced from any broader metaphysical structure (fig. 34). In contrast to Paul’s desire to use his prophetic ability to impose order on a chaotic universe, Solune’s abilities are vaguely defined in terms of a Manichaean confrontation between good and evil, the in form of “the Great Darkness.” Although they share a number of plot and character similarities, the two texts are more conspicuous in their chronotopic variation than in their similarity.

However, the key difference between *The Incal* and the other texts covered in this study is a fundamental one: it is a comic, rather than a film or novel. Comics, like films, impart their own particular set of rules and conventions onto a text. As is explained by Scott McCloud, Will Eisner, and others, the comics form handles time, space and motion through a set of signs and quasi-linguistic semaphore unique to that format, in the same...
way that the visual space of film is created through units of meaning such as zooms, pans and cuts. Like novels and films, comics have their own particular chronotopic identity, which lies in an intermediate zone between text and image-based media. Comics share with films a concern with the movement of bodies through space; however, the way comics represent time is unique, in that it is fractured and compartmentalised into frames that are themselves part of a static spatial continuum. Comics’ ability to impart information through visual means also has a bearing on how their chronotopes are constructed, and gives them different chronotopic characteristics to other types of media. Moebius’ drawings add to Jodorowsky’s text a layer of meaning that is difficult to quantify, but which functions in some places as a commentary on the narrative, and in others as a more direct visual representation of the esoteric and satirical themes that the writing develops. In one panel, the floating presidential palace is breached by the nuclear weapons of Amok, the subterranean revolutionary/terrorist militia, as part of a wider societal uprising (fig. 35). As the main characters descend into the underworld, the city is plunged into chaos and anarchy. The palace’s exposed underbelly is an intricate maze of conduits and mechanisms, which are both a reflection of the mechanistic, convoluted nature of government and state processes.

power in *The Incal’s* universe and a visual representation of complexity, layering and interconnectedness. This tendency towards interiority and detail is a theme running through the entire text—each space seems to contain a series of nested interiors, giving the sense of a spatial continuum that carries on outside of the comic’s frame. Elsewhere, an image of a ruined grain harvesting machine, which looks like a piece of modernist architecture on tank treads (fig. 36), takes on an attitude oddly reminiscent of a bucolic landscape, echoing the millennial, new-age worldview of Jodorowsky’s project. Moebius’ approach to picture-making is both painterly, in its concern for the layering of exteriors, and architectonic, in its insistence on constructing and revealing unseen structure and complexity.

Space in *The Incal* is fantastic, imaginative, and resistant to attempts to reduce it to concrete dimensions or measurements. The spatio-temporal setting depicted in the comic is subservient to the demands of allegory and dream-narrative. Even though the objects that inhabit this world (people, televisions, guns, spacecraft, giant jellyfish, and so on) are consistently rendered by the artist and are thus in some sense “knowable,” the framework within which they exist is oneiric and metamorphic. In addition, this chronotopic setting is constructed from the materials of the science fiction genre, a pre-existing topology in which space tends to subdivide into cities, planets, empires and finally galaxies. These entities are suspended in and connected by the void of “space,” an area where time and distance are essentially meaningless, and which functions almost purely as an intermediary
between the zones where the story actually happens. The reader tends to get the sense that the space depicted is either everywhere or nowhere, that time is either standing still or jumping at random; events, people and places fold into one another, until we cannot really discern whether The Emperoress, the Sacred Androgyne is alive or dead, or whether it matters; whether the boy Solune is a living spaceship or a tow-headed youth—in the end, these elements of plot are little more than decorative flourishes, like the foliage and putti on a Baroque altarpiece. The comic is focused more on creating this intoxicating profusion of strange concepts and visuals than it is on advancing any kind of concrete plot or narrative, other than a general progression towards the state of enlightenment.

Writing on the semiotics of comics, Thierry Groensteen introduces the concept of “braiding,” in order to account for the thematic recurrence in comics of certain types of

visual material. He suggests that braiding is characterised by “the remarkable resurgence of
an iconic motif (or of a plastic quality), and it is concerned primarily with situations, with
strong dramatic potential, of appearance and of disappearance.” Crucially, this
“resurgence,” or repetition of the iconic material, can take place at any distance between
two points within the text. In this way, a “network” of connected panels is created, in
which each panel is a site endowed with a broader meaning because of the activity of the
braiding process. The activity of braiding ties together the numerous paraspatial sites in the
books, although perhaps in the context of The Incal, it might be more appropriate to think
in terms of a quality of paraspatiality dispersed throughout the text, rather than of discrete
paraspaces. These kinds of threshold situations are, in The Incal, usually associated with a
“plastic quality” of fluidity or metamorphosis. For example, when DiFool first interrogates
the White Incal, he is shown being decapitated and split into his four warring humours,
which take the form of anthropomorphic, elemental creatures—fire, earth, water and air.
Strangely, his body is disassembled by a luminous tentacle emanating from the Incal, a
motif that recurs throughout the text. This metamorphic, biological motif is also seen in the

258 Groensteen, System of Comics, 151-52.
form of the giant jellyfish of the planet Aquaend. These jellyfish are used by the inhabitants of the planet as a means of transportation and life support, which becomes a strange biological plasma as it rises up to envelop them. The swirling material inside the Emperoress’ egg (fig. 37) is a similar kind of formless, primal matter, faintly suggestive of intestines or the folds of a brain. So too, the Berg queen initially appears as a pool of protoplasm, which forms itself into the effigy of a woman in order to seduce DiFool. In The Incal’s “braided” structure, the recurrence of these fluid biological motifs signals to the reader places in the text where this “dispersed” paraspace is particularly concentrated, and where the comics’ world is warping and undergoing flux.

This tendency towards biological forms is balanced and opposed by a visual motif that functions as an echo and antithesis to it, in the form of the grasping pincers and tangled mechanisms of the Technocity (fig. 38). These mechanical claws or manipulators appear frequently, protruding into the frame, invading and violating its borders, as seen in the panel showing DiFool facing his imminent dissection. These two opposing instances of braiding, mechanical and biological plasticity, are allied to the two opposing orders in the text, the followers of the Incal and the Techno-priests, who worship the “Great Darkness” in the form of the mysterious “shadow egg.” Interestingly, the forces of the mechanical world are likewise susceptible to transformations and mutations—the Presidential Necro-Droid goes through a number of mutations in the course of its pursuit of DiFool and company, from a sort of flying saucer, to a walking colossus, to a tank, and finally a mere walking head. There is also a definite suggestion that the distinction between biology and
technology is not as clear-cut as it might appear at first. When the Techno-Centreur confronts DiFool and informs him that he is to be dissected in order to obtain the Incal, he says “You city-shaft-dwellers are all a bunch of hypocrites! What do you think we build your perfect robots and machines out of? We build them out of your corpses!” Later, when the “great darkness” appears, its form is extremely volatile and mutable, and appears to be comprised of both biological and technological elements (fig. 39). The blending or eliding of the difference between organisms and machines seems to signal that the processes of human perfectibility, which the Incal seems to have been created to facilitate, are under threat or undergoing breakdown.

The process of braiding functions as a visual signifier for the chronotopic motifs of Jodorowsky’s text—metamorphosis, synthesis and emergence. As described by Groensteen, the repetition of these visual motifs creates an expansive network of meanings within the text, which can be read and re-read in order to obtain new permutations and outcomes. The entire text thus functions in some capacity as a space to be explored; much as the visual richness of a single panel acts as an invitation to closer analysis, so too can the overall macro-structures of the text, enabled by the mechanisms of braiding and the creation of separate paraspaces. At the end of the text, the entire universe is essentially restarted: with the whole human race plunged into sleep, and the Incal becoming the new creator, DiFool is placed back at the start of his journey, falling down the city-shaft towards the acid lake. He is charged by a godlike figure, who bears a suspicious resemblance to Jodorowsky himself, with the task of “remembering” everything that has occurred—thus placing the entire narrative into a new spatio-temporal frame, that of a fragile and rapidly disintegrating memory.

The similarity between some aspects of the visual language of science fiction and the iterative complexity of Baroque art and design has already been noted, in reference to Blade Runner, and a similar correspondence can be seen in Moebius’s style. As well as enabling the chronotopic motifs of braiding and layering to take place in the text, Moebius’ illustrations are reminiscent of the visual cacophony of the Baroque, in its profusion of detail, contrast between organic and inorganic forms, and sweeping gestures of scale and distance. Looking for models of a language with which to describe Moebius’ visual style, Robert Harbison’s description of a Rubens sketch is suggestively appropriate: “...it is a

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world gone molten or cyclonic, with compressed figures flying in every direction, their limbs sometimes forming bristling composite machines.” Moebius, too, develops a world in which human figures take on metamorphic characteristics, and in which confusion between animate and inanimate matter leads to bizarre hybrid forms. The hyper-detailed nature of his compositions often leads to a sense of disorientation that could well be described as cyclonic, in which the eye has too much information to take in and, as a result, is cast adrift in the resulting chaos. Moebius’ visual language is comprised of caricature, irony and the grotesque, but it is also absolutely concerned with transgression and the crossing of frontiers, and is thus very much the visual counterpart to Jodorowsky’s countercultural worldview. Harbison describes the Baroque impulse as “an interest in movement above all,” a movement that of necessity takes place within a space, or between spaces. The visual language and structure of comics is set up to create the impression of movement through a sequence of still images, much as the architectural techniques of the Baroque seek to impart movement and life to static facades. Deleuze identifies the Baroque as an “operative function” that “endlessly produces folds,” shortening the distance between inside and outside, figure and ground, body and soul. This idea, of “folding,” is not dissimilar to the operation of braiding as identified by Groensteen; although it is not surprising that critical discourse often develops spatial metaphors in order to describe visual art, the choice of these particular recursive spatial constructs is suggestive of an affinity between the two.

In What Lies Beneath—the third book in the series—there is a sequence in which the characters are sucked into a vortex at the bottom of the acid lake, and emerge into the hollow interior of the planet, which has been turned into an endless plain of garbage. “Subterranean fermentation” gives rise to clouds of flying leeches, apparently spontaneously generated out of the garbage substrate. Once again, mental, internal processes are expressed through the layering process as external chronotopic motifs. For a reader, the experience of this enclosed space could bring to mind Deleuze’s description of the Baroque interior as “a pure inside without an outside, a weightless, closed interiority, its walls hung with spontaneous folds that are now only those of a soul or a mind.”

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261 Ibid., 1.
264 Deleuze, Fold, 29.
this planet is in some sense a mind seems fairly unambiguous; the characters pass from a surface level consisting of heaving crowds and mired in the minutiae of the everyday, to a barren interior inhabited by “psychorats,” as well as the transparently Jungian character of Animah, to a final level of interiority, the crystal forest inside the “inner sun,” where they find their enlightenment and are empowered. As in all of his major works, Jodorowsky conceives of the spiritual confrontation with the self not as a process but as a very literal journey, a traversal of space that lies between the individual and the goal.

The desert of El Topo, the titular Holy Mountain and the hollow world of The Incal are all spaces that are both psychologically charged and inherently physical. The space of The Incal offers a “porous, spongy or cavernous texture without emptiness,” where each element serves as a gateway to finer and finer gradations of fractal intensity. The apparent disparity between the complexity of Moebius’ art and the simplicity of Jodorowsky’s modernist Zen project is like the seeming disconnect between the two “levels” of Deleuze’s Baroque “house”: “That one is metaphysical, dealing with souls, or that the other is physical, entailing bodies, does not impede the two vectors from comprising a similar world...” The division between the spiritual and the physical is not treated as a dichotomy in this conception of the Baroque worldview. Rather, they are complementary elements that form separate, but linked, parts of the structure of the “house” as envisioned by Deleuze. In Jodorowsky’s project, spirituality is primarily addressed through physical metaphors, the spatiality and tangibility of which does not detract from their ability to impart information about the metaphysical underpinnings of the text. In fact, in The Incal, there are numerous vectors at play. In addition to Moebius’ frenetic, distorted spatiality and Jodorowsky’s aspirational New-Ageism, there is also a strand of satire and social commentary, running in heteroglossic parallel to the others.

Jodorowsky’s text is complicated. It incorporates seemingly incompatible elements of broad social satire, esoteric religious themes, space opera, comedy, noir and avant-garde experimentation. As a result, the structural underpinnings of the text itself reflect this tendency towards layering and complexity: its diverse crop of narratives and ideas are reflected in a depiction of space which is likewise heterogenous and multifaceted. There is a significant element of allegory in all of Jodorowsky’s work—the specific has a tendency to stand in for the general, and indeed much of the actual “meaning” of the text is

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265 Ibid., 5.
266 Ibid., 29.
presumably accessible through a kind of interpretation similar to the reading of Tarot cards. Hierarchy, stratification and complexity are visual representations of the operational mechanisms of satire and allegory. These ideas are present in much of Moebius’ artwork, especially the city scenes, spaceship interiors and “techno”-scapes—an overwhelming, burgeoning tide of complex mechanisms, details and identities, which contribute to a kind of visual “heteroglossia,” in Bakhtinian terms. The city especially is conceived of as a stratum, a substance through which the characters and forces penetrate and intersect—not dissimilar to the way Los Angeles is depicted in Blade Runner. In the first book of the series, an exaggerated class hierarchy is in evidence, in which the upper class “aristos” are depicted as ethereal, haloed beings, while the undercity is an immense pit, with a lake of acid at the bottom. Later, when the city is torn apart by riots and revolutionary forces, the president’s floating palace descends over the mouth of the pit (fig. 40), blocking any escape in an obvious spatial representation of the power of the rulers over the dispossessed. The operation of allegory and satire is in effect echoed on a diegetic level, by the inventive spatial and technological processes of layering present in the text. The reader, accessing the surface-level spaces of the text experiences a double layering effect; both reading into it the satirical and esoteric elements that Jodorowsky puts in place, and engaging with the complex, layered diegetic spaces of Moebius’ illustrations.

Thus it appears to be the case that, like many examples of science fiction, what The Incal tells the reader it is about and what is actually interesting and valuable about it are two completely separate things. The Incal is presented as a kind of futurist neo-noir, like the roughly contemporaneous Blade Runner, in that it concerns the misadventures of a private eye who fumbles his way through a cross section of social, and in this case cosmic, strata. However, while Blade Runner expects its audience to take the noir tone, and the
associated themes of moral uncertainty, cynicism and fatalism, at face value, in *The Incal* the *noir* setting is present largely as a set of broad genre tropes, which the text largely abandons over the course of the six volumes. DiFool, as his name suggests, is not really much of a detective; most of what happens in *The Incal* happens to him or despite of him, rather than because of his actions, although towards the end of the series he does develop some of the characteristics of a Jodorowskian hero-figure, in the mould of the eponymous gunfighter in *El Topo*. What *The Incal* is fundamentally about, like more or less all of Jodorowsky’s works, is the quest for individual enlightenment.²⁶⁷ In this sense, the Incal itself is positioned as the central character of the comic, and the exegesis (or perhaps invention) of its various properties and its cosmic significance makes up the core business of the comic. For instance, explicit exchanges between characters seek to describe the parameters of the Incal’s identity and powers:


‘It is none of these things! . . . It is pure consciousness, a direct emanation of the divine will—the power of God incarnate!’²⁶⁸

The Incal is thus perhaps a solidified *gnosis*, a direct contact with the divine that confers miraculous powers on the one who bears it. It gives John DiFool the ability to fly and perform superhuman feats of strength, and is also a mechanism that allows the characters to travel throughout the universe. Interestingly, in this text direct contact with the divinity is manifested in essentially spatial and temporal gains—the Incal is manifested partially as a kind of benevolent technological wonder, a mysterious pyramidal starship which allows access to various alternate dimensions and galaxies. The Incal itself is a chronotopic entity, in that the metaphysical gifts that it bestows allow its acolytes to manipulate time and space. The construction of these surface narratives thus functions essentially as a way of expanding on and extrapolating on Jodorowsky’s concern with the quest for enlightenment.

This dialogue between surface narrative and esoteric subtext in *The Incal* parallels the interdependence of image and text in comics, which likewise complement and comment on one another. Any discussion of Jodorowsky’s works would be incomplete

²⁶⁷ Neustadt, "Reiterating Chaos."
without addressing the extent to which his creative output has been informed by his interests in esoteric religion, especially his study of Zen Buddhism. In *The Spiritual Journey of Alejandro Jodorowsky*, the author described his apprenticeship to an expatriate Japanese Zen monk in Mexico City, Ejo Takata. Jodorowsky’s interest in Zen is described in terms of a personal quest for wholeness and meaning—and thus his interpretation of Zen is couched in these terms. Jodorowsky’s interpretation of and understanding of Buddhist concepts is perhaps modernist in nature, in that it is largely essentialist, divorced from traditional cultural contexts and, arguably, informed as much by Western esoteric movements such as Theosophy as it is by historical Buddhist thought and practice. Regardless, this is the way Zen was perceived, conceptualised and put into practice in the West in the latter part of the twentieth century, and thus it is this “modernist” version of Zen that is relevant to Jodorowsky’s works, and to *The Incal* in particular.

Zen emphasises the need to overcome duality, which is seen as the cause of both the estrangement of the self from the world, and of the self from the self. Zen aims towards a state of unity called *satori*, sometimes translated as “enlightenment.” According to Bernard Phillips, “[Satori] is the entry into the life of non-duality where one is no longer caught by the play of the opposites, where self is not set over against the other, nor are ideals in conflict with realities.” This idea of collapsing duality is of crucial importance for Jodorowsky, who makes it the dominant chronotope of his text by filling his fictional universe with pairings and dualities—the hermaphroditic Emperoress, the Black and White Incals, the twin sisters Animah and Tanatah. This is symptomatic of how Jodorowsky uses science fiction as an arena where the fantastic and the metaphysical can intersect with the banal and pedestrian; his super-powered robots and esoteric supermen coexist with slum residents, journalists and “homeo-whores.” Space travel is conceptualised as a metaphysical journey, a navigation of complex, nested geometries that are, in fact, the architectonic structures of the mind—but a mind with “place-ness,” and which can be compartmentalised and traversed. The journey towards *satori*, the collapsing of the Black

269 Jodorowsky, *Spiritual Journey*.


271 To this end, this chapter employs the writings of Daisetz Suzuki, a Japanese scholar who played an important role in popularising Zen in the West, as a source, since his views on the subject tally well with the Zen philosophy set out in *The Spiritual Journey of Alejandro Jodorowsky*. Further references to “Zen” in this text are to be taken as referring to Jodorowsky’s presumed understanding of the topic, and the general Western perception of Zen in the 1950s-1970s.

and White incals, male and female, good and evil, and so on, is thus reinterpreted as a journey through space, but also an implosion of that space. For Jodorowsky, the mechanical or diegetic concerns of science fiction as a form are subordinate to its ability to function as an allegory or metaphor for processes internal to the human experience. It is perhaps ironic that a work predicated on the theme of reconciling duality should take the
form of a complex baroque façade, but this is totally representative of Jodorowsky’s over-
fertile imagination; every time an instance of duality seemingly collapses or is overcome,
another springs up to take its place.

As has already been mentioned, Moebius’ cityscapes were extremely influential on
the appearance and construction of many subsequent science fictions. For Scott Bukatman,
the full-page illustration showing DiFool’s plunge from Suicide Alley into the depths of the
city-space (fig. 41) represents a kind of “privileged vision” of space, “a totalizing gaze which
attains an impossible clarity through the perception of a deep and detailed space in which
everything is nevertheless visible.”\^273 This kind of seeing is representative of both the visual
style of science fiction and of Moebius’ clear-line approach to illustration. There is no
ambiguity about his lines, no atmospheric effects and indeed very little shade or shadow;
the information about this cityscape is presented in diagrammatic form, creating a
supremely readable space, possessed of a sense of immediacy and closeness, but also
bewildering in its complexity, and suggestive of additional levels or layers of detail
obscured from view. Later, in the panels where the Metabaron’s ship plunges down the
whirlpool at the base of the acid lake towards the centre of the hollow world (fig. 42), the
space is similarly deep and readable, but it is thrown into chaos and motion. The
arrangement of the bizarre, almost organic rock formations echoes the movement lines of
the acid river, creating a sense that both the liquid and the space it flows through are in
motion. The relationship between the surface of the acid and the position of the viewer is
somewhat ambiguous—it is unclear whether the cataract is viewed from above or along its

length. In the first panel, the liquid actually appears to flow up the wall and onto the “ceiling,” moving from above and behind the eye of the viewer in a sweeping motion that creates a sense of disorientation. This single frame condenses a great deal of information about space and movement, depicting the moments before the characters’ emergence into the “hidden world” as a chaotic tangle.

The depiction of emergence and transition is, as always in Jodorowsky, suggestive of the process of attaining enlightenment, although the inner world is perhaps also a type of paraspace, where conflicts instigated in other parts of the text are worked out.274 Once the reader is inducted into this realm, a space that lies outside of and in opposition to the stratified and highly visible city-space of the surface, it becomes clear that this is a place where scale and causality begin to break down. The spires and balconies of the city above are echoed in the complex tangle of rubbish and debris, as seen in figure 43, where DiFool is pursued by the growing swarm of psychorats. The garbage plain is depicted as filling the frame, much as the city-scape did in the earlier parts of the series. However, this space is overrun by the ever-multiplying swarms of rats, which assume the proportions of a nightmarish horde, as they are indeed reflections of the characters’ own neuroses, and must be tamed by an act of will rather than of force or aggression. As the situation escalates, the rats become bigger, and the humanoid characters by implication ever smaller. Learning to live in the Inner Earth means coming to terms with both its inhabitants and the reality of its state of decay; breaking through into an interior space is represented as both a process of discovery and an act of recognition of what is discovered.

However, it is important to realise that although this scenario can easily be read in terms of self-actualisation and satori, it is also possible to detach the architectonics of this space from an allegorical or metaphorical mode of reading. As Fredric Jameson observes, in science fiction “we can observe a significant displacement in our reading interest from narrative . . . towards spatial experience itself.”

The splitting of the reader’s attention between alternating modes of narrative engagement and spatial exploration is, as noted in the introduction, one of the characteristic features of the science fiction chronotope, and this tendency is particularly evident in The Incal. The interior garbage world is an engaging site on its own merits, and the wanderings of the characters may take second place to the readers’ own enjoyment and exploration of this space. In figure 44 Solune and the Metabaron can be seen conversing about their mission and the mystery of Solune’s parentage, issues that appear to be of great importance to the plot; but notice how Moebius’ “camera” lingers over a ridgeline composed of discarded barrels, hubcaps and electronic waste. This sequence of panels perhaps suggests the passage of time but also evokes a sense of motion, traveling from the characters and their drama into a more fully realised realm of silence and entropy. Groensteen points out that one of the functions of the frame in comics is to “mobilise” the reader, directing their attention around the page and providing a sense of pacing and emphasis. In these panels, the conversation is positioned as a small part of a larger scene, and the diegetic space of the comic is accorded equal status to the textual component. Elsewhere, the winds of the Inner Earth are depicted as bands or streams of energy, which seem to subtly corral and direct the

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276 Groensteen, System of Comics, 56.
characters’ movements. The Inner Earth here takes on the characteristics of a Strugatskian Zone, a space with an agency and intentionality of its own, which must be traversed through a process of negotiation and compromise. Bukatman posits that Delany’s “paraspace” and the Zone are in fact cognate terms,277 a suggestion that applies well to the Inner Earth. This space is both the location of metaphorical gnosis and a hazardous ecosystem, home to beings such as garbage eaters and flying leeches, but also the mystical Arhats and the fantasia of the crystal forest. Indeed, the comics page itself is a sort of Zone, a semiotic space that “demands to be traversed, crossed, glanced at, and analytically deciphered.”278 In contrast to the Inner Earth, which is a paraspace characterised by complexity, there is also a strong tendency in The Incal towards a severe minimalist aesthetic, which is perhaps meant to be representative in some sense of a satori-like experience. In order to form the “starship” by uniting the two Incals, the characters must use meditation to travel to “pyramid island,” a space that resembles nothing else in the comic’s universe (fig. 45). This section is interesting because it is like something out of a completely different book, perhaps some bizarre theosophical or alchemical text. This is clearly another type of paraspace, an internal Zone where metaphysical concepts can be given a diagrammatic representation.

277 Bukatman, Terminal Identity, 163.
278 Groensteen, System of Comics, 19.
The *Incal* could be conceptualised as a conversation between Jodorowsky and Moebius, in which the ideas of each creator complement and comment on those of the other, and the resultant chronotope reflects this dialogic process. Long-form comics, which take many of their stylistic and technical cues from literature, and more specifically from the novel, are dialogic in nature, and doubly so, in that the fundamentals of the form dictate a negotiation between word and image.\(^{279}\) This is not to say that comics derive from novels, or that they seek implicitly to imitate other forms of written or visual art—comics have their own history, and evolved differently in different parts of the world. It is generally recognized, for example, that an important forerunner of the medium as it developed in Britain and the United States was the satirical broadsheet of the Eighteenth Century, as exemplified by the works of William Hogarth.\(^ {280}\) In any case, it is safe to say that heteroglossia is a crucial structural component of comics. Comics are both situated in the interstices between visual and written language, and are also, in many cases, collaborative enterprises. However, this is only part of the picture—*The Incal* harbours a multiplicity of voices, not just two.

Bakhtin identifies in the novel a tendency towards “dialogism,” in the ability novels have of showing the reader language in conversation with itself. In the essay “Discourse in the Novel”, he writes

> These distinctive links and interrelationships between utterances and languages, this movement of the theme through different languages and speech types, its dispersion into the rivulets and droplets of social heteroglossia, its dialogization—this is the basic distinguishing feature of the stylistics of the novel.\(^ {281}\)

Although Bakhtin is here addressing the issue of style rather than structure, this tendency towards dialogization has chronotopic implications, as well. Jodorowsky, as is common in his works, is happy to speak a number of different social language types simultaneously, making his comic both a populist entertainment and an esoteric discourse. Much as he combines the stylistic and generic vocabulary of a western with a visionary quest in *El Topo*, Jodorowsky combines a noir detective fiction, a *Dan Dare*-style space opera\(^ {282}\) and a

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\(^{279}\) The phrase “graphic novel,” although widely appropriated for marketing purposes, implies if not an actual connection between the two forms then at least an aspiration or recognition on the part of comics creators and vendors that the two have significant similarities.


\(^{281}\) Bakhtin, “Discourse,” 263.

\(^{282}\) A comparison could also be made to *Valerian and Laureline*, a French science fiction adventure comic which blends a golden-age sci-fi sensibility with a decidedly 1970s visual style. It has only
freewheeling psychoanalytical and spiritual odyssey in one series of comics. However, it is not clear that any of these elements necessarily has primacy; rather, the interest comes partly from the interplay between the different “social languages” at work in the text, as well as from the very profusion of meanings and concepts that the dialogue engenders. The tendency towards layering, and the action of braiding, also contribute to the heteroglossic character of the text. Since Jodorowsky’s work functions largely in an allegorical, satirical mode, the potential for multiple readings is enmeshed in the structure of the text on a basic level. Satire and allegory are both modes in which a surface layer of meaning conceals further links and connections that both broaden and modify the overall reading of the text; numerous elements in The Incal are representative of this mode of reading, such as the cavernous, planet-spanning city concealing a toxic sump and an endless plain of garbage in the world’s core.

In its capacity as an allegory, The Incal represents a cosmic journey towards knowledge of the self, taking place in a universe that functions essentially as a metaphor for the internal workings of the mind. Although the details of incident and character are seemingly capricious and arbitrary, the experience of reading the comic yields an understanding of it as something that is internally consistent, and which can be experienced in a continuous way. Things like the revelation of John DiFool’s status as the biological father of the androgynous Star-Child Solune have little impact on the plot or motivations of the characters, who are in any case archetypal figures with no more depth of characterisation than the characters on a pack of Tarot cards, constantly being dragged into the episodic scenarios demanded of them by the overall design of the comic rather against their will. (In later volumes, DiFool’s reluctance to participate in the ongoing project of enlightenment when he could be at home smoking and drinking becomes a satirical counterpoint to the earnest metaphysical musings of the other characters.) In any case, the interconnected system of characters, situations and relationships seems to have a spatial unity and validity, and to carry a meaning that is not explicit, but implicit in the comic’s structure and execution. Indeed, these spaces themselves are at least as important as the heteroglossic material they contain and support; Jameson’s “displacement” of the reader’s attention away from narrative and towards space is at work here, too. The act of reading, especially reading comics, can become an act of decoding and traversing space itself, and

recently been afforded an English translation—a great pity, as it is easily the equal of better known imports such as Asterix.
making sense of the arrangement and context of frames and images can be a rewarding activity, as can an active exploration of the “deep” space thus uncovered.

The visual language of science fiction is an important aspect of its various chronotopes. In the ‘50s and ‘60s, science fiction paperbacks were sold as much on the merits of their covers as their actual content, and Jodorowsky and Moebius continue in this tradition of using illustration as a complement to the text. Moebius’ visuals enable a “totalising gaze” that encourages the kind of reflexive viewing of space typical of science fiction chronotopes. The tantalising tense that each detail—which in their definition and clarity take on an almost hypnagogic significance—is individually graspable and meaningful, engenders in the reader a heady sense of unknown potentialities, waiting to be unleashed. In its usage of the technique of braiding, and its deployment of the chronotopic motifs of folding, layering and depth, The Incal develops a rich and visually complex spatial diegesis. This world reconfigures the spatio-temporal building blocks of both science fiction and comics as components in a metaphysical drama of spiritual renewal, in service of the dominant chronotope of the text, the reconciling of dualities in the pursuit of satori. The reader, along with the characters, enters into and engages with a profusion of increasingly complex and tangled spaces and zones, and is ultimately asked to collapse this bewildering array of data points into a relatively simple concept: by following Jodorowsky’s precepts of self-examination, humility and spiritual openness, they too can be transformed, and ultimately enter into enlightenment.
Chapter 7: *Star Trek* and *Star Wars*: Hard and Soft Science Fiction Chronotopes

For clarity, up to this point I have discussed the generic chronotope of science fiction as a single entity, in much the same way that Bakhtin frames his discussion of the chronotope of the novel. However, might it be the case that, as well as identifying the dominant chronotopes of texts, it is also possible to identify groups of chronotopes, which would correspond to the sub-genres of science fiction which a “folk” taxonomy has previously identified? In order to answer this question, it may prove useful to return to the sub-genres which were addressed in chapter two: hard and soft science fiction. In science fiction criticism, a rigid distinction is often drawn between hard and soft varieties of the genre. Within the frame of such a distinction, hard science fiction is characterised by an emphasis on future technology, philosophy and ethics. The novels of Isaac Asimov are an example of the type of science fiction that attempts to simulate potential scientific issues in a fictional setting, and which thus led to the inclusion in his works of the “Three Laws of Robotics,” intended to govern the behaviour of self-aware robots. That these laws have been suggested as a possible foundational code of behaviour for real-world artificial intelligences, shows the concrete effects this type of hard science fiction literature has had on real-world science. Soft science fiction is a much more controversial, even maligned category sometimes used as a pejorative; it is perhaps best described as a type of text that uses a futuristic or otherworldly milieu as a setting for mythic drama and adventure. Soft science fiction often blurs at the edges into fantasy, epic or romance, but as we have seen, experimental or avant-garde approaches are also sometimes given the “soft” label, with a greater or lesser degree of accuracy.

*A Princess of Mars*, by Edgar Rice Burroughs, is a typical example of the soft science fiction sub-genre. In it, John Carter, an impossibly heroic and resourceful Southern gentleman, is transported to the planet Mars (Barsoom to its inhabitants) through quasi-mystical means. While there, he has a number of swashbuckling adventures, culminating in the rescue of the titular princess, the exotic and beautiful Deja Thoris. It is part of a

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283 Namely, “A robot may not injure a human being or, through inaction, allow a human being to come to harm,” “a robot must obey orders given it by human beings except where such orders would conflict with the First Law” and “a robot must protect its own existence as long as such protection does not conflict with the First or Second Law.” See Isaac Asimov, “Runaround,” in *The Complete Robot* (Garden City, New York: Doubleday, 1982), 219.
genealogy of such texts, being a direct forerunner of Buck Rogers, Flash Gordon, and through them Star Wars and more recently films such as Guardians of the Galaxy.

However, different science fiction texts fall on a continuum between the extremes of hard- and softness; many apparently hard science fiction texts have themes and plots derived from myth, while some otherwise soft science fictions deal knowledgeably with the minutiae of technology and culture, and other texts are difficult to fit into either category. A novel like The Three Stigmata of Palmer Eldritch, for example, is a significant departure from the straightforward optimism of Edgar Rice Burroughs, but neither is it an example of Asimovian technical rigour. However, these textual types do have distinct identities, as exemplified by the two major science fiction phenomena of the late twentieth century: Star Trek and Star Wars. Gene Rodenberry’s and George Lucas’ parallel creations implicitly align themselves with hard and soft categorisations respectively, and the way these texts utilize space as a means of conveying information is a key element of articulating this difference. If it is the case that different types of text display different types of chronotope, then it should follow that Star Wars and Star Trek, falling as they do on radically different areas of the hard/soft continuum, have accordingly varied chronotopic characteristics.

This hard/soft sub-genre distinction can be understood through the differing chronotopic characteristics of the two categories of texts, such as the way they construct and manage diegetic space, how they manage (or elide) the audience’s expectations of consistent diegesis, and the way they frame and process time. With reference to Star Trek and Star Wars, it is particularly important to note that the generic distinction between these texts is not tied to factors such as their political stance or use of characterisation, since these features operate on a completely separate axis from that of spatial diegesis. Indeed, characterisation is largely irrelevant when attempting to differentiate between hard and soft science fiction, given that the subordination of character to spatial or genre concerns is a feature of some examples of both types of text. Hard science fiction does not necessarily have sketchily drawn characters as a result of its generic identity, any more than a softer type of science fiction text might feature characters with more depth and interiority; the possible or perceived incidence of these features is not equivalent to a causal relationship.

In attempting to discuss Star Wars from a critical perspective, it is important to first establish exactly what is meant by that name: whereas this identity is self-evident for a film such as Stalker or Crash, the identity of Star Wars has over the years become somewhat diffuse. In the decades since the original film’s 1977 release, the Star Wars brand has
expanded to include not only eight (at last count) feature films, but also novels, comics, role-playing and computer games, and several spin-off films and television series, such as *The Ewok Adventure* (1984) and *Star Wars: Rebels* (2014). The staggering amount of material generated under the *Star Wars* brand practically constitutes a sub-genre in itself; attempting to analyse and discuss all of this material is clearly unfeasible within the scope of a single chapter. However, the fact that there is so much *Star Wars* available for consumption by fans of the series is indicative of both the success of the formula as well as the immersive quality of the original films. George Lucas constructed the films in such a way as to imply the existence of a fully-realised universe with its own cultures and inhabitants, by shooting them in a *cinéma-vérité* style which concept artist John Barry described as “looking like it’s shot on location on your average, everyday Death Star or Mos Eisley spaceport.”

The fandom and the “Expanded Universe” of associated *Star Wars* media have back-filled these worlds with a bewildering profusion of characters and minutiae. When *Star Wars* is referred to in this chapter it will primarily mean the 1977 film and its sequels, *The Empire Strikes Back* and *Return of the Jedi*, since these are the core texts on which the “Expanded Universe” is based, although in some cases these adjunct texts are set thousands of years prior to the events of the films, in different parts of the fictional galaxy.

Special effects and their relationship to cinematic space are of crucial importance to understanding the genre characteristics of the *Star Wars* films. *Star Wars* (1977) represented a number of technical advancements in the creation of special effects on film. In older special-effects work, the camera would usually be limited to a static position, but in *Star Wars*, computer-controlled camera movements made multiple-exposure shots practicable and camera movements around miniatures seem naturalistic. These developments have the effect of blurring the lines between what seems real and what seems fake to the audience, meaning that shots of spacecraft become part of a contiguous spatial frame of reference with the actors, sets and props of the film. Lucas described the desired look of his film as a “fantasy-documentary,” suggesting that the way the camera moves in this illusionistic space, as well as its increased range of motion, also serves as a way of validating the reality of the fantasy-space. The advanced nature of these visual effects shots also helps to create the “seemingly limitless diegesis” identified by Julie

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285 Ibid., 74.
286 Ibid., 95.
Turnock.287 In her view, this sense of continuous, metamorphic space was something that the special effects movies of the late ‘70s and early ‘80s inherited from the West Coast experimental film scene, as exemplified by the works of artists such as Jordon Belson (fig. 46) or Larry Cuba (who would in fact design the computer graphics used on the screens and displays seen in Star Wars).288 According to Turnock, the advances in film technology innovated by these experimental filmmakers working as effects technicians “helped reconfigure the screen space as global or spherical rather than planar.”289 This “reconfiguration” can be seen in Blade Runner, which employs many of the technologies pioneered by Star Wars to construct its complex of multi-layered, deep spaces. By the time Lucas came to revisit his series in 1999, advances in computer generated imagery made the model-based effects shots of Star Wars seemingly obsolete; however, replacing the practical sets and effects of the original films with new CG environments and characters for the prequels actually had the effect of reversing the former’s sense of an integrated, dynamic reality. Rather than everything feeling equally real, everything in the prequel films

288 Ibid.
289 Ibid.
feels equally fake. Because the viewer instinctively feels that what they are seeing is not a continuous filmic “reality,” but rather a composite of digital and filmed elements, the space once again collapses, becoming a surface or barrier, rather than a window into a “spherical” deep space.

Although *Star Wars* is often discussed in terms of its ideological and political content, the films are primarily concerned with visual storytelling and world-building, often at the expense of other aspects of filmmaking, and the viewer’s interest usually follows suit. George Lucas is, by his own admission, a weak screenwriter in the traditional sense; his talents lie more in the conceptualising and development of movie ideas, and especially in editing film (although even here, the contribution of editors Paul Hirsch, Richard Chew and Marcia Griffin to the final edit of *Star Wars* was substantial), than in directing actors or writing. Lucas worked closely with concept artist Ralph McQuarrie when developing the script, resulting in a focus on the visual elements of the story from the very outset. The emphasis on production design and special effects shots in these films also has the effect of “prioritizing expandable environments for viewers to experience, as much as stories to be staged and narrated,” in Julie Turnock’s words. The Tatooine portion of the original *Star Wars* is one such environment (fig. 47). The scenes that take place at the Lars homestead, in which the audience is shown Luke’s domestic life, buying and maintaining droids, eating with his aunt and uncle, and so on, are effective not just in how they contribute to the characterisation of Luke, but how they describe a small part of a larger space. The audience

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291 Ibid., 226-33.
292 Ibid., 32-39.
is told a lot of information about this place indirectly: what Jawas are, how they live in the
desert by salvaging and trading robots, who Uncle Owen is and what he does (he is a
moisture farmer, and he needs droids to help work his machinery). Tatooine as a place
comes to feel big and fully realised, despite the fact that the audience only sees a few
props and costumes, and some desert landscapes. This, in a nutshell, is what makes Star
Wars work: it allows the viewer to fill in the blanks for themselves. A side effect of creating
these “expandable environments” is that Star Wars becomes a space that can be used to
tell many different stories. It embodies a sense of narrative possibility, because the films
feel as though they exist in a continuous world larger than any specific narrative. This is
also part of the reason why Star Wars proved to be such a popular phenomenon, and it
seems especially likely that this sense of an “expandable” environment is the root cause of
the large volume of supplementary texts and media surrounding the film franchise. Again,
the reason behind Star Wars’ success and its hold on the imaginations of so many fans and
casual viewers has more to do with this sense of experiencing a small part of an
environment that has an independent existence outside of the filmic frame, than it does
with any inherent sense of realism or sensory immersion. This is also perhaps why a film
like James Cameron’s Avatar (2009), which was designed explicitly as a realistic, immersive
3D experience, has not had the cultural resonance of the original Star Wars films; although
Cameron succeeds in creating something that functions as a virtual reality tour of a fictional
space, it is not a space which is in itself particularly interesting, nor does it have the implied
context that lends the original Star Wars films their ongoing cultural resonance.

It could be argued that the primary success of the Star Wars films is their
production of space. This emphasis on the creation of a cinematic space, which is neither
completely naturalistic nor completely illusionistic, may have played a role in determining
the tone of traditional critical approaches to the films, which have in the past tended
towards the dismissive or ambivalent. Robin Wood’s seminal analysis of Star Wars
characterises the film’s special effects as “window dressing to conceal—but not entirely—
the extreme familiarity of plot, characterization, situation and character relations.”295 Far
from being “window dressing,” the special effects in Star Wars are actually a core
component of how the film communicates with its audience through the production and
development of spatial relationships. Rather than a blind for other types of textual
material, as Wood supposes, the use of special effects in Star Wars is in fact what drives its

294 Star Wars: A New Hope, directed by George Lucas (1977; Twentieth Century Fox, 2015), Blu-ray.
chronotope. If anything, the formulaic characters and plot elements are acting as a delivery mechanism for the imaginative fantasy embodied by the film’s many scale models, puppets and matte paintings. Wood goes on to critique the ideological content of the films, which he sums up as reflecting “the same indoctrinated values of patriotism, racism and militarism” as those found in 1940s war films. It would be difficult to refute this charge: the fundamental arrangement of plot elements in Star Wars is, if not outright reactionary, then at the very least conservative in nature. However, there are some elements of the film in conflict with this tendency: in the post-Vietnam context in which the film was released, the Rebel Alliance has more in common with Vietnamese guerrillas than the American military. The Rebels are an ill-equipped band of “freedom fighters, or terrorists, depending on your point of view,” who must constantly flee from a much larger, more technologically advanced military, hiding themselves in inaccessible terrain and relying on sabotage and precision attacks rather than frontal assault. Will Brooker sees the fundamental conflict in Star Wars as riddled with ambiguity: in his reading, the director is “rooting for both sides,” empathising with both the authoritarian technocrat Darth Vader and the rebellious youth Luke Skywalker. Brooker points to the wildly differing styles of American Graffiti and THX-1138, Lucas’ previous feature films, as representing two

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296 Ibid.
297 Will Brooker, Star Wars (Palgrave Macmillan, 2009), 23.
298 The parallels between the rebel alliance and Vietnamese guerrillas may have been informed by Lucas’ other projects: at the same time as he was developing Star Wars, Lucas was also working on his idea for Apocalypse Now, which he envisioned as a black comedy about the Vietnam War shot in a documentary style, very different to Francis Ford Coppola’s eventual film. See Michael Kaminski, The Secret History of Star Wars: The Art of Storytelling and the Making of a Modern Epic (Legacy Books Press, 2008), 39.
299 Brooker, Star Wars, 22.
disparate halves of the director’s character, both as a person and a filmmaker, struggling for reconciliation. However, neither Wood nor Brooker’s approaches to the text really prioritise the production and exploration of cinematic space, key elements of the construction of Star Wars.

From its opening shots, Star Wars uses space as a means of conveying information; indeed, the narrative of the film could be entirely construed as a series of relationships between bodies in space, although this is obviously far from the way it was conceived and produced. The relationship between the Empire and Rebels is established by a shot showing a model Star Destroyer chasing a model Rebel ship (fig. 48); the way the Star Destroyer is photographed makes it appear to be much, much larger than the craft it pursues, although in fact the Star Destroyer model is three feet shorter than the Rebel cruiser. The elements of visual storytelling in this scene are clear; the Empire is large and powerful, but slow-moving and cumbersome, while the Rebels are small and outmatched, but capable of greater manoeuvrability. The design of the ships, and the way their volumes occupy space, are also semiotic in nature. The construction of the model ships for the film, by special effects company Industrial Light and Magic (or ILM), was governed by a conceptual framework that contrasted the “dirty,” used appearance of the Rebel ships and gear with their cleaner, more stylized Imperial counterparts. The methodology used in assembling the models themselves is also significant from a spatial point of view; the primary means of creating the industrial, utilitarian appearance of most of the ships was what is referred to in modelmaking circles as “kitbashing,” that is, utilizing parts from pre-

300 Rinzler, Making of Star Wars, 275.
301 Brooker, Star Wars, 23-29.
existing model kits (often of military aircraft or vehicles) to assemble hybrid forms (fig. 49). The results of this process are recognisably mechanical in nature but not necessarily reflective of any real-world functionality. Kitbashing speaks to the methodologies of soft science fiction, in that it prioritises appearance over technical fidelity. Interestingly, this also has the effect of distorting and recontextualising the scale of the objects involved, as the appropriation of parts allows micro-components of larger models to become macrostructures in the new creation, and vice versa. This process also has the benefit of lending an air of realism to even the most fantastic structures, as the kitbashing process tends to create objects that are both familiar and strange, taking the materials of the everyday world and repurposing them as elements of fantasy, as though these strange new forms were lurking just below their surfaces all along. Indeed, it may be that the construction of the model spaceships is actually a key element of the whole aesthetic approach of the series, a possibility that has broad implications for the way space is suggested and handled in these films.

The spaces generated by these sets and models are present by implication, and may contain potentially unlimited quantities of objects and experiences, which, although inaccessible, form a kind of inferred backdrop or echo to the text itself. One of the primary features of modelmaking is attention to detail. This makes sense, given that traditionally models were scaled-down representations of real-world objects: trains, aircraft, cars and so on, whose verisimilitude was measured by how much of the original machine's workings they could reproduce. However, when creating a model of something completely fictional, the level of detail involved can actually be reverse-engineered; adding detail to something has the effect of increasing the perceived size of the hypothetical "original" object. This profusion of detail, on things like the docking bay of the Star Destroyer model, for example, has the effect of creating an infinitely divisible, fractional and obscured space, not dissimilar to the cluttered, visually dense frames of Moebius' comics. Likewise, this level of detail suggests an extension and expansion of space beyond what can be seen, and a sense of process, and that the things seen have their own interiority, and perhaps their own separate chronotopic existence.

This model-space is integrated into the fabric of the film's diegetic reality primarily through editing. After the shots showing the Star Destroyer firing on the Rebel ship, there is a close-up of the model ship being hit by a blaster (in reality a small pyrotechnic effect), followed immediately by a cut to the interior of the ship, where the frame shakes to indicate that this is the same ship that was hit in the previous shot. This transition makes
clear to the audience that the effects shots are to be understood as part of the same continuum as the portions of the image filmed on location and on sets. This works both ways, making the effects shots in some sense feel documentary and observational in tone, as well as imparting a sense of artifice and invention to the shots featuring actors and props. The extensive use of puppetry and elaborate costumes for characters like Yoda and the droids also lends a sense of immediacy to the film’s space; this fantasy is touchable and present, accessible and comprehensible to the viewer because it is composed primarily of physical objects. While the props and costumes of Star Wars can be appreciated purely for the level of craft they display, they are also a crucial component in problematizing the distinction between the illusionistic and documentary components of the film. The spaces produced in these films are complex, but they also have a quality of self-effacement, seeking constantly to elide the ability of the audience to make qualitative judgements about their construction.

In the shot previously discussed (fig. 50), the occupants of the Rebel ship first shown are the robots, R2-D2 and C-3PO, beings who owe their existence, both as costume-props in the real world and as “droids” in the reality of the film, to processes of manufacturing and fabrication. They serve as a bridge between the effects shots and the actor-driven sequences that follow, and show that sequences in this film are not divided between effects and live-action, but often fall on a continuum between the two. The robot roles, played by Anthony Daniels and Kenny Baker, are also the audience’s stand-ins in the film; although they instigate the drama by conveying Leia’s message to Obi-Wan, they are primarily present as observers and commentators throughout the film, as are their models, the bickering peasants in Kurosawa’s The Hidden Fortress (1958). In this capacity, they
often stand somewhat to one side of the main chronotopic line of the film, or in an oblique relationship to it. Like HAL in *2001*, the droids are understood to be artificial intelligences, but unlike HAL, the question of their personhood is never explored directly. Endowed with a kind of tenuous half-life by their indifferent creators, they are at various times treated as chattels and as characters, both things and people; Luke originally sees them are merely pieces of malfunctioning machinery (which in a sense, they are), but their seeming ability to think and reason eventually earns them some measure of respect, even if it is of a sentimental and condescending nature (fig. 51). Luke says of R2-D2, “That little droid and me have been through a lot!”, as though the droid were a favourite tool or a trusty piece of equipment. Luke’s attitude towards R2-D2 links the question of whether the droids are persons or things to their status as objects—commodities, even. After all, they are sold to Luke’s uncle Owen, in a transaction that is either an innocuous garage sale of second-hand goods, or what amounts to a slave auction, depending on whether they are viewed as persons or machines.

Barbara Johnson, writing about the Marxist implications of personification and reification, sees these as processes of transference: “In imagining a speaking thing, then, one transfers the social character of labour into a sociability among objects, sucking the humanness out of the makers and injecting it into the products.” This is perhaps why R2-D2 and C-3PO are such memorable and beloved characters by fans of the series—in their artificiality, they are somehow more human than their erstwhile masters, as though the question of personhood were a zero-sum game. Luke’s address to R2-D2 also brings up the

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302 *Star Wars: A New Hope*, directed by George Lucas (1977; Twentieth Century Fox, 2015), Blu-ray.
question of language, and how the droids relate to it. This is not an inconsequential connection: according to Johnson, “there seems to be an easy way to treat a thing as a person,” and that is to “address it, turn it into an interlocutor or at least a listener through the rhetorical power of language.”

C-3PO is just such an interlocutor himself, a thing-person who has access to this “rhetorical power” in his function as a translator. The audience understands R2-D2 through C-3PO and Luke’s reactions to his squeaks and whistles, which these characters are apparently able to understand. In this way, the audience’s relationship to the smaller droid’s personhood is largely created and mediated through language; depending on how he is addressed, he can be read as either an autonomous being or a kind of devoted pet. The droids of Star Wars exist in a conceptual space very unlike anything found in Star Trek. It is as if they are familiars animated by some unspoken magic, their plastic and metal bodies merely hollow shells.

The question of what exactly the droids are has a number of consequences and resonances for the film’s chronotope and the film as a whole, and for its softness, in genre terms. In Bakhtin’s reading, the chronotope is primarily an indication of how the reader perceives space and time in the text, partly through its effects on characters. When the technological elements of the film become characters in their own right, this relationship is problematized. In the context of Star Wars, the droids’ nature is never explored in any detail; they straddle the line between person and thing not because of a deliberate ambiguity on the part of the filmmakers, but because of the opposite: an omission of any diegetic clue that would allow us to understand them in a more complex way. A noteworthy point of comparison between Star Wars and Star Trek is the way the robotic or artificial characters are dealt with; whereas in Star Wars they exist in a kind of ellipsis of explication, there are numerous episodes of Star Trek that deal explicitly with the personhood of machines, because of the expectation Trek sets up that technologies will be susceptible to analysis and diegetic explanation. An early example, the original series episode “The Ultimate Computer” (fig. 52) depicts the Enterprise testing out a revolutionary computer system, the M-5, which is capable of operating the entire ship automatically. It is a form of artificial intelligence, capable of reason and decision making.

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304 Ibid., 6.
Eventually, it begins behaving erratically, because its intelligence is modelled on that of its creator, the brilliant but insecure and psychologically unstable Doctor Richard Daystrom. The parallels between this episode and the HAL subplot of *2001* are quite striking; even more surprising is that this episode originally aired in March of 1968, the month before *2001*’s theatrical release. However, unlike HAL, the Ultimate Computer is not a wholly artificial being; rather, it is a kind of doppelganger or simulacrum, echoing the processes of the human mind. Over the course of its various iterations, *Star Trek* has increasingly engaged with the idea of thinking machines, moving from the almost purely mechanistic ship’s computer in the original series, to increasingly more complex, and problematic, artificial intelligences.

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In *Star Trek: The Next Generation*, the character Data is a humanoid android, a completely artificial being possessed of sentience and free will (fig. 53). The development of his personality, and his sense of self and of his own nature, is a recurring element throughout the series, although as an android, he is a machine designed to imitate humanity, rather than a “native” machine intelligence, and thus his journey could be seen as a process of becoming a more faithful replica. Further along this continuum is the Emergency Medical Hologram in *Star Trek: Voyager*, an artificial intelligence who becomes increasingly autonomous throughout the course of the show. The Doctor is a more problematic character, because he is more consciously artificial and isolated from the spatial reality of those around him; as a hologram, he at first cannot physically interact with the other crew members the way Data does (although he later gains this capacity), and thus is made much more aware of his own status as something other than human. In contrast to all of this, the way *Star Wars*’ droids function remains somewhat mysterious. Although their bodies are open to scrutiny, as in the case of C3PO’s dismemberment in *The Empire Strikes Back* or R2D2’s array of hatches and compartments, the question of whether they are artificial life forms or merely clever machines is never addressed. They are not...
subject to the kind of scrutiny which is afforded the mental processes of Data or the Doctor in *Star Trek*, because they exist in a sub-generic chronotope which does not require that they be explained as the products of a plausible technology.

The way time and space work in *Star Wars* is intimately connected to the functioning of technology, both the visual effects technologies that allow space to be realised, and the diegetic technologies of the film, such as the droids, the tractor beam, the trash compactor, and the hyperdrive. The hyperdrive, and its *Star Trek* equivalent the warp drive, are both examples of FTL (faster-than-light) travel, a science fiction trope which is also a primary feature of the textual universes of both *Star Trek* and *Star Wars*. In both cases, these travel technologies have clear connections to the texts’ chronotopes, in that they quickly traverse vast expanses of space, and, by implication, time as well (fig. 54). Bakhtin describes how in early Christian “crisis hagiographies,” the text depicts “only two images of an individual, images that are separated and reunited through crisis and rebirth: the image of the sinner (before rebirth) and the image of the holy man or saint (after crisis

Figure 54. The warp drive: a chronotopic technology. (Diane Duane and Michael Reaves, “Where No One Has Gone Before,” *Star Trek: The Next Generation*, season 1, episode 6, directed by Rob Bowman, aired October 26, 1987 (Hollywood, California: Paramount, 2007), DVD.)
and rebirth). In texts of this type, the intermediate stages between sinner and saint are elided; the text takes place in “adventure time,” rather than “biographical time,” in that the full details of the subject’s life are rendered irrelevant. Rather, the crucial instances that shape and transform the character’s life are the focus of the text.

The FTL drives seen in Star Wars and Star Trek are a science fiction equivalent to the kind of textual process that Bakhtin identifies, in that they allow the text a diegetic method of eliding information that is not pertinent to the “adventure time” narrative chronotope. The FTL drive’s/adventure time’s condensation and abbreviation of time and space is also found as a matter of course in the visual language of film: editing and juxtaposing images in order to imply a causal relationship. If the audience is shown a shot of a person getting out of a car, followed by a shot of that same person walking through the door of a house, they are to understand that that person has traversed the intervening space in the world of the film, despite the fact that this activity is never shown, and exists completely in the viewer’s mind. The FTL drive, like its cousin the transporter beam in Star Trek, makes blatant this implicit feature of the filmic chronotope, rendering visible the interior workings of that particular visual language. Some of the most entertaining character moments in The Empire Strikes Back involve Han Solo’s repeated inability to get his ship’s hyperdrive to function properly; the characters end up exasperated, trapped in a chronotopic moment that is dragging on far too long (fig. 55). The audience’s previous experience with the hyperdrive has led them to understand that this visual cue signals that one part of the characters’ adventure has finished and another segment of their adventure-time is about to begin. When the hyperdrive fails, the characters are left suddenly outside

the bounds of the chronotopic structure. Han’s repeated protest—“It’s not my fault!”—is perhaps an indication that he and the others have been plunged into biographical, naturalistic time, where things break down and expectations go unfulfilled.  

Technologies that enable the movement of people and things through space, and in doing so alter the ways that space is perceived and interacted with, are characteristic of the chronotopes of Star Trek and Star Wars. However, this type of chronotopic motif is not exclusive to these texts: one precursor to the FTL drives seen in Star Trek and Star Wars is the concept of “jaunting,” a term found in Alfred Bester’s 1956 novel The Stars My Destination (also published as Tiger! Tiger! in the United Kingdom and elsewhere). In this novel, “jaunting” refers to a variety of personal teleportation, accomplished using the mind alone, which allows people to transport themselves instantaneously from point to point. Although the hyperdrive and the warp drive do not accomplish instantaneous travel, they function similarly from a chronotopic point of view, in that they facilitate spatial disjunctions which do not need to be accounted for in terms of the chronotope. In both Star Wars and Star Trek, the characteristics of the space which ships enter into when they user their hyper- or warp drives remains somewhat vague, because it is in effect a chronotopic hiatus. The rules of the “jaunte” (named for its inventor, Charles Fort Jaunte, naturally) are laid down early on: “One cannot jaunte from an unknown departure point to an unknown destination. Both must be known, memorised and visualised.” Thus, the successful jaunte operates almost exactly like an edit in a film; it allows the space in between two familiar and understood situations to be compartmentalised and discarded, and for the intervening moments between departure and arrival to be similarly elided. Issues of place, and knowing the locations and orientations of people and objects, are found throughout the novel, which has been seen as an early precursor to the cyberpunk genre because of its dystopian setting, consisting of a future world run by competing megacorporations, as well as its themes of transhumanism, anti-authoritarianism and information technology.

307 Star Wars: The Empire Strikes Back, directed by Irvin Kershner (1980; Twentieth Century Fox, 2015), Blu-ray.
308 As will be discussed later (p. 195), the failure of transportation technologies is explored many times in Star Trek, in which numerous episodes’ plots revolve around the failure or malfunctioning of the transporter beam, causing characters to be displaced or stranded as a dramatic catalyst.
In this world, information and experience are incredibly powerful, because having access to a place and memorising its coordinates allows a person to jaunte to it. For this reason, private homes and offices are protected by mazes, in order to confuse potential trespassers. The main character, Gulliver Foyle, becomes the first man to jaunte through both space and time, appearing as his own ghost at various points during the course of the novel. Trapped in a burning building, he becomes unhinged from space-time, jaunting uncontrollably:

His spatial velocity was so frightful that his time axis was twisted from the vertical line drawn from the Past through Now to the Future. He went flickering along the new near-horizontal axis, this new space-time geodesic, driven by the miracle of a human mind no longer inhibited by concepts of the impossible.310

Thus, the text becomes self-reflexive; Foyle’s escape from the burning building is actually facilitated after the fact, as he jaunts to the future where he is told retroactively what he needs to do in order to survive. In effect, Foyle takes on the role of the reader of the novel, able to flick back and forth through the pages in order to piece together the tangled skeins of his own life. In this text’s chronotope, space is divisible into jauntable- and un-jauntable types—any amount of distance on earth can be traversed via jaunte, but interplanetary distances, or travel through time, are initially assumed to be impossible. In this way, the novel is chronotopically divisible into segments that take place on Earth, or other places where jaunting is possible, and excursions into space, where it is not. This kind of textual structure gives rise to a granularity of space similar to that found in episodes of Star Trek, where movements aboard ship proceed differently to movements from ship to planet (via the transporter), or movements between planets, accomplished by the warp drive. The continuity between ship-space and planet-space in Star Wars is, by comparison, fluid and naturalistic. Sequences such as the escape pod dropping away towards the planet Tatooine at the beginning of Star Wars, or Luke’s X-Wing making a bumpy descent through the thick atmosphere of Dagobah, show a continuous diegetic world, thanks both to the technological advancements in special effects work (not to mention budget) and the creative decisions made by the filmmakers. Star Wars is illusionistic where Trek is diagrammatic; although they are both examples of science fiction, they occupy very different spaces on the chronotopic continuum.

310 Ibid., 350.
In addition to technological chronotopic motifs such as the hyperdrive and the tractor beam, *Star Wars* contains numerous interior spaces that are highly charged, detailed and fractal. Spaces such as the Death Star trash compactor, the sandcrawler interior or the Mos Eisley cantina are intimately engaged with the expansive nature of *Star Wars*’s chronotope. When Luke and Obi-Wan travel to the town of Mos Eisley in *Star Wars*, they are looking for passage off the planet, in a sequence that hints at a number of classic film tropes and scenarios; the extent to which the Tatooine section of the film is modelled after John Ford’s *The Searchers* is well documented, notably the reveal of the ruined homestead and the Mexican *cantina* that John Wayne and Jeffrey Hunter’s characters visit near the end of the film.\(^{311}\) The cantina sequence is where *Star Wars* reveals to the audience yet another element of its chronotopic construction: a fascination with showing the alien and the other, in an observational spatial relationship to the audience (fig. 56). Like the street scenes in *Blade Runner*, this portion of the film is similarly structured to the banquet scene in Fellini’s *Satyricon*, where the film’s audience are placed in the role of observers, or even voyeurs, peering into a totally alien space, which is completely removed from their contemporary experience.\(^{312}\) There is more than a little of Fellini’s sense of the outlandish and the carnivalesque in Lucas’ cantina; the Roman courtesans and circus performers have been transformed into rubber-masked aliens and grotesque puppets, but the intent of the scene is the same. Lucas’ use of subtitles for the alien bounty hunter

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\(^{312}\) *Fellini Satyricon*, directed by Federico Fellini (1969; MGM Home Entertainment, 2001), DVD.
Greedo, who confronts Han Solo and is shot, is also Fellini-esque; *Satyricon* is a cacophony of different languages, and uses subtitles extensively.

What this estrangement of the audience achieves is, paradoxically, both a sense of distance and of closeness; the scene is observed as though through a high-powered telescope or a hidden camera, both unimaginably distant and completely immediate. Into this complicated space are introduced the heroes, Luke and Obi-Wan, who are, like the audience, ill-at-ease and out of place. They are here to meet a smuggler, an underworld figure who combines these elements of criminality, alien-ness and otherness. However, this space is not necessarily morally weighted one way or another. Although the audience are warned in advance that it is “a wretched hive of scum and villainy,” and it is clear that the mutants and aliens who frequent it are not fond of faces such as Mark Hamill’s, the cantina is fecund with possibilities and potentialities, a place where anything and everything might be found lurking in some darkened recess. This scene had a particular resonance for me at a young age, in that it represented a glimpse of the alien as something that was not necessarily threatening or adversarial, but unconcerned with humanity, something different but also indifferent, and with a boundless capacity for novelty and variation. Unlike the aliens in *E.T.*, who are fundamentally good, or the aliens in *The X-Files*, who are antagonistic figures allied to sinister government agencies, the aliens in *Star Wars* are actually a lot like us, creatures whose wildly eccentric appearance belies a kind of normality, even banality. For me, and presumably for a number of other people as well, this was a peculiarly liberating and intriguing notion.

Perhaps the most significant, and certainly the most culturally resonant zone in *Star Wars* is the one delineated by the concept of the Force. This nebulous field aligns with Samuel Delany’s conception of the science fiction paraspace as “an alternate space, sometimes largely mental, but always materially manifested, that sits beside the real world, and in which language is raised to an extraordinarily lyric level.” Like a paraspace, the Force exists almost exclusively within and around the area of language (fig. 57), in statements such as Yoda’s “Luminous beings are we, not this crude matter.” This scene functions in a similar way to the Stalker’s dream in Tarkovsky’s film, which likewise uses dialogue and score to create an “alternate space.” However, the Force is also manifested

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313 *Star Wars: A New Hope*, directed by George Lucas (1977; Twentieth Century Fox, 2015), Blu-ray.
314 In an early draft of the script, Han Solo was an alien. See Rinzler, *Making of Star Wars*, 22.
315 *Star Wars: A New Hope*, directed by George Lucas (1977; Twentieth Century Fox, 2015), Blu-ray.
physically through supernatural acts, such as Yoda’s telekinetic lifting of the X-Wing from the swamp, or the Emperor’s ability to shoot lightning bolts from his hands. Although it appears to be based, in a general sense, on the type of supernatural spirituality described in Carlos Castaneda’s *Don Juan* books, the Force is a cipher, which can be read in any number of ways. It is both a kind of quasi-scientific energy field—“Life creates it. Makes it grow”\textsuperscript{317}—and a place we might go when we die, if we happen to be Jedi masters: “If you strike me down, I will become more powerful than you can possibly imagine.”\textsuperscript{318} These characteristic types of language associated with the Force are suitably vague and mystical, but also evocative of a kind of interiority, or inner life. Indeed, the Force exists mostly as something that is *talked about*, rather than seen, a paraspace which is accessible mainly through dialogue. In this sense, the Force may be an example of the “linguistic” variety of paraspace which Delany identifies. Unlike the visually complex and immediate filmic spaces created through elaborate sets, such as the sandcrawler interior or the trash compactor, the Force is something that the audience has to believe in based on the effects it has on the visible world, such as the levitation of Luke’s X-Wing. Like the cynic Han Solo, the audience sees “a lot of weird stuff”\textsuperscript{319} in the *Star Wars* films, but the weirdest thing is never shown at all. Like Delany’s paraspace, the Force is the site where conflicts arising in other parts of the text are resolved,\textsuperscript{320} but the actual mechanics of that resolution are largely hidden from the audience. Like Luke, we have to use the information that is imparted to us about the

\textsuperscript{317} (*Star Wars: The Empire Strikes Back*, directed by Irvin Kershner (1980; Twentieth Century Fox, 2015), Blu-ray.)

\textsuperscript{318} *Star Wars: A New Hope*, directed by George Lucas (1977; Twentieth Century Fox, 2015), Blu-ray.

\textsuperscript{319} Ibid.

Force—it is a source of power, it has a dangerous Dark Side—to form our own conclusions, and yet it is the fundamental site where the issues raised by the film are to be resolved. Luke’s status as a hero, his relationship to his father, and his leaving and finding home are conflicts that are resolved through the intervention of this mysterious, invisible presence.

*Star Wars* is, then, perhaps best conceived of as a particularly heterogenous film, and, considered as a cultural phenomenon, as a kind of heteroglossic genre in itself. The array of spaces depicted in the films look both forwards to the radical, dynamic aesthetics of the Bay Area experimental filmmakers, as well as back to the achievements of old Hollywood filmmakers such as John Ford and Howard Hawks. *Star Wars* is in some ways stranded between two frontiers, the nostalgic one of the old Westerns and the aspirational futures offered by the New Age movement and the U.S. space program. *Star Trek*, on the other hand, deals with space and time completely differently. Unlike *Star Wars*, which is set in the mythic continuity of “long ago and far, far away,” each episode of *Star Trek* is prefaced with a captain’s log entry containing a specific “stardate,” implying a very different connection to time, both the diegetic time-stream of the fiction itself and the timeframe occupied by the viewer. Also unlike *Star Wars*, *Trek* is set in a future that is implied to be contiguous with our own reality; cities such as San Francisco and Paris still exist in the *Star Trek* universe, and details of real-world history and culture are mentioned by the characters as forming part of their own historical background.321

The extreme nature of this distinction is illustrated by the way historical time is compressed and distorted in the *Star Wars* films, in which the time-line put forward by the films themselves seems to be actively undermined by the things the characters do and say. In the intervening 30-year period between *Revenge of the Sith* and *Star Wars*, the Jedi have become an “ancient cult,”322 despite the fact that in the films diegetically preceding it, the Jedi are shown to have been a major part of the Old Republic’s governmental structure. This “short memory syndrome” is also evident in *The Force Awakens*, in which the characters seem to have again forgotten that the Force exists, despite Luke Skywalker, a Jedi knight, having played a key role in the destruction of the Galactic Empire only a few decades prior. This difference in the treatment of chronology is perhaps indicative of a hard/soft science fiction distinction between these two textual groupings; the chronotope

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322 *Star Wars: A New Hope*, directed by George Lucas (1977; Twentieth Century Fox, 2015), Blu-ray.
of *Star Wars* is fluid, indefinite and largely indivisible, while *Star Trek*’s chronotope is much more closely aligned to a historical, empirical time-scheme. This is also partially due to the difference between films and television, a distinction which has implications for all elements of both franchises. As an episodic series, *Star Trek* relies on characterisation for continuity, in that the same characters engage in different narratives from episode to episode, whereas *Star Wars* is a series of feature films, in which it is primarily narrative, rather than characterisation, that drives continuity. Of course, this only applies to the “primary” texts in each franchise, since there are both *Star Trek* films and *Star Wars* shows; however, the parameters established in both the original *Star Wars* films and *Trek* series have gone on to have a holistic effect on the kinds of stories that can be told in these respective universes, and to mould the rules and boundaries of their fictional universes.

The fundamental issue confronting any attempt at critical analysis of *Star Trek* is, as with *Star Wars*, the sheer volume of material involved. Like *Star Wars, Trek* was, and is, a massively popular and commercially sustainable franchise, with the result that the original series spawned numerous spin-offs, films and books, not to mention other media such as comics, video games and various other licensed (and unlicensed) media. Because there is so much of it, any study of *Trek* will be in some measure deficient and incomplete; however, for the purposes of this chapter, I intend to focus my attention primarily on the 1966-69 television program, retroactively titled as *Star Trek: The Original Series*, and secondarily on the long-running sequel *Star Trek: The Next Generation*, which ran from 1987 through 1994.

Most of the idiosyncratic spatial features of *Star Trek* were established by the first show, which serves in this sense as a chronotopic blueprint for subsequent iterations of the franchise. The *Original Series* introduced the division of each episode into ship-board and “away” sequences, and the interpolation of “exterior” shots of the ship. *The Original Series* also introduced the key technologies of the warp drive, communicator, transporter and viewscreen. One exception to this is *The Next Generation*’s “holodeck,” an innovation that serves a similar function to the transporter in allowing the crew unlimited access to a variety of different spaces and time periods, all of which are essentially contiguous with the
spaces of the ship itself (fig. 58). However, the holodeck is understood diegetically as an illusion, in a way that a planet-side set (like that seen in an episode such as “The Skin of Evil,” where the crew confronts a malignant tar-like monster amidst a rocky terrain) is not. One result of the way technology is deployed in Star Trek is an extreme compartmentalisation of space, resulting in areas that are both discrete from one another and also highly transparent, and are susceptible to observation and analysis on the part of the viewer. The holodeck functions as a narrative machine that facilitates the production of story-spaces, in which characters understand that they can act out various scenarios. The things the holodeck creates are at the same time real and not real, in a way that differentiates the character of Star Trek’s chronotope from that of Star Wars. In Star Wars, levels of reality or gradations of “realness” are not present. Rather, these films tend towards a highly oblique, fluid space, and presents an opaque or semi-opaque front to the viewer, who must then engage in a process of interpretation and extrapolation in order to access the “deeper,” more hidden elements of a given diegetic space. However, these spaces themselves are not susceptible to any breakdown of their diegesis; they maintain a consistent level of “realness” throughout.
Star Trek’s transporter, even more so than the warp drive, is a descendant of Bester’s jaunte, in that it is an inherently chronotopic device that facilitates the elision of sequences that lie outside of the adventure-time of the primary narrative (fig. 59). Like the Force, the transporter has a linguistic dimension; the language used to both describe and initiate the process of transportation is itself a carrier of meaning, and a semiotic cue that engages the process of disconnection implied by the transporter’s operation. The use of the communicator to signal the transporter control room positions the characters in a web of interlocking technologies, activated by the use of key phrases and types of language. Words and phrases such as “transporter room, energise,” “ready to beam up,” and so on serve as verbal indicators that a disjunction is about to occur. The mechanisms of the transporter imply that it has some measure of ability to gather information in order to discriminate its targets; it is described as “locking on” to a prospective traveller prior to snatching them away. As well as verbal cues, physical position and stance serve as further indicators that transportation is about to occur. Users will stand motionless, often

324 Ibid.
with their arms at their sides, and will move away from others, as though the beam requires some kind of clearance around each body to be transported. However, this is by no means a requirement for transportation, as is seen when dead or unconscious crew members are transported lying down.

Perhaps the most surprising and perplexing aspect of the transporter is the extent to which it is a singularly capricious and unreliable machine. In *Star Wars*, things either work or are broken. Ships and other technological elements are analogous to real-world machines like cars, or more specifically the World War II-era aircraft of Howard Hawks films. They are treated accordingly, as overtly physical objects which break down, smash into one another, are wrecked and salvaged, and so on. The hyperdrive is treated essentially as a black box, facilitating travel from one plot element to another, but one that is never really interacted with on a more complex level than that of being hit with a spanner. In *Star Trek*, the actual functioning of the technologies in play is foregrounded, with the result that rather than outright breaking, machines will malfunction, creating intermediary spaces in which new scenarios can unfold; in this respect, *Star Trek* functions similarly to *2001*, in which the malfunctioning of HAL drastically changes how the characters and ship interact. Numerous episodes of *The Original Series* involve the functioning of the transporter becoming unreliable, thus requiring Chief Engineer Scott to rush to repair it. In the episode “The Enemy Within,” a transporter malfunction splits Captain Kirk into two separate people, one personifying his compassion and empathy, and one his violence and aggression. In “Mirror, Mirror,” the transporter sends part of the cast to an alternate universe, where the Federation is a brutal dictatorship and the starship's crew callous conquerors, cruelly oppressing the planets they discover (fig. 60). In these episodes, the transporter reveals its ability to not only facilitate movement through space, but also to translate and distort those who pass through it. Indeed, there is a notable theme of doubling and duplication at work in many episodes of the *Original Series*. Both Kirk and Spock are placed at different times into “evil twin” scenarios, although in Spock’s case the twin is in another dimension, and never directly encountered. However, there is a definite case to be made that Spock is in some sense his own evil twin; in the episode
“Amok Time,” in which the half-Vulcan must return to his ancestral planet to mate, Spock undergoes a transformation into a character who embodies everything that is absent or repressed in his normal makeup: aggression, violence and ruthlessness. In each of these instances, a technological problem allows for modifications to the chronotope, which in turn generates an array of story-spaces.

Unlike Star Wars, the primary site of viewer involvement in Star Trek would appear to be in the characterisation of and dramatic interaction between crew members, especially in The Original Series, in which many episodes revolve around developing and exploring the character of Kirk and his relationship to his crew, both on command and interpersonal levels. This observation is borne out by the numerous critical approaches to Star Trek that focus almost exclusively on those elements of the show involving race, gender or sexuality. For example, Rhonda V. Wilcox suggests that the android character Data in The Next Generation, despite his excessively white skin, functions as a vessel for the exploration of the African American experience, especially the experience of discrimination.
and the societal fear of miscegenation. This tendency would appear to be at odds with the hard science fiction remit of the show; however, it is entirely possible that the essential plausibility of *Star Trek’s* diegetic universe renders it somehow less visible, foregrounding character and motivation rather than techno-spatial concerns. More so than the granular distinctions in generic identity between *Trek* and *Star Wars*, the difference in medium plays a fundamental role. As a television show, *Trek* has neither the budgetary or technological ability to represent expansive diegetic spaces in the way that Lucas’ films do. Rather, it focuses on characterisation, and especially on dialogue, to capture and maintain viewer interest. Dialogue is also used as a means of representing and interpreting action that cannot be convincingly shown, thus increasing the audience’s identification with the Starfleet characters. The audience does not view the universe of *Star Trek* from a godlike, detached perspective; for the most part, their point of view is confined to what the characters on the bridge of the *Enterprise* can see and interact with, aided by technologies like the ship’s computer and the view screen.

The *Star Trek* episode “Mirror, Mirror,” mentioned above, combines two parallel structural functions, which both complement and comment on one another: the transporter as precipitant of a chronotopic crisis situation, and the creation of a paraspacial characterised by distinct and unusual linguistic and visual features. In brief, the plot is as follows: Kirk and a landing party consisting of McCoy, Scotty and Uhura are on a planet, attempting to convince a pacifist race, called the Halkans, to allow the Federation to mine on their world. After an unsuccessful negotiation, they are beamed back aboard the *Enterprise*, but an ion storm causes the transporter to malfunction. As a result, they are beamed into an alternate universe, while their counterparts from that reality are beamed aboard the (original) *Enterprise*. Arriving on an alternate version of their ship, the protagonists find they are in a much different universe, where Spock is a cruel authoritarian who enforces shipboard discipline through the use of torture. The Halkans, who, here as in the primary universe, refused to allow mining on their planet, are to be destroyed as punishment. Various details of the uniforms, décor and dialogue suggest that this alternative timeline represents a kind of neo-Roman Empire, whose rule is maintained through military force, and where promotion is mainly secured through assassination and intrigue. Kirk and the others impersonate their missing doubles, eventually returning to the primary universe with the help of the mirror-Spock, who although ruthless is still as much a

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logical being as his counterpart, and wants “his” version of Kirk back. After returning, thanks to Scotty’s modifications of the transporter, the protagonists find that their “doubles,” far from passing as themselves, were immediately imprisoned as impostors because of their “barbaric” behaviour.326

The sequence in which the landing party beam up shows the regular linguistic and somatic markers of a transportation, in which Kirk’s request “Enterprise, transporter room, energise”327 is followed by the characters assuming their static, transporter-ready configuration. Immediately following this, the yellow transporter beam effect gradually fills and then erases the human outlines, just as the show has conditioned the viewer to expect. After this, the camera cuts to the transporter room, where Spock has just walked through the door. The operator’s terse comment, “Trouble, sir” is followed immediately by the yellow, particulate transporter effect flickering in and out of existence on the transporter platform.328 However, instead of coalescing into the human forms that would signal the “correct” chronotopic transition from “away-time” to “aboard-time,” the yellow glow flickers out. Immediately following this, there is a sequence in which an exterior shot of the Enterprise moving from left to right above a red and purple planet (presumably the Halkans’ world) transitions, via a series of red, green, blue and yellow flashes, to the same ship, moving from right to left. This is the moment when the chronotopic crisis takes place, and the characters are transplanted into a completely different timeline, indeed into another narrative universe altogether. After this disjunction, things are no longer as they were. Kirk has gone through the looking glass and into a place that is both familiar and strange; he (and the others) have traversed the boundary between space and paraspace.

If this parallel universe is indeed representative of a kind of paraspace, then it remains to describe what conflicts or issues in the main body of the text (in this case, the other episodes of the show) are resolved in this space. Firstly, the parallel universe is characterised by extreme militarism and aggression, tendencies that are perhaps latent in the construction of the series, and may in fact constitute a legacy inherent in the genre, passed down from earlier science fictions. Despite the Enterprise’s stated mission being one of exploration rather than conquest, the ship is heavily armed with phaser batteries capable of destroying other spacecraft, and adheres to a military command structure that

327 Ibid.
328 Ibid.
places ultimate authority, including the ability to order an attack, in the hands of the captain. As seen in the episode “The Doomsday Machine,” in which the Enterprise is commandeered into a suicide mission by a higher ranking Starfleet officer, the unstable Commodore Decker, the ideological and practical framework within which the Enterprise is positioned is fundamentally biased towards violence and confrontation, to the extent that Kirk and the others are actively positioned as working counter to it. At the beginning of “Mirror, Mirror,” the Halkan ambassador says to Kirk:

‘Captain—you do have the might to force the crystals from us, of course.’

To which Kirk replies:

‘But we won’t. Consider that.’

In this sense, the paraspatial zone which is the parallel universe functions as a kind of test case for what the Enterprise, and by extension Starfleet and the rest of the Federation, could, and perhaps logically even should, have become: a hegemonic, totalitarian state, expansionist and riven by internal conflict, much like the Roman empire. Indeed, elsewhere in the series the behaviour of the Federation is far from blameless—in “The Enterprise Incident” Kirk, acting on orders from Starfleet, deliberately trespasses into the Romulan neutral zone in order to attempt to steal a Romulan cloaking technology. The Romulan commander in this episode is outraged at the Federation’s behaviour, perhaps justifiably, and the viewer may be left with the distinct impression that the Federation were acting in an aggressive and authoritarian manner in this instance. This observation points to a primary issue in Star Trek, and one that serves as a crucial point of difference between it and Star Wars: the emphasis placed on ethics and decision-making. While Star Wars contains elements of morality, in the form of a well-defined distinction between good and evil, Star Trek more often involves situations that necessitate explicit moral and ethical choices on the part of the characters, especially Kirk (and in the latter series, Picard). In the episode discussed above, Kirk chooses to release alternate-universe Chekov from the “agony chamber,” despite both the man’s attempt to assassinate him, and his awareness that in the sadistic environment of this universe his mercy will be viewed with suspicion. This is because his moral code forbids him to condone torture and killing, a theme that recurs many times in the series.

329 Ibid.
A final technological element of the *Star Trek* system is the prevalence of communications, both the *Next Generation*’s hand-held communicator and the *Original Series*’ “sub-space radio.” The instant availability of communications technology in the present day has rendered these technologies relatively invisible in retrospect, but at the time a portable means of communicating at a distance, in real time, was a futuristic technology. The ability of the characters to carry on dialogue at a remove, sometimes light-years in distance, is another element of *Star Trek*’s chronotopic construction that tends to collapse space and render it transparent and navigable, much like the transporter’s ability to bridge shipboard and planetary spaces, in a way which is both diegetically and visually instantaneous. *Star Wars* makes use of these technologies too, but only to a certain extent, and only in specific situations. The pilots of spacecraft are able to talk to one another, but largely only in the same way that a wing of World War Two-era aircraft would be able to communicate; that is, it can be reasonably assumed that this is a short-range method of communication, limited to fixed radio-type technologies located in each craft. In other situations, delivering a message generally seems to involve the transportation of some kind of physical media, such as the holographic message for Kenobi that Leia records using R2-D2. The informational landscape of *Star Wars* is very, very different from that of *Star Trek*, in the sense that Trek assumes a continuation of (then-current) technological progress, while *Star Wars* is deliberately retroactive in terms of its milieu; the technological landscape of *Star Wars* is much closer to the 1950s than the 1970s, in many ways, and its filmic influences and predecessors are likewise the products of what was, even at the time, a bygone era.

The chronotopic differences between *Star Wars* and *Star Trek* indicate that there is a real distinction to be made between hard and soft science fiction, a difference that extends past surface level concerns to the fundamental structures of the text. The way time and space are manipulated in these texts is different: in *Star Trek*, future time is part of a diegetic history that is continuous with our own, while *Star Wars* takes place in mythic adventure-time, in which the chronological correlations between characters and events evaporate outside of the confines of the adventure itself. Although both texts contain technological elements that are used to manipulate space and time, *Star Trek* prioritises the actual functionality of technologies, attempting to explain to some degree how they do what they do, while *Star Wars* focuses on the effects these technological devices have, blurring the lines between technology and magic. After all, the functionality of the Millennium Falcon’s hyperdrive is as much a mystery as the unseen, arcane workings of the
Force. Not only are genres essentially derived from the chronotopic characteristics of texts, but these distinctions are present on a micro- as well as macro-scale. *Star Wars* and *Star Trek*, while they share a broad genre identity, are in effect very different, almost diametrically opposed, approaches to the construction of an extensive, episodic science fiction chronotope.
Conclusion

Throughout the previous chapters, I have tried to make the case that the experience of reading science fiction centres on the exploration and enjoyment of the chronotopic motifs and major chronotopes present in the text, which serve both as ontological building blocks and as carriers for semantic value. Although some science fiction texts are simplistic adventure stories or wish-fulfilment fantasies, these are by no means the norm, and these tendencies in and of themselves are not characteristic of science fiction. Rather than being identified solely by thematic content, science fiction, like all other genres in Bakhtin's schema, has its own chronotopic identity. Furthermore, I found that applying Bakhtin's chronotopic approach to science fiction was extremely constructive. It afforded me a new freedom to approach texts as collections of representational spaces, and to structure my thinking around exploring these spaces and their interactions with one another. I found that science fiction is particularly suited to this kind of analysis, and that a reflexive concern with the representation of spacetime itself, and a noticeable division between chronotopic worldbuilding and plot or narrative are core features of the genre. I have argued that J.G. Ballard’s Crash is inherently a science fiction novel, by virtue of its chronotopic features, and thus demonstrated that chronotopic analysis also has some merit as a taxonomical aid in terms of understanding how texts are placed in relation to genre. I also attempted to identify the minor and dominant chronotopes of each text which I studied, which helped to focus my close reading of the texts concerned. These findings are summarised in the following table:

<table>
<thead>
<tr>
<th>Text</th>
<th>Chronotopic Motifs</th>
<th>Dominant Chronotope</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001: A Space Odyssey (film)</td>
<td>Ship-space, consciousness, evolutionary crisis, the numinous, the Star Gate</td>
<td>The threshold</td>
</tr>
<tr>
<td>2001: A Space Odyssey (novel)</td>
<td>Progress, historical time, technology</td>
<td>The threshold</td>
</tr>
<tr>
<td>Solaris (1972 film)</td>
<td>Domesticity, cultural history, nesting, liquidity, memory, simulation</td>
<td>The dream</td>
</tr>
<tr>
<td>Solaris (novel)</td>
<td>Protoplasmic ocean, technological processes, the night, simulation</td>
<td>The inhuman</td>
</tr>
<tr>
<td>Stalker</td>
<td>Eschatology, nesting, liquidity, memory, the Zone</td>
<td>The dream</td>
</tr>
<tr>
<td><strong>Roadside Picnic</strong></td>
<td>Crime-space, post-apocalypse</td>
<td>The zone</td>
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<tr>
<td><strong>Valis</strong></td>
<td>Anamnesis, Gnosticism, theophany</td>
<td>The crisis</td>
</tr>
<tr>
<td><strong>Do Androids Dream of Electric Sheep?</strong></td>
<td>“The tomb world,” artificiality, “kipple”</td>
<td>The crisis</td>
</tr>
<tr>
<td><strong>The Three Stigmata of Palmer Eldritch</strong></td>
<td>Drug trips, theophany, “the orthogonal axis”</td>
<td>The crisis</td>
</tr>
<tr>
<td><strong>Blade Runner</strong></td>
<td>Noir, sight/the eye, palimpsest</td>
<td>The city</td>
</tr>
<tr>
<td>“Memories of the Space Age”/“Myths of the Near Future”</td>
<td>Time-sickness, painting, the space program</td>
<td>Stasis</td>
</tr>
<tr>
<td><strong>The Drowned World</strong></td>
<td>Painting, memory/dream-time</td>
<td>Bio-evolutionary regression</td>
</tr>
<tr>
<td><strong>Crash (novel)</strong></td>
<td>Celebrity, photography, cyborg bodies, alienation, fluidity/solidity, mapping/territory</td>
<td>The collision/climax</td>
</tr>
<tr>
<td><strong>Crash (1996 film)</strong></td>
<td>Photography/filmmaking, body horror, alienation, cyborg bodies</td>
<td>The collision/climax</td>
</tr>
<tr>
<td><strong>Dune series (novels)</strong></td>
<td>The ‘ālam al-mithāl, the desert, ecology, the border</td>
<td>History</td>
</tr>
<tr>
<td><strong>Dune (film)</strong></td>
<td>Theatricality, the gothic, language as difference</td>
<td>The irrational</td>
</tr>
<tr>
<td><strong>The Incal series</strong></td>
<td>Layering, braiding, synthesis, metamorphosis, emergence</td>
<td>Satori</td>
</tr>
<tr>
<td><strong>Star Wars/The Empire Strikes Back/Return of the Jedi</strong></td>
<td>“The Force,” “spherical” space, “expandable environments,” hyperspace as adventure-time</td>
<td>The expandable environment/soft science fiction</td>
</tr>
<tr>
<td><strong>Star Trek: The Original Series</strong></td>
<td>the communicator, the transporter, the warp drive as technology, ethics</td>
<td>Explicable technology/hard science fiction</td>
</tr>
</tbody>
</table>

Just as an examination of the chronotopic motifs at work in each text provides clues as to the nature of the dominant chronotope animating that text, an examination of a group of these dominant chronotopes themselves can potentially be used to identify some features of the generic chronotope to which they belong. Readers may have an intuitive understanding of the properties of genres—after all, they are “merely” groups of texts that look alike—but in fact, the problem of constructing solid definitions of each genre suggests that a taxonomical approach is not of much utility in determining why genre texts behave the way they do. For example, knowing that *Star Wars* and *Star Trek* are both examples of science fiction does not explain the differences in how they handle the spatio-temporal
implications of science-fictional technologies which appear in both, such as the FTL drive. Only a structural approach to genre, such as that offered by Bakhtin’s theory, can make these distinctions. The final stage in this chronotopic analysis of science fiction will be to identify the shared features of the group of texts studied, in the hope that these may shed light on the nature of the generic chronotope of science fiction.

The first noticeable characteristic of this group of dominant chronotopes is their reflexive concern with how space and time are represented in the text. The incidence of chronotopes of crisis or disruption and the creation of paraspaces (discussed below), are both elements of this reflexive tendency. The “expandable environments” seen in Star Wars, which in turn give rise to the “extended universe” of Star Wars media, are an example of science fiction drawing attention to its own spaces, encouraging the audience to look outside or around the narrative dimension of the text, towards the text’s production of space. Reflexivity is likewise the cause of the “displacement of reading interest” from plots and characters onto world-building identified by Jameson, which can be seen throughout the preceding chapters. Further examples of the reflexive tendency include Andrei Tarkovsky’s Stalker and J.G. Ballard’s Crash. Stalker is structured around a long expedition into the Zone, bookended by two shorter sequences set in the “normal” world that are differentiated by being shot in black and white, as opposed to the colour film used within the Zone. This separation highlights the chronotopic characteristics of the Zone, and serves to mark it out as a discrete paraspace that encourages the audience to look beyond the diegesis of the film itself, towards the filmic techniques that create it. Likewise, the unusual narrative style of J.G. Ballard’s Crash emphasises chronotopic material that involves objects moving through space, as well as with surfaces and appearances. Even people are often described in Ballard’s novel as though they are examples of industrial design, while cars and concrete overpasses are described with an erotic fervour that endows them with animate status. A reflexive tendency, in which a text draws attention to and analyses not only its own spaces, but its own ways of describing space, has been encountered time and again throughout this group of texts.

Jameson’s “displacement” is perhaps best characterised as a division of attention or interest on the part of the reader, that is in many cases also a splitting or schism between worldbuilding and narrative on the part of the text itself. This tendency is at its strongest in texts that have a visual component, such as films and comics, but is also present to a greater or lesser extent in all the novels that were studied here. As was demonstrated in the introduction, even as straightforward a science fiction text as Jack
Williamson’s “Salvage in Space” contains numerous inflection points, often to do with technology, topography or biology, where the reader’s interest is offered a line of departure from a strictly narrative mode of reading. The “displacement” function is exploratory and open-ended in nature, and is thus also allied to the opening-out or mutation of space seen in texts such as *The Three Stigmata of Palmer Eldritch, 2001* and *Crash*.

All the texts studied, at least to some extent, display a tendency towards change and disruption. The crossing of a threshold, the embarkation on a dream, passing through a moment of crisis, surviving an apocalypse, attaining enlightenment: all involve a change between two states. For example, a change of state is fundamental to the workings of Dick’s *The Three Stigmata of Palmer Eldritch*, where the transition between the normal world and the paraspace represented by the drug trip experience creates a layered diegesis, setting up the confusion of levels at the end of the novel, when Palmer Eldritch’s drug-induced paraspace seemingly expands to encompass the entire universe. These changes necessarily take place in time (the chronotope is intrinsically a combination of space and time; neither element can be separated from the other) but they usually also emphasise a drastic reconfiguration of space, either the reader’s perception of it or the actual diegesis inhabited by the characters. In *Stalker*, crossing from the domestic world of the Stalker’s mundane life into the hyper-reality of the Zone precipitates a startling change in the way the characters perceive their worlds, submerging them in a dream of apocalypse in which they question the foundations of human culture. Likewise, in *2001* Bowman’s passage through the Star Gate signals a shift from chronotopic motifs of ship-space and the question of HAL’s personhood to a much more drastic, personal encounter with the numinous, nonhuman intelligence that haunts the film.

Most of the examples of these state-changes encountered in this study are also transitions into various paraspaces, but this is by no means a universal rule. One of the features of the generic chronotope of science fiction might be a tendency towards the representation of drastic alterations in the nature of space-time itself within the text. Science fiction texts are often about metamorphosis, transition and flux, and it is probable that these tendencies reflect aspects of the generic chronotope. This would tally with the “estrangement” criteria set up by Darko Suvin, who sees science fiction as representing a transformation or warping of the historical chronotope experienced by the reader. However, the chronotopes of science fiction are often doubly estranged, in this sense: they present a chronotope that is removed from the experiences of their reader, and then inflict
on that chronotope further mutations and transformations. The possibility that uncertainty is itself a feature of the science fiction chronotope is supported both by intuitive, folk taxonomies of the genre, such as the bookshop classificatory grouping of “science fiction, fantasy and horror,” and also by the extreme difficulty of providing concrete categorical guidelines for science fiction texts, such as those proposed by Darko Suvin. In science fiction, not just the diegesis of the text, but the chronotope itself, is often undergoing metamorphoses and transformations.

The tendency towards reflexivity and crisis seen in the above texts also gives rise to their creation and exploration of paraspaces. There are many instances amongst the texts investigated of the occurrence of paraspacial zones. As well as being narratively charged instances where “conflicts that begin in ordinary space are resolved,” these paraspaces might in fact be a structural feature of the generic chronotope of science fiction. As a space contained within or functioning in parallel to the primary diegesis of the text, many paraspacial zones are encountered in science fiction, under the guises of different chronotopic motifs. In each case, these paraspaces serve as indicators that the dominant chronotope of the text is under pressure, and an alternative type of space-time is struggling to emerge. In addition to resolving textual conflicts, the parospace also gives the reader a new perspective on the text’s spatial dimension, bringing its chronotopes into focus in a reflexive move typical of science fiction. In Tarkovsky’s Solaris, the unseen presence of the living ocean is a parospace that constantly threatens to intrude on the world of the film and to submerge the world of rational thought and culture in a tide of unconscious dream-stuff. Shifts in the nature of the chronotope are paralleled by a change in the way readers experience texts; chronotopes can have perceptual and phenomenological properties. The parospace that is created in The Three Stigmata of Palmer Eldritch when the characters take the drug Chew-Z leads to passages that are harrowing experiences to read, like the transcription of a fevered nightmare. In this sense, paraspaces are heightened, intensified parts of the text, where noticeable shifts in tone, and even textual form, can create a condition of immersion, or even anxiety, in the reader. In Star Wars, the Force is likewise paraspacial in nature, but the instances in which it is invoked (Luke turning off the targeting computer, Yoda lifting the X-Wing in The Empire Strikes Back) are not rigidly separated from other parts of the text, leading to a kind of distributed paraspatiality. In fact, we might say that parospace is a characteristic of the text as a whole, a characteristic that could be

linked to the idea of soft, as opposed to hard, science fiction. In hard science fictions such as *Star Trek*, the paraspace is absent, or at least suppressed; because the text’s world is diagrammatic and contiguous, there is no opportunity for the diegetic break which precipitates entry into the paraspace to occur. Although technologies such as the warp drive precipitate breaks in the fabric of space-time, they do not open rifts in the diegetic fabric of the text; the chronotopes that exist on the other side of a warp “jump” are not different from those that precede it.

It is apparent that many of the chronotopes studied are concerned primarily with space, rather than time. Bakhtin states that time is “the dominant principle”\(^3\) in the novelistic chronotope, but this does not imply that this preference for chronology is a universal feature of texts. Indeed, the example of science fiction suggests that this is not the case. The chronotopes of novels prioritise time because they are usually concerned with narrative, above all else: novels are driven by the age-old imperative, inherited from the literary pre-history of oral storytelling, to fulfil the audience’s desire to know “what happens next.”\(^4\) Although science fiction texts do, of course, tell stories, they also engage in a number of other functions, which are more representative of their characteristic chronotope, and these structures and processes tend towards the construction and exploration of spaces, more than they delineate different types of narrative time. Texts such as Jodorowsky’s *The Incal* or the Strugatsky brothers’ *Roadside Picnic* function by creating evocative, complex spaces, within which several chronotopic motifs interact. In these texts, space appears as the primary driver of the diegesis, and interactions and movements through space, such as the penetration of the hollow world in *The Incal* or Red Schuart’s journeys into the Zone, are the focus of the text.

When time appears in science fiction texts, it is often in the context of the displacement of action into a future-time that has little or no connection to the continuity of historical time, as is the case in *The Incal*, or in countless space operas. On the other hand, Frank Herbert’s *Dune* novels take place in a universe suffused by historicity and time; the way time passes, and the relationship of the future-history that the novels create to the real-world history on which it is based, are crucial to the text’s meaning. Time is also an important factor in many of Philip K. Dick’s works, most notably in *Counter-Clock World*, in which the flow of time is reversed on a global scale, and people arise from their coffins, live

\(^3\) Bakhtin, “Chronotope,” 86.
their lives in reverse, and eventually become babies and are un-born, returning into the womb. Likewise, in Ubik the reversal of time is an important part of the plot, causing the reversion of objects to an earlier historical state. However, in both instances the effects of time on the spatial diegesis—that is, the way it affects the things and people who exist in Dick’s worlds—are what is foregrounded in the text. These novels do not chronicle dramatic sweeps of history, but smaller instances where time has become deranged, and begun to behave “orthogonally.” In instances such as this, it is important not to lose sight of what the chronotope actually is: an attempt to transplant Einstein’s realisation that time and space are not separate entities out of the realm of hard science and into the realm of culture. In giving space priority over time, I am inverting Bakhtin’s analysis of the novelistic chronotope as time-based, but I preserve his fundamental assumption that space and time are inseparable in literature. It would appear that time, rather than being “dominant” over space in all chronotopes, in fact exists in a complex relationship to space, and that different chronotopes will display different balances of spatial and temporal characteristics.

Lastly, many of the dominant chronotopes listed above are characterised by layering and complexity. The Zone, the city and the dream-scape are all areas where complex combinations of objects and spaces lead to the condition of palimpsest. Along with a tendency to prioritise spatial rather than temporal structures, the generic chronotope of science fiction may also tend towards spaces that are themselves complicated and polysemic. Moebius’ drawings of fractal city-spaces in The Incal could be read as road maps to a chronotope of complexity, whose seemingly infinite divisibility engenders a limitless potential for expansion and exploration. This breadth and depth of scope is part of what has made the popular science fiction properties Star Trek and Star Wars into sprawling conglomerates of texts, each with their own attendant suburbs and annexes. Additionally, science fiction texts appear to often layer several chronotopes into a single text, creating spatio-temporal structures that are themselves complex entities. Dune amalgamates a variety of chronotopic motifs into an epic structure governed by a chronotope of historicity. Paul’s journey into the ‘ālam al-mithāl layers historical-novel border crossing with theophanic paraspace, while the Arrakeen desert is a palimpsest, merging the ecological concerns of Imperial Planetologist Liet-Kynes with the historio-religious training ground of the Fremen. Texts such as Dune contain chronotopes that can be described in complex ways, and the dominant chronotopes of these texts do not necessarily reflect the entirety of a given text’s chronotopic makeup. There are often outliers, sports and dead-ends in science fiction texts—but these digressions are often
what prove their most enduring features. Their multivalent structures lead in turn to multivalent readings.

All of the above may help to answer the question I posed in the introduction: Why is the experience of reading science fiction different from that of reading other types of text? Each of the texts discussed points towards the existence of a complex of generic identities, each characterised by, and created from, the ways different text creators approach the problem of representing space and time. However, each chapter also represents an exploratory foray into the space-time of science fiction, and an attempt to explain the specificities of reading each of these texts. Hopefully, these diverse approaches demonstrate that science fiction offers a range of complex reading experiences that are not necessarily tied to the genre-related pleasures of the text, but arise from the chronotopes themselves and their particular characteristics: reflexivity, displacement of interest, crisis and disruption, a preference for space over time, and complexity. When we engage with science fiction, our experiences are shaped by these chronotopic functions. The reader of science fiction is presented with an array of spaces that reflexively comment on and invite scrutiny of themselves and their construction, with the result that the reader’s interest becomes drawn more towards this ontological matrix than the inherited narrative function. A number of crises and disruptions of the chronotope may take place, which interact with the narrative but continually reinforce the reflexivity of the text. Space is privileged over time, with the result that topology and geography replace biography and history. Overall, the experience is one of complexity and layering, tendencies which are particularly amplified in the visual dimensions of science fiction. Taken together, these textual processes are what makes the experience of reading science fiction subjectively unlike the experience of reading other types of text.
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