Accounting for Time in Time Travel

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Time does not invite study, and is probably not a thing or object in the sense that is necessary for us to get to know it. Yet time functions ceaselessly in social reality as scheduling, rhetoric of progress, machine of evolution, communication without transmission, a force of history, a dimension, an independent variable. It provides a proto-type for many machines, a means of coordinating many actions. It animates future, past, present, periods, epochs, and timings that overlap, contradict, neglect, or face one another. It is the whole for its parts and a part among many others.

Rather than ask the ontological question "what is time?", it is possible to examine a popular means of imagining and time. In time travel, something moves across time and appears in the past or future. This thing that moves is not a theme or diffuse set of relations, but a particular material, such as a human body, vehicle, or an object. There are limits and endless horizons to the imagination of time travel. Time travel presents a site for audiences to creatively consider strange sites in relation to other places and to their own dwelling, through time as a term of comparison. Time travels let us think the historical, account for time, and make particular comparisons about how things might be all without knowing time's true nature. It provides a way of treating time that is a way of not knowing.

This paper prepares the ground for research into these questions by considering the nature of the field, a way to situate the topic amongst other studies of culture and media, and the location of time as a thematic element in time travel narratives. For length, I've cut pure case studies of time's accounting in particular works. Instead, the creativity of situating literature mingles with the object of study in developing an approach towards and respect for time travel's ken.

To discuss time travel means situating elements in constellations of stories, tropes, media, genres, and percepts. Many studies take up time travel as a case of science fiction, writing in communities of knowledge for whom the genre of Fantasy has been sacrificed to establish sf's special theoretical purview. Other studies consider time travel in the context of particular landmark works of fiction, such as *The Time Machine* or *Back to the Future*. For some research programs, time travel is an instance of technophilia and a time machine, for others it is a case of historical tourism and revisionism, or even a trope within post-apocalyptic fiction.

For any of these projects, a field offers a clearing for research. But this is a clearing with seductive and deceptive transparency accomplished by being always already a "highly overdetermined setting for the discovery of difference" (Gupta and Ferguson 1997, 5). The field of science fiction presents a fertile ground for inquiry because it has been prepared. While the case in anthropology is more clearly about government funding and institutional tradition than for science fiction, disciplinary power continues in work considered interdisciplinary. This is not only because discipline affords a tradition of study staples such as standards of scholarship and a means for their continuance, but also because powers of tradition exceed disciplines, taking part in what remains beyond them.

Fields are not just stretches of earth, as the anthropological metaphor suggests, but also radiations of interacting force (Gupta and Ferguson 1997, 41). Fields of earth have character, tradition, change and community, fields of force have particles, bodies, inequalities, and effects. This field of forces already suggests its germane form of study: studying the play of forces and their interactions. It would be a mistake either to arrive at this field knowing just what forces are at play and trying to locate them or with no idea what forces might be found at the field. Neither of those options is plausible. Forces

should be treated empirically, with a "method of inventivity" that reinvents concepts as it uses them. Forces are not simply discovered or abducted into previous concepts but introduced and altered (Rose 1999, 12). Rather than a logic of discovery that is a conduit for abduction by study, this encounter transpires through "a power-charged social relation of "conversation"" (Haraway 1998, 593). A conversation this inquiry approaches from an interdisciplinary interest in the forces of time, process, and accounting. By making time travel respond to questions in this sort of dialogue, it becomes actualized in the materiality of particular films, stories, shows, games, and comics but also as a matter upon which all these stories draw.

Fragments of time travel that do not sum to one whole dwell in many media where they can be found in "complex relationships between belongingness and traveling" (Urry 2000,157). Most time travel stories depend on an audience that already understands time travel. A parody of the regulative fiction of "the time-space continuum," *The Simpson's* takes on time's law as neurotic and repressive in "Time and Punishment". In it, the common trope of time travelers visiting the past and thereby changing the future irrecoverably is voiced by Homer's memory of his father's wedding day advice, "if you ever travel back in time, don't step on anything because even the tiniest change can alter the future in ways you can't imagine." The "butterfly effect" is a theory of uncertainty, not calculability (Dizikes 2008). It is also a structure of paranoia. Homer swats a mosquito and returns to the present to find his neighbor, Flanders, as a totalitarian dictator channeling Big Brother of Orwell's novel *1984*'s through Big Brother of Apple's ad *1984*, and present in the Simpson's house through a monitor that rises from the checkered floor like *Terminator 2*'s liquid metal. Homer travels back only to, again, disturb the land of dinosaurs (represented in the usual conventions of American animation *The Simpson's* has done so much to clarify and maintain) and, again, find that his home is changed inexplicably.

As homer travels back in time over and over, the show cuts to a shot of the Simpson's house, transforming from one thing into another (a boot-house, an underwater house), within the fixed frame of their grassy suburban Springfield street. We're cut to aliens watching Homer's folly and laughing at this human's inability to control time travel. They laugh for several seconds but are then also transformed, turning their heads into those of Mr. Peabody and Sherman. Without needing to explain it, the conventions of time travel suggest to us that Homer's actions on prehistoric Earth have changed aliens of the present. Incalculable. Time trumps all other powers, a theme repeated in *The Runaways: Dead End Kids*, where young superheros escape a city trying to kill them by jumping back a hundred years in time. The whole of New York's organized crime cannot touch them there.

"Time and Punishment" is only one of three short stories in "Treehouse of Horror V", the sixth season's Halloween episode. It does not explain how time machines might work or what time travel is, but draws on conventions of the drama such as showing hundreds of clocks to build an association with time, showing the time traveler's leap by reducing their body to a glowing silhouette, sending the traveler through a tube of abstract colors and shapes, and retaining a fear that what one does in the past will upset the course of history.

Time travel is not just an idea, but a set of conventions and thematics, and some of the possibilities of their permutation as well. An imaginary which must be invoked (as by showing clocks in Dr. Brown's office during the credits opening *Back to the Future*), capable of its own limitless possibilities and banal repetitions.

However, to focus on the role of time in time travel, and not on everything that happens in any time travel story (such as character development, social instability in crisis, incest and exploration of a character's production), time travel can be situated amidst virtualities of tourism in entertainment, art, and literature often called escapist.

Watching movies we are not transported to frozen tundra, sunny islands, or a more heroic way of life, yet this denial cannot be too strongly stated. A movie that dwells in the wrong places, pushes the wrong themes, or cannot provide an objective correlative we welcome is usually not worth watching. The audience is not transported, and so they are not escaping something before or visiting something outside. The work subjects its audience to something, and this is more or less pleasing, enjoyable, satisfying, tolerable, engaging, and worthwhile. Aside from identification, scopophilia, and spectatorship, we are transformed by images and our perception molecularized to deal with what happens to us as, and before, we can think it (Shaviro 1993).

Tourism in terms of human bodies traveling is a defining and huge sector of the world economy. Tourism that channels yearning for otherness, curiosity about difference, or pursuit of intrigue lacks that unity of institutional form. Rather, many mediums show other worlds and other ways things might be. *Sliders* is a precise example of this habit, though *Star Trek, Xena* and *The Real World* also undertake this project in the serial format.

Such virtual tourism feels like the doing the same thing differently, and in every possibly interesting way until ratings or sales fall flat. The reiteration of one principle, always shows, for example, the nobility of networked technological multi-cultural liberal civilization in *Star Trek* or the delightful beauty of wild animals in nature documentaries on Animal Planet. Indeed, this thematism is the basis for criticizing the neoliberal subject advocated and imposed in *Judge Judy* or the orientalism of *Shazzan*.

Virtual tourism is not fundamentally the recreation of one thing or kind, though in our analysis its details recur endlessly in different combinations. Film of foreign lands, novels of strange sounding characters in their peculiar groups, theater, music, samples of sound, and set design do not all participate in one treatment of foreign elements. Indeed,

their design is the opposite: always a different treatment of a different topic in a different context. (The standards for what counts as different, within a genre or industry may seem very low to audiences, critics, or those who are explicitly being translated.)

Here is a different generalization for these specific projects which may, and often do, incarcerate natives in their space, turn languages into calligraphy, project fantasies from the far reaches of heteronormativity onto a place minimally representative of somewhere real, and all the other accusations which good art has the sophisticated burden to avoid or negotiate. All these efforts provide excursions along different percepts and affects towards fresh imaginations. Like fresh fruit and vegetables, with crunch, intense flavor, bright color, no wilted leaves, no undesirable abrasions on the skin, a paragon in a still undefined category.

As in the cinema of spectacles, stories tend to integrate and stabilize particular achievements into plot, continuity, moral, or character. This stabilization is secondary but important. It is the artistry of stabilization that may be the fresh offering of a piece. Not just an ad hoc way to hold together visions which are the main point of the presentation, but manners of keeping things together that are themselves of interest. The binding of books.

This tourism virtualizes its audience into an actuality that has been mutated by the derealizing concerns of an image that is not so much unreal as catalytic (Terranova 2001, 108). Time travel performs this move. It can be studied as a means of showing always something different, as a way to provide fresh transformations for its audiences. *Time Bandits* and *Bill and Ted's Excellent Adventure* perform this by turning history into fun, and *Back to the Future* by turning it into trivia and before-and-after images. 1200 Mics' album *The Time Machine* takes a different time and place (e.g. Glories of Greece, Shiva's India, The Creation) as an opportunity for new instrumentation and musical influence.

Time travel is one mechanism for this kind of tourism, and situating it alongside others brings us closer to feeling the particular consideration of difference time travel entails. 1200 Mics previous albums had a different topic for each track, one album was drugs and another famous inventors and scientists. *Sliders* uses a portal through which travelers arrive in a parallel world, completely separate and distinct from their own. In *Crossworlds*, certain mystics can move between worlds, yet by fastening a magical staff and stone together, the boundaries between worlds begin to leak. In *Y: The Last Man*, all human men on earth die simultaneously and a roadtrip from D.C. to L.A., Australia, Japan, and finally China keeps the story engaged in something new. Movies of the imagination, such as *The Cell*, *Paprika*, and *Brazil* provide this kind of tourism through the diegetic excuse of a "real" character's imagination.

··· Heterotopianism ···

I had not understood anthropology's popular appeal until I went to a lecture at a tribal museum in India. A small but not stuffed museum of tribal artifacts from different groups and times, with crude mannequins in the garden to bring things to life. The lecture focused on the differences between mainstream Hindu culture and tribal cultures, citing practices from several of the hundreds of tribes in India that made Hindu social practices of marriage look conservative and uninspired. In one tribe, a wife could walk into her home with a jug of water on her head and her wish for a divorce could not be refused. In another, two young people disappeared into the woods for a few days and this sealed their marriage. No time was spent considering the risk of sexual assault in the latter example or the many complications of quick divorce in the former. But the point was not really to judge these practices, actually, the lecturer did not bother telling us in what tribe they were found, which I think was reasonable. The point of these examples was to implicitly judge Hindu society by unspoken standards and incomplete comparisons.

Surveying places, considering topics, reinterpreting contemporary experience of the world as a version of structuralism, Foucault identifies sites in which all other sites in a culture are "simultaneously represented, contested, and inverted" (Foucault 1986, 24). In these lecture notes, "Of Other Spaces," Foucault argues we are no longer living in a world of time that moves forward, but in networks of places opening onto one another, yet unable to be reduced to one another or superimposed upon each other. He calls those sites that call all other places into question heterotopias, then outlines some guidelines for a kind of study he names heterotopology. The lecture's claim that places can be understood by their relation and inversion of one another reiterates Mikko Tuhkanen's interpretation of Foucaultian genealogy as an involution of history into discontinuous untimeliness challenging what we take to be the present (Tuhkanen 2005, 32-34).

For the purposes of the proposal for heterotopological exploration of spaces, Foucault caricatures time as teleological and place as rhizomatic (Tuhkanen 2005, 36). This is strange because Foucault's own historical investigations, where time has not been an arrow of progress, seem to participate in a successful disintegration of the authority of this notion of time. However, the strategic function of this counter-definition of a skein of spaces and a line of time is to catalog the radical break structuralism took from the organizing principle of a timeline. Likewise, heterotopology offers to identify the patterns of localization that characterize heterotopias. Their types, changing roles, places hosted or referenced, proper kinds of time, and systems of entry and exit. These are the patterns Foucault's science would study, with an abiding interest in the relation of these spaces to the totality of other spaces. Ultimately all of these sites to study are defined by their relations to totality within a culture, and this structuralist absurdity may be the downfall of a topology of the heterotopia (Saldanha 2008).

While this science follows the direction of Foucault's lecture into cataloguing structuralist imagination, Foucault's comparison of heterotopia with utopia suggests

another direction. In de-sanctifying space, particular kinds of space, such as social or private, might be understood through their relations to other spaces. This leaves some kind of spaces that invert or negate other spaces, and utopias are Foucault's first example. They are unreal, but part of the politics of this piece is to consider the fantasmatic nature of space. In the mirror, the utopia of a place we see ourselves in but cannot occupy (where words are written backwards) mixes with the heterotopia of the place we are in that cannot be real because it's reality is based on the mirror's image (Foucault 1986, 24).

To read around the totalizing claims that would make topology a new structuralist account of space, heterotopias need not challenge all other places in the network of forces in a culture. They are places that put others into question and offer something less ambitious than the perfected worth of a utopia (or negativity of a dystopia): heterotopia is a different place that challenges, or virtualizes, many other places with which it is directly related. Such places need not be charted, they already function.

Heterotopianism. Not utopianism, with a plan for what the city shall be atop the hill, but drawing on what is known of strange citadels, underwater city-states, floating castles, communities of insects, coastlines of dunes held in place by grasses. (Although this dependence on what is foreign involves much that is known wrongly, distortion between knower and known is less important than imagination. Foucault's example of the mirror would work with any kind of messed up mirror. Here, as elsewhere, ignorance is another kind of formation of knowledge.) For heterotopianism, there are many puzzles and possibilities in many different places, and no one of them has it all. More like shopping at the mall than eating at the food court.

Sometimes, heterotopianism is a bricoleur's utopianism. Combining elements that have never fit together, or may contradict, into a fragmented vision of wholeness. A vision of a thing that is whole, but a vision that derives its coherence from its own

disunity. Through each of its partial vista points there is one object rather than just many views of a landscape.

In other cases, heterotopias offer surrealist perspective, an attitude, concrete suggestions, new dimensions of variation, or fresh categories of thought. Fresh. Not necessarily new. In its way, heterotopianism depends upon the preexistence (and usually aging or maturation) of that place from which it draws. In the analogy to produce, you don't want a new carrot, but one that has become ripe and available to your purposes only recently.

This is an altogether different procedure from Foucault's proposal for charting the networks of heterotopias in a culture (an exploration of space), because this is the much more ordinary and less ambitious creativity to which strange spaces are put. Heterotopian interest has always encouraged strange lines to turn concepts into tools and purposes. In an image, it is a house whose design is based on the microscopic "water-bear" Tardigrades (http://www.tdrinc.com/tsuihs.html). In a word it is appropriation, not a new aesthetic but recently becoming a part of the creative process that is more acceptable to acknowledge. In postmodern culture, it is an unending variety of experiences for an ultimately insatiable consumer. In academic research, it is the usually unstated set of connections that ought to be made between an object of study and the theoretical questions that prepare the field of study and motivate the taking up of research as significant.

Tourism, in the sense discussed here, is a virtualization with endlessly different opportunities for experience and activation, without harnessing this theater of difference for the involution it performs that might be put to use. The wonders of this mode follow from spectacle and do not account for their formulation. Indeed, the virtualization depends on this mystery. Its image is the sequence of *Finding Neverland* where we see a world of the imagination with strange, dark bodies shifting across some damp Arcadia. If

we could see them, tell what their costumes or makeup were, identify their location, these actions would fulfill responsibilities to object worlds that tourism depends on forgetting. Heterotopias are a slightly different kind of surface. Time travel does offer virtual tourism, but its significance is in the terms of commensurability that shape its heterotopianism.

Heterotopias have traditional sites and working with them is at least as much about the conventions of witnessing and translating as it is these other places in their particularities. Or, their particularities always depend upon, and do great things with, terms of understanding. Ethnography does not invent societies, but they are articulated through them. "The ethnographer "inscribes" social discourse; he writes it down" (Geertz 1973, 19). There are very different heterotopian projects in molecular biology, documentary film, and psychology. They use different means for understanding, report to different culturally specific communities, enact themselves through different relations of power. Some are speculation or deduction, others insist on being rigorous research, are understood by the terminology of objective observation or natural experiments, and many more go by other names.

But they are all heterotopian. They find something whose difference is not defined by its involution of other topics, but productive of this involution. Something different which may produce differences. This thing is, on its own, not reducible to its semiotic markings in an economy of exchange, but able to make what others may then imitate. Sugar that invents sweetness, strawberries whose delicate strength has been monumentalized by artificial strawberry flavoring.

A means of providing fresh sets, characters, accents, societies, and events. Time travel gives not just a wild vision of otherness, but also an explicit commensurability between what is familiar and what is shown. That term of comparison is, for all its uncertainty, time. This means time travel is a way of thinking historically, and about the

future, in a way that focuses on change. It is not just appropriable for academic study. This is a substantial tradition in its popular consideration, an assumption that, to miss, would make understanding time travel stories almost impossible, and the hasty redeployment of these tropes in *The Simpson's* "Time and Punishment" difficult to understand. Without this kind of thinking, this mass heterotopianism of times traveled, stories of time travel would hybridize a proposal of this rendering of differences with a very different understanding of the story in question. (That vision is beyond this study.)

⋯ A Literature of Change ⋯

In the second issue of *Science Fiction Studies*, in 1973, Franz Rottensteiner's essay on change and Marxism in science fiction began a discussion that responded to James Blish's "Future Recall". Blish argues that science fiction is not educational, prophetic, going to help anyone get a job doing science, or alone in providing interesting speculation about the future. However, science fiction may have the function of providing a literature that prepares us for changes already at hand. Rottensteiner callously refuses this role to science fiction, focusing particularly on Anglo-American sf's neglect of Marxism and inability to relate change to social action. For Rottensteiner, there are two ways to show change in literature, "by static contrast, or as a dynamic process" (Rottensteiner 1973, 84). Because the second is difficult, sf depends upon the first, failing to represent intergenerational conflict and spending almost all its energies on changes incurred by technological progress.

Among the responses that follow, much is made of Marxism and the powers of the very rare, truly good, work of science fiction. Critics found themselves unwilling to defend "great" works or unable to take seriously sf's social function. Yet the conflict animating this debate is far from resolved, and the image of narcotizing entertainment cannot be finally reversed by those who see readers as actively taking up works in their daily lives, because their activities are inseparable from the banal world entertainment

would acclimate them to. A tenable form of retreat recasts philosophy *as* science fiction, and science fiction as akin to social theory for their shared technique of making the world strange again, as a preparation for it to be discovered and thought in a new way. Thus, science fiction becomes a "practice of continual experimentation" (Shaviro 2003, xi). Rather than helping audiences prepare, they may benefit by reading through its experiments.

Effectively, this retreat from a dialectic unable to get beyond critiques of mass culture emblematized by the Frankfurt School has posited masses as immaterial labor, actively participating in science fiction as intellectuals rather than as a mobilization following the model of Marxism or 60s social movements. Science fiction as distraction and techno-masculinity become positive features rather than embarrassing failures. Readers, as individuals or book groups, become researchers, and their investigations in sf are protected by the umbrella of understandings between critics and their audiences, or between fellow researchers in the field.

Unlike the generality of sf, with a concern for the future and for experiments between the social and technoscientific, time travel's individuated case is heterotopic comparison, rather than experimentation in a wisdom of accumulated memory and varied framings for induction. Few time travel stories imagine a new time travel, though some do (such as the film *The Fountain* and the game *Prince of Persia: The Sands of Time*). Variations in time machines are much less interesting than sf variations on crime control or memory (for example *Code 46* and *Equilibrium*). Time travel does not prepare us for change or openly contemplate the past (Jameson's 1974 contribution to the Rottensteiner-Blish debate). It presents a machinery of accounting for time, which concerns the nature of history and comments on particular heterochronies (Foucault 1986, 26). To rephrase the difference, time travel does not conduct experiments about the social but makes new ways of accounting for time. It, like sf, multiplies possibilities

and dramatizes their consideration. Its topic is different from sf and its iterations less experimental.

While many authors theorize time for the smooth functioning of technoscience, philosophy, or cinema, the machinery of accounting that time travel presents its heterotopian audience is topically ontological and implicitly social. John Urry analyzes glacial time and instantaneous times, in dialogue with the conquest of time by clocks, railroads, and time zones (Urry 2000, ch. 5). This social-physics of time uses particular models of time to illustrate social mobilities, those watching time travel might think of time. Time travel unleashes alternative accounts of time, as an unstoppable line of certainty, as an openness between infinite points, as a task undertaken from a particular point onward. This uncertainty is not paranoid but culturally specific, and time travel is a key site in its imagination and enactment.

Time travel's vision of history is pre-social and thereby cosmological: the way that time might take effect, might govern, enable, or play. This alliance between time, history, narrative, and causality interacts with other forces in a field that is, in one vocabulary, social. History that commands, history that falls in place from the wings of a butterfly, history fixed behind us but opening before us, history radically present in diegetic reality, history plastic before the necessity of a sequel retroactive continuity, history available as a resource to the present, history as inexplicable mystery coated in theories that are still not enough.

⋯ Way of Not Knowing ⋯

Physics does not know what time really is. Although Einstein's proposal of relativity gives time a kind of omnipresent being, different from the Newtonian model of time as a kind of work, neither model concerns itself with time in its varied forms. Philosophers make short work of these understandings of time because what they describe, real or not,

is not quite time. Yet for physics, this time manages what is unknown sufficiently, it offers to "postpone the inquiry into the essence of time while making it operationally available to science" (Brann 1999, 12). A way of not knowing Brann refuses as he argues for time as something essentially experienced within the human individual.

In time travel, spatialized time allows an encounter with time as a process and movement. The reduction of time to measurable position is concurrent, however, in almost all stories with a time that is creative, animate, and has more in common with the particularities and embodiedness of a place than it does the universalizing principles of space.

The DeLorean Dr. Brown converts into a time machine in *Back to the Future* displays time on three big digital displays. Where you are, where you are headed, and where you came from. A past, present, and future for the time machine. Yet the time the machine allows us a glimpse of is always a particular setting with its own lighting, dress, and characters. The time it shows is not just a set of coordinates or dates and, like place, not just the present of a history that produces it. For, "what gives a place its specificity is not some long internalized history but the fact that it is constructed out of a particular constellation of social relations, meeting and weaving together at a particular locus". (Massey 1994, 154) Massey argues thus that place is not exclusive of other places and is not isolated within its own limits. It opens outward.

The meeting place of specific branches, social or otherwise, provides a vision of time. A way of knowing time, yet also a way of not knowing time. A manner of handling what is concealed, what is unthought, what is unanswered.

A starship, on the ocean's floor, with 300 years of coral growing over it, has been discovered and needs to be investigated. *Sphere*'s leads play scientists exploring this huge alien starship, that impresses but could not (yet?) be created by present aeronautics (perhaps it could play a part in a closed time loop such as the remnants of the first

terminator that inspired the designs in *Terminator 2* that would give rise to terminator prototypes). As the team begins exploring the starship they discover human corpses, English and Spanish writing, a pack of Blue Diamond almonds, and eventually a computer that convinces them the ship is, stranger than alien, from a future America. As they explore the ship, the unknown is reconfigured. Rather than being an alien movie, it becomes one of time travel. We do not look at the catwalk or computer as from another world or as an encounter with the radically unknown. The ship's log dates are from a year abbreviated as 43 (evoking a movie made before Y2K more conclusively than either 2043 or 2143). Yet, in one part of the ship, is a perfect sphere reflecting everything except the team investigating it. This sphere becomes the fascinating alien being (or, it would be simpler to imagine, technology) which time travel has framed an encounter with. The rest of the movie is, as Noel Carroll explains, the pleasures of horror as a mode, an indulgence of curiosity and fascination with the unknown titular sphere. (Caroll 1990) What is it doing? Where does it come from? What does it want?

Both an increased knowledge and a transformation of managing what is not known. Raising more questions than answers. What is alien boils down to a sphere and its powers, but the whole ship becomes an inanimate object sent back in time to the present, its own form of mystery. The time travel's paradox runs as a theme of doom throughout the film, ending with a willful act of forgetting that solves the contradiction allowing the starship's arrival and discovery, thus paying off the diegetic present's debt to its timeline.

By managing the unknown materiality and process of time, time travel provides an accounting mechanism for time. The feeling of this mechanism in the narrative comes across in the kind of wonder and confusion endemic to its storytelling. Much like the incredible density of plot laid out between images that invite Kantian detachment in

anime (particularly the Ghost in the Shell films and tv show), watching time travel evokes wonder.

This wonder is, in *Sacrifice* analogized to the sort of strange-but-true story that the protagonist's preverbal son likes to hear. Otto, retired but working as a postman to finance his research into paranormal events, directs Alexander (the main character) how to reset time so that world war does not break out. He explains Alexander must lay with his servant, who is a witch. However, Otto's advice comes after Alexander has prayed (to the camera) that he would sacrifice his family and home to prevent the war. Has his prayer been answered by Otto? Is sleeping with his servant a meaningless and coincident disloyalty to his wife, such that his home must still be burnt to honor the promise of his prayer? Alexander awakens to find it is morning of the same day, and the world is not at war. He burns down his beautiful home. He ends the film driven off in an ambulance, presumably for the insanity his act evidences.

Time travel does not reveal, by experimentation, something about social reality. It handles uncertainties by means of particular mechanisms of accounting for time. Giving an account is, like accounting sounds, enacted through routines and procedure. Its function is not purely the production of something recognizable as knowledge, but also securing boundaries about what is known as unknown. Time travel accounts of time image the hand reaching out to grab a planet. In the attempts of DC to fix contradictions in their many comics, this hand is of a rogue male genius whose reach exceeds his grasp. In *Crisis on Infinite Earth*, Krona hopes to look at the beginning of the universe, and inadvertently allows the appearance of the gigantic hand of the Anti-Monitor grasping the nascent universe. Again in *Infinite Crisis*, a second attempt to make the universe continuous, Alexander Luthor's hands grasp versions of Earth, looking for an ideal planet with which to replace the disappointing one real world. This is the perspective of planet Earth from space combined with an unimaginably rescaled human hand, the

figure of that agency that uses tools. A cosmological imaging that represents the world with a mysterious human agency. (There is no "reason" for purple power-fog).

| *Infinite Crisis*, 6: 16 | *Crisis on Infinite Earths*, 7: 10 |
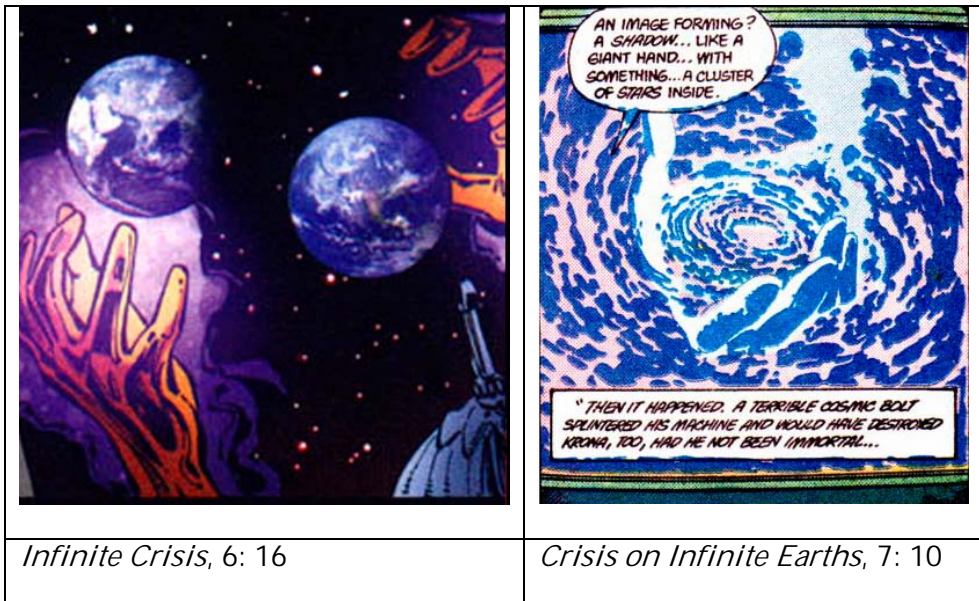
The application of time here creates a meaning for it that fosters mysticism and ignorance. This is not the opposite of knowledge, but also not a symmetrical formation. It is not just that one person's ignorance is another's knowledge (the DC universe is not just a subjugated knowledge alongside theoretical physics or Jewish theology). Universalizing relativism cannot handle similarities that are not categorical. Ignorance involves mysteries and lack (of information, thought, etc.) in a way different, but not altogether distinct, from knowledge. There is no explanation why Alexander Luthor or the Anti-Monitor have hands of such celestial size, or if, perhaps, their hands are metaphorical or the bodies they grasp are even shrunk to their scale in some other way. Some fans stay to fight this out, sometimes using rational argumentation of the kind many hope to see in the public sphere, but also sometimes of the sort we find on youtube text comment threads. This is a practice of dissidence that comics (and, recently, television) encourage. It contests what is given, which is an accounting of time by a way of not knowing it.

Research into time travel can be conducted in various media, popular to different audiences and fan bases, for the machinery of accounting for time present in each work. Though time travel is not an idea, and also not confined within particular media, it is a field which is available to studies making empirical use of the conceptual language of time, history, narrative, cause, present, future, and past. This availability to research follows from the broader interest the topic has already provoked among its audiences.

Time travel is a particular kind of story, suitable for building a movie around, spending a few episodes of a serial on, fixing problems of continuity with, or conjuring hyperreal moments of history from. Though these stories have been explored since at least Mark Twain's *A Connecticut Yankee in King Arthur's Court*, academic work has prepared these surfaces for many other projects. In this sense, researching such a topic is the harvesting of insights from heterotopias for some kind of place that remains present at the moment of investigation. Such a place consists of lines of flight pushing against one another in multiple, conflicted systematicities. Present literatures of science fiction, time travel, time, history and historiography, narrative, causality, cultural work, and particular mediums generatively overdetermine the considerations of research while inciting empirical refashioning of their suggestions.

To engage the imagination of time travel is to re-imagine the creative works of both the literature from which this inquiry emerges and those studied. What both lose in this undoing of structures we might glibly call their own does not disappear, but is postponed by an interrogation of time's virtualization in textured cultural sites that exceed that whole to which they're reduced in being accounted.

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