



THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

The time capsule and the cut-up

Negotiating temporality, anticipating catastrophe

Citation for published version:

Beck, J & Dorrian, M 2020, 'The time capsule and the cut-up: Negotiating temporality, anticipating catastrophe', *Theory, Culture & Society*, vol. N/A, pp. 1-20. <https://doi.org/10.1177/0263276420958049>

Digital Object Identifier (DOI):

[10.1177/0263276420958049](https://doi.org/10.1177/0263276420958049)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Publisher's PDF, also known as Version of record

Published In:

Theory, Culture & Society

General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.



The Time Capsule and the Cut-Up: Negotiating Temporality, Anticipating Catastrophe

John Beck

University of Westminster

Mark Dorrian

University of Edinburgh

Theory, Culture & Society

0(0) 1–20

© The Author(s) 2020



Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/0263276420958049

journals.sagepub.com/home/tcs



Abstract

The first feature film made about the design and deployment of the atomic bomb, *The Beginning or the End* (1947), begins with fake newsreel footage depicting the burial in a time capsule of a copy of the film and a projector to show it on. The scene, with its funereal overtones yet grim optimism that, even in the face of catastrophic destruction, the germ of civilization will endure, recalls the ceremonies surrounding the interment of the Westinghouse time capsule at the New York World's Fair in 1939. Time capsules, this article argues, stand in a complex relation to war and temporality, seeking to at once anticipate and work through the challenge posed to futurity by the threat of global conflict. As a container, the capsule attempts to deliver and control the reception of a legible inventory of the present, yet the principle of selection and the impossibility of predicting how information might be received in the deep future – if it is received at all – threatens this aim. The dilemma faced by time capsule curators is, we argue with reference to William Burroughs' and Brion Gysin's so-called cut-up method of writing, one of control. By reading the time capsule through the cut-up, anticipated catastrophe can be seen to be functioning proleptically in the present and already active as a challenge to the capsule as proof against disaster.

Keywords

catastrophe, Cold War, cut-up, future, heterotopia, temporality, time capsule, World's Fair

Corresponding author: John Beck. Email: J.Beck@westminster.ac.uk

Extra material: <http://theoryculturesociety.org/>

In a clearing at the edge of a redwood forest in 1946, scientists and dignitaries representing the United States, Canada and the United Kingdom – the three nations responsible for developing the atomic bomb – witness the sinking of a time capsule into the earth. Among them are General Leslie Groves, Robert Oppenheimer, Vannevar Bush, and Enrico Fermi. Inside the capsule are the records of the atomic programme, intended – as a plaque placed over the surface announces – to lie undisturbed for 500 years. The scene is recorded on newsreel footage, the voiceover explaining that ‘Among the many items and records sealed in the time capsule were a movie projector with instructions for its use engraved on copper and a print of the Metro-Goldwyn-Mayer motion picture dramatization *The Beginning or the End*, a title expressing the fear of people today that a future atomic war may destroy all humanity.’ The message to future generations is marked by a curious tone of somber defiance: ‘Come what may, our civilization will have left an enduring record behind it. Ours will be no lost race.’

The decision to entomb a little-known Hollywood potboiler along with atomic records would be more inappropriate if the entire situation was not the staged prologue to this very film, which tells the story of the Manhattan Project. As the newsreel ends, a title card explains that ‘You are about to see the motion picture sealed in the time capsule for the people of the 25th Century.’ Only at this point does the signature MGM logo appear and the film proper begin.

The Beginning or the End (Taurog, 1947), as the title signals, poses questions about sequencing, and while the main narrative of the film adheres to a conventional chronological account, the meta-textual opening introduces an equivocal temporality. The first viewers had no reason to suspect that the newsreel was anything other than a report on the present in the present, yet the announcement that the film is the one sealed in the time capsule opens the possibility of a 500 year leap into the future. Was the film’s audience getting a mid-20th-century preview, or were viewers supposed to position themselves in a far future, watching the reel of disinterred celluloid? While the wording of the title card suggests the former, the opening of the film is constructed so that the audience is invited to watch as if from the future. The space that opens up between the contemporaneity of the newsreel and the futurity posited by the title card suggests that the atomic anxiety expressed in *The Beginning or the End* may already be an historical artifact.

Shortly after the Japanese surrender in July 1945, Hollywood actress Donna Reed wrote to her former high school chemistry teacher to thank him for helping to end the war. Edward R. Tompkins was based at Oak Ridge, the secret city built west of Knoxville, Tennessee, which produced the uranium for the atomic bomb. Tompkins’ reply suggested that there should be a movie made about the Manhattan Project that would explain to critics why the work was necessary. Reed passed the letter to her

husband, agent and producer Tom Owen, who recruited MGM story editor Sam Marx as producer. Made with the backing of President Truman and overseen by Vannevar Bush, James B. Conant, and General Leslie Groves (all of whom were played by actors in the film), *The Beginning or the End* may not have been the reflective historical account Tompkins envisioned, but it was the first film to tell the story, however politically gerrymandered, of the atomic bomb (Reingold, 1989; Dick, 2016).

The ambivalence at the heart of the film is signalled in the temporal dilemma of its title, although the sense of the atomic moment as a threshold is clear. Emerging Cold War politics made it impossible for the film to fulfil its promise to directly address the nature of atomic weapons, resulting in an awkward compromise that performed openness while preserving national security. Before the action starts, but after the time capsule scene, a title card explains: 'This is basically a true story. However, for dramatic license and security purposes, some rearrangement of chronology and fictionization was necessary.' The announcement is reasonable enough under the circumstances, though the justification for tilting the truth introduces a notion that would become all-too-common in the coming years – that in political discourse any hard distinction between fact and fiction has, of necessity, been suspended (for reasons of censorship, propaganda, securitization, and so on, all of which aim at an effect of certainty while, when recognized to be at work, insinuating doubt). What is also notable about this caveat is that it includes chronological rearrangement as an aspect of narrative manipulation, deemed necessary for dramatic integrity and national security. The opening newsreel trick already plays with chronology, but here the film announces that while 'basically' true – whatever that means – time and truth have themselves fallen under the remit of a security regime and must, in ways it is impossible to verify (since the atomic story it proposes to tell is otherwise a state secret), undergo modification.

As the imaginary message to the future in *The Beginning or the End* suggests, those who assemble time capsules presuppose some continuity between their time and that to come – yet these artifactual time machines inevitably come to enact a rupture. Although the time capsule may reproduce at an institutional level the familiar act of preserving mementos and souvenirs, insofar as it detaches things from their context, and hence their capacity to operate as memories of anything at all, it forms a kind of antithesis to the memorial. Extracted from their worldly locations and repositioned within the compressed and isolated space of the capsule, things become vulnerable to new associational readings.

The anxiety about the future of humanity expressed in *The Beginning or the End* was real enough in 1947 and the depicted funereal interment of the time capsule is, at the same time, an act of mourning and a legacy claim. This conflicted ceremonial gesture marks a crisis of history at the

moment when the destructive technologies that underwrote the triumph of liberal democracy over tyranny are understood to have threatened the possibility of any human continuity at all. What the time capsule represents, in the film and more widely in its real-life iterations, is an attempt to manage uncertainty. The bomb raised uncertainty to the level of existential threat and made the challenge of coping with it the core activity of Cold War strategists. The use of computerized mathematical techniques for the generation of multiple possible outcomes, developed during the Manhattan Project, grew, post-Second World War, into complex systems analysis at organizations like the military-supported Rand Corporation, where computation and statistics were used to calculate probabilities in the event of nuclear confrontation. Herman Kahn's work at Rand, and subsequently at the Hudson Institute, expanded the remit of what became known as futures analysis to include social policy and business planning. The anticipation of possible futures, in short, became an intrinsic part of the post-war stance toward the management of time. In this context, the phenomenon of randomness came to attract particular interest.

The sense that randomness might be a mode of deeply encrypted prophetic order, containing some clue of what is to come, reverberates through the early Cold War era, not only in systems analysis but also in a broader cultural preoccupation with chance and contingency inherited from the earlier avant-garde (notably Dada and Surrealism but also Constructivism's disruptive use of montage) but now situated squarely within a geopolitical context gripped by the need to deal with uncertainty. The obsession with chance is pursued perhaps most extensively in John Cage's engagement with non-rational ordering systems like the *I-Ching*, aleatory compositions and chance operations; but it is also there in George Brecht's notion of 'chance-imagery', in Jackson Pollock's action painting, and in the so-called cut-up method of writing developed by William Burroughs and Brion Gysin.¹

In a 1955 letter to Allen Ginsberg, Burroughs explained that his fragmented writing was characterized by 'the cryptic significance of juxtaposition, like objects abandoned in a hotel drawer' (Harris, 1993: 289).² This sense of a concealed order within contingency would be confirmed for Burroughs a few years later by the ex-surrealist Brion Gysin who introduced him to the methods of the cut-up.³ Slicing through newspapers while cutting a mount for a drawing, Gysin hit upon a means of composition that recalled the procedures of Dada and Cubism. The first results of Gysin and Burroughs' experiments were published in the 60-page pamphlet *Minutes To Go* (1960), a title freighted with a sense of temporal limits.⁴ Burroughs saw the cut-up method as explicitly engaged in the manipulation of time, and it is surely significant that it begins with the newspaper, that most temporally specific of materials – cutting into the present, he claims, 'the future leaks out'

(Burroughs, 1986). The result of the cut-up procedure is not random juxtaposition but meanings referring ‘to some future event’ (Burroughs, 2008: 28). The cut-up, then, like the capsule, is a technology of time travel but one that works in a reverse direction insofar as it draws the future into the present, instead of projecting the present into the future.

This notion of the cut-up shares the goal of leveraging chance with systems analysis as if, like the pumping out of random numbers at Rand, what Burroughs calls the ‘very definite’ job of cutting and pasting might yield some insight into an unknown temporal order. Defence intellectuals were often no less sceptical of temporal continuity than Burroughs, and the controversy over the publication of Kahn’s *On Thermonuclear War* (1960), memorably attacked in a *Scientific American* review as a ‘moral tract of mass murder: how to plan it, how to commit it, how to get away with it, how to justify it’ (quoted in Aligica and Weinstein, 2009: 269), marked the extent to which Kahn’s willingness to rehearse possible nuclear scenarios and outcomes broke with the normative assumption of continuity he himself believed was a catastrophically inadequate model of time under the bomb.⁵ The cut-up, along with Kahn’s simulations and scenario planning, are, like the time capsule, devices for capturing and releasing temporality. What Burroughs and Kahn share with time capsule builders is an intimation of being at a threshold – a sense that conventional notions of temporal unfolding are no longer adequate. In the various forms they take, the cut-up, the scenario and the time capsule are responses to this perception of being at the edge of the unknown. And as such, they retain an eloquence as symptomatic documents of a present that has continued to endure within a horizon of always-imminent catastrophe.

The Rocket and the Crypt

We owe the term ‘time capsule’ to G. Edward Pendray, a publicist who had joined the Westinghouse Electric and Manufacturing Company in 1936 as assistant to the president, where he was charged, Knute Berger writes, with ‘convincing the public that the company was more forward-thinking than its rival, General Electric’ (Berger, 2002: n.p.; Jarvis, 2003: 155). As a result, Westinghouse took a site at the 1939–40 New York World’s Fair, which was then being planned for a former ash tip site in Queens that had been identified and re-christened ‘Flushing Meadows’ by the New York Parks Commissioner Robert Moses. Developed for the Fair, with its ‘Building the World of Tomorrow’ theme, Pendray’s capsule would take its place amongst a number of exhibitionary installations that were staged as vehicles of both time travel and corporate promotion. Notable here was the extraordinary Futurama exhibit, designed by Norman Bel Geddes for General Motors, which gave the impression of

ascending and descending in an aircraft over a future United States of the 1960s. Rhetorically converging the exhilaration and modernity of the aerial view (Roseau, 2014: 219–23) with streamlined styling and the delineation of a national landscape restructured by superhighways, it located spectators not merely as remote viewers of the future, but actually – if momentarily – within it. Not only did visitors receive a badge that announced ‘I have seen the future’ but – in a final *coup de théâtre* at the end of the ride – they found themselves stepping into a full-scale construction of a scene that they had just witnessed in miniature from above (Bennett, 2010: 180). The effect, one visitor reported, ‘was startling, as if you really had landed in the future, while the illusion lasted’ (Gelernter, 1995: 24).

In similar fashion, the Democracy exhibit of Henry Dreyfuss, a one-time apprentice of Bel Geddes, gave visitors a synoptic aerial view. Installed within the vast globular Perisphere – which, with the needle-like three-sided Trylon, formed the symbolic centrepiece of the Fair – Democracy was a gigantic miniature city, set one hundred years in the future, which visitors viewed from high revolving platforms set on two levels. The presentation included a projection onto the interior of the sphere of characteristically attired workers marching toward the viewers. As they approached, the marchers – the Official Guidebook noted – were ‘seen to represent the various groups in modern society – all the elements that must work together to make possible the better life which would flourish in such a city as lies below’ (Bennett, 2010: 180).

The 1939–40 New York World’s Fair, with its insistent and optimistic futurism, has been understood as the apotheosis of the US Depression-era expositions, events underpinned – Robert Bennett notes – by ‘deeply entrenched commitments to scientific rationality, technological progress, modernist aesthetics, industrial design, increasing consumer prosperity, and a positive view of corporate capitalism’ (Bennett, 2010: 177). While in many ways the Westinghouse time capsule was fully compliant with these, at the same time – through its fundamental programmatic conceit of transmitting a record of contemporary civilization into a far-distant future – it set in play a series of representational dilemmas and effects that troubled the more straightforwardly positive future visions in evidence.

Certainly, the time capsule appeared as an emblematically modern object. Shaped, in Pendray’s description, like a ‘torpedo’, it was slim, smooth, gleaming and streamlined – a missile targeted at a 5000-year future date, whose technology it already might be thought to anticipate. The publicity information produced for the sister vessel that would be buried alongside it in 1964 shows how the metallic luminescence itself could take on a symbolic value – ‘shining proof that man endures and indeed prevails’ (*The Westinghouse Time Capsules* [promotional brochure]). The shell of the 1939 capsule was cast from an anti-corrosive copper alloy (99.4% copper, 0.5% chromium, 0.1% silver) developed by

Westinghouse and enshrined in its official name, 'The Time Capsule of Cupaloy'. The interment of the device took place at noon on 23 September 1938, at 'the precise moment of the Autumnal Equinox' in a 50-ft deep silo on the Westinghouse site christened alternately the Immortal Well or the Well of the Future (Pendray, 1939, n.p.; Jarvis, 2003: 153). There it remained visible via a periscope mechanism until the Fair closed, when the well was finally sealed.

Before joining Westinghouse, Pendray had worked as a journalist and editor, displaying a keen interest in projectiles – both aerial and subterranean – in his various activities. In 1929, when on the staff of *The New York Herald Tribune*, he had published a science-fiction novel titled *The Earth-Tube* under the name Gawain Edwards. In this, an enigmatic neo-Mongolian Asian horde conquers and enslaves China and Japan, 'closing the East again to Western ideas and commerce' (Edwards, 2013 [1929]: n.p.). The Asiatics geoengineer an invasion of the West by drilling a huge tube through the centre of the earth, stretching from an artificial island off the coast of Japan to one lying near the southern coast of South America. Through this hurtles a vehicle, strangely redolent of the author's future time capsule, which – although gigantic – is described, with its tapering ends, as bullet-shaped and made from the mysterious metal alloy whose prodigious capacities have enabled the Asiatics' conquests. While South America becomes flooded with water, the US is flooded with gold, which is cascaded down upon the nation in an effort to undermine its private enterprise economy and provoke a totalitarian socialism.

The year following the publication of *The Earth-Tube*, Pendray became one of the founder members of the American Interplanetary Society, a group that grew up around the circle of contributors to publisher Hugo Gernsback's science-fiction magazine *Science Wonder Stories*. David Lasser, the magazine's editor, himself a science-fiction writer and the author of the influential non-fiction *The Conquest of Space* (1931), became the first president, with Pendray succeeding him in 1932. In 1931 Pendray and his wife Lee visited Europe, where they met members of the Verein für Raumschiffahrt (Society for Space Travel), who were experimenting with liquid-fuel rockets, and toured the recently established Rakettenflugplatz (Rocketport) in Berlin. On Pendray's return, the interplanetary society became involved in building and testing small liquid-fuel rockets. The first trial, in November 1931, failed but the second – launched by Pendray and his associate Bert Smith from Great Kills Park, Staten Island on 14 May 1933 – successfully lifted off and rose to 250 ft before the oxygen tank ruptured.⁶ In 1934, reflecting its shift from its visionary science-fiction roots, the society altered its name to the more sober sounding American Rocket Society.

While the term 'time capsule' was Pendray's, the idea had clear antecedents, such as the two safes associated with the Philadelphia Centennial

Exposition of 1876 – the Civil War widow Mrs C. F. Deihm’s ‘Century Safe’ and the photographer Charles D. Mosher’s ‘Memorial Safe’, both planned for opening on the US bi-centennial in 1976. Intended by their progenitors to remain visible to public view, with these early examples no efforts were made, Nick Yablon writes, ‘to keep [the] vessels fully sealed, or their contents concealed, until their target date’ (Yablon, 2011: 5). Closer to hand and of direct significance for the Westinghouse time capsule was the Crypt of Civilization project initiated in 1935 by Dr Thornwell Jacobs, president of Oglethorpe University in Atlanta. The crypt, which has been described as both the first ‘millennia-spanning deliberately targeted repository project’ and the first “‘microcosm’” time capsule’, had decidedly Egyptological associations (Jarvis, 2003: 141). Partly inspired by post-Second World War archaeological discoveries, in particular the 1922 opening of the tomb of Tutankhamun with its array of quotidian utensils, the Oglethorpe crypt took the form of a massively constructed cell, 20-ft long by 10-ft wide, within which the selected artifacts were secreted (Jarvis, 2003: 141, 146). As with the centennial safes, it projected its target forward from an originary reference date such that the time of sealing would come to be the historical midpoint. Far from a modest century, however, the reference date was now dialled back to 4241 BCE, the earliest recorded date in ancient Egyptian records and the one assumed by the historian Eduard Meyer to represent the starting point of the Egyptian civil calendar. This correspondingly pushed the crypt’s target date to the deep future point of 8113 CE. Pendray was familiar with the Oglethorpe crypt. He seems to have been the author of a short piece on the project in the *Literary Digest* of October 1936, which appeared a month before Jacobs’s own article on the crypt in *Scientific American* (Jarvis, 2003: 156). Indeed, Jacobs records in a diary entry that he visited Pendray in September 1938, while the latter was working on the Westinghouse time capsule.

Thus, while the first Westinghouse time capsule is usually thought of in relation to its 1964 double, the original was already a re-enactment and futurist re-envisioning of the Oglethorpe crypt, even if the latter would not finally be sealed until 25 May 1940. Where the Crypt of Civilization was an archive dedicated to the future that was organized around a deeply historicizing motif, the rocketeer Pendray in taking up the idea stripped away its dusty necrological associations and re-situated it as a high-technology rocket-age time machine, with an airtight and atmospherically conditioned payload, aimed at AD 6939. Perhaps not coincidentally, at 7’6” long, the time capsule turned out to be the same dimension and proportion as the American Interplanetary Society rocket that Pendray had launched from Staten Island. Apparently before the moniker time capsule was decided upon, ‘time bomb’ had been first considered (Jarvis, 2003: 155).

In his discussion of the Century Chest developed by the financier Louis Ehrich in 1901, Nick Yablon has suggested that the notion of the time capsule as microcosm emerges in relation to an ideational horizon of impending catastrophe. Of the Ehrich chest he writes, ‘anticipations of social rupture evidently generated a corresponding rupture in the epistemological function of the time vessel’ (Yablon, 2011: 13). Within the conceptual frame of the time capsule as microcosm, the aspiration becomes to encapsulate a present totality – however that is construed – and convey it to the other side of the catastrophe whose presence-to-come forms the motivating rationale for the project. And here the Westinghouse time capsule comes into focus as different in kind than those other time machines that proliferated in the 1939–40 Fair. For if the conceit of the latter was to simulate the future in the present and thereby occlude the question of the transition between the two (or at least dissolve it in sublimated representations of labour – *à la* Democracy), the programmatic intention of the time capsule was to project the present into the future in an act of proleptic memorialization that depended upon – however elided, suppressed and qualified it might have been – a larger narrative of loss. As Eduardo Cadava has noted in a different, although related, context: ‘any collective or political program motivated by a will to absolute and eternal immanence is organized around the production of death’ (Cadava, 1997: xxviii). Commenting on the emergence of millennia-spanning time capsules in the 20th century, William Jarvis has characterized them as ‘a zenith, a celebration, in the history of human civilization’ (Jarvis, 2003: 138). Certainly they are, in a sense, celebrations – and this is closely linked to their typical *topoi* of the fairs. But another way of narrating this is to recognize, following Yablon, that time capsules become microcosmic (or encyclopedic) when they enter their catastrophist phase – and their deep future projections are part and parcel of this.⁷ The appearance of these in the 20th century is closely tied to the evolution of radically destructive capacities and technologies, whose related forms the capsules themselves come to mimic. Now time vessels no longer sit in public display or are permeable to the present, but go deep underground, like the Westinghouse capsule, or become bunker-like installations such as the Oglethorpe crypt, with its 7-ft thick stone roof.

This ambivalence deeply marks the various productions around the 1939 Westinghouse capsule such as *The Book of Record of the Time Capsule of Cupaloy*, described as ‘our message to the archaeologists of the future’ (Pendray, 1938: n.p.). This slim book – part apologia, part inventory, part interpretative guide and part manual for locating and extracting the time capsule – acted as a kind of unavoidable supplement, an artefact necessarily outside the secure interior of the capsule that was charged with remembering ‘on the surface’ the subterranean memorial object below. In effect the capsule was committed to the protection of the *Book of Record*, which itself consequently had to be without protection.

Or rather, that protection was displaced. To this end, copies of the *Book of Record* (3650 were produced) were distributed to various archives – seemingly including Tibetan lamaseries – for safe keeping. The logic of the move was thus to presuppose the survival, in however degraded form, of the protective archives on whose destruction the very rationale of the capsule was predicated. (If ‘proper care is provided’, receiving archivists were told, the printed *Book of Record* was capable of lasting the 5000 years to the target date of the capsule itself [Pendray, 1938, n.p.].) If the *Book of Record* survived, it presumably did so thanks to the continuing integrity of the archive within which the kind of cultural documentation that the capsule was designed to transmit was already incorporated. And if it did not, and the capsule did turn out to be the kind of singular carrier of its cultural payload that its creators imagined, then it became temporally unmoored, left to the vagaries of chance and in the last instance what Pendray optimistically called ‘the digging and burrowing habits of the human race’ (Pendray, 1939: n.p.).

While the *Book of Record* suggested that ‘In our day it is difficult to conceive of a future less happy, less civilized than our own’, this prognosis was immediately qualified by admissions of contingency and intimations of ruin, destruction and decay (*Book of Record*, 5). Thus the anticipation that those in the future ‘will be able to reconstruct, through archaeological techniques... the hard structures of our culture: our architecture, our dams and roads, our houses and our general physical appearance, as indicated by our skeletons’ (*Book of Record*, 6–7). In the promotional hour-long film made for Westinghouse, *The Middleton Family at the New York World’s Fair*, the family’s son at one point says to the young engineer who is acting as their – and the viewer’s – guide, ‘Boy, they weren’t fooling when they made that capsule, were they?’ The reply? ‘It’s the brains of the world done up in a small package. And it’s the most permanent exhibit of the Fair. It’ll still be here when the rest of this place is nothing but dust.’⁸ The response is delivered in the typically cheerful-but-instructive tone, but the equivocality of what ‘this place’ means here makes us pause. Is it the Westinghouse pavilion, the fairgrounds, Queens, New York, the continent – or even the earth? Moreover, the *Book of Record*’s optimistic opening gambit was hardly borne out by the commentaries of the three ‘noted men’ – two of whom were recent émigrés from Nazi Germany – whose messages to those to come concluded the *Book of Record*. These were, at best, only weakly affirmative of the future. The physicist, Robert A. Millikan, foresaw that the time capsule might find itself travelling in reverse – that is, into a future of atavistic despotism (*Book of Record*, 46). Thomas Mann anticipated not progress but only the eternal – and by implication futile – repetition of attempts ‘on the part of man to approximate to his idea of himself’ (*Book of Record*, 47). Finally, Albert Einstein briefly praised technological progress before lamenting the conflict-inducing iniquities

of the system of production and distribution of commodities. Under such arrangements, which he attributed to the low ‘intelligence and character’ of the masses, the future could only appear fearful. His message to its inhabitants could only express a tenuous hope that they might look back on the predicament of the present ‘with a feeling of proud and justified superiority’ (*Book of Record*, 49).

The ambivalences that attended the Westinghouse time capsule are equally evident in the curious burial rites, which oscillated strangely between works of celebration and mourning, a complex nexus of transcendence and loss. As Jarvis points out, there were repeated ‘sealing’ events, no doubt driven by their publicity value. The first of these took place on 16 September 1938, when the capsule’s inner glass tube (‘Pyrex inner crypt’, in Pendray’s words [Pendray, 1939, n.p.]) was filled with nitrogen and sealed. Next, the capsule was interred on its World’s Fair site. The description from *The Story of the Time Capsule*, to which we have already referred, is worth quoting at length:

It was lowered fifty feet into the earth on the site of the Westinghouse Building at the grounds of the World’s Fair at high noon on September 23, 1938, the precise moment of the Autumnal Equinox. While a Chinese gong tolled solemnly, A.W. Robertson, Chairman of the Board of the Westinghouse Electric & Manufacturing Company, committed the Time Capsule to posterity with these words: ‘May the Time Capsule sleep well. When it is reawakened 5,000 years from now, may its contents be found a suitable gift to our far-off descendants.’ (Pendray, 1939, n.p.)

Following this, it remained still possible to see the sunken capsule for the duration of the Fair via a viewing device, until at last the well was closed. The ceremony that marked this sealing was deeply funereal. *Time* magazine reported: ‘For two years Fairgoers have gaped at the capsule, gleaming at the bottom of its open well. One day this week . . . [o]n the stroke of noon, the well was sealed. A crowd of spectators bowed their heads. A bugle sounded taps. The capsule started its long journey through time’ (Jarvis, 2003: 1).

The character of these rites suggests that the capsule might be considered a manifestation of what Jacques Derrida has called *survivance*, which he described as ‘the “movement of survival” at the very heart of life.’ Derrida discusses this in the context of cultural forms and rituals that work to ‘limit the “reality” of individual death . . . soften or deaden it in the realm of the “symbolic”’ (Derrida, 1984: 28). With the time capsule, it is as if the cultural present enacts its own symbolic funeral rites, under the shadow of what becomes a perpetually imminent catastrophe that the millennial deep time target in a sense guarantees. Distinct from historical forms of cultural or national memorialisation – such as

pantheons – that are accumulative and presuppose the continuity of cultural memory, the millennial time capsule addresses precisely the breakdown or rupture of the latter, which is why it expends such efforts in trying to establish the conditions for its belated reconstruction. This fantasy of reanimation or even resurrection is what limits – what will limit – the ‘reality’ of the impending death-to-come and consequently confers upon the capsule the celebratory, euphoric aspect of historical transcendence that is the other side of its deathliness. And it is what determines the metaphors of ‘sleeping’ and ‘waiting’ that is so much in evidence in contemporary discourses around the device – such as the epigraph, drawn from the biblical Book of Job (xiv, 14–15), placed at the beginning of the *Book of Record*:

All the days of my appointed time I will wait,
 til my change come.
 Thou shalt call, and I will answer thee.

Heterotopic Cut-Up

AN ALARM CLOCK, TOOTH POWDER, BIFOCALS, AN
 ASBESTOS SHINGLE, 8/38 ISSUE OF HARPER'S MAGAZINE,
 A ZIPPERED TOBACCO POUCH, BEETLEWARE, CARROTS &
 A MIAMI FASHION SHOW

TRANQUILIZERS, ONE CHECKERED BIKINI, CREDIT
 CARDS, A FIFTY-STAR AMERICAN FLAG, TEKTITE,
 BEATLES RECORD 'A HARD DAY'S NIGHT', BIRTH
 CONTROL PILLS, PLASTIC WRAP, MATERIAL FROM
 ECHO II SATELLITE, KENT FILTER CIGARETTES,
 DETERGENT, FREEZE DRIED FOODS, IRRADIATED
 SEEDS, A PLASTIC HEART VALVE, AN ELECTRIC
 TOOTHBRUSH, AND DESALTED PACIFIC OCEAN WATER

These lists remain visible today on the World's Fair site in Queens, embedded in the two circular panels that mark the positions of the 1939 time capsule and its supplemental twin. The reader is also told that the first capsule holds 22,000 pages of microfilm, 15 minutes of newsreel, and, in total, 124 items of common use, while the second adds to this with an extra 50,000 microfilm pages, together with the named objects.⁹ What is most striking, however, is the strangeness of the lists, which the texts on the panels so emphatically foreground. The effect is to endow what appears to be the entirely banal with a magical or incantatory quality, the a-syntactical sequence of seemingly

unrelated names suggesting a kind of recitation of the objects of consumer society at the two historical points. And as this has no logical or necessary beginning or end, it gains an ideological inflection as a discourse on the plenitude – one thing after another, incessantly – promised by capitalist production. Certainly the geopolitics of this issue was in the thoughts of Robert Moses, now returned as president of the New York World's Fair Corporation, when he spoke at the ground-breaking ceremony for the Cold War era capsule in June 1963.¹⁰ But it was also present, as we will see, in the Depression-era futurism of the Westinghouse exhibit in 1939.

In his introduction to *The Order of Things*, Michel Foucault draws his well-known distinction between utopias and heterotopias. Where the former 'permit fables and discourse...run with the very grain of language and are part of the fundamental dimension of the *fabula*', the latter 'are disturbing...because they destroy "syntax" in advance' (Foucault, 2002: xix). If, thought of in terms of this opposition, the programmatic aim of the time capsules was utopian coherence – that is, the effort to project their cargo into the future in such a way that the identities and relations of the various elements contained could be recovered and reconstructed – their outcome, through the extraction and isolation of the contents from their specific cultural context, was to sever syntactical positionality and thereby create an effect of heterotopic cut-up. It was as if the time capsules, in anticipating catastrophe, perversely produced it in advance in the very act of guarding against it. Certainly, the way in which the acquisitive and exhibitionary culture of modernity fractured space and time had been evident since the 19th century, together with a related discourse on the fate of displaced and 'homeless' objects (Armstrong, 2008, 221). But the expanded temporality, symbolic agenda and operative parameters of the capsules – in effect exhibitionary time machines – pushed the attendant issues to new heights. In Foucauldian terms the intention of the *Book of Record* was to facilitate the reconstruction of the 'tabular' ground, which would allow the reintegration of the scattered elements – texts, objects and technologies – contained in the capsules. 'In itself', Pendray wrote, 'the Key [to the English Language – a section in the *Book of Record*] is believed to contain all the elements archaeologists of the future will need to translate and pronounce 1938 English' (Pendray, 1939, n.p.). But this seemed to elide the central question of the far-future legibility of the *Book of Record* itself – both its texts and images. And although it was necessarily positioned in an exterior – even transcendental – relation to the capsule contents, the fact that a copy was placed within the capsule itself (one of only two non-microfilm books, the other being the Bible) seemed an allegory of its fatedness to, in the end, take its place as just another one of the sequence of heterotopic elements.

At the same time, it is important to note how the outcome of the curatorship of the capsules intersects with the condition of the cut-up, as it is already immanent in mid-20th-century capitalist society – with its conditions of overproduction, need for constant stimulation of consumer desire, and accelerating informational forms. Thus the comment of sculptor William Turnbull – member of ICA’s Independent Group, eager observers of 1950s US popular culture – ‘Magazines were an incredible way of randomizing one’s thinking. . . food on one page, pyramids in the desert on the next, a good-looking girl on the next; they were like collages’ (Turnbull, 1990: 21). Such interests nourished projects such as the 1957 proto cut-up *Project for a New Novel* by J.G. Ballard, a writer certainly in the orbit of the Independent Group. Using texts cut from scientific journals and graphic notational forms, such as arrows, the *New Novel’s* pages were intended to be affixed to roadside billboards, where they would be read at speed from vehicles (Baxter, 2009: 63). If the seeming arbitrariness of the objects interred in the capsules and recited on the memorial inscriptions registers the logical interminability of the list and hence the plenitude of commodities promised by – or circulating within – capitalist society, then at the same time their very ephemerality becomes emblematic of consumption and the power to resupply, to transcend shortage through private initiative, technical innovation and productive capacity. It is therefore unsurprising how the contents of the time-capsules, conceived as pieces of ‘instant archaeology’ of their age, ‘contrived to give the people of a distant future a picture of us and our times’ (Pendray, 1938: n.p.), start to look like the displaced detritus found in those most extreme cases of cut-ups – garbage tips. At this point, the newly-elevated identity of the World’s Fair site as Flushing Meadows seems to come into a curious alignment with its old repressed prehistory as a dumping ground.

Already in 1939, the Westinghouse exhibit anticipated the geopolitical battle-lines that would be drawn up around the technological consumer product in the American National Exhibition in Moscow 20 years later, well known as the site of the so-called ‘kitchen debate’ between then US vice-president Richard Nixon and Soviet premier Nikita Khrushchev. In the Westinghouse pavilion, domestic appliances were presented under the sign of freedom, and the emancipated life they promised contrasted with that of hidebound ‘Mrs. Drudge’. Moreover, it is clear that the connotations of this freedom extended beyond the liberation of the housewife to a more general sense of political and market freedoms. Nowhere is this more visible than in Westinghouse’s film, *The Middleton Family at the New York World’s Fair*, in which the kind of socialist-fuelled anxieties evident in Pendray’s *The Earth-Tube* become reconfigured as a family drama. Right from the beginning of the film it is clear that what is at stake is the future – and indeed the future of the family as it is entwined with the future and productivity of the nation as a whole. At the outset,

as a prelude to visiting the World of Tomorrow of the Fair, we find the father listening to a radio broadcast about future job prospects ('What chance have these boys and girls in a world already staked out? . . . Will they find "Welcome" or "Closed" signs on the gateways of opportunity?'). His son is disinterested, but this will soon be set to rights by the experience of the Fair. More difficult is the family's daughter, who is attached to her anti-capitalist bohemian artist boyfriend, with the suspiciously Soviet-sounding name of Makaroff. This then sets the stage for a sequence of ideological contestations with Jim Treadway, the handsome and assured Westinghouse engineer from the family's hometown who accompanies them around the exhibits, expounding the benefits of the technologies on show. In the end the virtuous young engineer overcomes the cynical artist, who – having misled the daughter by giving her a costume jewellery engagement ring – is revealed to be a coward when he takes fright and bolts at an innocuous bang from the boy's cracker toy. In the fable, the engineer, who is both an embodiment and personification of the company, thus acts to save both the future of the nation, through technological and manufacturing prowess, and the family, through his replacement of the sinister socialist in the affections of the daughter. As the couple stand in the forecourt of the Westinghouse pavilion watching a night-time light show playing on the sculpture beside the time-capsule's 'Well of the Future', the engineer declares: 'Why, all this is merely a sample of the world of tomorrow'.

Jump Cut to the Future

The curators of the 1939 capsule intended to control the interpretation of their collection of artefacts through the production and dissemination of the *Book of Record*. Yet the instructions provided can have no innate claim to metatextual legibility, since the presupposition that the key is more comprehensible than the code is reliant upon some transferability across time of the agencies of code and key – and indeed the very possibility of making a meaningful distinction between them. Released, across thousands of years, from any sense of temporal continuity, relations among unfamiliar objects – including books of instructions – are likely to generate unmanageable and proliferating interpretations. If the list of items strays from the category of 'small articles of common use' and across the categories used in the 1939 capsule, the challenge of meaning multiplies further. Rock wool, linotype, wheat, corn, oats, tobacco, electric wall switch, dollar bill, Aesop's fable of 'The North Wind and the Sun' in 20 languages, golf ball, safety razor, anthracite coal, photograph of a string quartet, and so on. What new syntactical arrangements might need to be devised to produce an understanding of such hieroglyphs?

The disinterred time capsule, like an opened tomb or Burroughs' objects in a hotel drawer, appears as an arrangement and as a code: all

the pieces together present a closed form bereft of context. If a landfill site next to the time capsule was uncovered instead of the capsule, would the set of remains in the landfill allow for the construction of a message to the future from the past? No doubt it would, which is why archaeologists are so fond of garbage (Rathje, 2001; Rathje and Murphy, 1992; Shanks et al., 2004). The difference between landfill artefacts and those of the time capsule lies precisely in the element of design that motivates the selection of objects for the latter. Yet if the diggers disinterred the time capsule after they discovered the landfill, would they be able to tell the difference? Insulating their objects against the material depredations of time, the curators of the time capsule in a powerful sense demanded that their present and its meaning – as they defined it – carried over into the future. Garbage collectors presumably harboured no such ambitions, and yet, in the sense that Burroughs understands the objects in the drawer, they have also, by sequestering things that will be discovered in the future, arranged a message encoded in the random collection of trash – although for Burroughs there is no trash since all noise is a not-yet-decoded signal.

Pendray's time capsule sought to control temporality's release of information by jump-cutting from the present to some future where the interred objects could speak for themselves and secure their meaning. In this way the time capsules embody a form of temporal imperialism that would take possession of the future's understanding of its past (see Durrans, 1992). If the time capsule was a technology impelled by a dream that the present might in some way colonize the future (not by chance did the 1964 capsule carry a US flag, like the Apollo 11 moon mission 5 years later), the cut-up conversely aimed to destabilize the present through the release of futurity within it. And so, while Burroughs' cut-up and Pendray's time capsule might come to resemble one another in their heterotopic a-syntacticality, they diverge in their relation to it. Burroughs embraces the fracturing of syntax as an escape from the domination of chronological determinations, whereas for Pendray the problem is precisely the opposite – how to overcome the catastrophe of a-syntacticality that is the unwanted but inevitable result of the capsule's programmatic agenda.

The anticipation of catastrophe characterizes 20th-century time-capsule projects, even when, as in the 1939–40 World's Fair capsule, the ostensible aim is the promotion of a prosperous and peaceful future. The funereal rites accompanying the interment of the first Westinghouse capsule have already, as indicated by *The Beginning or the End's* fictional adaptation of a similar ritual, become a requirement for a civilization that senses it is on the brink of destruction. By 1947 the defiant tone of endurance evident in the Westinghouse project remains, yet the new nuclear context magnifies the urgency of the burial while indefinitely extending uncertainty toward the future. As Paul K. Saint-

Amour observes in a discussion of the anticipation of total war during the interwar period: ‘When the future appears foreclosed, anticipation loses its conditional relationship to that future: once seen as a *fait accompli*, a future event becomes a force in the present, producing effects in advance of its arrival’ (2015: 12–13). Saint-Amour stresses that this sense of a foreclosed future is an effect of total war as a doctrine and not a fact about futurity itself, yet as the imagination of disaster becomes increasingly planetary in scale during the 1950s, the horizon of the future is brought forward to the point where, as the title of the first cut-up collection underscores, there are only ‘minutes to go’. The urgency of Burroughs’ insistence that the cut-up can crack open the syntax of teleological thinking and reveal alternate temporalities and new routes out of the furrow, while never explicitly named as driven by nuclear anxiety, is nevertheless consonant with a broader cultural understanding of apparent inescapability of an imminent catastrophe.

In a later text that draws on the mythology of the Mayan gods of death, Burroughs imagines a personified Control giving the order to destroy Hiroshima. Control is also Death and ‘Death needs Time . . . for what it kills to grow in’ (Burroughs, 1990). Burroughs would have the cut-up operate as a means of rupturing the hermetically-sealed temporality of control, an agency that is perversely foreshadowed by effects of the time capsule’s own pursuit of control. If the future event operates as a force in the present, it is precisely the future catastrophe that both the cut-up and capsule anticipate and, at the same time, enact. What Burroughs therefore identifies in the cut-up is the scrambling effect of a future event acting in the present. To this extent, Burroughs is right to see the future leaking out of the cut-up – although as symptom rather than meaning – just as it also must seep out of a time capsule that cannot contain and control the coherence its collection of objects aims to deliver.

Notes

1. The range of mid-century work produced using chance operations is well-represented in Young and Mac Low (1963).
2. Burroughs anticipates here Swiss artist Daniel Spoerri’s extrapolation of a complex narrative order through the examination of chance objects. In 1961, Spoerri, then living at the Hotel Carcassonne in Paris, mapped the outlines of the 80 objects lying on the top of a table in his room. Each object was then numbered and a description, including memories and reflections, added; descriptions were then cross-referenced. The resulting document was published in lieu of a catalogue for Spoerri’s 1962 exhibition at the Gallerie Lawrence. This original ‘topography of chance’ subsequently went through a series of translations and additions by other authors, notably Emmett Williams and Dieter Roth (Spoerri, 2016).
3. Gysin was expelled from the surrealists by André Breton for alleged insubordination (see Cran, 2014: 112).

4. For extended discussion of the cut-up method, see Burroughs and Gysin (1979).
5. Kahn infuriated military leaders by dismissing conventional strategy as irrelevant in the face of nuclear weapons (see Ghamari-Tabrizi, 2005: 231).
6. A contemporary newsreel of the launch is online at: <https://www.youtube.com/watch?v=eexUHxhJvVo> (accessed 25 May 2016).
7. For further discussion of the relation between the catastrophic and the encyclopedic, see Saint-Amour (2015).
8. The full film is online at: <https://www.youtube.com/watch?v=YF594h8KUXw> (accessed 25 May 2016).
9. The supplemental sheet to be attached to the original *Book of Record*, issued to archives at the time of the second capsule, claims 117,000 pages of microfilm.
10. Describing the Fair as ‘a sort of Olympics of Progress’ and asserting the pre-eminence of the Industrial and Transportation areas, Moses insisted that ‘The thing that impresses foreigners most are our achievements made possible through our private enterprise system’ (Westinghouse Time Capsule – Groundbreaking, 1963).

References

- Aligica, Paul Dragos and Weinstein, Kenneth R. (2009) *The Essential Herman Kahn: In Defense of Thinking*. Lanham, MD: Lexington.
- American Institute of Aeronautics and Astronautics (n.d.) The ARS – Early Years (1930–1944). Available at: <https://www.aiaa.org/SecondaryTwoColumn.aspx?id=1906> (accessed 25 May 2016).
- Armstrong, Isobel (2008) *Victorian Glassworlds: Glass Culture and the Imagination, 1830-1880*. Oxford: Oxford University Press.
- Baxter, Jeannette (2009) *J.G. Ballard's Surrealist Imagination: Spectacular Authorship*. Farnham: Ashgate.
- Bennett, Robert (2010) Pop goes the future: Cultural representations of the 1939–1940 New York World’s Fair. In: Rydell, Robert W. and Schiavo, Laura Burd (eds) *Designing Tomorrow: America’s World’s Fairs of the 1930s*. New Haven: Yale University Press, pp. 177–191.
- Berger, Knute (2002) New York’s sacred meadow: The vital legacy of the Westinghouse time capsules. Available at: <http://nywf64.com/berger01.shtml> (accessed 25 May 2016).
- Burroughs, William S. (1986) Origin and theory of the tape cut-ups. *Break Through in Grey Room*. Sound Recording. Sub Rosa.
- Burroughs, William S. (1990) Ah Pook, the Destroyer. *Dead City Radio*. Sound recording. Island.
- Burroughs, William S. (2008) Journey through time-space. In: *The Job: Interviews with William S. Burroughs*. London: Penguin, pp. 27–56.
- Burroughs, William, Beilles, Sinclair, Corso, Gregory and Gysin, Brion (1968 [1960]) *Minutes to Go*. San Francisco: Beach Books.
- Burroughs, William and Gysin, Brion (1979) *The Third Mind*. London: John Calder.
- Cadava, Eduardo (1997) *Words of Light: Theses on the Photography of History*. Princeton, NJ: Princeton University Press.

- Cran, Rona (2014) *Collage in Twentieth-Century Art, Literature, and Culture: Joseph Cornell, William Burroughs, Frank O'Hara, and Bob Dylan*. Farnham: Ashgate.
- Derrida, Jacques (1984) No apocalypse, not now (full speed ahead, seven missiles, seven missives). *Diacritics* 14(2): 20–31.
- Dick, Bernard F. (2016) *The Screen is Red: Hollywood, Communism, and the Cold War*. Jackson: University Press of Mississippi.
- Durrans, Brian (1992) Posterity and paradox: Some uses of time capsules. In: Wallman, Sandra (ed.) *Contemporary Futures: Perspectives from Social Anthropology*. London: Routledge, pp. 51–67.
- Edwards, Gawain (G. E. Pendray) (2013 [1929]) *The Earth-Tube*. Baen Books.
- Foucault, Michel (2002) *The Order of Things: An Archaeology of the Human Sciences*. London and New York: Routledge.
- Gelernter, David (1995) *1939: The Lost World of the Fair*. New York: The Free Press.
- Ghamari-Tabrizi, Sharon (2005) *The Worlds of Herman Kahn: The Intuitive Science of Thermonuclear War*. Cambridge, MA: Harvard University Press.
- Harris, Oliver (ed.) (1993) *The Letters of William S. Burroughs, Vol. 1: 1945–1959*. New York: Viking.
- Harrison, Helen A. (ed.) (1980) *Dawn of a New Day: The New York World's Fair, 1939/40*. New York: New York University Press and The Queens Museum.
- Jarvis, William E. (2003) *Time Capsules: A Cultural History*. Jefferson, NC: Mcfarland.
- Minkowski, Eugène (1970) *Lived Time: Phenomenological and Psychopathological Studies*, trans. Metzler, Nancy. Evanston, IL: Northwestern University Press.
- Pendray, George Edward (1938) Letter to Director, National Library of Scotland, 29 September.
- Pendray, George Edward (1939) *The Story of the Westinghouse Time Capsule*. Pittsburgh, PA: Westinghouse Electric & Manufacturing Co.
- Rathje, William (2001) Integrated archaeology: A garbage paradigm. In: Buchli, Victor and Lucas, Gavin (eds) *Archaeologies of the Contemporary Past*. London: Routledge, pp. 63–76.
- Rathje, William and Murphy, Cullen (1992) *Rubbish! The Archaeology of Garbage: What Our Garbage Tells Us About Ourselves*. New York: HarperCollins.
- Reingold, Nathan (1989) A footnote to history: MGM meets the atomic bomb. In: Cook, Philip S., Goney, Douglas and Lichty, Lawrence W. (eds) *American Media: The Wilson Quarterly Reader*. Washington, DC: Wilson Center Press, pp. 139–150.
- Roseau, Nathalie (2014) The city seen from the aeroplane: Distorted reflections and urban futures. In: Dorrian, Mark and Pousin, Frédéric (eds) *Seeing From Above: The Aerial View in Visual Culture*. London: I.B. Tauris, pp. 210–226.
- Saint-Amour, Paul K. (2015) *Tense Future: Modernism, Total War, Encyclopedic Form*. New York: Oxford University Press.
- Shanks, Michael, Platt, David and Rathje, William L. (2004) The perfume of garbage: Modernity and the archaeological. *Modernism/Modernity* 11(1).

- Snody, Robert R. (dir.) (1939) *Middleton Family at the New York World's Fair*. Westinghouse Electric Company.
- Spoerri, Daniel (2016) *An Anecdoted Topography of Chance*. London: Atlas Press.
- Taurog, Norman (dir.) (1947) *The Beginning or the End*. Metro-Goldwyn-Mayer.
- Turnbull, William (1990) Notes from a conversation, 23 February 1983. In: Robbins, David (ed.) *The Independent Group: Postwar Britain and the Aesthetics of Plenty*. Cambridge, MA: MIT Press.
- Westinghouse Electric Corporation (1938) *The Book of Record of the Time Capsule of Cupaloy, Deemed Capable of Resisting the Effects of Time for Five Thousand Years – Preserving an Account of Universal Achievements – Embedded in the Grounds of the New York World's Fair 1939*. New York: Westinghouse Electric and Manufacturing Company.
- Westinghouse Electric Corporation (1963) *Westinghouse Time Capsule – Groundbreaking at the New York World's Fair 1964–65. June 14, 1963* (pamphlet). Available at: <http://nywf64.com/weshou06.shtml> (accessed 25 May 2016).
- Westinghouse Electric Corporation (1964) *The Westinghouse Time Capsules 1938, 1939, 1964, 1965* (promotional brochure). Available at: <http://nywf64.com/weshou07.shtml> (accessed 25 May 2016).
- Yablon, Nick (2011) Encapsulating the present: Material decay, labor unrest, and the prehistory of the time capsule, 1876–1914. *Winterthur Portfolio* 45(1): 1–28.
- Young, La Monte and Mac Low, Jackson (1963) *An Anthology of Chance Operations*. Bronx, NY: La Monte Young & Jackson Mac Low.

John Beck is Professor of Modern Literature and Director of the Institute for Modern and Contemporary Culture at the University of Westminster.

Mark Dorrian holds the Forbes Chair in Architecture at Edinburgh College of Art, University of Edinburgh. In 2018–19 he was Monument Trust Visiting Fellow at the British Museum.

This article is part of the *Theory, Culture & Society* special section on ‘The Half-Life of the Avant-Garde’ (TCS 37(7–8), December 2020), edited by Ryan Bishop & John Phillips.