A Night at the Space Electronic, or the Radical Architectures of 1971's 'Vita, Morte e Miracoli dell'Architettura'

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Abstract

This paper examines a largely underexplored event in the history of architettura radicale, the S-Space Mondial festival, 'Vita, Morte e Miracoli dell'Architettura' (Life, Death and Miracles of Architecture), co-ordinated by Superstudio and 9999 and held over three days at the Space Electronic Discotheque in 1971. The event brought together Italian radical collectives and figures like 9999, Superstudio, Zziggurat, UFO, Ugo la Pietra, Gianni Pettena and Giuseppe Chiari, while also attracting international participants including Ant Farm, Street Farmer, Portola Institute and Raindance Video Collective. Recent interest in such Florentine groups as Superstudio and Archizoom has lead to a detailed discussion of the respective positions held by these collectives in relation to both architettura radicale and the wider discourse on architecture and autonomy in Italy during the period. While there is much to be written on the location of 'Vita, Morte e Miracoli' within this wider context, such a discussion lies beyond the scope of this paper, which focuses firstly on a description of the event in order to underline the diversity of approaches within what we have come to understand as 'radical' architecture, and the ways in which the media-based and disciplinary specificity of architecture was challenged in order to raise its critical voice. Further, by briefly introducing some key moments of tension within the works that formed part of 'Vita, Morte e Miracoli', as it was performed and as it was published, the paper seeks to comment briefly on how these 'radical' architectures might appear pertinent, interesting, or simply fashionable today.

During 1970, Florentine experimental architecture collectives 9999 and Superstudio founded S-Space, an organisation focused on the execution of 'liberating operations' throughout the city, which culminated in 1971's Mondial Festival, entitled 'Vita, Morte e Miracoli

dell'Architettura' (Life, Death and Miracles of Architecture). The three-day event was held from November 9th to 11th in the Space Electronic discotheque on via Palazzuolo in Florence. This space, owned by members of 9999 since the late 1960s, had by the early 1970s already provided the setting for a number of experimental events, contributing to its importance in the operations of the city's so called 'radical' architects. During the 1970s, and with interiors designed by the 9999 collective, the Space Electronic was what Carlo Caldini (a founding member of the group and a part-owner of the space across its 40-year history) recently described as 'one of the very few 'real' things made by the radicals' and one of the most important cultural spaces in Florence for those involved in 'radical' projects during the late 60s and early 70s.³

Cultivating, Performing, Un-building

From its inception in August 1970, the S-Space organisation focused on inter-disciplinary and happening-based work and events like the planned Mondial Festivals, as well as The Separate School for Expanded Conceptual Architecture. The consistent, larger idea at work in the organisation and 'Vita, Morte e Miracoli' more specifically was this expansion of architecture as a creative practice to include (or even privilege) performance-based, ephemeral work. For 9999 and Superstudio as S-Space, the legitimisation of these practices for architecture (under the term 'expanded architecture') was an opportunity to produce a form of critical output that did not necessarily rely on external conditions for realisation. Borrowing creative practices from the fine arts, this manoeuvre effectively removed the certainty of architecture's connections to the construction industry, the economy and a commission-based, client-driven system of production. In this sense, 'Vita, Morte e Miracoli' was a vehicle for the 'declaration of the existence of another architecture, as strong as that made with cement and bricks and more than that it is self-conscious and legitimate', and a 'radical' push towards a more ideologically autonomous status for architecture.⁴

The majority of 'Vita, Morte e Miracoli participants were architects and students of architecture, with a much smaller number of artists and composers. In addition to event organisers Superstudio and 9999, the collectives and individuals listed as contributing to the event and catalogue were Gianni Pettena, Remo Buti, Ugo La Pietra, UFO, Zziggurat, Renato Ranaldi, Giuseppe Chiari, Jorn Mayr, TV OUT, Marc Balet, Ant Farm, The Portola Institute and Street Farmer. Press coverage of the event was seemingly limited in mainstream architectural publications to short articles in *AD* and *Domus*, both appearing in April 1972.⁵ A founding member of the British group Street Farmer who performed at the event, Bruce Haggart's article on 'Vita, Morte e Miracoli' appeared within the regular 'Cosmorama' section of *AD* as a somewhat cryptic account of his time at the festival.⁶ Like

most of the 'Cosmorama' content that was published in the journal between 1968 and 1973, the piece stressed the counter-cultural nature of the event and its participants, and focused on providing dynamic, emotive scenes from the performances and presentations over an unambiguous sequence of events.

Critic Germano Celant's *Domus* article on the event, 'Sulla Scena dello S-Space' ('On the Stage of S-Space'), provided a weightier and more theoretically focused take on the event, in which the concept of 'eccidio dell'architettura' (the massacre of architecture), as a theme within the performances and presentations was more clearly identified as the issue at hand.⁷ The 'massacre' Celant referred to was that of a traditional concept of modern architecture, in favour of S-Space's expanded architecture and the more ephemeral, less-tangible works it accounted for. The opening out of the term to include these sorts of predominantly extra-architectural media and practices was also the death (to adhere to Celant's evocative language) of the recognised disciplinary understanding of architecture in relation to the production of built form. This was not an unwelcome death for Celant, who was to lend further support to the ideological aims of so-called 'radical' architects and their shift in focus away from traditional modes of architectural production in a critical essay for_The Museum of Modern Art's 'Italy: The New Domestic Landscape' exhibition catalogue later that same year.⁸

The event catalogue, perhaps the most detailed surviving document from the festival, brings together images and promotional material from those involved, but stops short of describing the three days spent in the disco and also includes a significant amount of work from groups and individuals who did not attend the event. Consequently, the following discussion pieces together form a basic and incomplete sequence of events for 'Vita, Morte e Miracoli' through Haggart's text, with Celant's theoretical insights, images from the festival catalogue and 9999's retrospective, *Ricordi di architettura e di decorazione arte moderna* being used to verify and expand upon this information wherever possible.⁹

From Haggart's text, it appears that the first evening session of 'Vita, Morte e Miracoli' included a performance by the Florentine artist Renato Ranaldi on a *petofono* ('fart machine') device. A diagram of the *petofono* appears as part of Ranaldi's entry in the festival catalogue, amongst images of his 'instruments', but the content of his performance seems to have been recorded only through the *AD* article. Within this first section of the text, Haggart also described the unexpected entry sequence through the flooded Space Electronic basement – the 'ocean' - then up through 9999's vegetable gardens on the main level.

Slow people enter freely to stop at the ocean. Some do not see it, but three steps later they feel it...They pass along on a stool beside a music stand that serves Renato as a piano to arrive at another level in the middle of a vegetable garden. Symetrically [sic] disposed about an aisle cauliflowers, cabbages, lettuces, celery, fennel. Consider the art of agriculture and its place in the home.¹⁰

A series of images from these areas of the festival also appear within *Ricordi di architettura*. Viewed alongside plans and sections of the Space Electronic fit-out from the same publication, they shed some light on the details of the installation.¹¹

Haggart described the first of the second evening's performances by 9999 as 'a play', with images from the catalogue suggesting that it included video stills of the group's collage works based on the 'Canticle of All Created Things' by San Francesco. During the same evening, Street Farmer enacted a two and three dimensional comic strip, 'Street Scarecrow'. According to Haggart, the 'street scarecrow' was a figure created by the group that could act as a protector of the streets, scaring away 'menaces to the well being of the people'. 12 A small number of comic strip drawings were included in the article, with more complete strips appearing in the 'Vita, Morte e Miracoli' catalogue and Celant's article. Following Street Farmer, Florentine collective UFO performed by interacting with elements of their polyurethane Doric portico installation. Judging from Celant's article, Ricordi di architettura and the catalogue for the 2009 exhibition Radici Radicale: 1965/1975, it appears that UFO also performed 'Giro d'Italia' as part of the event, but its timing remains unclear. 13 Of the remaining work included in the program of the second evening, Haggart's brief description of the Florentine group Zziggurat's scheme for 2500 and 1250 inhabitants corresponds with the images that appear in the event catalogue, yet the American artist Marc Balet's film Dream House, which Haggart's article suggests was shown the second evening, does not appear at all in the catalogue or in other documents on the event.

We can further glean from Haggart's article that Street Farmer presented again on the final night in the form of a political statement and film, followed by the distribution of pay packets containing grass and sunflower seeds that read 'Plant in pavements to push up slabs'. The article alludes to a 'mass walk out' during this presentation, but the nature of this exodus was only more fully established by Kalipoliti in her 2010 interview with Peter Crumb. Here, Crumb explained that 9999 and Superstudio attended their end of year exhibition at the Architectural Association in London and invited Street Farmer to participate in their first Mondial Festival, but that differences in their response to the urban environment became

apparent over the course of the festival, culminating in most of their audience leaving during their performance on the final evening of the event. Despite the events of the final evening, Haggart's summary of 'Vita, Morte e Miracoli' ultimately focused on bringing together the seemingly disparate snapshots from this rather unusual event: 'Each part of the festival was a chapter in the same story. Architecture has never been a popular art. Its clients have always been the rich... It is an old role that architects play. Paradoxically they try to rationalise this old role in a world of new circumstances and consciousness.' 15

Walkout, Dropout, Dialup

The differences that became apparent between the work of Street Farmer and that of 9999 and Superstudio through 'Vita, Morte e Miracoli', suggests that some broad, but fundamental differences existed between the various groups and individuals who participated in the event – 'expanded architecture' was an inclusive term that, while bringing together a number of different approaches to architecture, went no way towards reconciling them. Formal connections between so-called radical works rarely equated to an ideological compatibility.

The first point of tension in the work included in the 'Vita, Morte e Miracoli' event relates explicitly to the Street Farmer presentation and its reception by an Italian audience. While Haggart and Crump shared an inherently Marxian understanding of society with many of the Italian participants in the festival, the discrepancy between their reaction to this situation and that of their Italian counterparts stemmed from the anarchism that guided Street Farmer's proposed actions. Within a year of the festival, the group would re-publish images presented in the 'Vita, Morte e Miracoli' catalogue in their magazines, *Street Farmer One* and *Street Farmer 2*, alongside text further describing the group's position: 'We attack the environment to attack the state.' ¹⁶

For Street Farmer, the process of creating a free society involved quite literally attacking the existing urban fabric by means of turning parks into farmland, ploughing streets and using vegetation to uproot infrastructure, and 'unbuilding' built form. By effectively proposing the closure of city streets to vehicles and suggesting commuters row to work in order to avoid work ('the commuter would just have time to relax before having to set off home'), the group advocated a form of non-violent but extreme warfare on the existing city structure. For this 'London-based group of anarchists practising, and preaching, a unique brand of guerrilla architecture', there existed a clear definition of an acceptable response to the prevailing conditions at the beginning of the 70s; 'Any real alternative is an act of rebellion and is subversive. The quasi-alternative will make the alienation of our situation more tolerable: the real alternative changes the situation.' 18

Broadly speaking, a number of the Italian groups involved in the festival, regardless of their political ties, *were* potentially creating 'quasi-alternatives' by Street Farmer's definition. Their work with consumer design objects and the attention given to the formal aspects of their architectural practices suggested a very different set of interactions between architecture and its wider socio-political situation. Superstudio and Ugo la Pietra, for example, had designed items for Poltranova and Poggi respectively, and both would present furniture items at 'The New Domestic Landscape' the following year.

While Superstudio's refusal to design buildings and desire to involve themselves in critical architectural practices provided common ground with Street Farmer, their earlier focus on creating 'objects' like furniture pieces, and their subsequent move towards the paper architecture schemes by the 1970s represented a very different type of critical action. The group's understanding of the 'death' of objects and architecture in terms of their status as a commodity shared ideological ground with Street Farmer, but Superstudio's less direct relationship to tangible action and the abstracted network form which featured in their contribution to 'Vita, Morte e Miracoli', 'Le Dodici Città Ideali' ('Twelve Ideal Cities') could not easily be reconciled with the program of intensive greening and 'un-building' proposed by their British counterparts.

The vegetable gardens and 'Il Canticle' image series presented by 9999 for 'Vita, Morte e Miracoli', though appearing formally almost as a half-way point between Street Farmer's eco-anarchy and Superstudio's dialectical total grid, might present another form of critical architectural work again. While Celant's article closes the ideological gap between 9999 and Street Farmer by suggesting that their works both adhere to a kind of 'mystical naturalism', they actually occupied very different political and ecological positions. ¹⁹ In fact, 9999 did not see themselves as an explicitly political group and, unlike both Street Farmer and Superstudio, avoided engaging directly with political theory in their work. The 'Il Cantico' series paired San Francesco's Canticle of Creatures with photomontage images from the Space Electronic. In this work, the grid that was endless in Superstudio's 'ideal' cities has clear boundaries, is an element that can be integrated with nature, exposed to the elements, and even absent entirely. Equally, the natural environment that was set to erode the grid and violently take over the city in Street Farmer's work in 9999's visions exists alongside advanced technologies, not necessarily as competing forces. The group's garden installation within the Space Electronic during 'Vita, Morte e Miracoli' then effectively brought these scenes to life.

Ideological differences between the groups and individuals involved in 'Vita, Morte e Miracoli' also resulted in incompatible positions on the use of emerging technologies. In discussing this idea of technology in relation to the expanded architectures of those involved in the event, the differences that exist between the event (based on what we know about the performances and presentations that took place within the disco) and the catalogue (as a publication containing material from a wider range of groups and individuals, including some who did not attend the event) must be acknowledged. Within the catalogue, the inclusion material from groups like The Portola Institute, Ant Farm and Raindance aligns these American groups with the aims of expanded architecture, but also sets up a more pronounced distinction between the architectural work of the Italian groups and figures, and that of the American and British contributors.

To this end, a broad difference exists between the technologically-advanced, systematic concepts of environment that are central to a number of the Italian works, and the more ecologically-focused, grass-roots 'alternative technologies' of Ant Farm, Portola Institute and even Street Farmer (although they often sought to distance themselves from what they referred to as the 'AT' movement).²⁰ For a number, but not all, of the Italian contributors, the system and/or network was used as a formal device, expressed through the grids or pure geometries, as in the works of Superstudio, Zziggurat and Remo Buti, or through the formulas and devices of Ugo Ia Pietra and Giuseppe Chiari. In these designs, advanced technologies became seamlessly integrated into future scenarios and ideally reappropriated for use by the masses.

These visions of future environments can be read alongside the work of operaist political theorists like Raniero Panzieri and Mario Tronti, who underlined the value of technological progress as a politically neutral force that was being misused at the hands of the dominant capitalist ideology.²¹ The dystopic warnings in the work of Superstudio and Ugo La Pietra operate using a similar concept, with technology understood as having taken on capitalism's dual progressive and archaic characteristics. As such, one could imagine both liberating and devastating potential for technology depending on its relationship to capitalism, but not the halting of continual technological progress in either case.²²

This approach sat apart from the expression of technology in the environmental responses of international groups like Ant Farm, Raindance, The Portola Institute and Street Farmer who (despite more specific differences in relation to their individual political positions) imagined a more individual and low-tech response to the prevailing social and political conditions. In the case of the American groups, there are links to the country's wider

countercultural movement advocating 'whole systems' and 'decentralised human economics', influenced by the 'closed system' ecological and environmental theories of Barry Commoner, Buckminster Fuller and others throughout the early 1970s.²³ These positions further differed from some of the Italian work in that they generally proposed an individual response to the refinement of consumer culture, led by informed consumers and the shift from 'possessions' to 'tools'.²⁴ Across Raindance's videotape series, Portola Institute's *Whole Earth Catalogue* and Ant Farm's 'Truckin' University', high-tech responses like inflatables and domes were seen as being utilised by self-sufficient communities with predominantly low-tech, rural lifestyles.²⁵

This fundamental difference in technology's role as part of an inherently class-based versus individually-focused alternative society prompts completely opposed aspirations for future technologies in the environment - on one hand, the class-led focus on networks (technology has the power to allow us to communicate), on the other, an individual focus on being self-sufficient (technology has the power to help us drop out). Accepting this very general observation is useful in that it ultimately helps generate more precise locations in terms of individual works and their specific relationship to technology and political ideology. Although critics like Celant saw Street Farmer's comic strips as compatible with 9999's vegetable garden and 'Il Cantico', as discussed, Street Farmer was actually a group of AA anarchists advocating guerrilla architecture, while 9999 was a collective of utopian thinkers interested in performance and an idealised, hi-tech version of 'nature'.

Expanded, Fractured, Dismembered

What could be the significance of revisiting a temporary event like *Vita, Morte e Miracoli* and the permanent collected work within its catalogue? Well before Alessandro Mendini officially pronounced the end of *architettura radicale* in 1978, the Italian radicals received institutional acceptance at MOMA in 1972 and many of the groups and individuals subsequently shifting focus through the establishment of the counter-school Global Tools in 1974 which was influenced heavily by the success of Portola Institute's *Whole Earth Catalogue* in America. These events irrevocably changed the relationship between radical architecture and the discipline at large and, thirty years later, the terms of the debates have moved on.

It must be noted, however, that we have recently seen the re-exhibition of material from 'Italy: The New Domestic Landscape' environments in the 'Environments and Counter-environments' exhibition and lecture series, the presentation of Emanuele Piccardo's 'Dopo la Rivoluzione: Azione e protagonisti dell'architettura radicale italiana 1963-1973', an oral history series at the Museo di Triennale di Milano, the 2011 exhibition 'Architettura e Utopia

in Toscana (1968-73)' at the Museo Pecci in Milan and recent exhibitions on Andrea Branzi and Italian radical architecture through the Flemish Architecture Institute and Delft University of Technology in 2012. There have also been a number of important publications in recent years on the subject of radical or underground figures from these decades by scholars such as Felicity Scott, Peter Lang and Pier Vittorio Aureli, as well as a comprehensive study on the period, 'Italia 60/70: Una stagione dell'architettura' edited by Marco Biraghi, Gabriella Lo Ricco, Silvia Micheli and Mario Viganò. It seems we aren't yet finished with the radical architecture of the 1960s and 70s. There is undoubtedly an argument for thinking of this interest as nothing more than part of a current penchant for facial hair and flare - a yearning on the same level as that for a Split-screen Kombi - but perhaps it's less about the allure of the flooded discotheque basement and vegetable gardens and more a consequence of the issues at stake in these types of practices for architecture.

Since the 1970s, social, environmental and conceptual architecture have all become very different (sometimes incompatible) things, and we tend to treat discussions about disciplinary or political autonomy for architecture as mutually exclusive. The first point to that might be made here is that, for all that has changed since the 1970s, we are still talking about architectural autonomy (albeit in new ways), and these debates invariably intensify in times of financial crisis, when the infallibility of our capitalist systems is called into question for a moment. The second is that the range of work performed and documented for an event like 'Vita, Morte e Miracoli' tends to underline the notion that 'expanded architecture' could ostensibly draw together a range of 'radical' architectural approaches and practices within an (inclusive) disciplinary category - a complex definition of architecture that perhaps appeals to those of us who might happily reject the somewhat compartmentalised (and easily digestible?) architectures of our present. There is considerable value in complexity recognised through tension, as opposed to the potential oversimplification that stems from neat separation.

Endnotes

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¹ The work discussed in this paper has been more fully documented as part of my PhD project, provisionally entitled 'Radical Restructuring: Aesthetic and Political Autonomy in Italian Architecture and Design, 1963-73', currently being undertaken through The University of Queensland and supervised by Professor John Macarthur, Associate Professor Andrew Leach and Dr Andrea Bubenik. I would also like to thank Dr Silvia Micheli for generously agreeing to comment on an early draft of the paper. Gruppo-9999 and Superstudio, (eds.), S-Space presents: Vita, Morte e Miracoli dell'Architettura (Life, Death and Miracles of Architecture): catalog festival n. 1, vol. 1 (Firenze: S-Space,1971). Superstudio was the collective work of Adolfo Natalini and Cristiano Toraldo di Francia,

Alessandro and Roberto Magris and Piero Frassinelli. At the time of the event, Alessandro Poli was also involved in the group's activities. The members of Gruppo 9999 were Giorgio Birelli, Carlo Caldini, Fabrizio Fiumi and Paolo Galli.

² Branzi discusses the more recent use of 'radical' to include a large number of groups and individuals operating on the basis of an expanded definition of architecture, rather than the more specific original definition prior to Germano Celant. This paper uses the expanded definition within the paper, as it seems more common now to acknowledge its use across a large number of fields and practitioners internationally. The term architettura radicale will be used more specifically to denote the Italian groups working in the circles of expanded and conceptual architecture. Andrea Branzi, The hot house : Italian new wave design (London: Thames and Hudson, 1984).

Carlo Caldini, Interview by author. Tape recording. Florence, 4 January 2010.

- ⁴ S-Space, 'Untitled' in Gruppo-9999 and Superstudio, (eds.), *Vita, Morte e Miracoli dell'Architettura*,
- n.p. ⁵ Germano Celant, "Sulla scena dello S-Space", *Domus* 509, no. 4 (1972); Haggart, "Cosmorama: Italian Trip." Some images from the event also appeared in "Italian Reinvolution," Casabella 36, 364
- Street Farmer (sometimes written as 'Street Farm' or 'Street Farmers' or 'The Street Farmers') was formed by Bruce Haggart and Peter Crump, both students of the Architectural Association in London. Haggart and Crump also worked closely with Grahame Caine. After being described as 'an early ecologically orientated group that has never received proper recognition' by Grahame Shane in the early 90s, the group has recently received attention through Lydia Kallipoliti's research. An interview by Kallipoliti with Crump appeared in Beatriz Colomina's edited publication, Clip, stamp, fold: the radical architecture of little magazines, 196X-197X, from the 2007 exhibition of the same name, and more recently she has published a review of the Street Farmer documentary that accompanied the Eco-House project. Grahame Shane. "Obituary: Alvin Boyarsky (1928-1990)." Journal of Architectural Education (1984-) 45. 3 (1992); Lydia Kallipoliti, "Interview with Peter Crump; Street Farmer editor. 1971-72," in Beatriz Colomina and Craig Buckley (eds), Clip, stamp, fold: The radical architecture of little magazines 196X - 197X (Barcelona: Actar, 2010); Lydia Kallipoliti, "Review: Clearings in a Concrete Jungle," Journal of the Society of Architectural Historians 70, 2 (2011).

Celant, "Sulla scena dello S-Space."

- ⁸ Germano Celant, "Radical Architecture," in Emilio Ambasz (ed.), *Italy: the new domestic landscape:* achievements and problems of Italian design (New York: Museum of Modern Art in collaboration with Centro Di, Florence, 1972).
- ⁹ Gruppo-9999. *Ricordi di architettura e di decorazione arte moderna*. (Firenze: 9999, 1972.)
- ¹⁰ Haggart, "Cosmorama: Italian Trip," 202.
- ¹¹ Gruppo-9999. *Ricordi di architettura*, 260-70.
- ¹² Haggart, "Cosmorama: Italian Trip," 202.
- ¹³ Celant, "Sulla scena dello S-Space,"; Enrico Pedrini (ed). Radici Radicale: Archizoom, Pettena, Superstudio, UFO (Florence: Galleria II Ponte, 2009); Gruppo-9999. Ricordi di architettura, 262.
- ¹⁴ Crumb explained, 'They [Superstudio and 9999] were enamoured with the presence of strange objects in the middle of nowhere, like in the midst of open fields and with landscapes represented by grids. We were getting along really well, but we were not really working under the same premises. Peter Crumb, in Lydia Kallipoliti, "Interview with Peter Crump: Street Farmer editor, 1971-72," 256.

¹⁵ Haggart, "Cosmorama: Italian Trip," 202.

- ¹⁶ Bruce Haggart and Peter Crumb, Street Farmer 2 (London 1972).
- ¹⁷ Godfrey Boyle, "Interview: Street Farmers," in Peter Harper, Godfrey Boyle, and Undercurrents (eds.), Radical Technology (New York: Pantheon Books, 1976).

Haggart and Crumb, Street Farmer 2.

- ¹⁹ Celant, "Sulla scena dello S-Space."
- ²⁰ See Andrew Kirk's discussion of 'alternative technologies', Andrew Kirk, "Appropriating Technology: The Whole Earth Catalog and Counterculture Environmental Politics," Environmental History 6, 3 (2001): 376. Also, Andrew Kirk, Counterculture Green: The Whole Earth Catalog and American Environmentalism (Lawrence: University Press of Kansas, 2007). For Street Farmer's position on the
- 'AT' movement, see Boyle, "Interview: Street Farmers."

 ²¹ Pier Vittorio Aureli and Temple Hoyne Buell Center for the Study of American Architecture, *The* project of autonomy: politics and architecture within and against capitalism, FORuM project (New York: Temple Hoyne Buell Center for the Study of American Architecture: Princeton Architectural Press, 2008).

²² David Harvey, *The condition of postmodernity : an enquiry into the origins of cultural change* (Oxford England ; Cambridge, Mass.: Blackwell, 1989).

²³ Kirk, "Appropriating Technology: The Whole Earth Catalog and Counterculture Environmental Politics", Sam Binkley, "The Seers of Menlo Park: The Discourse of Heroic Consumption in the 'Whole Earth Catalogue'," *Journal of Consumer Culture* 3, 3 (2003).

²⁴ Binkley, "The Seers of Menlo Park: The Discourse of Heroic Consumption in the 'Whole Earth Catalogue'." However, Italian 'radical' architecture was to shift in this direction with the formation of the Global Tools initiative in 1973.

²⁵ Gruppo-9999 and Superstudio, (eds.), *Vita, Morte e Miracoli dell'Architettura*. See also, for example, Portola Institute, *The Last whole earth catalog : access to tools* (Harmondsworth: Penguin, 1971).

(Harmondsworth: Penguin, 1971).

²⁶ Peter Lang and William Menking, *Superstudio: Life Without Objects* (Milano, Italia; New York, NY: Skira, 2003); Felicity Scott, *Architecture or Techno-utopia: politics after modernism* (Cambridge, Mass.; London: MIT, 2007).; Aureli. *The project of autonomy: politics and architecture within and against capitalism*;. Marco Biraghi et al., eds., *Italia 60/70: Una stagione dell'architettura* (Padova: Il Poligrafo, 2010).