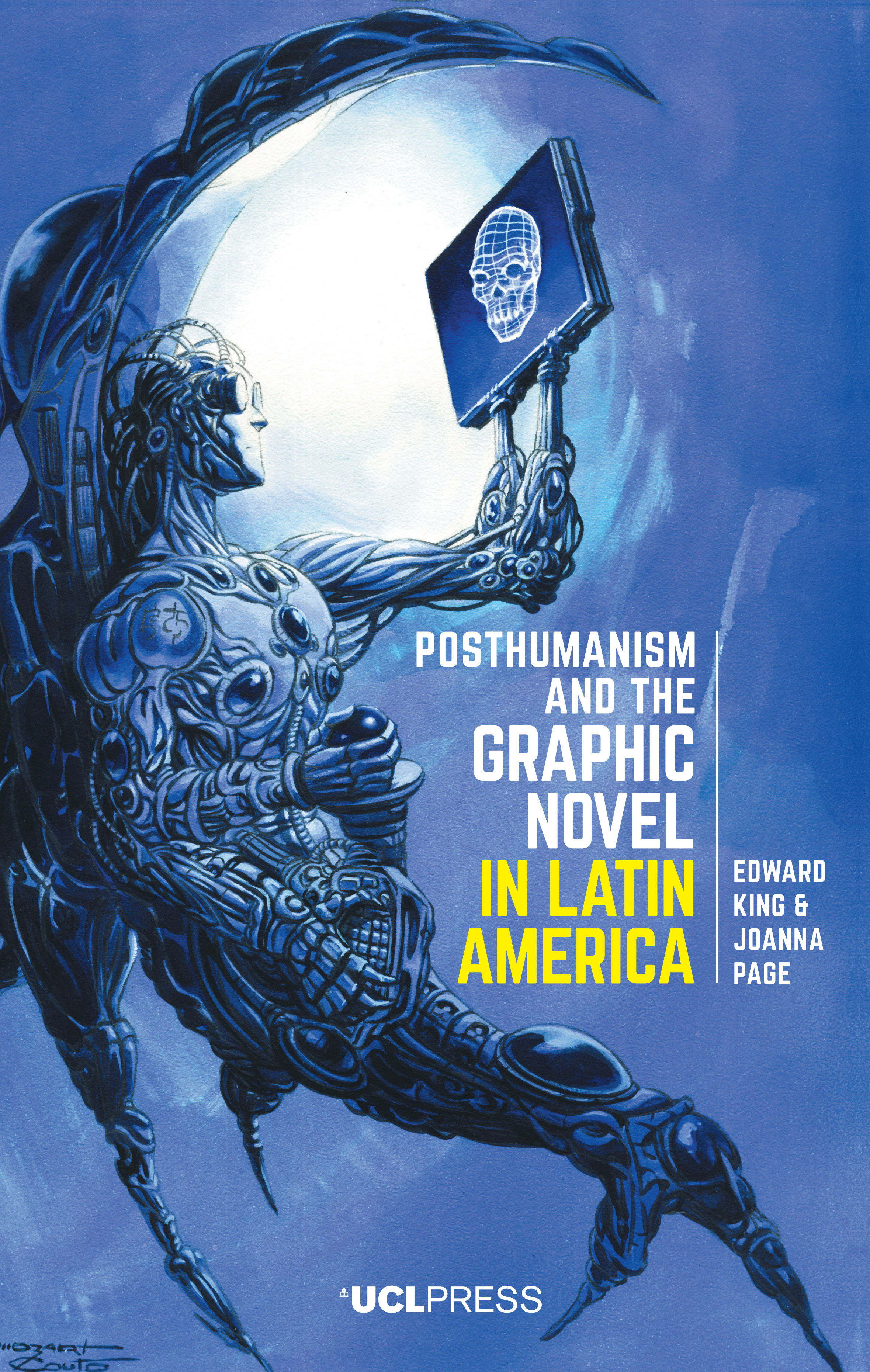
Mozart Couto

POSTHUMANISM AND THE GRAPHIC NOVEL IN LATIN AMERICA

EDWARD
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JOANNA
PAGE

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Edward King and Joanna Page

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Introduction

The emergence of the contemporary graphic novel across many regions of the world has been closely implicated with posthumanist thought. Science fiction narratives forged from multiple real and imagined couplings between technology, bodies and subjectivities feature prominently in the various competing genealogies for the medium. The French *bande dessinée* tradition, for example, has long been a vehicle for futuristic tales of human-machine hybrids. The anarchic comics magazine *Métal Hurlant*, published by Les Humanoïdes Associés between 1975 and 2000, functioned as a laboratory for comic book experimentation with form and narrative, as well as a point of convergence between science fiction traditions and post-1968 radical politics. The key texts produced within this culture, such as Enki Bilal's innovative *La Trilogie Nikopol* (first published separately between 1980 and 1992) and *The Incal*, produced in partnership between Jean Giraud (aka Moebius) and the Chilean-born cinema auteur Alejandro Jodorowsky, adopt science fiction as a critical discourse for questioning the socio-technological changes of late modernity. Bilal's masterpiece articulates an archetypical postmodern anxiety over the erosion of individual memory by electronic communication devices, staging the gradual schizophrenic breakdown of its protagonists as they come under increasing pressure from invasive technologies. As their subjectivities fragment, so does the book itself. Bilal's layered use of acrylics, pastels and crayons becomes heavier as the narrative unfolds, providing a stifling visual counterpart to the involuted and paranoid plot lines. Close parallels may be traced between the thematic focus on media, the technological supports of communication and cognition, and the reader's absorption into the textured materiality of the individual panels.

Science fiction narratives also facilitated the establishment of the graphic novel in the US towards the end of the twentieth century as a distinct medium but one that nevertheless remains intimately connected with comic book publications. Two of the so-called 'big three' landmark graphic novels published in 1986, which for many commentators sparked the increasing popular and critical success of book-length comics aimed at adults, belong to the science fiction genre. Morphing posthuman bodies are prominent in both Frank Miller's *The Dark Knight Returns* and *Watchmen* (Alan Moore, Dave Gibbons and John Higgins).[1] In a similar manner to Bilal's books, *Watchmen* combines a concern for technological transformations of the human with a self-consciousness in relation to comic book form. Moore's choice of Gibbons as illustrator was not incidental: Gibbons' classic style was evocative of the Golden Age comics tradition Moore wished to evoke with a mixture of satire and nostalgia.[2] These two works are also excellent examples of the kind of distributed media platforms (including film, animations and videogames) that have become strongly associated with the graphic novel in recent decades, extending the intertextuality that is already characteristic of graphic fiction to form transmedia worlds.

The Latin American graphic novel has also emerged from a rich tradition of science fiction and fantasy literature and comics, both local and imported, and these have laid a foundation for more contemporary engagements with the posthuman. Indeed, while the graphic novel in Europe and North America is currently dominated by autobiographical and journalistic textual modes, the most prevalent genre in Latin America is science fiction, making the region a highly fruitful one for an exploration of the posthuman in the contemporary graphic novel. A national genealogy for contemporary science fiction graphic narratives may be constructed with particular ease in Argentina. Here Héctor G. Oesterheld scripted the famous *El Eternauta* series (1957–9 and 1976–7), among numerous other science fiction comics, and Ricardo Barreiro composed a string of fantastical urban narratives in the 1980s and 1990s, in which human agency is constantly tested and displaced by extra-human forces. In Chile, a new generation of novelists and graphic fiction writers, including Jorge Baradit and Francisco Ortega, has revived the fantastic tradition in Chilean literature, reworking indigenous mythologies within a cyborg imaginary. Science fiction has had an important presence within Mexican popular culture since the widespread publication of pulp magazines from the mid-1930s onwards, with significant contributions made by Germán Butze's *Los supersabios* (*The Super-Wise*, 1936–74) and José Guadalupe Cruz's *Santo, El Enmascarado de Plata* (*Santo, The Silver-Masked Man*, 1951–80). The apocalypticism and acerbic political critique that characterize the Mexican graphic novels discussed in this book have important antecedents in post-1978 science fiction writing. A more recent generation of authors associated with the Premio Puebla[3] have laid the groundwork for a thoroughly local expression of science fiction that is immersed in the urban and rural realities of Mexico. Comic book culture is at its most pervasive in Brazil today, where the latest creations by Marvel and DC Comics are widely available in translation, alongside Japanese manga, with its predilection for science fiction. A properly national science fiction tradition emerges later in Brazil than in some other Latin American countries – with the publications of Ivan Carlos Regina, Fausto Fawcett and Bráulio Tavares (among others) in the 1980s and 1990s – but recent years have seen a boom in Brazilian science fiction novels and comics, including several produced by the nation's most renowned graphic fiction partnership, twin brothers Fábio Moon and Gabriel Bá.

Explorations of the posthuman in Latin American graphic fiction are almost always connected with a reflexive interest in media materiality. In Latin America, as well as in other regions of the world, the graphic novel has become a highly innovative site for experiments with intermediality and transmediality within an increasingly mutable media landscape. This practice often serves a post-anthropocentric vision of the world that displaces the human from a position of transcendence in relation to the non-human. Our aim is to demonstrate that this focus on the forms of embodiment or mediatization that bind humans to their non-human environment has made graphic fiction a supremely effective medium for an exploration of subjectivity and agency in the twenty-first century. Although posthuman perspectives and performances are certainly not exclusive to Latin American expressions of the medium, they are particularly evident in texts emerging from this region. This is due to their characteristic reflexivity and their typically critical and parodic engagements with hegemonic (and humanist) European discourses of modernity and progress.

The multiple and often conflicting modes of posthumanism, in their many disciplinary and discursive iterations from philosophy to mass culture, are united in their interrogation of what it means to be human. Noel Castree and Catherine Nash, in their lucid survey of 'posthuman geographies', argue that the term posthumanism is 'used to describe a historical condition and to signal a theoretical perspective'.[4] In the first of these, it constructs a narrative concerning ways in which scientific and technological developments – from advances in biotechnology to the increasingly pervasive use of smart devices in everyday objects like fridges and thermostats – are displacing the figure of the human as 'separate and liberated from nature and fully in command of self and non-human others'.[5] This is the posthumanism that is often embraced by mass culture, including the 'humanoids' of DC comics and the 'superhumans' of Marvel satirized in *Watchmen*. It has also been fuelled by decades of speculation in cybernetics concerning the relationship between human intelligence and artificial intelligence and the possibility that the latter may equal or even surpass the former. This is partly why such narratives tend towards a dystopian – and ultimately, thoroughly humanist – vision, registering a nostalgia for a human uniqueness that is under threat and destined to disappear.

Posthumanism as a critical perspective, on the other hand, draws on a history of human-technological-animal entanglements to interrogate the ways in which agency and the production of knowledge have always been the emergent product of a distributed network of human and non-human agents. Critical posthumanisms explore ways in which the construction of the category of the human as separate from and superior to nature is intricately bound up with the assertion of hierarchical differences among humans, both racial and sexual. These perspectives therefore distance themselves from more nostalgic or reactionary narratives of the demise of the human in a technological world, which are often, of course, decidedly humanist in their 'othering' of non-humans – cast as terrifying aliens or robots running amok – and in their desire to replace humans at the centre of history. However, critical posthumanisms also oppose the celebratory modes of posthumanism that triumphantly announce the human transcendence of the prison house of the flesh through technological progress. This fantasy is taken to an extreme in the transhumanist dream of downloading human consciousness into computer systems. In her highly influential work, N. Katherine Hayles argues that these conceptions of posthumanism are actually extensions of the humanist Cartesian privileging of dematerialized consciousness over the body. In order to 'keep disembodiment from being rewritten, once again, into prevailing concepts of subjectivity', she uncovers the erasures of materiality carried out by the dominant discourses of information theory and asserts instead an understanding of the posthuman as grounded in matter and the body.[6]

It is this critical posthumanist framework that we have found most useful for exploring the entanglements between the human and the non-human in Latin America. As Tania Gentic and Matthew Bush have observed, few scholars have worked on posthumanism in the Latin American context. They cite just one, Mabel Moraña, whose book *Inscripciones críticas: Ensayos sobre la cultura latinoamericana* explores the potential in posthumanist thought to challenge the tenets of European humanism to decolonizing effect, thereby 'provincializing

Europe' in the manner envisaged by Dipesh Chakrabarty.[7] Moraña's argument would certainly receive support from the graphic novels discussed in this book, whose critiques of European humanism and the ideology of progress contest the dominance of these discourses in historical and contemporary accounts of modernity and, more specifically, in the modernizing principles that governed the founding of the nation in Latin America. Among other Latin American(ist) theorists and critics who have addressed the posthuman, we might mention Paula Sibilia's *O homem pós-orgânico: Corpo, subjetividade e tecnologias digitais* (2002),[8] although this is a work of theory and synthesis that does not discuss the posthuman in relation to Latin American texts or culture. There has been recent work in the field of literature and animal studies exploring related perspectives, including, for example, Gabriel Giorgi's *Formas comunes: Animalidad, cultura, biopolítica* (2014) and Maria Esther Maciel's *Literatura e animalidade* (2016). Probably the most directly relevant precursor to our own project is J. Andrew Brown's seminal work *Cyborgs in Latin America*. Brown examines how the theories of Hayles and Donna Haraway in particular may be productively brought to bear on a range of texts and cultural practices, illuminating the politics of the cyborg in Latin American culture and how it has emerged in tandem with the experiences of dictatorship and neoliberalism, among other themes. We have ourselves developed ideas on the posthuman in Latin American culture in previous publications, including *Science Fiction and Digital Technologies in Argentine and Brazilian Culture* (Edward King, 2013) and *Science Fiction in Argentina: Technologies of the Text in a Material Multiverse* (Joanna Page, 2016).

Some critics have been more cautious in embracing the posthuman as an appropriate analytical framework for Latin American culture. Juanita Sundberg sounds a salutary note of warning in asserting that, however focused it may be on unseating the centrality of Enlightenment humanism, the application of posthumanism to the Latin American context runs the risk of reinforcing Eurocentric perspectives by 'reproduc[ing] colonial ways of knowing and being by enacting universalizing claims' and as a result 'subordinating other ontologies'.[9] When posthumanist thinkers do engage with indigenous ontologies, she argues, they are often evoked as the romanticized 'non-modern Other' whose modes of engagement with the natural world challenge the modern conception of the subject as apart from nature, but are incapable of producing knowledge about these dehierarchized subject positions. They therefore remain the object rather than the subject of theory. To this discursive silencing of indigenous epistemologies, Sundberg adds silence concerning location as a further way in which Eurocentric hierarchies may be inscribed in posthumanist thought. By not being explicit about where they are speaking from – the network of discourses, institutions and media that support their position – posthumanist thinkers present their theory as universal, 'the only body of knowledge that matters'.[10] We would suggest, however, that the graphic narratives explored in this book provide a compelling model of a situated posthumanist thought. This emerges from their critical interrogation of historically and geographically specific experiences of humanism in the region and their articulation of new modes of subjectivity that have emerged, or may emerge, from its ruins. In our analysis, we have focused on the limits of the human as they become visible within the Latin American context, and in the light of certain defining events and experiences, such as colonization and its legacies for the present, racial and cultural hybridities, uneven modernization, dictatorship, revolution, neoliberalism and staggering socio-economic inequality, but also particular strands of political and cultural thought, including a complex (and often contestatory) literary and philosophical response to European humanism and modernity.

The turn to posthumanism in the social sciences is intricately bound up with a focus on materiality in studies of media, both old and new. For Pieter Vermeulen, the term indicates not just a framework for thinking about the subjectivities of the digital age but also a 'transition' in the humanities, and in particular literary studies, 'from the excessively textualist and literary focus on deconstruction to a more affirmative engagement with the world outside the text – with bodies, animals, affects, technologies and materialities of different kinds'.[11] The concept of the literary text as dematerialized and independent from its material media supports, and of reading as a practice of forming mental images, may be understood as the counterpart to a Cartesian humanistic conception of subjectivity that divides mind from body. A critical posthumanist perspective should therefore focus on the materiality and embodiment belied by this discourse. This becomes a central purpose in the work of Hayles, which explores posthumanist thought from the basis of a conviction that materiality is a central component in the production of meaning in cultural texts. In *Writing Machines* and *My Mother was a Computer*, Hayles constructs methodologies for a posthumanist textualist scholarship that contest the humanistic conception of print literature as 'not having a body, only a speaking mind'.[12] For critical posthumanists, she argues, it is imperative to 'think about what kinds of textuality a dispersed, fragmented, and heterogeneous view of the subject might imply'.[13] Although she does not address comic books or graphic novels, Hayles' focus on artists' books and literary works that reflect on and engage with their own materiality at both a thematic and a formal level provides a useful point of entry for the analysis of the posthumanist graphic fictions emerging from Latin America.[14] The posthuman elements embedded in these texts' narratives are expanded by their emphasis on a materiality that is central to the medium as it continues to morph and mutate in response to the growth of digital culture.

Indeed, the graphic novel as a medium is impossible to analyse as an autonomous, 'unified' and dematerialized entity in the humanist manner decried by Hayles. It is a medium that foregrounds both its unique properties and the weakness of the boundaries that distinguish it from comic book publication practices. As a form, it emphasizes its connections to multiple, sometimes conflicting, visual and literary cultures, as well as its intersections with both popular and elite narrative traditions. A number of comic book scholars have examined how materiality is central to the production of meaning in much graphic fiction from the perspective of the reading experience. In his study of underground comics traditions in the US, Charles Hatfield argues that 'many comics make it impossible to distinguish between text per se and secondary aspects such as design and the physical package', since these paraliterary elements are continually invoked 'to influence the reader's participation in meaning-making'.[15] One of the qualities that distinguishes the graphic novel as a medium is this connectedness between the physical, tangible dimension of the books and the textual production of meaning. Paraliterary conventions have not cohered as they have done in the case of more established literary forms. Key structural decisions, such as the size of the book, whether or not to use pagination, or where to include the publication information, are part of and not subsequent to the process of creation. Artists like Chris Ware and Jason Shiga take this tendency to an extreme in different ways. While Shiga's 'choose-your-own-adventure' stories, such as *Meanwhile* (2010), force the reader into an active position, both in negotiating the book as an object and shaping the narrative, in *Building Stories* (2012), Ware explodes the form by fragmenting the work into a number of separate publications of differing formats with which the reader interacts at will.[16] Rather than exceptions, these more extreme examples merely make visible a constant dialogue between physical form and meaning that is inherent in the medium.

In his useful typology of approaches to comics studies, Gregory Steirer argues that Anglophone scholarship in the field has followed a range of strategies including the 'sociocultural', in which comics are used 'to reveal or highlight the cultural values and social norms of a given social grouping during a defined historical period'; 'ideological', which 'sees comics as implicated in the reproduction of real-life power relations through the context of their fictional (or "imaginary") representations'; 'auteurist', which focuses on the production of individual artists; 'industrial', which, in contrast to auteurism, emphasizes commercial contexts of production and consumption, and 'formalist', which takes as its focus the role of structural elements specific to the medium in the production of meaning.[17] While the parameters of 'formalist' debates in English-language comics criticism were set by Scott McCloud's structuralist study first published in 1993, *Understanding Comics*, such approaches have a somewhat longer history in the Francophone world, in the work of Pierre Fresnault-Deruelle, Benoît Peeters and Thierry Groensteen.[18] With respect to graphic narrative from Latin America, ideological approaches have prevailed to the exclusion of virtually all others and continue to set the agenda for comics scholarship. Recent examples would include David William Foster's *El Eternauta, Daytripper and Beyond: Graphic Narrative in Argentina and Brazil* (2016), with its particular focus on the politics of gender, and many of the essays in *Comics and Memory in Latin America* (edited by Jorge Catalá Carrasco, Paulo Drinot and James Scorer).

Long dominated by the influence of semiotics and narratology, formalist comic book scholarship has more recently incorporated 'haptic' approaches, focusing on how comic books and graphic novels, through their material organization, evoke the full range of sense experiences. Comics scholars have theorized the role of materiality in the construction of meaning in different ways. Philippe Marion argues that the experience of reading comic books is characterized by a tension between the 'oeil optique' and the 'oeil haptique'.[19] The former is central to the process of narration: the employment of individual panels as building blocks for the construction of narrative. The latter, meanwhile, is drawn to the details, textures and visual echoes and undermines the smooth flow of the narrative. Karin Kukkonen, meanwhile, argues that the 'compositional lines' that make up the page layout in comics and graphic novels produce particular embodied responses in the reader and as a result intervene in the reader's body schema.[20] Ian Hague analyses the multisensory responses elicited during the experience of reading comic books and graphic novels as a result of their physical properties, echoing the work of Laura U. Marks on 'haptic visuality' in cinema.[21] In *The Skin of the Film* (2000), Marks attempts to shift attention away from an 'ocularcentric' account of film and towards the multisensory quality of perception that is required in the act of cinematic viewing. The excessive focus on vision in cinema studies at the expense of embodied processes of apprehension, she argues, is complicit with an 'instrumental' understanding of vision that 'uses the thing seen as an object for knowledge and control'.[22] Ocularcentric cinema studies naturalize what Martin Jay, in his influential account of the 'scopic regimes of modernity', describes as 'Cartesian perspectivalism', which is bound up with 'Renaissance notions of perspective in the visual arts and Cartesian ideas of subjective rationality in philosophy'.[23] While the model of 'optical visuality' that is dominant in the study of cinema 'depends on a separation between the viewing subject and the object', the haptic perception that Marks explores is characterized by a 'combination of tactile, kinesthetic, and proprioceptive functions'.[24] In haptic visuality, the eyes function like 'organs of touch', lingering on surface and texture rather than 'illusionistic depth'.[25]

We may understand the haptic turn in comics scholarship as a reaction against the ocularcentrism of many of the foundational studies in the field.[26] Despite its productiveness in terms of contributing to a critical language specific to graphic fiction studies, the structuralist approach carried out in McCloud's *Understanding Comics* also presents comics as straightforward carriers of meaning or disembodied texts. Works within the sociocultural tradition reinforce this, such as Joseph Witek's *Comic Books as History* (1989) and Bradford W. Wright's *Comic Book Nation* (2001), which often treat comic books as transparent windows onto historical moments. Some ideological approaches – such as those of Anne Magnussen and Hans-Christian Christiansen in *Comics & Culture* (2000) and Jörn Ahrens and Arno Meteling in *Comics and the City* (2010) – provide a much more rigorous approach to the relationship between formal aspects of comic books and the contexts of historically specific power relations. However, their emphasis on visual and textual elements still places them in closer dialogue within the humanist traditions identified by Hayles. Although some of their work is insufficiently engaged with questions of power, the work of critics driving the haptic turn in comics studies does provide a toolbox for understanding the encounter between 'reader' and comic book text as, in Hague's term, a 'performance' that involves the entire body.[27] Our own aim is to develop new modes of analysis in response to the specific (and situated) ways in which graphic fiction performs and reflects on its own materiality as a medium. We intend to build on haptic and formalist approaches in order to argue for the considerable potential in graphic novels for the powerful articulation of a posthumanist, post-anthropocentric vision of the world. Our interest lies in the particular affordances of this medium: what kinds of thought, perception, action or embodiment it makes possible, and how we may understand the specific modes of reading it demands, the materiality of the book, or the book as a transmedial encounter, within the context of a critique of humanism and an exploration of the posthuman. These questions will be placed in close dialogue with those of a more sociocultural or ideological nature in our readings, but in a way that neither may be reduced to the other.

This approach is the one most clearly suggested by the posthumanist graphic fictions that have recently emerged in Latin America, given the very strong relationship in these texts between a thematic focus on posthumanist questions of embodied perception and formal qualities that elicit a bodily engagement on the part of the reader. An understanding of the reading experience as an embodied performance will be developed throughout our analyses. In her account of 'embodied knowledge' – how cultural systems are 'incorporated' through bodily memory and habit – Hayles argues that changes in these 'deeply sedimented' incorporating practices 'are often linked with new technologies that affect how people use their bodies and experience space and time'.[28] The posthumanist graphic novel, we argue, not only narrates modes of dehierarchized incorporation but also actively produces them through the readerly performances demanded by their form. We will therefore interrogate the connections established in graphic fiction between bodies, technologies and power in the Latin American context, examining how graphic novels intervene in the ongoing process of technological incorporation to question and unsettle the prevailing social hierarchies encoded in humanist conceptions of the body and subjectivity.

The performances demanded by these texts emphasize the complex intermedial relations that are constitutive of the graphic novel. Posthumanist graphic novels typically foreground their position within a complex, constantly morphing media ecology. Yasco Horsman argues that comics and graphic novels have been receiving more sophisticated attention in literary and visual culture studies because of the wider disciplinary shift from 'a study of works as self-contained texts to a (self-aware) attentiveness to their roles in various transmedial networks'.[29] Works of graphic fiction 'inhabit the perfect terrain to think through issues of multi- and transmediality', due to their hybrid combinations of words and image, the tendency among comics artists such as Alan Moore to borrow storylines from other media or provide plots and fictional worlds to be developed in other media (the superhero narratives of Marvel and DC; Japanese manga-anime crossover narratives), as well as their ambiguous status as a 'lowbrow format with (sometimes) highbrow pretensions'.[30] Horsman establishes a parallel between the role played by these graphic narrative texts within wider transmedial networks and the way meaning emerges within them from a network of connections between words and images, panels and pages.

Jason Dittmer and Alan Latham argue, tracing a similar relationship, that the way meaning emerges from a network of connections within the graphic fiction text finds a parallel in – and, as a result, functions as a critical platform for – the exploration of socio-technical dynamics of relationality and emergence. Dittmer and Latham draw on the work of Belgian comics scholar Thierry Groensteen to describe narration in graphic fiction as 'plurivectorial'.[31] In *The System of Comics*, Groensteen analyses comics in terms of the manipulation of space on the page: how this is divided up (into panels and between word and image) and what connections (narrative and affective) emerge across these divisions.[32] Narration is 'plurivectorial' since the reader is encouraged to make connections across and among these pages in ways that are not reducible to the linear progression of plot. Rather, it follows multiple vectors that often function in tension with one another. In Groensteen's words, the 'staging of meaning [. . .] is revealed in terms of the reader's crossing of several successive meaningful planes'.[33] These formal qualities of graphic fiction usefully mirror contemporary accounts of relational ontologies such as those pursued by critical posthumanists. These often draw on the Deleuzian notion of the assemblage and on the science of emergence and complexity in order to account for the intra-activity of human and non-human worlds. Graphic fiction may consequently encourage in readers an increased awareness of these relationalities.

Jared Gardner traces the connections between multimodality and transmediality to the conditions of emergence of both comic books and cinema at the end of the nineteenth century. Both media developed out of the 'complex transmedial environments' of newspapers, magazines and nickelodeons, 'where paratexts multiplied in profusion, creating almost infinitely varied and unruly encounters with the text'.[34] However, while Hollywood after 1920 would erase the experimental multimodality of cinema, through the dominance of one style, this stabilization never occurred in comic books. So as film erased its status as a multimodal text, 'comics remained bound to its formal gutters and its status as a marked text, one whose materiality does not dissolve in the experience of reading'.[35] The legacy of this media history for the status of comics and graphic novels in the digital age is paradoxical. While we might expect this most resolutely mixed medium to be a guide to the possibilities of multimodal narration in the twenty-first century, as a form it is often curiously and deliberately resistant to media convergence, retaining a strong commitment to the materiality of the book form even while it cites and expands into different media forms. This is perhaps because, as Gardner observes, the shift to digital comics platforms that emerged in the first decade of the century, including Marvel's 'guided view' for iPhones, 'reduces rather than augments the readers' agency and avenues for interaction with the form'.[36] As our study of graphic novels in Latin America will confirm, the relationship between graphic fiction and digital media is laden with tensions that foreground rather than erase the centrality of the material.

There is a strong parallel between formal accounts of graphic fiction that emphasize their intermedial and transmedial relations and critical posthumanist theories of agency. Paradigmatic of these is Karen Barad's influential concept of 'posthuman performativity'.[37] Barad constructs a materialist account of agency that 'allows matter its due as an active participant in the world's becoming' and, in the process, examines the practices through which the 'differential boundaries' between human and non-human 'are stabilized and destabilized'.[38] Barad sets out to break with the assumptions presupposed by a belief in representationalism, whether it be linguistic, political or epistemological: namely, that there are 'individually determinate entities with inherent properties' awaiting representation.[39] Instead, Barad affirms that entities do not exist prior to interactions with other entities, but emerge through their particular 'intra-actions'. As she claims, 'The world is intra-activity in its differential mattering. It is through specific intra-actions that a differential sense of being is enacted in the ongoing ebb and flow of agency'.[40] Barad's account of the materiality of discourse – how 'discursive practices are specific material (re)configurings of the world through which local determinations of boundaries, properties, and meanings are differentially enacted' – is a useful critical framework for understanding the connection between graphic novels as physical objects and the relational posthumanist subjectivities that they perform.[41] For Barad, just as the 'primary ontological units' are not 'things' but ongoing 'reconfigurings/entanglements/relationalities/(re)articulations' between things, so the 'primary semantic units' are not 'words' but 'material-discursive practices through which boundaries are constituted'.[42] In a similar way, the relational constitution of human and non-human entities described in the narratives of the texts discussed in this book is echoed and informed by the textual constitution of meaning as a dynamic interaction between panel and page; word and image; book, reader and environment.

The graphic novel in Latin America has flourished at a moment of great instability and change for the book as a literary medium. In Craig Epplin's study of what he calls 'late book culture' in Argentina, for example, he argues that the book as a literary object has entered a period of 'transition' in the context of 'an increasingly complex and increasingly digital media ecology'.[43] This media ecology was rendered particularly unstable by a period of economic decline that culminated with the economic crisis of 2001, which led literary practitioners to adopt increasingly hybrid strategies that incorporate lettered traditions into the latest technologies, or to pursue artisanal publishing techniques and 'ad hoc solutions'.[44] Today, both literary authors and publishers must position themselves within a 'volatile media landscape' in a constant state of flux in which the 'assemblages that connect books to other media' are more visible and complex.[45] These conditions have produced a noticeable upswell of hybrid forms that bestride different media, use both industrial and artisanal publishing strategies and occupy ambiguous positions between high culture and popular traditions. The main players that Epplin identifies in this interzone between print and digital media culture are writers such as César Aira, whose work repeatedly thematizes a paradoxically post-literary literariness, and non-traditional publishers such as the Eloísa Cartonera collective, whose use of recycled cardboard unsettles divides between elite and low culture while drawing attention to its own conditions of production. Although Aira only engages with the post-literary media ecology at a discursive level, his work and that of the Cartonera collective are united in their revelation of 'the process underlying the object'.[46] The hybrid, unstable medium of the graphic novel finds a salient place in this mutable media terrain. Like the Cartonera products, there is a very prominent tendency in graphic novels to emphasize process over finished object, whether it is through the inclusion in books of unfinished sketches by the artists or through constant contact between artists and their community of readers on social media during the creation of the book.[47] However, the development of the graphic novel form in Latin America and beyond does not accord with Epplin's account of a division between a modern book culture (which reproduces publishing conventions that present the book as a transparent and authoritative receptacle for knowledge) and a late book culture (which problematizes these conventions). Like the traditions of the photobook and the artist's book, graphic fiction as a medium has a long history of challenging publishing practices that stretches back much further across the periodization Epplin suggests.

In many ways, the role of graphic fiction in disrupting divisions between popular and dominant lettered cultures is not specific to what Epplin describes as late book culture. Rather, since the emergence of comics in the nineteenth century as a recognizable medium – distinct from other textual practices that combine writing with images – comics culture has functioned as an important site of contact between popular and lettered cultures in Latin America as well as a space of critique of dominant discourses about urban modernity. The graphic novel, as it has developed over the last 20 years, has built on this historical role of comics in the region. Latin American comics scholarship has tended to focus on the role of these publications in the ongoing formation of urban cultures, at the intersection between popular and elite cultures as well as local, national and global social formations. In *Para leer el pato Donald* (published in 1972; arguably the first work of comics criticism in Latin America), Ariel Dorfman and Armand Mattelart argue that Disney cartoons are tools of North American cultural imperialism that serve to justify the exploitation of Latin America by US business interests. The cartoons featuring Scrooge McDuck create a cultural fantasy that subsumes national differences into global capitalism. The comics invite their readers to 'pertenecer a la gran familia universal Disney, más allá de las fronteras y las ideologías' (belong to the big Disney family, beyond borders and ideologies).[48] Disney comics function as a 'pasaporte' (passport), by means of which, as Dorfman and Mattelart note with irony, 'se omiten las nacionalidades, y los personajes pasan a constituirse en el puente supranacional por medio del cual se comunican entre sí los seres humanos' (nationalities are omitted, and characters are formed on a supranational bridge along which humans communicate with one another).[49]

The cultural nationalism that underpins Dorfman and Mattelart's position has been highly influential in comics criticism in Latin America. For instance, Dorfman and Mattelart's vision of the medium on the front line of the battle between national-popular culture and the invading forces of cultural imperialism dominates Waldomiro Vergueiro's history of comic books in Brazil. According to Vergueiro, the genre of children's comics in Brazil was inaugurated by a 'grito de independência' (cry of independence) with respect to the influence of foreign comics. *Pererê* by Ziraldo Alves Pinto, published between 1960 and 1964, for example, 'foi capaz de refletir fielmente a sua sociedade e o seu tempo' (succeeded in faithfully reflecting its society and time) and in the process became 'um modelo para todos os autores que quisessem falar da realidade brasileira por intermédio das histórias em quadrinhos' (a model for all authors wanting to address Brazilian reality through the medium of comic books).[50]

In their introduction to *Redrawing the Nation: National Identity in Latin/o American Comics*, Héctor D. Fernández L'Hoeste and Juan Poblete argue that comic books in Latin America's urban centres performed an important role in the formation of mass national-popular cultures in the region. As a narrative practice that undermined lettered culture's policing of the boundaries between writing and image, comic book cultures provided a crucial bridge between popular and elite national imaginaries. Fernández L'Hoeste and Poblete build on Carlos Monsiváis's work on cinema's construction of national-popular imaginaries to argue that 'the growing population in the early and mid-twentieth century, composed mainly of newly urbanized rural folks, also learned to interact with and engage its new environs via its contact with comics'.[51] Anne Rubenstein ascribes a similar role to the comic in the construction of a post-revolutionary popular national identity in Mexico. This function was carried out particularly effectively due to a content infused with a 'strong dose of faith in progress and modernity'. To this was added its construction of a particularly active readership, forged by the structural qualities of the medium together with a canny marketing strategy that 'implied a connection between buying *historietas* [comics] and participating in the economic, technological, and social improvements that were supposed to characterize Mexican life in the postrevolutionary era'.[52]

This strong association between comics and national/popular culture continues across much of Latin America today. In many countries, most notably Brazil, adaptions of national classics in comic book format introduce a younger or less literate population to iconic works of national culture.[53] They may also perform a more-or-less overtly pedagogical role in disseminating knowledge about the nation's past and distinctive forms of popular culture across its extremely varied regions.[54] More broadly, although the recent boom in graphic novels across Latin America has often been dominated by the science fiction genre, it also features an important number of works dedicated to the realist representation of local places, accents and ways of life, both historical and contemporary. For *Cumbe* (2014), set in the period of slavery in Brazil, Marcelo D'Salete undertook research in order to be able to render the slaves' dialogue with accuracy. Bolivia's most striking contribution to the graphic novel boom, *Periférica Blvd* (Susana Villegas and Álvaro Ruilova, 2013), reproduces the violence and the slang of La Paz's streets with chilling skill. *Virus Tropical* (Powerpaola, Colombia, 2009)[55] is the most successful of a number of recent graphic narratives with strong autobiographical elements, registering the vicissitudes of everyday life as a maturing adolescent in the city in a way that has repeatedly invited comparison with Marjane Satrapi's *Persepolis* (2000). The emphatic production of the local is also evident in many examples of the region's fantasy and science fiction genres, including a number studied in this book, and is often an indicator – as in Diego Agrimbau's texts, for instance – of an investment in a national-popular imaginary of some kind, or even its critique, as in the work of Edgar Clement.

Some critics have found comic book cultures to play a significant role in constructing an important discursive space in which national-popular imaginaries undergo a transformation in the context of globalization. Néstor García Canclini argues that comic books occupy a point of intersection between national-popular culture and global cultural structures and systems of signification. In his landmark study of Latin American postmodern culture *Culturas híbridas* (1990), he describes the comic book, along with other media such as graffiti, as 'géneros constitucionalmente híbridos' (constitutively hybrid genres).[56] Comic strips such as the Argentine *Inodoro Pereyra* by Roberto Fontanarrosa highlight the shifting boundaries between the local and the global through their themes (a mixture of national humour and slang with international cartooning conventions) and their structure (in the case of Fontanarrosa's work, a comic strip parody of the *gauchesca* genre). As such, the form can function as a space of reflection on the increasingly complex interconnections between the local and the global in societies that are continually being reshaped by neoliberalism and globalization. Many of the graphic novels we discuss register these tensions and affordances, and indeed the prominent space they give to shifting relationships between the local and the global is hardly surprising given the thoroughly transnational world of comics production. Many Latin American creators are actively involved in collaborative projects with European and North American scriptwriters and graphic artists, often publishing their work abroad before they are able to reach national audiences.

Even the label 'graphic novel' has become mired in tensions between national-popular and globalized/elite discourses. We use the term 'graphic novel' to refer to graphic fiction publications both connected to and distinct from the longer tradition of popular comics in Latin America. In their study of the emergence of the graphic novel in Europe and North America, Jan Baetens and Hugo Frey emphasize points of connection between the medium and comic book traditions as well as elements of distinctiveness. They argue that the graphic novel, 'though not necessarily a sharp break at the level of form or market conditions, represents at least some level of self-knowing "play with a purpose" of the traditional comic book form, and in some cases a radical reformation of it'.[57] This 'knowingness' about comic book conventions is one of the common characteristics of the graphic novel texts we explore in this study. The often-complex play with both narrative and structural commonplaces of comic book genres is given a more expansive and prominent platform in the longer format of the graphic novel. The emphasis on experimentation is facilitated by the fact that these texts are intended to be read as a coherent whole and not in serialized episodes. Furthermore, the high production values of both independent publishers and specialized publishing houses, such as Quadrinhos na Companhia in Brazil or LOM Ediciones in Chile, foreground the material qualities of these books. Graphic novels are objects intended to be kept and treasured, in contrast to the built-in ephemerality of manga and comic books (although, somewhat paradoxically, it is often the ephemerality of comic books that appeals to collectors).

Some critics have rejected the applicability of the term graphic novel (often rendered in the original English in some parts of the region, or alternatively as *novela gráfica* in Spanish or *romance gráfico* in Portuguese) to the Latin American context. Waldomiro Vergueiro and Gêisa Fernandes D'Oliveira argue that the use of the term is indicative of attempts from the realm of academia to legitimize the comics medium as a serious object of study. This gesture risks obscuring the specific associations between comic book networks and popular cultures in the region. They argue that interest in comic books grows 'não à medida que estas se tornam populares, mas sim quando conseguem se elitizar, se fechar num círculo ao qual as classes mais populares não têm acesso' (not when they become more popular but when they are incorporated into an elite culture to which the more popular classes do not have access).[58] According to this argument, the use of the term graphic novel is complicit in the betrayal of the national-popular and part of a process of theoretical colonization.[59] Against this dismissal of the graphic novel label, a number of the authors whose texts we discuss in this book, including Edgar Franco and Edgar Clement, embrace the term.[60] Indeed, some authors use it as part of a conscious strategy to bridge popular and elite cultures, or make no secret of their bid to gain legitimacy for a marginalized medium.[61] With them, we assert a conception of the graphic novel as a constantly morphing medium positioned at the critical point of intersection between popular and lettered traditions, print and digital publishing, and local and global social, economic and political processes. In this respect, we join a growing tradition in European, US and

Latin American graphic fiction scholarship that emphasizes the points of continuity as well as divergence between comic book and graphic novel formats.

The history of comic book cultures in Latin America is inextricably bound up with the development of modern urban imaginaries in the region, and this parallel history has been very effectively studied in recent scholarship.[62] Graphic fiction has engaged in an ambivalent critique of urban modernity that simultaneously recognizes in that modernity the conditions of its own possibility as a medium. In many key respects, the emergence of comics as a recognizably distinct medium in Latin America echoes its development in the context of the newspaper industry in North American urban centres.[63] Catalá Carrasco, Drinot and Scorer point out that the use of images in mass publications in Latin America was made possible by a constellation of printmaking techniques and technologies – including lithography, chromolithography and the mimeograph machine – that came together during the nineteenth century. In the context of the rise of mass publications, 'graphic artists were able to develop professional careers by securing commissioned contributions to magazines and newspapers, effectively making use of graphic humour and, later on, comics as a commodity'.[64] Catalá Carrasco, Drinot and Scorer provide a useful historical overview of the development of comics across Latin America. This allows us to appreciate the close relationship between the development of national industries and the discursive appropriation of a national 'voice' with which to counter the dominance of imported comics, largely from the US. With the exception of early experiments in the form such as *As Aventuras de Nhô Quim ou Impressões de Uma Viagem à Corte* by Angelo Agostini – which appeared in the Rio de Janeiro-based magazine *A Vida Fluminense* in 1869 – the first comic strips in the region were produced during the early stages of the twentieth century under the strong influence of the internationalization of US comics.[65] By the 1930s, comic strips were a common presence in newspapers across Latin America, having proved to be a successful strategy for attracting and maintaining readerships. The strength of these readerships enabled the launch of the first standalone comics publications with *Suplemento Juvenil* in Brazil in 1934 and the short-lived *Adelaido el Conquistador* (1932–3) and *Paquín* (1934) in Mexico.[66] It was between the 1950s and the 1970s, the 'golden age of comics in Latin America', that distinctive national traditions started to emerge.[67] This was the period that saw the rise to prominence of Oesterheld and the influence of Editorial Frontera, which published key works such as *Mort Cinder* in 1962 and the previously mentioned

El Eternauta. Argentina's most famous comic strip, *Mafalda*, created by Joaquín Salvador Lavado, was also published during this period. In Chile, Salvador Allende's short-lived Unidad Popular regime (1970–3) produced some significant changes in a comics industry that US comics had dominated. The most significant development was the establishment of the national publishing house Quimantú, which was intended as a counterweight to the influence of comics from North America.[68] In Brazil, as previously mentioned, a national industry was slower to emerge, with US horror and superhero narratives attracting a strong following from the 1930s onwards. In 1970, in an attempt to compete with the dominance of US children's comics in the region, Maurício de Sousa began to develop the children's comics series *Turma da Mônica* by playing Disney at its own game in terms of industrialized modes of production and circulation.

If industrial publishing processes were the key enabling factor in the emergence of comics across the modern world, it is also clear that conceptions of temporality that were central to those processes are inscribed in the very structure of comics. Scott Bukatman establishes a connection between the practice of chronophotography in the late nineteenth century and the predominant grid structure of comic books. The 'visualization of movement' enabled by the work of photographers such as Jules Marey and Eadweard Muybridge were heavily influential on Taylorist strategies to regulate movement by breaking it down into constitutive parts within the context of mass industrial production.[69] Bukatman argues that comic strips published in New York newspapers of the nineteenth century both performed this 'instrumental rationality of industrial development' and became, at the same time, a space for its pastiche and parody.[70] In her study of comic book industries in Spain, Cuba, Mexico and Argentina, Ana Merino identifies a similar ambiguity in relation to this instrumental rationality. She argues that comics cultures in the Hispanic world have a more conflictive relationship with dominant discourses about urban modernity than their North American counterparts. Mass comic book publications in Latin America from the 1940s to the 1960s embody the contradictions of modernity in the region and expose 'los límites de la modernidad y a la vez los rasgos claves de la modernidad periférica' (the limits of modernity and, at the same time, the key features of peripheral modernity).[71] It is this ambiguity that makes comic books such an effective and enduring vehicle for the critique of dominant discourses of modernity in the region. This critique, as we will see, becomes central to the prevailing posthumanist vein of the contemporary graphic novel in Latin America.

The first chapter of this study focuses on a series of graphic novels from Argentina and Uruguay that decry the humanist domination of nature, revealing the cost of an exploitative and uneven modernity and denouncing the use of technology as a means of biopolitical control. While these texts remain closer to the 'anti-humanist' than the 'critical posthumanist' positions described by Rosi Braidotti, they also distance themselves from the postbiological visions of transhumanists such as Hans Moravec, Raymond Kurzweil and Frank Tipler. An analysis of the importance of embodiment and materiality in these posthumanist graphic novels establishes a theme that will become crucial to our central argument. In Chapter Two, the discussion turns to two Chilean graphic novels, *E-Dem: La conspiración de la vida eterna* (Cristián Montes Lynch, 2012) and *Las playas del otro mundo* (Cristián Barros and Demetrio Babul, 2009). They share with Mexican graphic novel/webcomic *Los perros salvajes* (Edgar Clement, 2011–) an interest in reviving what James William Gibson has called 'a culture of enchantment'.[72] In the markedly polytemporal and transcultural worlds these texts create, futuristic cyborgs become the close relatives of mystical Christian angels and the shamanic shapeshifters of indigenous animism. These hybrid figures challenge modernity's tale of disenchantment and its exclusion of the indigenous other as primitive and pre-modern. They also gesture towards a new ethics and a new, post-anthropocentric, way of being in the world, via an encounter between humans and their others that is modelled and made possible, at least in part, by the graphic novel's strategies of remediation and intermediality.

Chapter Three proposes a reading of an earlier graphic novel by Edgar Clement, *Operación Bolívar,* which was first published in graphic novel form in 1999. The narrative occupies the same mythical terrain and ambiguous moral landscape as *Los perros salvajes* and revolves around a CIA-backed plot to unite the Americas into a vast US-led narco-state. Our analysis centres on the use of a baroque aesthetic in the graphic novel, both in its structure and its imagery, and through its depiction of angels in particular. We argue that *Operación Bolívar* uses the baroque mode to carry out an (an)archaeology of the media of domination in Mexico and to position the graphic novel form within an imagined posthuman genealogy. The fourth chapter develops a reading of two Chilean graphic novels – *1899: cuando los tiempos chocan* (Francisco Ortega and Nelson Dániel, 2011) and *Policía del Karma* (Jorge Baradit and Martín Cáceres, 2011) – in the light of recent work on steampunk that understands the genre as an attempt 'to regain a human connection with the machine world' (Rebecca Onion)[73] and to explore 'the affective relationality of human and nonhuman bodies' (Jenny Sundén).[74] We argue that these texts lay a possible foundation for a new ethics of things in a posthuman world, and demonstrate the peculiar aptness of the graphic novel to explore the structural couplings that govern a cybernetic era and to reveal the embodied nature of human perception and cognition.

Chapter Five argues that Rafael Coutinho's graphic novel series *O Beijo Adolescente* (2012–15) presents a posthumanist perspective on the social unrest leading up to and following the street demonstrations that took place in São Paulo in June 2013. This is performed through the construction of urban space as topological, a constantly morphing entity constituted by vectors, forces and assemblages that transcend static notions of space. Exploring connections between the depiction of the city in the graphic novels and the 2013 protests, we argue that *O Beijo Adolescente* presents the agency behind social change as emergent from a network of human and non-human actors. Chapter Six explores how fractal logic and mimicry are used in *Informe Tunguska* (Alexis Figueroa and Claudio Romo, Chile, 2009) to break down distinctions between nature and culture. With reference to Eduardo Kohn's *How Forests Think: Toward an Anthropology Beyond the Human* (2013), we argue that *Informe Tunguska* exploits the power of graphic fiction to explore a kind of semiosis that reduces the distance between human and non-human signification. The final chapter explores the connections between posthuman subjectivity and the intermedial potential of the graphic novel form in the work of Brazilian academic, comic book writer and multimedia artist Edgar Franco. Our analysis centres on the 2013 graphic novel *BioCyberDrama Saga* and its place within the story world 'Aurora pós-humana', which constructs a far-future posthuman world through a range of media, from comics to electronic music and live performance. We focus in particular on the intermedial encounters – staged within this world between sound and image and between graphic novel and live performance – arguing that Franco's multimedia assemblages articulate a posthuman vision that emphasizes both its materiality and the location of this vision beyond metropolitan centres.

The Conclusion reflects on the central question of why the graphic novel has become such a powerful medium for exploring posthuman subjectivities and ecologies. It interrogates the extent to which posthumanist modes of thought may advance particular political or ethical projects, in Latin America or beyond. We argue that the characteristic reflexivity and transmediality of graphic novels in Latin America are often used to construct a genealogy for the medium that ties contemporary practice both to ancient forms of visual culture and to futuristic virtual reality technologies. In the hands of Latin American scriptwriters and illustrators, graphic novels become a particularly acute mode of reflection on – and critique of – the new media and technology assemblages that bring humans into intimate relationships with the non-human. They represent a unique point of connection between the popular and the elite, the local and the global, the material and the virtual. More broadly, the wide-ranging analyses presented here reveal something of the enormous potential in graphic fiction to embark on a sophisticated exploration of posthuman subjectivity, agency and ethics and to engage in powerful critiques of the hubris of Western humanism and its exploitative, exclusionary modernity.

1

(Post)humanism and Technocapitalist Modernity

The posthuman scenarios constructed in this first series of graphic novels, from Argentina and Uruguay, are thoroughly dystopian, setting into relief the more redemptive and regenerative modes of some of the texts explored elsewhere in this book. What unites them is a consistent denunciation of the complicitous relationships between state, technology, violence and capitalism. As technology is almost exclusively figured as a threat to human freedom, identity and safety, there is no room here for the more positive representation of human/non-human commingling that characterizes the posthumanist vision of many other Latin American graphic novels. A post-anthropocentric approach begins to emerge from the environmentalist critique developed in some of the texts explored here. However, the distinctly nostalgic tone evident in all of them clearly demonstrates the persistence of humanist thought within posthumanism, suggesting the extent to which, as Neil Badmington observes, 'humanism is forever rewriting itself as posthumanism'.[1] They are posthumanist in the same way that postmodernity, for Jean-François Lyotard, is characterized by 'the rewriting of some of the features claimed by modernity, and first of all modernity's claim to ground its legitimacy on the project of liberating humanity as a whole through science and technology'.[2] This rewriting has, as Lyotard points out, a long history within modernity itself; the same is certainly true of humanism, and in this respect one need look no further than the work of Hannah Arendt or Edward Said.[3] The graphic novels studied in this chapter reveal some of the contradictions at the heart of antihumanist posthumanism, in their mourning for the irrevocable loss of human(ist) values and their simultaneous reassertion of those values. Crucially, it is the human perspective that remains dominant in their exploration of a posthuman world, a centrality that is radically challenged by a number of the other texts discussed in this book.

La burbuja de Bertold and *Planeta Extra* (Diego Agrimbau and Gabriel Ippóliti, 2007; 2009) launch an acerbic critique of the humanist domination of nature, puncturing an arrogant faith in the inevitability of human progress and revealing the cost of an exploitative and uneven modernity. *Reparador de sueños* (Matías Santellán and Pablo Guillermo Serafín, 2012) examines the dangers of technology as a tool of biopolitical control and repression. It exemplifies the contradictory resurgence of humanism within the posthuman imaginary, celebrating the uniqueness of human desires and dreams that cannot be fully subjected to the control of a futuristic techno-state. *Dengue* (Rodolfo Santullo and Matías Bergara, 2012) connects development with inhumanism in much the same way as Lyotard does, reasserting the importance of embodiment and difference as a form of resistance to capitalism. Salvador Sanz's *Angela Della Morte* (2011, 2014) combines science fiction and horror to chart the pursuit of delirious dreams of human perfection that lead only to monstrosity and violence. In this way, it exposes the dark side of the postbiological version of posthumanism (often known as transhumanism) peddled by speculative scientists such as Hans Moravec, Raymond Kurzweil and Frank Tipler. These graphic novels insert themselves into a strong tradition of anti-capitalist, anti-authoritarian discourse in art and literature that has emerged in the *rioplatense* region of Latin America. This accounts, at least partly, for their frequent depiction of posthuman cyborgs and other hybrid technologies as dangerous additions to the armoury of repressive states and unscrupulous corporations.

Technodystopia

Diego Agrimbau's graphic novels are antihumanist fables, mapping out dystopian visions of the consequences of environmental exploitation or enslavement to modernizing progress. In the future societies he imagines, technological modernity has only ushered in greater social injustice and widespread ecological destruction, heralding the bleakest of posthuman futures in which humanity will eventually disappear, along with a devastated natural world. While these are issues of global concern, they have a specific resonance in contemporary Argentina. As Silvia Kurlat Ares observes, Agrimbau's texts are marked by an overwhelming sense of pessimism and anomie,[4] in which it is not difficult to read allusions to the political and socio-economic conditions of Argentina since the 1990s. These would include economic crisis, emigration, the increasing political power of corporations, the under-regulated exploitation of the nation's natural resources and the breakdown of traditional forms of sociability.

Dystopian visions of posthumanism are, as Daniel Dinello observes, all too common in science fiction plots, in which technology often becomes a force for the destruction and enslavement of humanity.[5] Science fiction's army of invading aliens, mad scientists, mutating monsters, rampant viruses and murderous robots offers every possible threat to the continued existence of the human race and its civilizations. Popular forms of the genre, including many Hollywood films from the latter half of the twentieth century onwards – *Planet of the Apes* (1968), *2001: A Space Odyssey* (1968), *Blade Runner* (1982), *Gattaca* (1997) and *WALL-E* (2008) being only a few of the most well known – have often expressed an intense technophobia, playing out disaster scenarios that warn of the most chilling consequences of rapid technological advance. The dystopian vision of much science fiction is at least partly a result, as Dinello suggests, of its progressive politics: it aims to awaken us to the advent of a new technological order supported by 'corporate greed, macho militarist posturing, governmental warmongering, and techno-religious propaganda'.[6] Eroding human values such as equality and empathy, the technologies imagined in science fiction 'fortify genetic discrimination, social fragmentation, totalitarianism, surveillance, environmental degradation, addiction, mind control, infection, and destruction'.[7] But in its critique of such ills, popular science fiction often falls back on rather conventional humanist beliefs: humans ultimately defeat the threat to their survival – be this of non-human origin or their own making – thereby proving the superiority of the human race and its destiny to overcome all others. The endless rehearsing of these narratives is suggestive, of course, of a crisis in such thinking. For Neil Badmington, repeated human victories over the aliens and the robots in Hollywood science fiction reveal an anxiety over a loss of human sovereignty, registering – *malgré lui* – the waning of humanism.[8]

Agrimbau's graphic novels, while reinscribing human(ist) values, offer no such consolatory narratives, more often allowing humanity's capacity for self-destruction to play itself out. This results in environmental apocalypse, societal collapse or all-out Armageddon. *La burbuja de Bertold* presents a desolate portrait of life under an authoritarian regime whose intensive mining operations are sucking the last dregs of energy from a land stripped bare of its resources. The narrative takes place in the dark, heavily industrialized and poisonous city of Butania, rendered by Ippóliti in stifling, oxidized ochre (Fig. 1.1). Bertold's limbs are amputated as punishment for an act of rebellion against the authorities that led to the deaths of several fellow workers in a fire. However, it is clear that his more serious crime was daring to suggest publicly that the gas being pumped out of the ground might eventually run out. He joins the ranks of other amputees, fit only for work in the city's Teatro Neumático (Pneumatic Theatre) with its long-running show *Títeres vivientes* (*Living Puppets*). With their bodily movements precisely programmed by the puppet machine's levers and pulleys, the human actors are reduced to their voices. The play they rehearse and perform – and in which Bertold has the starring role – is clearly meant to represent a microcosm of society, exploring the consequences of the exhaustion of resources and the prospect of slow death as a result. While its writer and director had intended it to perform a politically sycophantic and hypocritical tribute to the nourishing potential of Mother Earth, Bertold improvises another meaning: it is not Mother Earth who feeds them, but they whose bodies and energy keep the failing system going, at huge cost. The puppet strings that dictate the actors' every movement become a metaphor for the authoritarian operation of power in Butania, a metaphor that Bertold exposes, producing an incendiary response from the audience.

What initially appears to be a humanist paean to the capacity of the individual to resist subjugation and to bring about revolution, however, rapidly turns into something else. In this very Brechtian fable, the individual – thoroughly instrumentalized by society – is ultimately powerless to stay its self-destructive forces. Poignantly, we leave Bertold and his love interest programmed to 'dance' mode until the theatre's generator runs out, which will be a few months away; the human race itself will not have much more time than this, we suspect, before the lights finally go out. The real forces at work here are no longer human ones: the slow death of a pillaged and polluted world cannot now be reversed. Agrimbau and Ippóliti create the bleakest of posthuman futures in which an exploitative human 'civilization' – unwilling to take responsibility for the depletion of resources and the waste that are the by-products of its

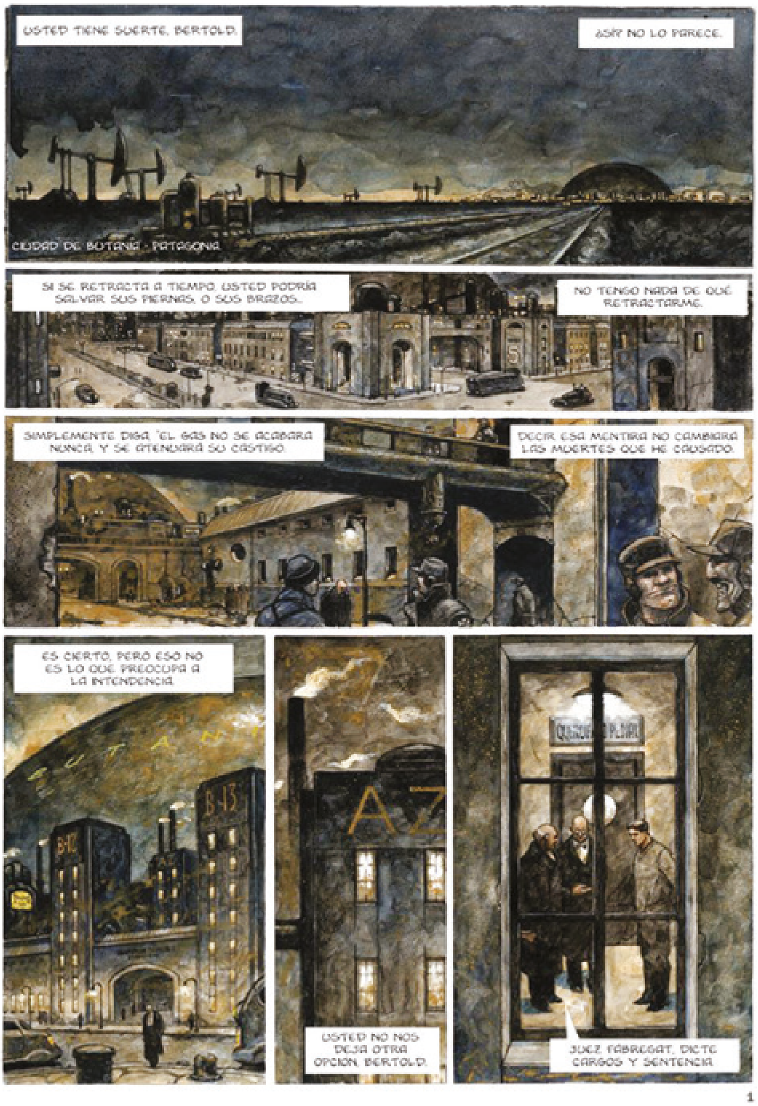

USTED TIENE SUERTE, BERTOLD.
¿ASÍ? NO LO PARECE.
CIUDAD DE BUTANIA - PATAGONIA
SI SE RETRACTA A TIEMPO, USTED PODRÍA SALVAR SUS PIERNAS, O SUS BRAZOS...
NO TENGO NADA DE QUÉ RETRACTARME.
SIMPLEMENTE DIGA "EL GAS NO SE ACABARÁ NUNCA" Y SE ATENUARÁ SU CASTIGO.
DECIR ESA MENTIRA NO CAMBIARÁ LAS MUERTES QUE HE CAUSADO.
ES CIERTO, PERO ESO NO ES LO QUE PREOCUPA A LA INTENDENCIA.
USTED NO NOS DEJA OTRA OPCIÓN, BERTOLD.
JUEZ FABREGAT, DICTE CARGOS Y SENTENCIA.
1

Fig. 1.1 Industrialization and environmental catastrophe in *La burbuja de Bertold* (Diego Agrimbau and Gabriel Ippóliti)

modernizing and profit-making ambitions – careers towards extinction as the earth's energy runs out.

Unusually, Agrimbau's collaborations with Ippóliti (which include *El gran lienzo*, 2008) combine science fiction topoi with a graphic design that clearly references humanist traditions of portraiture. Ippóliti's carefully composed panels, evoking the rich tones, textures and shadowing techniques of oil paintings on canvas, claim artistic seriousness for the work and lend a timeless dignity to the human tragedies that unfold within these pages.[9] The peculiar combination of futuristic setting and painterly style recalls the direct colour techniques used by Enki Bilal in his *La Trilogie Nikopol* (1980, 1986, 1992). *La burbuja de Bertold*'s regular and unobtrusive frame-and-gutter format does not distract from the simple human drama it relates, and the emphasis on portraiture brings the individual to the fore. The dramatic chiaroscuro effects and earthy pigments (Fig. 1.2) evoke the humanist vision of Rembrandt and many of his contemporaries, articulating a nostalgic and paradoxical reassertion of human dignity and individualism in the face of the exhaustion of humanist values.

Planeta Extra extends Agrimbau's critique of the humanist domination of nature, but adopts a much lighter tone. It also develops the interest in theatre explored in the earlier *La burbuja de Bertold*, but this time not as an allegory for social control or individual expression. In *Planeta Extra*, theatre becomes a source of national and popular idioms and imaginaries in a narrative that returns to the debates over the modernizing programme of *fin de siècle* Buenos Aires. One of Agrimbau's greatest achievements in *Planeta Extra* is the composition of a science fiction of the vernacular, clearly rooted in the popular imagination, traditions and domestic spaces of a working-class Buenos Aires neighbourhood. As he puts it, this is very much 'ciencia ficción de barrio' (literally,

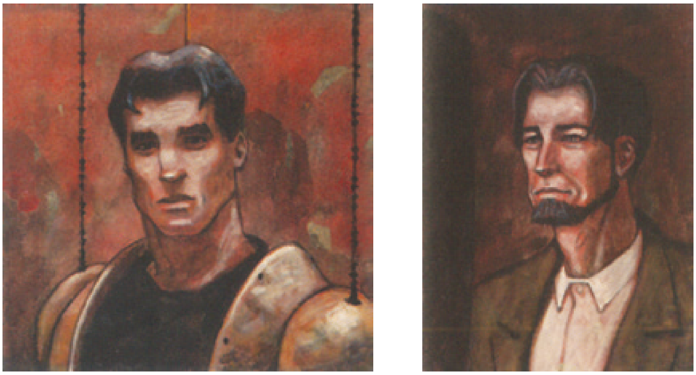


Fig. 1.2 The use of chiaroscuro and earthy tones in *La burbuja de Bertold* (Diego Agrimbau and Gabriel Ippóliti) recall Rembrandt's portraits

‘science fiction from the neighbourhood’, in the sense of humble and home-grown).[10] Agrimbau’s *costumbrista* drama dismantles some of the assumptions and aspirations that underpin humanist narratives of civilization and modernity. However, as we will suggest, his identification of popular tradition, thought and art as antidotes ends up reinscribing the centrality of human agency as well as values of individual freedom, fulfillment, rights and dignity that are often associated with humanism.

The overcrowding, pollution, corruption and crime that characterize many urban centres in the Third World have extended in *Planeta Extra* to cover the whole globe. Having thoroughly exploited the planet’s resources for their own benefit, those with the connections and the financial means to do so have abandoned Earth for a better quality of life on a moon on the far side of Jupiter. The introduction of flying vehicles, space travel and virtual pets into a city that is patently lagging behind in the technological race highlights a typically uneven process of modernization (see Fig. 1.3). Space shuttles take their place among the beat-up removal vans, the congested highways, the lawless outer suburbs and the omnipresent street demonstrations that make up the

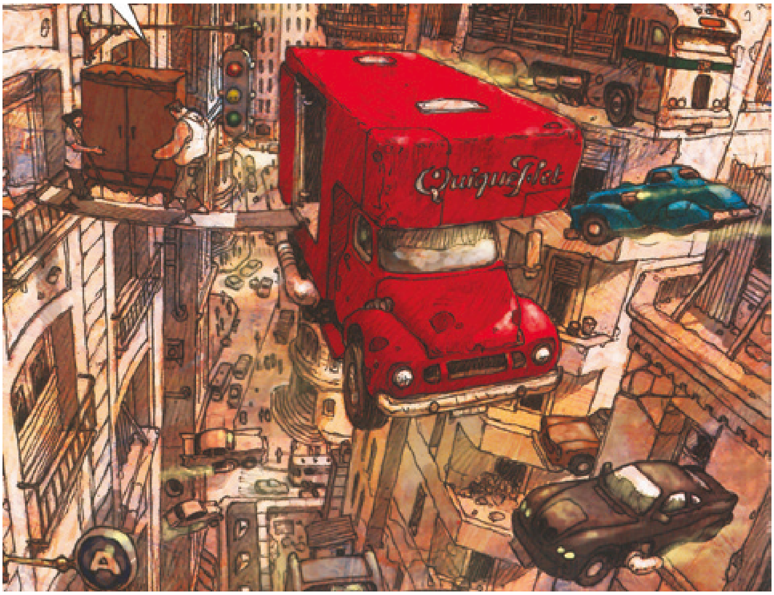


Fig. 1.3 A low-tech Argentine space age in *Planeta Extra* (Diego Agrimbau and Gabriel Ippóliti; panel detail)

urban landscape of contemporary Buenos Aires. This comically stoic vision of uneven development elicits comparison with another image of a 'ciencia ficción de barrio' produced in the ludic Argentine documentary *Estrellas* (Marcos Martínez and Federico León, 2007), in which a shantytown becomes the unlikely setting of an epic victory against Martian invaders.

The narrative of *Planeta Extra* is structured around a family conflict, sparked off by a member of the younger generation who is desperate to leave for the promise of a better life on Luna Europa, as the new world is called. The older generation, with much less interest in social and material advance, is appalled at the prospect of the family being divided. Agrimbau explains that this story of desperation to emigrate, and the struggle to obtain the necessary money and permits, was inspired by the Crisis of 2001, which led many Argentine citizens to leave the country in search of a brighter future in Europe.[11] We might see the twentieth century in Argentina as framed by two significant waves of migration, in and out. The first was formed by European immigrants, largely from Spain and Italy, who flooded into the country in the late nineteenth and early twentieth centuries. The second saw many of their grandchildren and great-grandchildren depart for Europe in search of more jobs and better economic prospects. As Kurlat Ares argues, therefore, *Planeta Extra*'s treatment of such emigration points to the failure of the modernizing, civilizing project in Argentina, which for Sarmiento and Alberdi (among other founders of the modern nation) was essentially tied to an increase in urban development and European immigration.[12]

This contrast between immigrant dream and reality, the promise of modernity and the disillusionment it has brought, is heightened by the choice to bring *Planeta Extra* into close dialogue with the *sainete criollo*, a theatrical form that enjoyed huge commercial success in Argentina around the turn of the twentieth century. Written in a *costumbrista* vein and based on stereotypically idiosyncratic characters, these short pieces took a tragicomic or satirical view of everyday life in Buenos Aires during the *fin de siècle* wave of immigration. They often focused on the effects of rapid urbanization and the tensions between tradition and modernity, conservative family values and liberal individualism. As in *Planeta Extra*, the central conflict of the *sainete* was of a sentimental nature and it was usually set in the patio of one of the tenement blocks springing up in the city to house the thousands of immigrants arriving every year.

The relationship between *Planeta Extra* and the *sainete* is noted by Agrimbau himself,[13] who studied playwriting at the Escuela Municipal de Arte Dramático in Buenos Aires before turning his hand to scriptwriting for graphic novels. *Planeta Extra* consistently draws on theatrical forms and techniques, with an emphasis on characterization, an unusual continuity of action and an almost total elimination of captions in favour of speech bubbles. The final double page spread even mimics a theatrical curtain call, arranging the cast of characters as if they were taking part in a final line-up, ready to take a bow before their audience (see Fig. 1.4). The earlier *sainete criollo* strove to capture the colourful colloquialisms of the city's new population, including the *lunfardo* slang spoken by Italian immigrants in particular. Agrimbau's script is likewise faithful to the popular idiom of its characters, or at least was so until the heavy-handed editor of his Barcelona publisher stepped in to change all local and *lunfardo* expressions into colloquial Peninsular Spanish. This process can be traced by comparing the published edition with the previews available online.[14] As well as the careful erasure of all exclamations of '¡che!' and references to 'lucas' (a thousand pesos), the *lunfardo* 'laburantes' becomes the neutral 'obreros' and the brusque

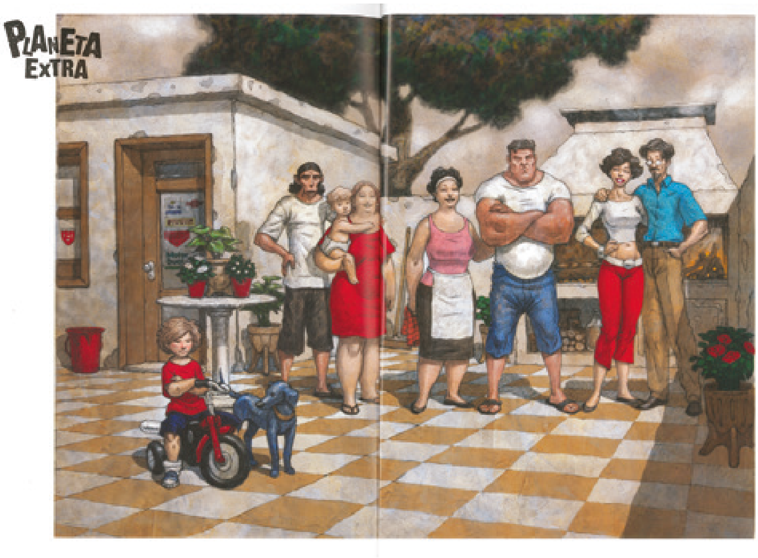


Fig. 1.4 The final 'curtain call' emphasizes the use of theatrical techniques in *Planeta Extra* (Diego Agrimbau and Gabriel Ippóliti)

'soltá, pelotudo' (let go, you jerk) becomes the rather more prim 'suéltate, idiota'.

If elite Argentine theatre of the time was largely derivative of European models, the *sainete criollo* is often considered a more convincingly national genre. Indeed, Osvaldo Pellettieri identifies it as 'el origen mismo de nuestro teatro nacional a nivel actoral y autoral' (the very origin of our national theatre, with regard to both actors and playwrights).[15] *Planeta Extra* very much inscribes itself within this search for a national, popular form as an alternative to European culture and its dominant discourses. It finds in an articulation of the national-popular a way to contest the liberal, universalist, cosmopolitan foundations of humanism. We may understand its debt to *criollo* theatre as part of a broader engagement with the kind of popular traditions and thought explored by the Argentine anthropologist and philosopher Rodolfo Kusch in *América profunda* (1962), *De la mala vida porteña* (1966) and *El pensamiento indígena y popular en América* (1971). A brief exploration of these connections will allow us to grasp something of why these graphic novels differ – both ideologically and aesthetically – in their treatment of technology and the posthuman when compared with others presented in later sections of this study.

Planeta Extra dramatizes the contrast between *ser alguien* and *estar nomás* that for Kusch divides Western thought from indigenous thought in Latin America, strands of which he also found to be present in the popular thought of working-class and lower-middle-class Buenos Aires. *Ser alguien* (to be someone) is inextricably linked with Western and capitalist notions of being successful and making one's mark. *Estar nomás* is a negation of such thought and a desire simply to exist, in a place, without striving to impose oneself on the world or taking part in the Western colonialist-capitalist enterprise. For Kusch, 'El mercader y el ser se hallan íntimamente ligados' (the merchant and 'being' are intimately bound up together),[16] as 'being' in this sense means entering the capitalist market. These contradictory notions of being are enacted in the conflict that is central to *Planeta Extra*, as Brenda and her slippery fiancé Pilo are consumed by the desire to 'irse para arriba' (to move on upwards): literally, in this case, via a space rocket to another planet where they hope to enjoy financial success and more material comforts. Brenda's father and Pilo's brother-in-law, on the other hand, are amusingly inept when it comes to the skill of making money, and have no interest in social or economic advancement, muddling through with their family business on the undeveloped margins of an expanding human empire. *Planeta Extra* narrates the disengagement of popular sectors from the colonialist-capitalist venture, although even Quique capitulates at the end of the novel, when an unexpected windfall allows him to buy tickets for the whole family to move to Luna Europa.

As Kusch puts it, *ser* is linked with values of 'poseer' and 'dominar' (to possess and to dominate);[17] in Walter Mignolo's account, *estar* is, by contrast,

> a negation of imperial and colonial designs of modernity to transform the world into 'being some one,' being successful, being developed, being civilized as the only way to conceive life and to live life. The idea of 'success,' of 'progress and development' are all ideological constructs by subjects for whom life is guided by the will to power and control.[18]

At the heart of this dichotomy lies an opposing conception of human agency with respect to the world. In contrast to the subject of indigenous thought in America – whose response to the impact of the world is one of contemplation – Kusch finds that Western culture defines a subject who has an impact *on* the world and modifies it. This is epitomized in two ways: in the invasion of this world and in the creation of a new one.[19]

The construction of a new human civilization on Luna Europa in *Planeta Extra* strongly echoes Kusch's understanding of urban development as a means of combating the fear of nature that both cultures share, but to which they respond differently. While indigenous thought casts us as victims of the world, Western thought isolates us from it through the creation of another world, 'integrado por maquinarias y objetos, que se superpone a la naturaleza' (composed of machinery and objects, which is superimposed on nature).[20] Interestingly, Kusch also draws on images of interplanetary colonization to expose Western attempts to keep this fear at bay. Our invasion of space with tools and objects 'encierra el deseo de convertir el mundo en un patio de objetos, como es el caso de los cohetes interplanetarios. El universo es, entonces, el patio familiar, donde pondremos los satélites como quien pone los muebles' (harbours the desire to convert the world into a backyard filled with objects, as in the case of interplanetary rockets. The universe is, then, the family backyard, where we position satellites as if we were arranging furniture).

It is this hubris, the overweening belief of Western culture in its ability and its right to dominate the universe through the expansion of capitalist modernity, which Agrimbau and Ippóliti seek to challenge in *Planeta Extra* and *La burbuja de Bertold*. It is vital in the articulation of this critique that the humans depicted remain physically and ideologically separate from the objects that surround them, as these – as for Kusch – are instruments of our colonizing desires. Agrimbau and Ippóliti reject a future in which humans will become ever more indistinct from the technologies they create. They prefer instead to insist (like Kusch) that these technologies are intended to replace nature and to create a simulated world,[21] adopted with bad faith and with the aim of controlling our primal fear of the unpredictability of nature and our vulnerability to its extremes.

This view is at odds with the one advanced by a number of the other graphic novelists discussed in this book, who deliberately collapse distinctions between technology and nature, and dissolve the boundaries between the human subject and his/her environment in their exploration of object-centred ontologies. Agrimbau's work is thus best described as antihumanist rather than posthumanist, in line with the distinction drawn by Rosi Braidotti.[22] While it exposes the destructive dynamic by which Western modernity seeks to dominate and transform the world, it neither imagines a different, more technologically mediated form of human existence nor seeks to reposition human agency within a radically post-anthropocentric vision that would distribute agency across a wide field of human and non-human actors. The close association it establishes between technology, capitalism and forces of authoritarian control necessarily leads to a technodystopian vision in which the task becomes one of shoring up and shielding the human from that which poses a threat to it. This vision leaves little room for those immanent ontologies and distributed agencies that break down the distinction between humans and non-humans.

Biopolitics, the inhuman and the resurgence of humanism

This capitalism-technology-control nexus underpins the greater part of recent Argentine and Uruguayan graphic fiction dealing with themes of technology and/or the posthuman. In their suspicion of biopolitics and its increasing regulation of individual and social life, many of these texts end up reasserting humanist values such as human rights and freedom, elevating what is essentially human and should not be subject to control. Humanist views have acquired a particular edge in debates concerning biotechnology in recent decades. Francis Fukuyama's *Our Posthuman Future: Consequences of the Biotechnology Revolution* (2002) issues dire warnings about the potential repercussions of genetic exploration. He argues for the existence of a distinctive human nature that would provide an indispensable basis for notions of equality and human rights.

Reparador de sueños (Matías Santellán and Pablo Guillermo Serafín, Argentina, 2012) exemplifies this critique of the use of technology in forms of biopolitical control, with the aim of reaffirming human values in a posthuman world. The inhabitants of Polenia, a fictional city of the future, are manipulated by the regime's close control of their dreams. Each night, in their home-cells, citizens connect up to a 'dream-motor'. Their dreams are monitored and censored by the government before being retransmitted back to them, with all natural dreams forbidden. The state's rulers exhort their citizens to celebrate these new technological advances that allow them to attain new heights of happiness and well-being. The fact that these are based, as one of the rulers proudly announces, 'en la pureza de la geometría y en la solidez imponente del acero mecánico' (on the purity of geometry and of the solidity of mechanical steel) immediately alerts the reader to the operation of a Romantic rhetoric (common in science fiction). This will pit the quintessentially human – dreams, spontaneity, the inner life, passions, the sensual, the inexact and the imperfect – against the ordered precision and objectivity of machine-driven life and the merciless biopolitical power of a regime that seizes upon new forms of prosthetics as a means of greater social control. This ode to humanity permeates Serafín's informal and very human sketches of tousled hair, voluptuous figures, wrinkled faces and slouching jeans, which are set into relief by the cityscape's steely and geometrical structures.

It is also sustained by the unusually poetic, lyrical quality of Santellán's script, which – again, in a Romantic vein – points to art's expressiveness and its commitment to the human cause. J. Andrew Brown highlights the reaffirmation of the humanist subject that takes place in the work of a number of mid-twentieth-century Latin American writers. He presents the cases of Ernesto Sábato, whose censure of mechanization aligns perfectly with a Marxist critique of the dehumanizing forces of Fordist capitalism, and Julio

Cortázar, whose *Rayuela* opposes cybernetics, rationality and determinism on the one hand with literary and artistic experimentalism on the other.[23] As Brown argues, in the context of a dehumanizing society, 'la respuesta, tanto para Sábato como para Cortázar es el humanismo, especificamente un cierto tipo de humanismo literario donde las letras proveen la base para una re-humanizacion del cuerpo humano' (the response, both for Sabato and for Cortázar, is humanism, specifically a kind of literary humanism in which literature provides the basis for a rehumanization of the human body).[24] The role of art in *Reparador de sueños* – as in *La burbuja de Bertold* and *Planeta Extra* – becomes a rehumanizing one in much the same way. Again, this contrasts strongly with the role that art, literature and forms of mediatized culture play in the other graphic novels discussed later in this book, in which art ushers in the posthuman, transposing us, as Braidotti argues, 'beyond the confines of bound identities' and connecting us to the non-human, 'the animal, the vegetable, earthy and planetary forces that surround us' (see, for example, Chapter 6).[25]

Dengue (Rodolfo Santullo and Matías Bergara, 2012) is an unusual foray into the science fiction genre within a new wave of graphic novels from Uruguay, which have more often focused on historical themes. Although it also launches a vigorous attack on the complicitous relationships between the state, scientific advance, development and capitalism, it does open up a possible space for thinking about the posthuman in a way that unseats the human, firstly from its position as dominant species, and secondly from its self-appointed role as defender of human(ist) values. The human quickly becomes, instead, associated with the inhuman, in the sense in which Lyotard employs this term.

Set in the near future, *Dengue* rolls out the twin apocalyptic scenarios of ecological disaster and global pandemic. Rising temperatures in the River Plate region have allowed mosquitoes to breed out of control, leading to an outbreak of mosquito-borne dengue fever in the city of Montevideo. Those unfortunate enough to be infected three times undergo a process of mutation and join a growing army of ghastly human-mosquito hybrids (see Fig. 1.5). We discover that the Institute of Epidemiology has had the means of curing dengue right from the start of the epidemic but has kept it secret as there is far too much profit to be made from selling insecticides, air purifiers and mosquito protection suits and the Institute is funded by companies who retail such items. Science becomes a deadly tool in the hands of those who wish to maintain the economic and social status quo. The lurid colours of Bergara's artwork heighten the horror: we recoil from the infernal, infested yellow skies that evoke heat and disease, as well as from the chilling blues and sinister purples used to render the underworld of the defenceless poor.

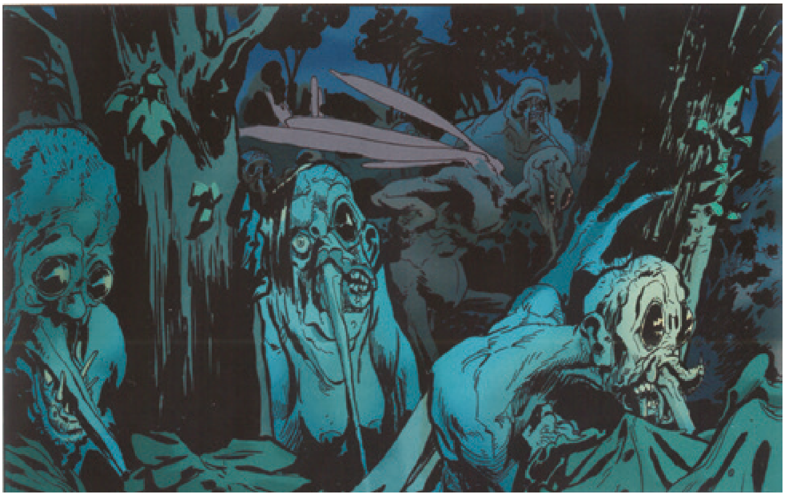


Fig. 1.5 The lurid human-mosquito hybrids of *Dengue* (Rodolfo Santullo and Matías Bergara, ©Humanoids, Inc. Los Angeles; panel detail)

Dengue projects us into a world in which the human species has lost its dominant place within an ecological struggle for survival. As the Institute's Dr Gomensoro explains, 'nuestra sociedad no está preparada para enfrentarlo, pero nuestros días como especie dominante han terminado. Ya no somos los más aptos, los más preparados para vivir en este habitat' (our society is not prepared to face up to it, but our time as the dominant species has ended. We are no longer the fittest or the best prepared to live in this habitat). It becomes clear, however, that humanity's principal enemy is not the mosquito, or even the dengue it carries: the real threat comes from capitalist profiteering, and its dehumanizing effects. Indeed, the human-mosquito hybrids simply want to live in peace with other species, a request their leader is barely able to articulate before being blown up. The reporter is aghast at this turn of events, asking 'Por qué lo han hecho? ¡Eran mosquitos pero todavía eran también hombres! ¡Todavía eran hombres!' (Why did you do it? They were mosquitoes but they were also still men!). The response he receives is telling: 'Por eso mismo' (for exactly that reason). Rather than declaiming the dignity, resilience and ingenuity of its human characters, *Dengue* points to our intolerance of difference and mixture, and finds that humanitarianism is certainly not the sole preserve of humanity.

The spectre of the posthuman thus serves to remind us of our own inhumanity, which for Lyotard is the correlate of development.

Techno-science races ahead towards the goal of ever greater rationalization, by means of the ‘saving of time’ and the elimination of the extraneous, as ‘to go fast is to forget fast, to retain only the information that is useful afterwards’.[26] The kind of rationalization that is essential to the development of the modern techno-state, as both *Dengue* and *Reparador de sueños* demonstrate, leaves no room for that which cannot be homogenized. Lyotard prefers to reserve a place for the ‘unharmonizable’,[27] reminding us that, unlike computers, ‘human thought doesn’t think in a binary mode. It doesn’t work with units of information (bits) but with intuitive, hypothetical configurations’.[28]

Lyotard’s understanding of artificial and human intelligence as antithetical in this way does not stand up to the scrutiny of more recent science. His oddly Romantic rhetoric attempts here to locate in the human the source of difference, and therefore the possibility of resistance to the inhuman ideology of development. Yet, within the same essay, he also describes human beings as technological systems that exchange information with their environment – just like any living organism[29] – gesturing towards the post-anthropocentric perspectives that have arisen from the science of complexity. What emerges most clearly is his commitment to the body as inseparable from thought, rather than being mere hardware for its programming, and its complexity, which he equates with a difference that ‘won’t allow itself to be thought’.[30] This resonates with the emphasis on material embodiment evident in the majority of Latin American graphic novels that treat themes of technology and the posthuman. In the case of *Reparador de sueños*, this is an unruly body whose desires cannot be ordered and controlled by the techno-autocratic state; in *Dengue* it is the hybrid, posthuman body that reminds us of our own inhumanity. In the work of Salvador Sanz, discussed in the next section of this chapter, it is the body whose loss can never be fully accepted by the postbiological humans of the future.

Postbiological transhumanism (and its critics)

The central question that drives Lyotard in the essay quoted above is ‘Can Thought Go On Without a Body?’ It is a question to which transhumanists and extropians would respond with an unequivocal ‘yes’. In their view, the body is merely hardware to the mind’s software, which in the future will be downloadable to another substrate. New technologies will overcome our human limitations, expanding our abilities and eventually guaranteeing human perfection and immortality. Lyotard is not convinced: he argues that real thought is indivisible from the body and perceptual experience. He differentiates between logical thought, which can be mastered by a machine, and analogical thought, which is made up of 'the paradoxical operations that constitute the experience of a body, of an "actual" or phenomenological body in its space-time continuum of sensibility and perception'.[31] Real human thought for Lyotard comes at a 'cost', involving 'suffering', the difficulty of suspending the mind's normal operations and waiting, 'resolving to be irresolute' in its openness to the new.[32] This kind of reflective thought has nothing to do with the data-selecting and data-combining operations of a computer.[33] It involves pain: 'Thinking and suffering overlap' and 'the unthought hurts because we're comfortable in what's already thought'.[34]

Many posthumanists would baulk at Lyotard's rather crude differentiation between human and machinic thought, which has more than a whiff of humanist essentialism about it. But his emphasis on the inseparability of consciousness and embodiment would find a strong echo in some of the theories of critical posthumanists – such as Rosi Braidotti, N. Katherine Hayles, Karen Barad, Neil Badmington and Bruce Clarke – for whom the proposed separation of mind and body in popular (transhumanist) forms of posthumanism reinforces rather than challenges Cartesian dualism. Transhumanist dreams are often harnessed to Platonic visions of *ecstasis* – in which the soul is released from the body – or Romantic idealism. Richard Coyne uses the term 'technoromanticism' to refer to the renewed quest for transcendence initiated by cyberculture, which produces 'a romantic apocalyptic vision of a cybernetic rapture, a new electronically induced return to the unity, an age in which the material world will be transcended by information'.[35] This vision is underpinned by a Cartesian dualism of mind and body, with priority given to mental activity over embodied experience, and abstract and virtual realities over material ones. It therefore enters into direct conflict with more critical versions of posthumanism, which often adopt an extended-mind approach to the body, understanding it as an indivisible part of consciousness, produced as an effect of interactions with our environment.

N. Katherine Hayles defines posthumanism – in its popular, transhumanist form – as a philosophy that 'privileges informational pattern over material substantiation, so that embodiment in a biological substrate is seen as an accident of history rather than an inevitability of life'.[36] Paula Sibilia agrees, arguing that 'El problema es que la informática nació dualista e idealista' (the problem is that information was born dualist and idealist).[37] The information paradigm, applied to human consciousness, leads naturally to a mind-body separation. Alan Turing's foundational work drew a line between human intelligence and embodiment, exploring the possibility that thought – understood as the essence of the human – could be reproduced in machines and therefore detached from the organic body.[38] This has formed the basis for the philosophical projects and cybernetic research conducted by self-declared transhumanists and extropians such as Hans Moravec, Raymond Kurzweil and Max More. As Hayles argues, however, the dream of extracting human consciousness and uploading it onto a computer plays to humanist ideas of transcendence and uniqueness: 'Diminishing human intelligence only to informational pattern, Moravec essentializes the human even as he places it in a context that would profoundly alter what it means to be human'.[39]

Sanz's *Angela Della Morte* (Argentina; two volumes to date, 2011 and 2014) conducts a critical exploration of this dream of dematerialized consciousness, in which the soul survives the death of the body. In Sanz's imagination, this supposed route to human perfection opens the door to untold evils and to an alienation that surpasses any experienced in our own world. The epigraph to the first volume is – fittingly – a citation from Descartes: 'Es evidente que yo, mi alma, por la cual soy lo que soy, es completa y verdaderamente distinta de mi cuerpo, y puede ser o existir sin él' (this 'me', that is to say, the soul by which I am what I am, is entirely distinct from body [. . .] even if body were not, the soul would not cease to be what it is).[40] In Sanz's world, a consciousness has 35 minutes after the death of the body in which it is housed to find a new body: otherwise it ceases to exist. The soul, once released from the body, is able to move through the air 'como una nube desprovista de materia' (like a cloud devoid of matter) until it finds 'un desalmado', a soulless body abandoned by its previous owner, lying ready like a 'traje' (suit) to be worn by the conscience that finds it. So far, so very Cartesian. But most of the narrative of *Angela Della Morte* is actually dedicated to unpicking these premises and to reinforcing the importance of material embodiment in human (and animal) experience.

Angela and the other characters never adjust to their nomadic, body-swapping existence. The errors and discomforts this brings Angela are sometimes trivial, such as walking into the wrong bathroom after a gender-change or finding with annoyance that her new body is fatter than her old one. At other times, however, her exchanged body becomes a cause for more existential disquiet. Angela misses her original body and fears never being able to be reunited with it, a pain she finds worse than the physical kind. Her colleague Cebra, who spends some time in an ape's body, discovers that his soul can now only be transferred to another animal and mourns the loss of his original human body, making regular trips to the depository to visit it. Sanz uncovers the political and ethical dangers that lie in this experimentation, which is not carried out with the aim of improving human experience but as part of a power struggle between two organizations with world-dominating ambitions. The soul-transplantation strategy allows the Sibelius laboratory to infiltrate every part of the world in its search for more money and resources. Members of the organization are steadily being introduced into the desouled bodies of politicians and bankers. Meanwhile, the Fluo government has developed a method to distil human evil into a grey liquid that can be surgically removed from the body and collected in huge tanks, thus converting it into biohazardous matter. In this state it is much more dangerous, as it infects anyone who comes into contact with it; it also infiltrates computers and inflicts grievous chemical damage on Angela's unborn child.

Sanz's finely drawn, greyscale panels, in which action often squeezes out speech and thought, emphasize the vulnerability of the human body in a world of metal hardware and hulking, steel-clad robots (Fig. 1.6). Ironically, of course, the choice of graphic fiction as a

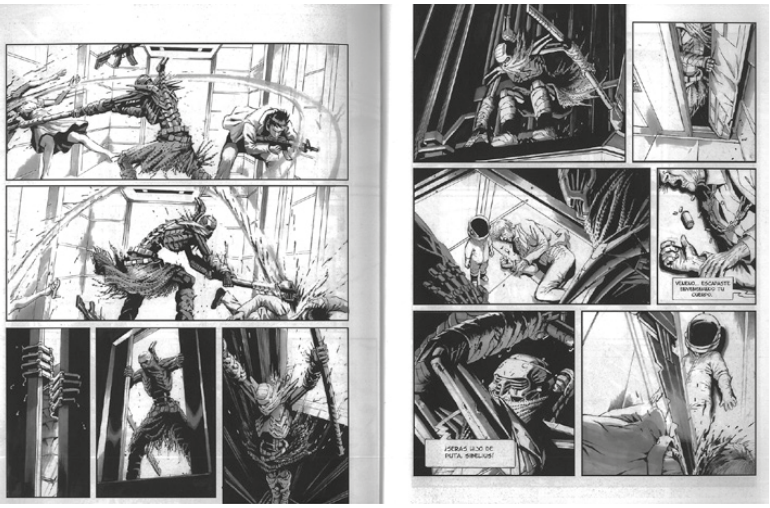

VIEJO... ESCAPASTE ENVENENANDO TU CUERPO.
¡SERAS HIJO DE PUTA, SIBELIUS!

Fig. 1.6 *Angela Della Morte* (Sanz Salvador, vol. 2) emphasizes the vulnerability of the human body in a world of violent automata

medium means that even the soul, that most ineffable of entities which for Descartes entirely transcended the material body, has to be inscribed with material form. Sanz opts for squid-like aquatic forms with trailing, translucent tentacles that leave and enter the body like a whirling funnel of smoke. While envisioning a future world from an apparently transhumanist perspective, *Angela Della Morte* demonstrates the radical uncertainty with respect to boundaries between virtuality and materiality, information and matter, that is characteristic of much cyberfiction and many recent graphic novels. The second volume ends with a reaffirmation of the importance of embodiment and touch: after Angela's many perilous missions and near-escapes, she cannot resist responding to her child's need for his mother's arms, even though she knows that it will probably bring about her death (Fig. 1.7).

The narrative closes, therefore (in the volumes published to date), around a recognition of the biological basis of human experience. The reintroduction of the biological might appear to be a retrograde move in the context of the text's gender politics, undoing the work of many feminist and queer theorists who have emphasized the social construction of gender. However, we should understand the representation of gender in *Angela Della Morte* as part of a broader agenda to reinsert practices of the body in posthuman thought. Its insistence on the materiality of the body also responds to R. W. Connell's call to restore the agency of bodies in social processes, given their frequent erasure from social theory.[41] Human consciousness for Sanz cannot – emotionally or ethically –

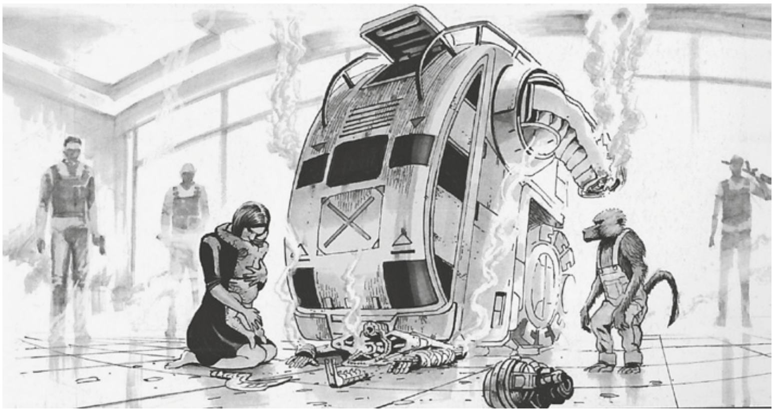


Fig. 1.7 The reaffirmation of human touch and embodiment in *Angela Della Morte* (Sanz Salvador, vol. 2)

be separated from embodiment. In the end, the posthuman scenario of *Angela Della Morte* only reminds us, poignantly, that – in Hayles' words – 'human being is first of all embodied being'.[42] Sanz's project bears a relation to Hayles' own, which sets out to 'show what had to be elided, suppressed, and forgotten to make information lose its body'.[43] As she explains, the erasure of embodiment in cybernetic posthumanism actually furthers the aims of liberal humanism rather than challenging them: 'Only because the body is not identified with the self is it possible to claim for the liberal subject its notorious universality, a claim that depends on erasing markers of bodily difference, including race, sex, and ethnicity'.[44]

Conclusion

The graphic novels discussed in this chapter clearly situate themselves within a tradition of anti-capitalist critique in the *rioplatense* region of Latin America. The experience of dictatorship in the 1970s and 1980s and subsequent economic liberalization from the 1990s onwards may also have contributed to a relative emphasis on the dangers of biopolitical control and the role of technology in furthering both the authoritarian interests of the state and its neoliberal agenda. Technology is presented as a tool of alienation (*Angela Della Morte*), control (*La burbuja de Bertold*, *Reparador de sueños*), heightened social inequality (*Planeta Extra*) and capitalist profit at the expense of human lives (*Dengue*). Yet, for the most part, these texts do not fully align themselves with the technophobia of the (post)humanist scenarios developed within popular (Hollywood) science fiction, which continually reaffirm human uniqueness and superiority, produce dramas entirely resolved by human agency and enforce the boundaries between human and machine. Neither do they, on the other hand, fully embrace the precepts of what Stefan Herbrechter and others have called a 'critical posthumanism', which includes an 'openness to the radical nature of technocultural change'[45] as well as a thorough rejection of an anthropocentric perspective that sees humanity as 'the sole hero of a history of emancipation'.[46]

As a corpus, then, these graphic novels are perhaps best understood as primarily *anti*humanist, which of course is consonant with their overriding concern to denounce the economic, social and environmental exploitation at the heart of capitalist modernity. Although the artwork and page composition in the works explored here might be described as relatively conventional, even classic or nostalgic, we have already seen ways in which the materializing effects of graphic fiction lend themselves particularly well to an embodied vision of posthumanism. This is perhaps clearest in Sanz's critique of postbiological posthumanism and his insistence that the human experience of the posthuman world will be an embodied, rather than (merely) a virtual one. This belief is central to the posthuman vision developed in a significant number of the graphic novels published in recent years across Latin America, as later chapters will argue.

2

Modernity and the (Re)enchantment of the World

Latin American graphic novels abound in sacred, mythical and occult ontologies, combining futuristic visions of high-tech cyborgs with ancient tales of human-animal metamorphs drawn from both Classical and Amerindian traditions. These hybrid figures – automata, cyborgs, golems and mutants of all kinds – dissolve the boundaries of the human, crossing the 'Great Divide' between nature and culture that, for Bruno Latour, results from modernity's attempt to purge itself of such admixtures. By such strategies of 'purification', a rational, scientific modernity sought to sever itself definitively from the pre-modern condition of tradition and superstition.[1] The story of modernity's 'disenchantment of the world', in Max Weber's famous phrase from his 1917 lecture, follows a similar plot, in which 'rationalization and intellectualization' do away with the mysteries and magical powers of an earlier age. Weber's term *Entzauberung* literally means 'the elimination of magic'; this does not mean for him that the world is now entirely known and explained, but that we are on a path of continued progress towards greater understanding, and that 'we can in principle *control everything by means of calculation*'.[2] It is this rationalism that has underpinned the humanist project since the Enlightenment, as well as its arguments for the exceptionality of the human species.

The tale of modernity's disenchantment of the world is one that is being increasingly contested on many fronts. Joshua Landy and Michael T. Saler find Weber's account to be incomplete, arguing that each time religion has withdrawn from spheres of experience, secular forms of re-enchantment – from political myths to spectator sports – have simply stepped in to fill the void that is left.[3] Other scholars have deconstructed the apparent divide between magic and science. Morris Berman traces the close relationship between the two in the sixteenth and seventeenth centuries, and exposes the extent to which the work of Newton – the inventor of the mechanistic universe and the lynchpin of the scientific revolution – was heavily influenced by the occult sciences, notably alchemy and the hermetic tradition.[4] Ioan P. Couliano similarly affirms that magic did not disappear with the advent of quantitative science, but that science has merely taken the place of magic, 'extending its dreams and its goals by means of technology'. As he suggests:

> Electricity, rapid transport, radio and television, the airplane, and the computer have merely carried into effect the promises first formulated by magic, resulting from the supernatural process of the magician: to produce light, to move instantaneously from one point in space to another, to communicate with faraway regions of space, to fly through the air, and to have an infallible memory.[5]

This close relationship between technology and the supernatural is not confined to the esoteric, but is also a hallmark of institutional religion. Contesting the classifications of the modern imagination, in which – as Latour claims – 'technology is nothing but pure instrumental mastery',[6] scholars are increasingly finding that technology is shot through with spiritual and religious meaning. David F. Noble demonstrates the co-evolution of modern technology and Christianity, in particular, to the extent to which 'the technological enterprise has been and remains suffused with religious belief' and remains 'an essentially religious endeavor'.[7] In the context of Christian millenarianism, hugely influential on the founders of modern science, the advance of technology was taken to contribute to the work of the redemption of man and his recovery of prelapsarian perfection.[8] It is this 'ideological wedding of technology and transcendence' that infused technology with eschatology: through technology man was to regain his divine likeness and recover the dominion over nature that, since Eden, he was always destined to have.[9]

Laying to one side the question of whether modernity really does usher in a disenchantment of the world, there is certainly growing evidence of the revival in recent decades of what James William Gibson calls 'a culture of enchantment'.[10] He refers here to a wide range of political movements (such as environmentalism), fields of scholarship (such as animal cognition and culture) and even mass cultural products (more than one Disney film) that reject modernity's reduction of nature to inert matter or mere resource for human enterprise, and reinvest nature instead with spirit, mystery and meaning. Many historians have noted that both magic and the science that arises from it shared a desire to transform and dominate nature,[11] and that both flourished under the mercantilism of the Age of Discovery. As Berman points out, as capitalism gathered force in the second half of the seventeenth century, the idea of 'living matter' became 'economically inconvenient [. . .] if nature is dead, there are no restraints on exploiting it for profit'.[12] The new 'culture of enchantment' emerges in societies searching for models to challenge the modern, capitalist relationship with nature that is effectively one of domination, characterized – in Marx's words – by the 'subjection of Nature's forces to man'.[13] Many of the graphic novels explored in this book belong to this 'culture of enchantment', seeking to restore to nature some of the mystery and autonomy it has lost and to imagine, as Gibson phrases it, 'a new covenant between people, land, and creatures'.[14]

The question of the relationships between technology, science and magic acquires a particular resonance in the Latin American context. In many parts of the region, science and spiritualism advanced their causes in an unusually intense symbiosis during the last decades of the nineteenth century and first decades of the twentieth. Auguste Comte's positivism provided the basis for a secular 'Religion of Humanity' with a strong following in Brazil, with Rio de Janeiro becoming the site of the first 'Temple of Humanity', founded in 1881. The teachings of the French spiritist Allan Kardec were enthusiastically taken up in Brazil and the Caribbean, among other parts of the region, resonating as they did with traditional indigenous and African beliefs. Positivist science in Argentina gained influence in the popular imagination alongside the spread of occult sciences, both circulating new discoveries and methods in the same media. The fantastical fictions of Leopoldo Lugones and Eduardo Ladislao Holmberg (the nation's chief proponent of Darwinism) bear witness to the syncretism that united science and spiritism in the feverish *fin de siècle* pursuit of knowledge.

Erik Davis, whose book *Techgnosis* sets out to study 'the mystical impulses that continue to spark and sustain the Western world's obsession with technology',[15] suggests that 'We have some important stories to tell about the way that modern technologies have become mixed up with other times, other places, other paradigms'.[16] These stories form the basis of a critique of modernity's exclusions of the irrational and the occult and therefore a contestation of the humanist narrative according to which scientific rationalism overcame superstition and magic to confirm itself as the proper path to knowledge of the universe. Science fiction's non-linear temporalities become an important tool in challenging modernity's invention of time 'as an irreversible arrow, as capitalization, as progress' (Latour)[17] and its determination to abolish the past behind it as archaic.

E-Dem: La conspiración de la vida eterna (Chile, 2012), written and illustrated by Cristián Montes Lynch, deconstructs the rationalist premise of Western technological modernity. The narrative insists that science and technology have always been, and remain, closely imbricated with religion and mythology. It explores how sinister collaborations between religion, technology, rationalism, phallocentrism and state violence have arisen from Platonism and Christianity in Western thought, which have posited an estrangement between the imprisonment of our embodied existence in the natural world and our spiritual escape towards the divine. This critique of modernity's exclusions and its narratives of disenchantment is extended in another two graphic novels, *Las playas del otro mundo* (Cristián Barros and Demetrio Babul, Chile, 2009) and *Los perros salvajes* (Edgar Clement, Mexico, 2011–), to focus specifically on modernity's construction of the indigenous other as primitive and pre-modern. Simultaneously, these texts flaunt the particular capacity of graphic fiction to forge connections between apparently divergent temporalities, ontologies and epistemologies, drawing on techniques of visual analogy and remediation to deconstruct, recombine and refunction ancient myths for a cybernetic age.

Spirituality, technology and transcendence in *E-Dem*

E-Dem is one of Chile's most spectacular contributions to the contemporary graphic novel. With a palette of warm ochre and soft blues, the book's lavish world-design, its preference for full-page panels and the eroticism of its images produce an immersive experience of great visual pleasure.[18] *E-Dem*'s complex and richly allusive narrative may be read as a reflection on the human desire for transcendence and the sinister collaborations it has engendered between religion, technology, rationalism and state violence. While adopting a critical perspective on the continued role of pre-modern mysticism in promoting technologies of control, *E-Dem* subscribes to an alternative, more contemporary form of gnosis. This is very similar to that outlined by Davis, in which enlightenment comes with the embrace of annihilation and a oneness with the universe, rather than any form of transcendence or individual perfection.

E-Dem intertwines three narratives harnessed to different ontologies, encouraging the reader to wonder whether the one we take to be 'real' may be simply an illusion and to suspect that the connections between the three may point to a malevolent conspiracy of planetary proportions. Like *The Matrix* (The Wachowskis, 1999) and its sequels, *E-Dem* may easily be read as a contemporary adaptation of Plato's Theory of Forms, according to which abstract ideas constitute a higher reality than the material world accessible to the senses. Montes Lynch's use of biblical language neatly divides body from soul and charts the destiny of man to ascend from earth to the heavenly realms, shaking loose the shackles of material form and becoming perfected in spirit. The text quickly begins to destabilize this discourse, however, and to question its co-option by powers of an all-too-worldly nature.

The narrative initially relates the awakening to consciousness of a half-human, half-tree form whose torso/trunk remains embedded in the earth. The narrator explains that humanity's destiny is to be born of the earth but to reach up to the sun and the universe beyond, making a journey from instinct to reason, and from reason to the spirit. The human chosen by the Fertilized Angel is wrenched with great pain from the earth so that the first stage of his germination can take place. He becomes the Angel's partner in a passionate choreography that conditions him for spiritual transformation and the growth of his wings. The separation of text and image in this sequence (see Fig. 2.1) lends greater poetic force to both. The text attains the gravity of myth, presented in sober capitals and located in a timeless, boundless space beyond the panels. The image sequences – often unencumbered by the incursion of text bubbles or captions – immerse us in the pure sensuality of graceful movement, as the Angel and her new apprentice soar and whirl through the air, enfolding each other in exquisite embraces.

This first narrative invokes Plato's Chariot Allegory, bearing witness to the soul's yearning to (re)gain wings and soar to divine heights, where there is beauty and wisdom. In Plato's myth, it is Reason that directs the soul's ascent while lustful appetite knocks it off course. The chosen man in *E-Dem* certainly has to learn to control his desire to consummate his celestial courtship with the Fertilized Angel, but in a crucial twist to Plato's original, it is not base appetite but Reason that nourishes fantasies of sexual possession and domination. When we return to this narrative, we are told that 'Surge la razón y con ella, la necesidad de explorar, conocer, entender, dominar la tierra y poseer la carne' (Reason springs forth, and with it the need to explore, know,

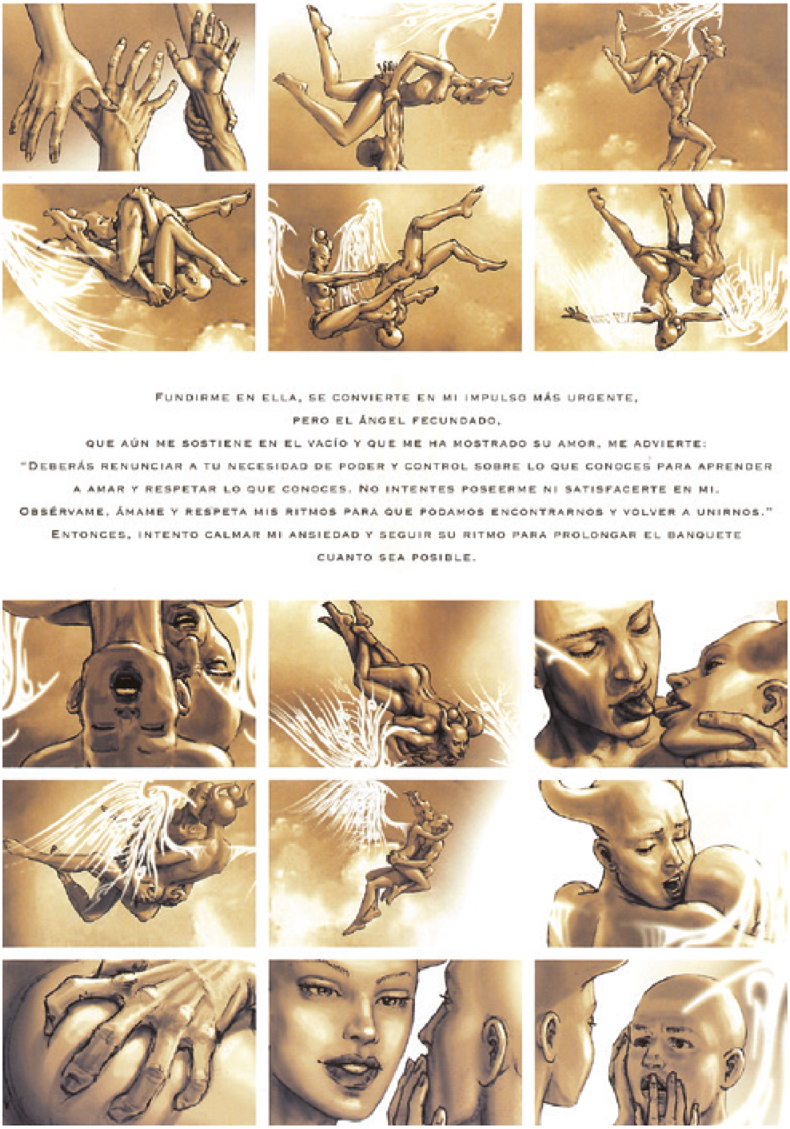

FUNDIRME EN ELLA, SE CONVIERTE EN MI IMPULSO MÁS URGENTE,
PERO EL ÁNGEL FECUNDADO,
QUE AÚN ME SOSTIENE EN EL VACÍO Y QUE ME HA MOSTRADO SU AMOR, ME ADVIERTE:
"DEBERÁS RENUNCIAR A TU NECESIDAD DE PODER Y CONTROL SOBRE LO QUE CONOCES PARA APRENDER
A AMAR Y RESPETAR LO QUE CONOCES. NO INTENTES POSEERME NI SATISFACERTE EN MI.
OBSÉRVAME, ÁMAME Y RESPETA MIS RITMOS PARA QUE PODAMOS ENCONTRARNOS Y VOLVER A UNIRNOS."
ENTONCES, INTENTO CALMAR MI ANSIEDAD Y SEGUIR SU RITMO PARA PROLONGAR EL BANQUETE
CUANTO SEA POSIBLE.

Fig. 2.1 The sensuous choreography of *E-Dem: La conspiración de la vida eterna* (Cristián Montes Lynch)

understand, dominate the earth and possess other flesh). The other two narratives that comprise *E-Dem* develop these relationships between rational knowledge, sexual domination and a politics of exclusion and explore how technology advances their common aims.

The overtly gendered bodies of *E-Dem* clearly reference the historical intersection of political and sexual violence under Pinochet's dictatorship. The regime's victims were often subjected to methods of torture that involved rape or the application of an electrical charge to the genitals, as shown in another of *E-Dem*'s narratives. By contrast, these graceful scenes of choreography, in which the male human and female angel spin euphorically through the air, announce a more egalitarian form of union that is not based on a quest for knowledge or power. Significantly, this union is not mediated by technology, which is inextricably bound up with the exercise of domination in *E-Dem*. While sexual difference is strongly marked in earlier sequences – the muscled torso of the male contrasting with the softer contours of the female – in the later sequence the bodies become almost indistinguishable at points, with the man's facial features noticeably feminized.

We leave the chosen man gyrating in the air with the Fertilized Angel to pick up the second story, in which a university professor, José Luis Ortega, is arrested and tortured under Pinochet's regime. Our sudden insertion within a specific time and place is reinforced by the introduction of photographs within some of the panels – La Moneda under fire, for example, in the 1973 coup – and the use of a more conventional speech-bubble and caption format (see Fig. 2.2). These first two narratives are explicitly brought together in a symmetrical four-panel square, visually equating the pain of an electric cattle-prod being applied to Ortega's genitals with the uprooting of the chosen man we witnessed earlier (see Fig. 2.3). This visual match emphasizes the extent to which the Christian discourse of debt and redemption governing the first narrative seeps, in a most sinister way, into the torture chamber. Ortega accepts his pain as a punishment for the forbidden relationship he has been pursuing with his niece. Instead of a torturer inflicting pain on his victim, therefore, he casts his persecutor as a priest purifying the transgressor. He welcomes his suffering as a necessary expiation for the sin of incest. Ortega therefore submits to torture as a form of moral correction instead of an act of political violence and a criminal abuse of power.

This pernicious collusion between religion, technology and political repression extends into the third, futuristic, narrative of *E-Dem*. Ortega is transformed into an Inquisitor Angel in a future world in which a secret police force is battling against the resistance of Vamps. Again, the narrative of purification and salvation underpins a regime of exclusion and violence. Held high by golden antennae in the Temple of the

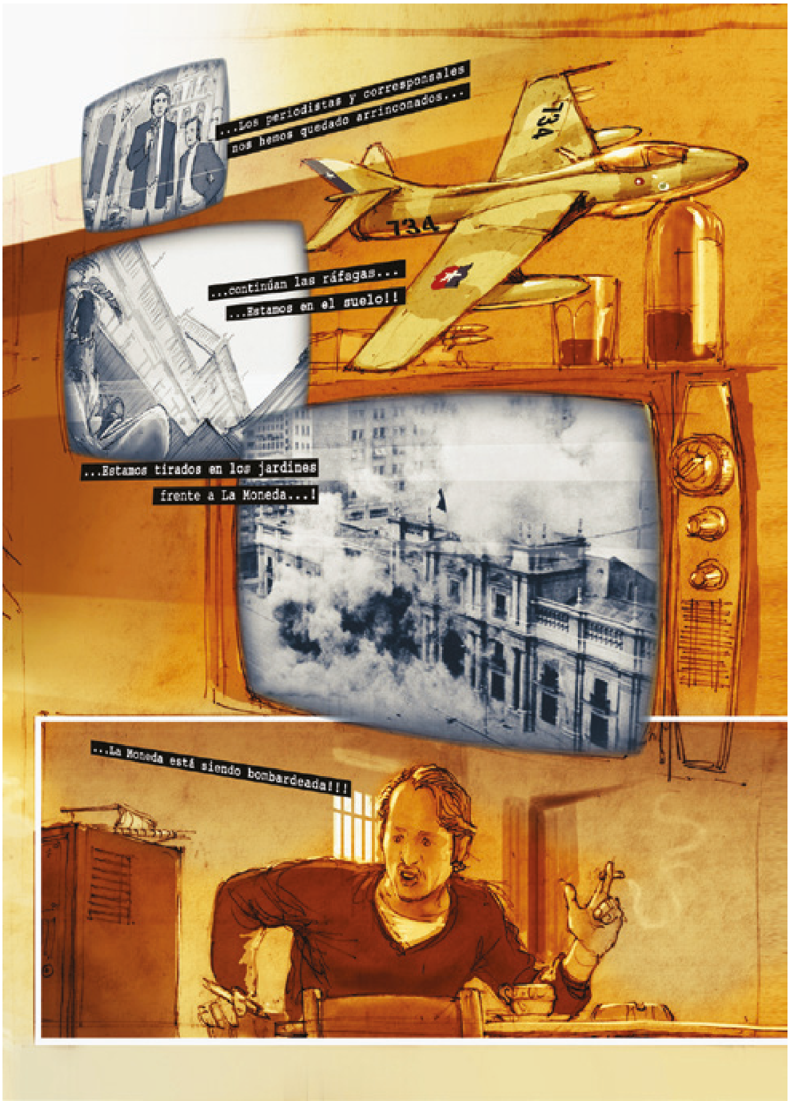

...Los periodistas y corresponsales
nos hemos quedado arrinconados...
734
734
...continúan las ráfagas...
...Estamos en el suelo!!
...Estamos tirados en los jardines
frente a La Moneda...!
...La Moneda está siendo bombardeada!!!

Fig. 2.2 Photographic images from the 1973 coup add a historical realist dimension to *E-Dem: La conspiración de la vida eterna* (Cristián Montes Lynch)

Order of the Knights of Redemption, as if suspended on a cross, Ortega meditates on the destiny of humankind:

> El hombre está llamado a convertirse en ángel.
> En su evolución hacia la luz,

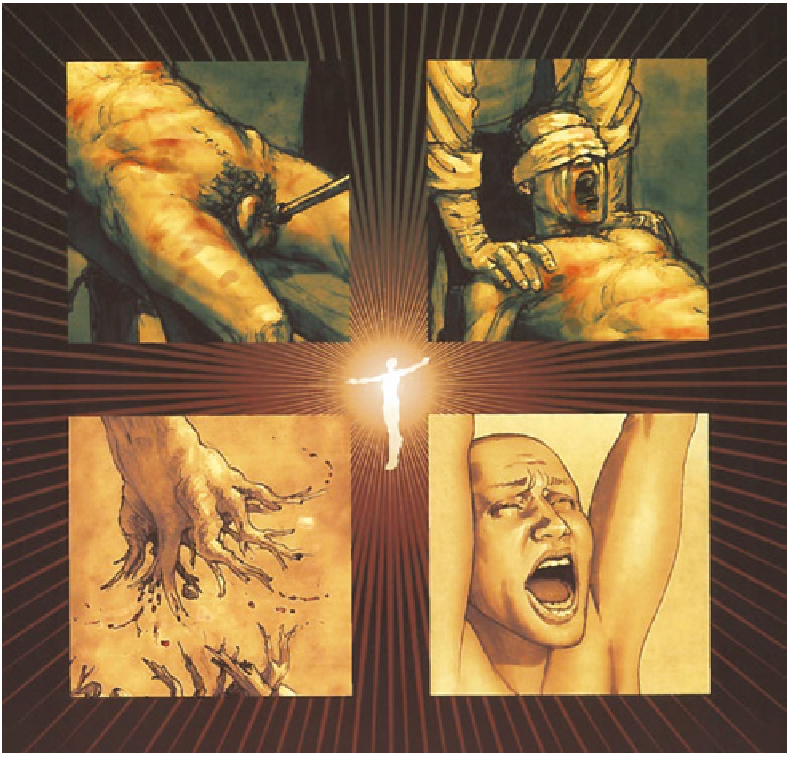


Fig. 2.3 Parallels between the narrative of redemption and the torture chamber in *E-Dem: La conspiración de la vida eterna* (Cristián Montes Lynch; page detail)

> cultivará sus propias alas para volar
> libre de la prisión de la carne.
> Somos ángeles llamados a llevar luz a la oscuridad.
>
> (Man is called to transform himself into an angel.
> In his evolution towards the light,
> he will grow his own wings to fly
> free from the prison of flesh.
> We are angels called to bring light into the darkness.)

This ‘freedom from the prison of flesh’, this desire for transcendence, is no innocent exercise of personal devotion. ‘¡Fuego a los impuros!!!’ (Open fire on the impure!!!) resounds the battle cry as the winged Angels swoop down from the Temple on their mission, assuming their self-appointed role as moral guardians and exterminators of reprobates.

Ortega's task is to rescue another Angel, Cénichil, who has been captured, drugged and sucked dry by a voluptuous Vamp. This futuristic narrative also finally folds back into the torture scene as another set of matched panels, adopting the same perspective and layout, draw a visual parallel between Ortega, held down and subjected to the cattle-prod, and Cénichil, lying on an operating table as he is reprogrammed. The figure of Ortega is replaced with Cénichil in a way that suggests the merging of their destinies and the circularity of the dynamics of domination, in which one tortured man becomes the pursuer of another. The identity-switch also draws attention to the continued operation of the rhetoric of redemption to justify the repression of political dissidence.

In *E-Dem*'s saturation in Christian binarisms of spirit and flesh, purity and impurity, sin and redemption lies a clear allusion to the Pinochet regime's claim to defend Christian values against the threat of Marxist socialism. The *Declaración de Principios del Gobierno de Chile*, for example, published a few months after the coup (in March 1974), denounced Marxism as a subversion of the morals and values of Chile's Christian heritage.[19] The relationship between Catholicism and totalitarian conspiracy is further suggested in *E-Dem* by the omnipresence of arcane symbols, pointing to a vast and secret order at work. Many of these combine visual echoes of the crucifix, the cattle-prod, the phallus and the swastika, revealing the disturbing imbrication of forces of domination of a religious, sexual and political nature. However, *E-Dem* moves beyond a political critique of Chile's dictatorship to present a philosophical argument concerning the relationship between rationalism and tyranny, and to exhort its readers to discover a new way of engaging with the world that is not based on ideas of transcendence and domination.

The Angel warns the chosen man that 'Deberás renunciar a tu necesidad de poder y control sobre lo que conoces para aprender a amar y respetar lo que conoces. No intentes poseerme ni satisfacerte en mí' (You must renounce your need for power and control over what you know in order to learn to love and respect what you know. Do not try to possess me or satisfy yourself in me). It is Reason that has robbed him of his profound integration with the rest of the universe, and only love, we are told, may help him recuperate it. As he first becomes conscious of the possibility of his own death, the chosen man learns the word 'I'. The revelation he receives at the end, however, is that it is his fear of death, of human finitude, that gives power to kings and bishops to save him or condemn him. Instead, taken to the edge of annihilation, he discovers that 'soy parte de un todo infinito en el que la muerte ya no existe y dejo de temer' (I am part of an infinite whole in which death no longer exists and I stop being afraid). He understands that his salvation is to be found in the acceptance of change, and that liberty means to be free of ideologies, leaders and religions. Montes Lynch articulates a powerful post-Romantic vision in which human individualism and a knowledge of finitude are replaced with a more affective engagement with the world, which does not seek to know it in a rational sense, or to subjugate it.

The crucial role of technology in forms of political control and domination is announced in many ways in *E-Dem*. In particular it is established via visual matches between the cattle-prod of the torture chamber and the high-tech harpoons, stun-guns and reprogramming devices of the futuristic narrative. It is also suggested by Montes Lynch's use of a videogame aesthetic in the first and third narratives. The architecture of the third in particular recalls the complex, synthetic worlds created in role-playing games such as *Myst* or *Riven*, and the use of perspective often mimics the typical combination of elevated establishing shots, extreme close-ups and hypermobile perspectives to be found in role-playing games (see Fig. 2.4). A powerful and immersive 3D effect is created by employing the rich colour and detail of computer-generated imagery, as well as a cinematic use of deep focus, very rare in graphic fiction (also evident in Fig. 2.4). *E-Dem*'s recourse to sexualized and pornographic images is also a common feature of videogames, of course, and the busty, semi-clad Vamp brings to mind *Tomb Raider*'s controversially proportioned Lara Croft. In some panels, Montes Lynch even imitates the videogame's frequent overlaying of dials and gauges to measure fuel usage or time remaining or menus from which alternative weapons or transportation may be chosen (see Fig. 2.5).

What distinguishes the videogame narrative from more traditional narratives, as Michael Jindra reminds us, is the extent to which power and control become defining features, facilitated by advanced technology.[20] Paradoxically, as Jindra observes, it is also this technology that allows gamers to enter pre-modern worlds of magic and myth, in which control was sought, not by means of technology, but through ritual and witchcraft. *E-Dem* gestures towards exactly these continuities in its use of contemporary game styles to narrate a story of angels, inquisitors and mystical orders. Like many other recent science fiction or fantasy graphic novels, it uncovers the origins of technology in magic and esoteric beliefs and practices, and of all of these in human dreams of mastery and self-perfection. Technology in *E-Dem* is bound up with human dreams of transcendence and salvation, much in the way that it has been, for Noble, in Christian philosophy and theology since the Middle Ages.[21] In the context of the intensely millenarian spirit of the

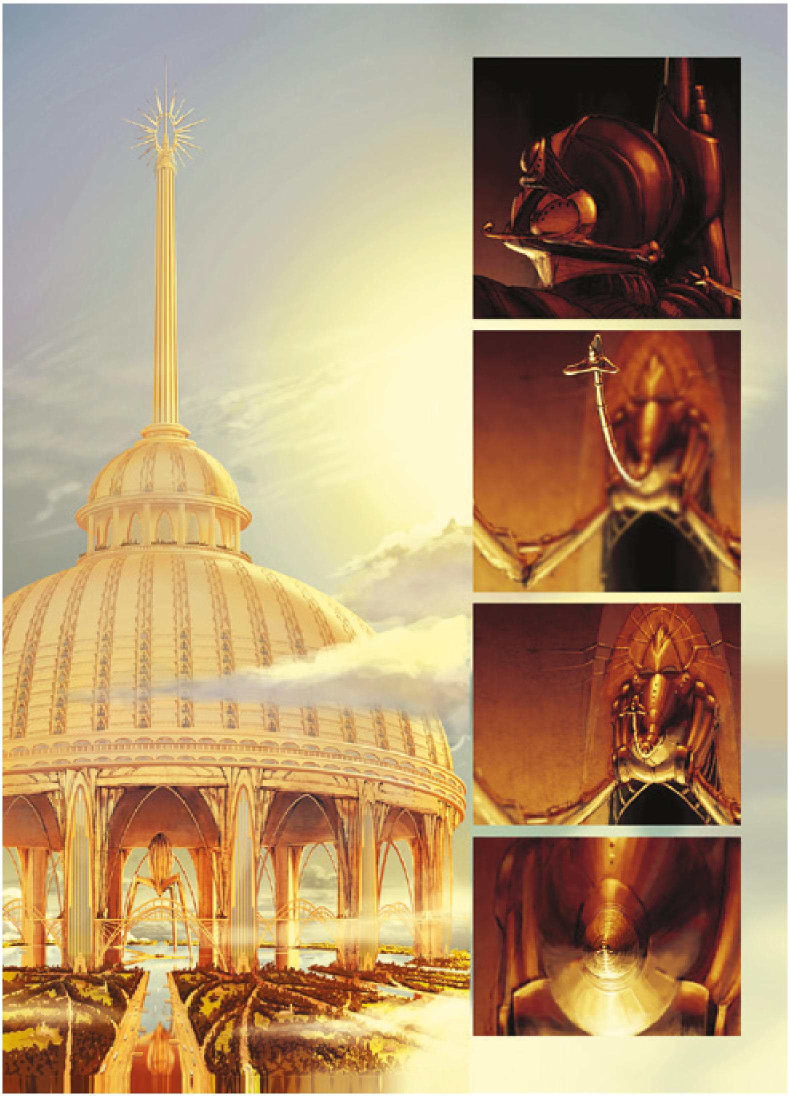


Fig. 2.4 The rich, immersive worlds of *E-Dem: La conspiración de la vida eterna* often draw on videogame aesthetics (Cristián Montes Lynch)

Reformation, technological advance appeared to reinstall Man to his prelapsarian dominion over Nature and thus to his lost state of perfection and God-likeness.[22]

E-Dem thus deconstructs the relationships that bind spirituality, technology and dreams of human transcendence and dominion, as

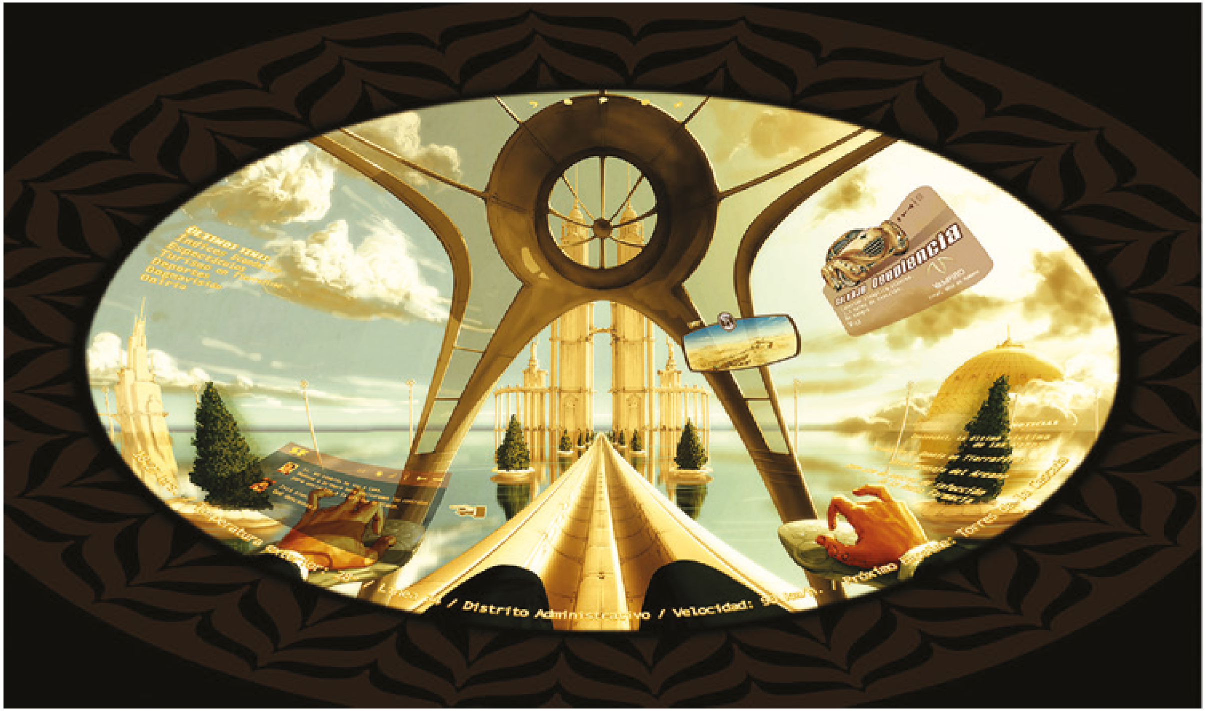

Espectáculos
Turismo
Deportes
Temperatura
/ Distrito Administrativo / Velocidad:
Próximo
Torres

Fig. 2.5 The use of videogame-style overlays in *E-Dem: La conspiración de la vida eterna* (Cristián Montes Lynch)

well as delivering a critique of rationalism and exclusionary politics. However, the spiritual remains central to its alternative vision of the universe. If, as Davis argues, for the ancient gnostics ‘the cosmic prison was the *material world*, the world of flesh and fate’, in today’s ‘Matrix model’ of gnosticism,

> the false world has become the *world of mediation*, its rulers or archons are not carnal demons but captains of propaganda and brainwashing. In this new vision, spiritual awakening does not catapult you into an incorporeal heaven but plugs you back into the actual, physical world [. . .]. The core of our new gnosis, I believe, is the earth, in all its limitations and extraordinary fecund power.[23]

E-Dem ascribes to this new ‘gnosis’, calling humans to a full and affective reintegration with the world from which rationalism and dreams of transcendence had separated them. It outlines a new ethical imperative for humans to relate differently to the natural and technological world of which they are part, laying aside a desire for transcendence and domination and embracing instead a vision of immanence and integration. The attention to embodied experience that is evident in Montes Lynch’s exquisitely drawn figures – infused with light and movement – also announces this new gnosis as one that is rooted in the material, and in fusion with other bodies and the surrounding world, rather than in any kind of virtual abstraction. However, this fusion is imagined only in the mythical sequences of the text, removed from a specific location in time and space. *E-Dem* thus implicitly acknowledges the extent to which we remain trapped in systems of domination that are perpetuated by technologies of military violence, such as the surveillance aircraft and the laser guns of the futuristic narrative or the bombs that ushered in Pinochet’s regime and the cattle-prods used against its opponents.

Las playas del otro mundo: Aztec divination and Renaissance magic in imperialist modernity

This longing to return to the earth, and to heal a rift opened up by civilization, is articulated with even more clarity in *Las playas del otro mundo* (Cristián Barros and Demetrio Babul, Chile, 2009). The polytemporal narrative traces relationships between indigenous animism, Renaissance hermeticism and a cybernetic future, and in doing so invents an alternative vision of Western technological modernity that does not radically exclude indigenous thought and practice.

In recent years anthropologists and post-colonial theorists have vigorously challenged an understanding of modernity as superseding the past, together with a corresponding relegation of non-modern beliefs to a previous historical era. Latour observes that ‘The moderns have a peculiar propensity for understanding time that passes as if it were really abolishing the past behind it’, which constructs a linear temporality in which time is ‘an irreversible arrow’.[24] This historicist approach is clear in Weber’s account of the overthrow of superstition by reason: ‘Unlike the savage for whom such forces existed, we need no longer have recourse to magic in order to control the spirits or pray to them. Instead, technology and calculation achieve our ends.’[25] The modern understanding of time renders animism an anachronism, a mere vestige of a pre-modern world that will eventually disappear as society continues inexorably along the path of progress. Drawing on Latour’s deconstruction of the modern nature-culture divide – and extending Johannes Fabian’s famous critique of anthropology’s ‘denial of coevalness’[26] (the act of situating the Other in a ‘primitive’ era, prior to our own) – the recent work of anthropologists such as Eduardo Viveiros de Castro and Philippe Descola has laid the foundation for a new appreciation of indigenous animism and its potential to contribute to the decolonization of thought. This approach does not cast the indigenous in the role of romanticized ‘non-modern Other’ or the object rather than the subject of theory in the manner censured by Juanita Sundberg.[27] Instead, it uses indigenous thought to challenge the hegemonic discourses of modernity that Europe has constructed and to uncover new ways of understanding its relationship with temporality and spirituality.

Las playas del otro mundo contributes to this endeavour by uncovering unexpected or disavowed proximities between Western modernity and indigenous animism in Latin America. The narrative shuttles deliriously between three main loci, separated in time and space. The first is the moment at which Hernán Cortés’s men assault the Great Temple at Tenochtitlan, the Aztec capital, in 1520, murdering the crowds gathered there to celebrate a feast-day. The second takes us to England during Elizabeth I’s reign later that same century, and assembles the cast of mathematicians and magicians who held Renaissance Europe in thrall. The third narrative rockets forward to a future, post-apocalyptic Antarctica that becomes the scene for a new conquest, of the Hollow Earth. All three stories are knit together with myth, magic and ruthless imperial ambition and by the circulation of an Aztec black stone mirror. This is a real historical artefact, one of many Mexica treasures plundered by Hernán Cortés's men and brought to Europe, a highly polished obsidian disc used in temple worship that is now preserved in the British Museum. *Las playas del otro mundo* invents a past for the disc as the divination stone of Xaxán, a priestess and Montezuma's sister, who commits suicide when the temple is overthrown. Her spirit then enters the stone and shapes the destinies of those into whose hands it falls, in a manner consonant with an animist understanding of the transmigratory potential of souls and the animation of inanimate objects.[28] The presence of the disc in the futuristic Antarctic expedition is a product of fiction. However, its travels across Europe in the possession of John Dee, the imperialist visionary of the Elizabethan court, have a clear historical basis, and this strand of the narrative cleaves firmly to what is known about Dee and his occult research.

In their adaptation of Antonio Gil's 2004 novel of the same title, Barros and Babul exploit the powerful resources of graphic fiction in *Las playas del otro mundo* to convey a convergence of different times and spaces, including graphic matching and other forms of visual analogy. Many of these techniques trace continuities between past and future acts of conquest and colonization. When we first see the Spanish invaders disembarking from their galleons, in the vision of Xaxán, a matched cut takes us from left to right page, in which the radiation-suited men of the future search for the entrance to the Hollow Earth (see Fig. 2.6). The central advancing figure lies divided across the book's inner hinge, such that the sixteenth-century conquistador is rendered one and the same with the leader of the Antarctic expedition. The decoration on the doublet sported by the first is playfully updated to form the bolts of the protective metal casing worn by the second. The use of anachronistic terms in the narrative voice also draws attention to the convergence of past and future. As Xaxán continues to narrate her vision, she describes how 'Los extranjeros aprestan sus monturas' (the foreigners prepare their horses); however, these words appear in caption boxes in panels that show us, instead, the explorers of the future riding their snowmobiles.

Other matches also emphasize the persistence of conflict and conquest through the ages, as well as the shared origin of humanity, created by a superior intelligence that emanates from within the planet. As this myth is expounded in boxed captions – eventually leading the humans of the future to search for the Hollow Earth – the posture of an Antarctic explorer whose helmet is connected to his futuristic snow-pod by multiple cables becomes a visual match for the Aztec figure from a temple relief depicted in the previous frame, with his headdress flying out

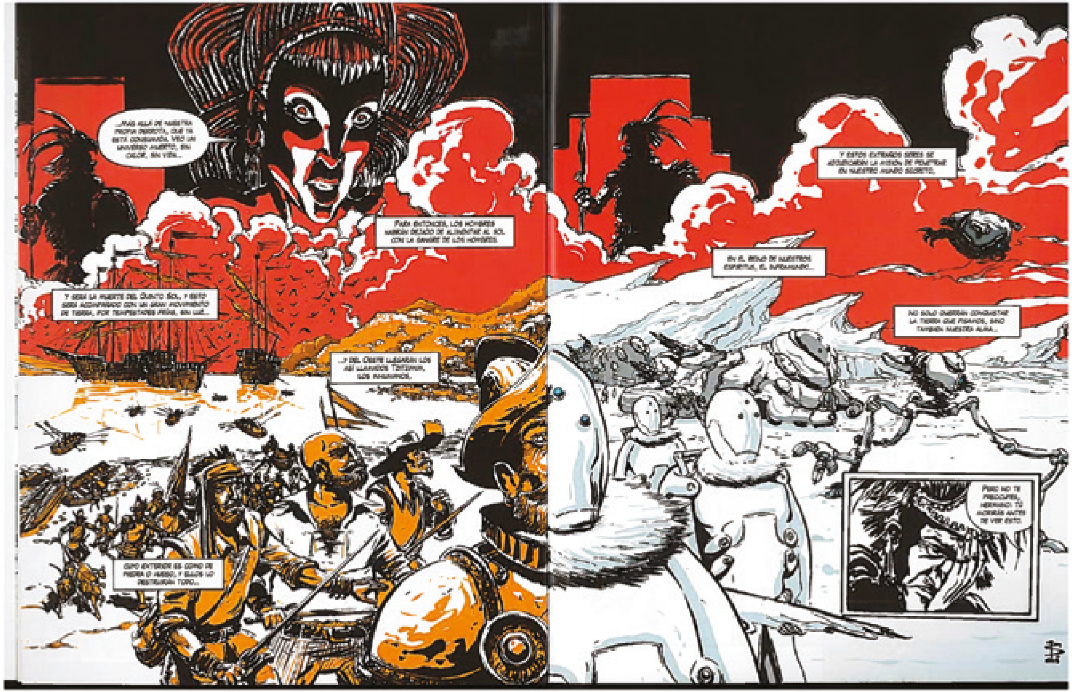


Fig. 2.6 Visual matching traces continuities between past and future acts of colonization in *Las playas del otro mundo* (Cristián Barros and Demetrio Babul)

above him (Fig. 2.7). The stylized outlines and bold colours of painted Aztec reliefs bear a marked similarity, in formal terms, to the two-dimensional, comic-style aesthetic adopted by the graphic novel itself. With its boundless capacity for remediation, graphic fiction possesses an unusual flair to bring into a close relationship two apparently contradictory worlds and systems of representation, establishing a series of convergences that overcome differences in time, space and medium. As we have argued elsewhere, the graphic novel in Latin America has become a space for aesthetic strategies of temporal multiplicity.[29] In his analysis of what he calls 'palimpsestic aesthetics', Robert Stam argues that, because of its capacity for 'weaving together sounds and images' in ways that resist linear narrative, cinema is the ideal medium of 'temporal hybridity' of Brazilian culture.[30] The strategies used in *Las playas del otro mundo* demonstrate a similar potential in the graphic novel form for exploring, not only the echoes of the past in the present, but also the coexistence of conflicting temporalities in contemporary culture.

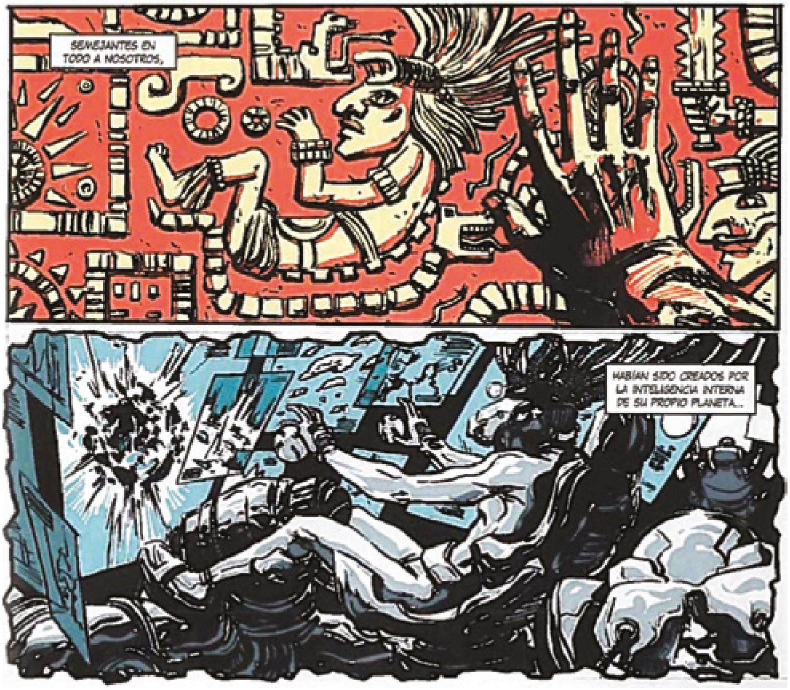

SEMEJANTES EN TODO A NOSOTROS,
HABÍAN SIDO CREADOS POR LA INTELIGENCIA INTERNA DE SU PROPIO PLANETA…

Fig. 2.7 The formal similarities between ancient Aztec reliefs and graphic fiction established in *Las playas del otro mundo* (Cristián Barros and Demetrio Babul)

Las playas del otro mundo underscores in this way the endurance of certain mythemes across time and space. The Hollow Earth theory, central to the imaginary of science fiction novels such as Jules Verne's *Journey to the Centre of the Earth* (1864) and Edgar Rice Burroughs's *At the Earth's Core* (1914), has its roots in ancient myths from many different regions of the world. The Antarctic sequence in *Las playas del otro mundo* is actually a retelling of an Aztec myth that recounts the journey of Quetzalcóatl to Mictlán, the underworld, to restore the human race using the bones of those who had previously died. Further visual analogies also point to the power of Aztec prophecy to read the ages to come. At the beginning of *Las playas del otro mundo*, the indigenous priestess prophesies the death of the universe and the destruction of the Fifth Sun – the current age in Aztec mythology – which will be accompanied by earthquakes and the coming of the 'Tzitzimim' from the west, whose outward appearance is like that of stone or bone. For the Aztec inhabitants of Central Mexico, the 'Tzitzimim' or 'Tzitzimime' were terrifying creatures poised to descend to earth and eat humans, depicted as skeletons.[31] Georges Baudot describes them as 'monstruos del crepúsculo, mujeres nocturnas parecidas a esqueletos humanos' (monsters of the twilight, noctural women resembling human skeletons) who would sweep down to devour humanity at the moment at which colossal earthquakes bring the Fifth Sun to destruction.[32] The myth is refunctioned in *Las playas* and incorporated into a more contemporary science-fiction imaginary. The skirted female skeletons depicted in early colonial codices become the smooth, white, bone-like casings that permit the surviving members of the human race to withstand freezing temperatures and radiation in a future, post-catastrophe world.

Rewriting science fiction according to the codes of Aztec mythology becomes part of a broader rhetorical operation at the heart of *Las playas del otro mundo*. The aim is to write a history of modern technology as one that emerges from practices of divination and magic, rather than replacing superstition with scientific objectivity. Again, this relationship is forged by means of visual analogy, such as the one established between the fortified shelters of the Antarctic base camp and the form of the flying mechanical scarab John Dee acquires from an antiquities shop in London. Such visual echoes emphasize the origin of futuristic technologies in the feverish pursuit of occult knowledge that propelled the advance of modern science in its quest to know and conquer nature. Couliano reminds us in *Eros and Magic in the Renaissance* that, despite their differing methods, both magic and modern technology claim to arrive 'at the same ends', which include 'long-distance communication, rapid transport, interplanetary trips'.[33] Perhaps even their methods are not so different: Latour affirms, for example, that both magic and science deal in 'the transformations of agencies'.[34] The temporal superimpositions of *Las playas del otro mundo* allow us to glimpse the extent to which the myths of our cybernetic age resonate in many ways with those of non-modern societies. The mystical operation by means of which Xaxán's consciousness transfers to the black disc at the point of her death is clearly analogous to the cloning techniques used in the Antarctic sequence, which imagines a postbiological future in which the personality and memory of an individual may be extracted in the form of a liquid and transferred to another body.

Las playas del otro mundo insists in this way on a continuity between animism and cybernetics and more generally between magic and modern science. Renaissance theories of erotic desire – expounded in some detail in the text – unite both magic and scientific knowledge in a search for power, as erotic desire was considered to be a vital tool for the manipulation of individuals and groups in the hands of those who understood its workings. When Dee tells Emperor Rudolf II of Austria that 'la fuente de toda magia se halla en el amor sensual, en las voluptuosidades de la carne' (the source of all magic is to be found in sensual love, in the voluptuousness of the flesh) and that 'Quien gobierne a Eros, gobernará el universo' (whoever governs Eros will govern the universe), he echoes the influential views of the astrologer and philosopher Giordano Bruno (1548–1600), whose theories of Eros and manipulation through magic – as Couliano argues – were 'the direct forerunner of a modern discipline, applied psychosociology'.[35] In *Las playas del otro mundo*, these techniques are perfected by Elizabeth I, whose control of Eros by means of her famed virginity lends her the power to rule the world.

The attraction between individuals was often described in these times with recourse to the metaphor of the magnet. Dee affirms that 'Una gran fuerza atrae y separa las cosas. Los hombres solo pueden llamar a esa fuerza amor o deseo' (a powerful force attracts and separates things. The only name men know for that force is love or desire), speculating that the Earth is a giant magnet, 'un enorme sexo que atrae hacia sí los cuerpos que la rodean' (an enormous sexual organ that attracts towards it the bodies that surround it), and that all creation revolves around that movement of attraction and repulsion. A heliocentric theory of the earth as a giant magnet would be proposed by the English doctor William Gilbert in his work *De Magnete* (1600) and go on to influence Galileo's revolutionary model of the universe, one of the keystones of modern physics that paved the way for Enlightenment science. Such examples reveal the traffic between what we would now divide into the scientific, the speculative and the superstitious. They challenge modernity's vaunted self-portrayal as a rupture with the past and a rejection of non-modern irrationalism in favour of scientific objectivity. They give the lie to modernity's own construction of time as irreversible progress by looping backwards to find the future of humanity clearly rooted in supposedly superseded notions from the past.

If, as Theodor Adorno and Max Horkheimer famously argue in their characterization of Enlightenment thought, 'the disenchantment of the world is the extirpation of animism',[36] *Las playas del otro mundo* insists on the enduring presence and influence of animistic ideas and ancient myths in our visions of the technological future. It does so in a way that belies the European attempt to contain animism by representing it as a relic of the past. When the nineteenth-century anthropologist Edward Burnett Tylor used the term 'animism' he described a kind of confusion suffered by 'primitive' peoples who were unable to distinguish between subject and object or myth and reality. Tylor's *Primitive Culture* (1871) found that the tendency to ascribe human-like qualities to non-humans, and a belief in the transference of the soul to other beings or objects, divided the 'lower races' from the 'higher nations'; Tylor also found in European folklore 'instructive legends which preserve for us, as in a museum, relics of an early intellectual condition of our Aryan race, in thoughts which to our modern minds have fallen to the level of quaint fancy, but which still remain sound and reasonable philosophy to the savage'.[37] As Anselm Franke points out, Tylor was echoing views of the 'backwardness' of non-modern cultures that date back at least as far as the rise of mercantilism and imperial modernity in the sixteenth century,[38] the setting for the key narrative events of *Las playas del otro mundo*.

As conceptualized by Tylor and others, animism – Franke proposes – does not provide an accurate description of other cultures so much as reflect back to Europe the distinctions that uphold modernity. For the moderns, animism threatens 'the modern divide between subjective culture and objective nature',[39] becoming 'a focal point where all differences are conflated'.[40] For this reason, 'animism and the primitive were much sought for mirrors, by means of which modernity could affirm itself in the image of alterity'.[41] In *Las playas del otro mundo*, however, the mirror of animism – literally, at points, Xaxán's divination mirror – does not reassuringly reflect back the rational, scientific pretensions of European modernity but its past and present fascination with esoteric learning and occult practices, and most of all the imperial fantasies that propel its modernizing endeavours.

Harry Garuba fears that a renewed interest in animism in recent years has not led to the creation of a credible alternative discursive space.[42] Indeed, one could certainly argue that it still figures here as a mirror to Western modernity, albeit a more critical and deconstructive version of that modernity. *Las playas del otro mundo* does take a further step, however, towards deauthorizing the humanist discourses that underpin the hubris of modernity. Its narrative is ultimately directed not by the desires or deeds of its human actors but by the power of the disc, described as part of the non-human intelligence of the Earth. In comparison, as the narrator recognizes, 'Nosotros poco importamos' (we are of little importance), and the role played by the characters is essentially to fulfil the destiny of the disc. The disc eventually takes over as narrator, explaining 'Soy Xaxán pero también soy todas las memorias del espejo' (I am Xaxán but I am also all the mirror's memories), and it turns out that the mission of the Antarctic conquistadors is really to restore the disc to its origins beneath the ground 'para así integrarnos **físicamente** al metabolismo del planeta' (to integrate ourselves physically in this way with the planet's metabolism).[43] This decentring of the human becomes the only means by which the human race may potentially save itself. Yet the final scenes show the last remaining human on earth destroying both himself and the disc in a nuclear explosion that impels us backwards to the attack on Tenochtitlan, that act of violent colonization that condemns the disc and its memories to a nomadic obscurity, and humanity to a bitter self-destruction. The recognition of hubris comes too late to save the planet or the human race.

From animism to avatars: Cybershamanism in *Los perros salvajes*

Edgar Clement's *Los perros salvajes* (Mexico, 2011–) also explores the relationship between the human and the non-human forged in traditional myths, cybernetics and modern media technologies. It does so in a way that challenges representations of indigenous culture as pre-modern or irrelevant to the scientific age, sketching out new ways of imagining the shifting ontologies that characterize the cyborg era. Clement's serialized graphic novel mounts a searing attack on the Drug War launched by Felipe Calderón's government (2006–12), which only compounded the violent conflict between warring factions of drug cartels, paramilitaries, government forces and paid hitmen. As Héctor Fernández L'Hoeste points out, the daring, caustic nature of Clement's critique contrasts sharply with the national media's tendency towards self-censorship and makes full use of the webcomic's potential for the broad dissemination of dissenting views (parts of *Los perros salvajes* are available online, with one volume also in print and another incomplete at the time of writing).[44] *Los perros salvajes* melds science-fiction and posthuman imaginaries with Mesoamerican myths of human-animal transactions. The text's infusion of recent political events with mythological resonances throws into cosmic relief the epochal scale of violence in contemporary Mexico. It also suggests an alternative way of conceptualizing continuities with Mexico's pre-Hispanic past that effectively contests the state's appropriation of indigenous heritage for nationalist purposes.

Mystics and mythological creatures proliferate in science fiction produced across the world. As Dani Cavallaro observes, 'Cyberspace seethes with vampires, mambos, shamans, mermaids, Faustian and Mephistophelean characters, ghosts, visionaries and soothsayers'.[45] However, if – as he and others have speculated – 'cyberpunk supplies legion alternative religions as a means of forging some sense of cohesion in an otherwise alienating environment',[46] indigenous mythology and folklore play no such unifying role in Clement's work. They are not developed as a credible system to which we could adhere, as an alternative to the Western technoscientific worldview. Instead, their imagined assimilation *into* that worldview points, by way of contrast, to the past and present exclusion of indigenous communities and beliefs from national culture, despite the supposed centrality of the nation's indigenous heritage to official discourses on nationhood as *mestizaje* in Mexico since the Revolution.

State-sanctioned images of indigeneity have abounded in visions of the noble Indian whose admirable artistic traditions and productive labour might enrich the lives of modern Mexicans. The idealized portrayals of Indians in the work of nineteenth-century painters such as Félix Parra Hernández (1845–1919) and José María Obregón (1832–1902) became an important influence in the post-revolutionary muralist movement. As Fernández L'Hoeste argues, Clement's parodic allusions to murals by Diego Rivera and others point to the way in which the state has produced and co-opted certain images of the Indian for nationalist motives. In Clement's work, however, Amerindian heritage is put to the service of 'debunking the myths and fallacies of the political establishment'.[47] Many of the large, composite images in *Los perros salvajes* evoke the murals' characteristic use of iconography, the different temporalities swept up together into a single vision of the nation's past, present and future, their flattened, simplified figures and their excoriating denunciation of injustice. If, as Dawn Ades argues with respect to Rivera's work, this related more in the murals to past violence against Indians than present forms of repression,[48] Clement draws repeated attention to continued forms of exclusion and oppression. In a large panel composition in the first volume of *Los perros salvajes* (Fig. 2.8), Indians drawn in sepia pencil – complete with headdresses and loincloths – bow down and offer up the produce of the land, the fruits of their labour. Above them looms a triumphant Felipe Calderón, surrounded by a coterie of politicians, oblivious to the trail of mutilated human parts and spent bullets, which snakes away beyond the podium.

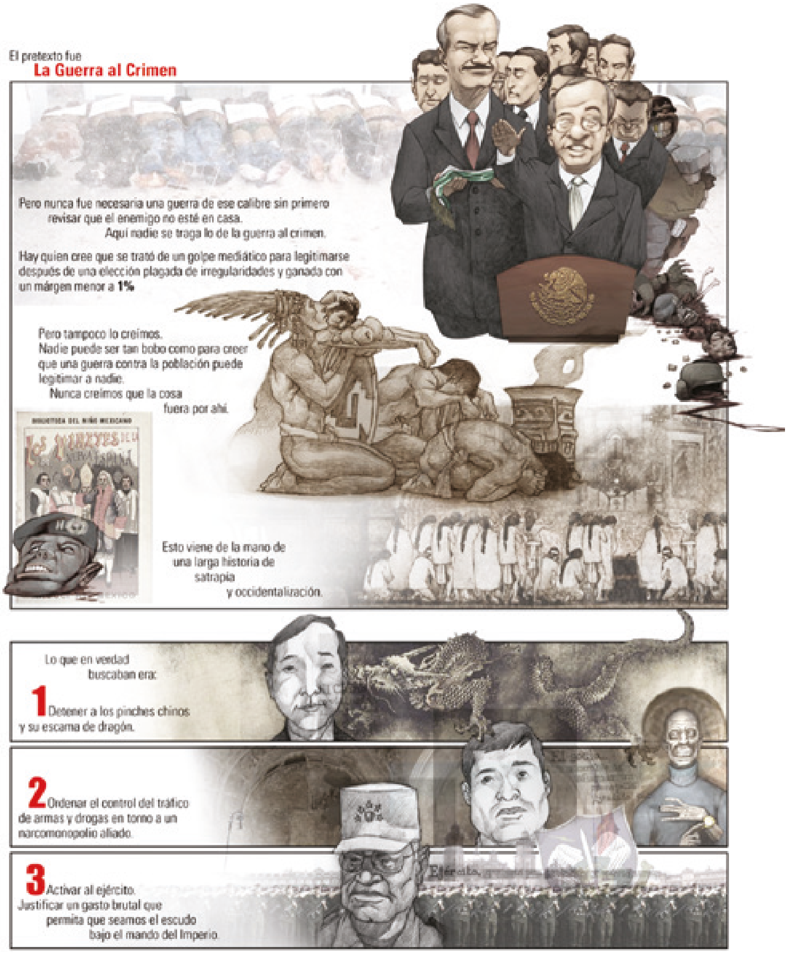

El pretexto fue La Guerra al Crimen
Pero nunca fue necesaria una guerra de ese calibre sin primero revisar que el enemigo no esté en casa. Aquí nadie se traga lo de la guerra al crimen.
Hay quien cree que se trató de un golpe mediático para legitimarse después de una elección plagada de irregularidades y ganada con un márgen menor a 1%
Pero tampoco lo creímos. Nadie puede ser tan bobo como para creer que una guerra contra la población puede legitimar a nadie. Nunca creímos que la cosa fuera por ahí.
BIBLIOTECA DEL NIÑO MEXICANO
Esto viene de la mano de una larga historia de satrapia y occidentalización.
Lo que en verdad buscaban era:
1 Detener a los pinches chinos y su escama de dragón.
2 Ordenar el control del tráfico de armas y drogas en torno a un narcomonopolio aliado.
3 Activar al ejército. Justificar un gasto brutal que permita que seamos el escudo bajo el mando del Imperio.

Fig. 2.8 Page spreads depict panoramas of violence and exclusion in Mexico, past and present, in *Los perros salvajes* (Edgar Clement, vol. 1)

Yet the indigenous past Clement represents is often not passive or submissive but bloodthirsty and bellicose, locked into cycles of destruction and revenge. Its violence is clearly shown to prefigure that of modern-day Mexico in the grip of the Drug War. Sculptures of Aztec deities incorporated into the frames of *Los perros salvajes* provide an appropriately murderous backdrop to the events of the narrative. The second volume opens with a detailed tracing of the Coyolxauhqui Stone (see Fig. 2.9), an important relic of Aztec art now lodged in the Museo del Templo Mayor in Mexico City. In it, the Aztec moon goddess Coyolxauhqui is shown after her decapitation and dismemberment at the hand of her brother, the sun god Huitzilopochtli. The image of Coyolxauhqui haunts the comic's depiction of the savage, internecine conflict that has devastated Mexico in recent years. The cycles of violence that mark national history suggested here are strongly reminiscent of those described by Octavio Paz in *El laberinto de la soledad* (1950), which holds such continual conflicts in social life responsible for Mexico's marginalization and lack of development.[49]

The depiction of another stone sculpture later in the narrative provides an even more powerful and poignant example of a pre-Hispanic visual analogy placed at the service of contemporary social critique.

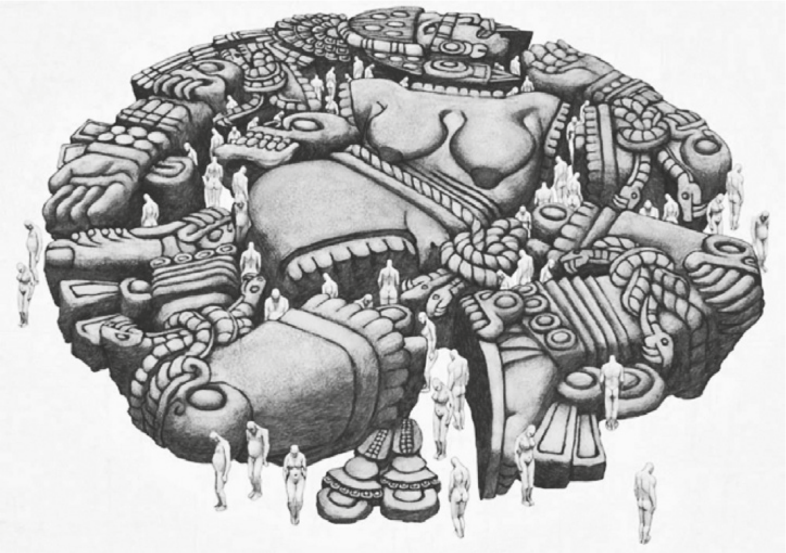


Fig. 2.9 Images such as the Coyolxauhqui Stone in *Los perros salvajes* anchor present-day Mexican violence to the nation's mythical and historical past (Edgar Clement, vol. 2)

The giant monolith of the earth goddess Tlaltecuhtli, also now exhibited in the Museo del Templo Mayor, lies in the foreground of the frame, with the city's slums rising steeply on the hills beyond (Fig. 2.10). The unusually lengthened panel arranges Mexico's ancient myths at the base, with the contemporary world confined to a smaller half above. Tlaltecuhtli, 'the one who gives and devours life', and out of whose dismembered body the earth was formed, brings together the dual forces of creation and destruction so commonly articulated together in Mesoamerican mythology. Her open, teeth-studded jaw is ready to receive the human sacrifices necessary to appease her for the violence of her own destruction in bringing forth the earth. Here, the monolith lies covered with slumped, decapitated bodies – the latest victims of the battle between federal forces and drug gangs – as a shantytown climbs vertiginously up behind and a helicopter circles overhead.

The representation of the Coyolxauhqui Stone that opens the second volume (Fig. 2.9 above) also announces Clement's intention to intervene in past myths and renew them for present uses. Drawn as if viewed from an oblique angle, a gap opens up between the body fragments of the carved relief, providing an entrance to a labyrinth that winds its way through the dismembered stone limbs. The labyrinth is peopled with male and female human figures, uniformly naked and staring downcast at the ground. The ancient relief becomes in this way a space that may be inhabited by new actors and a scene for new stories; it invites navigation and exploration. The image signals the cybernetic refashioning of pre-Hispanic myths in *Los perros salvajes*, and its exploitation of the comic's potential for remediation.

One of the key myths employed by Clement is that of the *nahual* (or *nagual*) in Mesoamerican popular religion, a human who is able to take on animal form. The term also applies to an animal whose destiny is linked with that of a human, usually in a guardian role. As James Dow explains, the concepts of the *nahual* and the related *tonal* 'link man to nature and recognize that his fate is like that of other animals. They also proclaim that his fate depends on conflicts waged in a special mythic world, the world of the *tonales* and *naguales*'.[50] This 'special mythic world' is the one in which the battles of the Drug War – too hellish to be imagined as part of everyday reality – are played out, but also one that rehearses cybernetic fantasies of power and domination.

The protagonists of *Los perros salvajes* are guerrillas who end up becoming hitmen for the Zetas, the nation's most powerful criminal syndicate, but their interventions in the Drug War are carried out as *nahuales* (in this case, in the guise of dogs). In the best superhero tradition, Clement

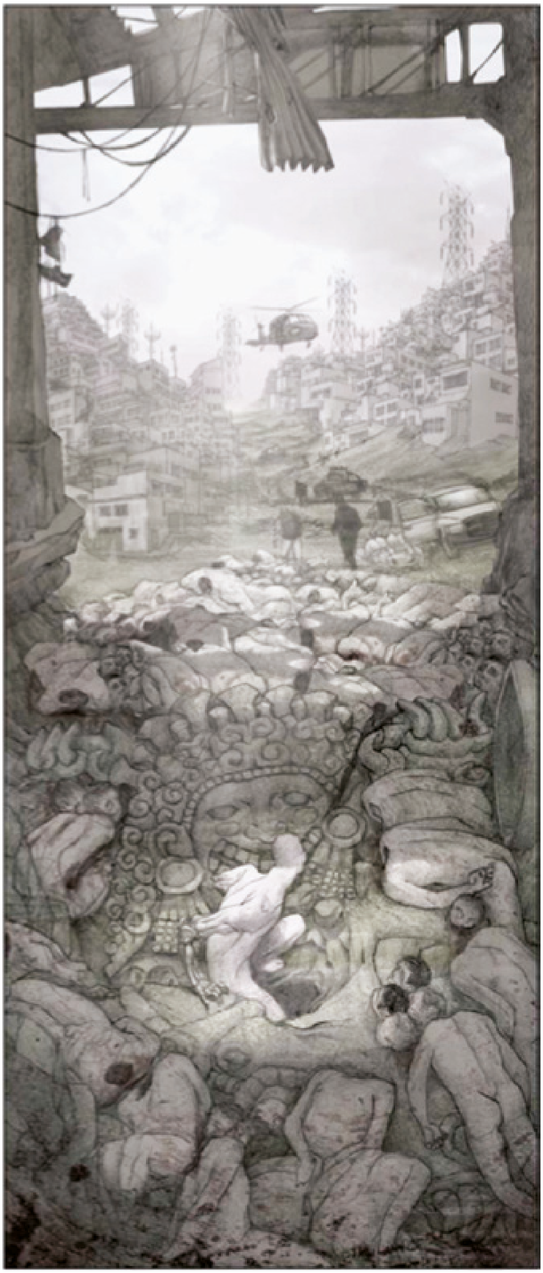


Fig. 2.10 The monolith of the dismembered Aztec goddess Tlaltecuhtli is draped with the decapitated bodies of Mexico's Drug War in *Los perros salvajes* (Edgar Clement, vol. 2)

has his characters adopt animal form at moments of extreme danger or during battles, in order to save the humans they are bound to in a relationship of protection and guidance. The *nahuales* in *Los perros salvajes* become figures both of resistance and – when linked to cybernetic motifs – regeneration. They are able to take on the government's formidable elite forces, the *kaibiles*, who hail from the special operations branch of the Guatemalan army. Having had their hands amputated by the federal police, the guerrillas/*nahuales* are offered cybernetic prostheses sourced from Somali pirates in return for working as hitmen for the drug lords. The prostheses give them special powers, but under the influence of Yoon, a *nahual* they believe to be a deity, their human flesh starts to assimilate those prostheses, regenerating itself and reconverting the artificial back to the human (Fig. 2.11). Both their *nahual* attributes and their

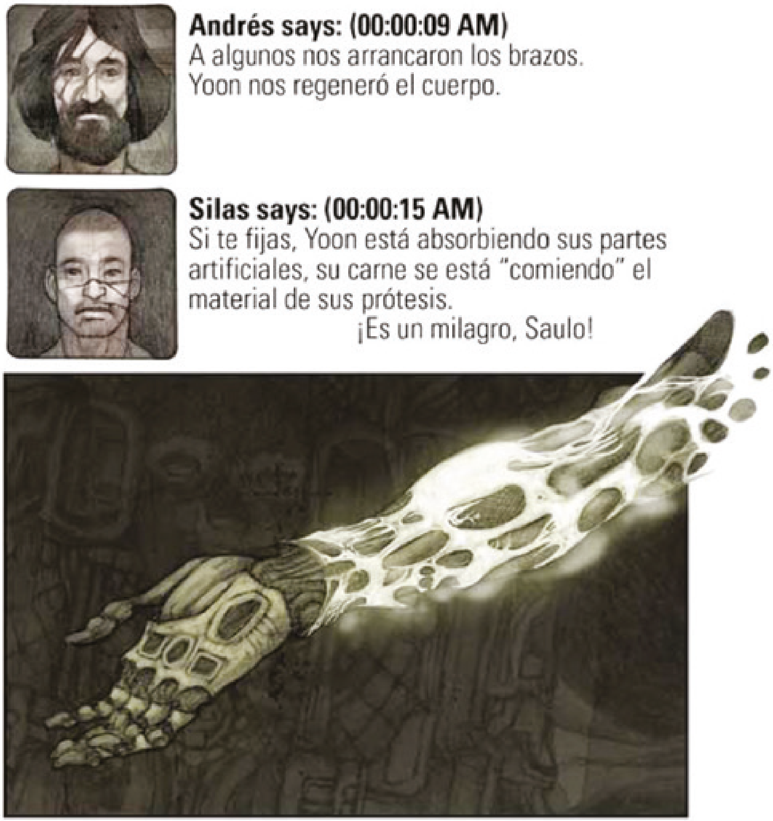

Andrés says: (00:00:09 AM)
A algunos nos arrancaron los brazos. Yoon nos regeneró el cuerpo.
Silas says: (00:00:15 AM)
Si te fijas, Yoon está absorbiendo sus partes artificiales, su carne se está "comiendo" el material de sus prótesis. ¡Es un milagro, Saulo!

Fig. 2.11 The guerrillas/*nahuales* of *Los perros salvajes* begin to reassimilate their cybernetic prostheses (Edgar Clement, vol. 2; panel detail)

prosthetic arms enhance the guerrillas' natural human powers. In their dual role as trans-species mythical beings and mechanical cyborgs, the guerrillas/*nahuales* simultaneously contest the different boundaries – between human/animal, human/machine and human/supernatural – that conventionally separate the human from the non-human.

The mythical framing of contemporary conflict might, in another context, have a dehistoricizing and depoliticizing effect. This is thoroughly dispelled, however, by Clement's precise references to specific political scandals of his own day. The *nahuales* – alongside the other Amerindian figures presented here – do not exist in the narrative as a relic of the past, but are fully integrated into recent Mexican political history. Clement rewrites the plots of some of the most notorious suspected assassinations and conspiracies of the last decade, giving the lie to official cover-ups and creating a protagonist role for the *nahuales*, acting on behalf of politicians or *narcos*. One such event is the 2008 plane crash over Mexico City that killed the Minister of the Interior as well as a former prosecutor who had led a campaign against the country's most powerful cartels. In Clement's version, the plane is the target of a successful attack by Yoon, one of the *nahuales*. At this and other similar moments, photographic material is incorporated into the panels, clearly signalling the intrusion of real-world events into the webcomic's developing plot. Infographics and reproductions of newspaper pages establish the graphic fiction's close relationship with print journalism. In the second volume, the *nahuales* often become outraged witnesses to a string of cases of corruption, impunity and negligence. These cases include the fraud committed by Elba Esther Gordillo Morales, the union leader and politician arrested in 2013, and the death of 49 children in a nursery school fire in 2009 that may have been started deliberately in a government archive next door.

The figure of the *nahual* is thoroughly assimilated within modern media technologies in *Los perros salvajes*: the guerrillas are given orders via mobile phones and consider selling their captive on eBay. Clement also integrates Mesoamerican folk beliefs into contemporary media technologies through his use of avatars. As the *nahuales* engage in battle with the *kaibiles*, Clement adopts a visual style that evokes a videogame aesthetic. An aerial view shows the location of skirmishes with bright red concentric circles, as if viewed through a gunsight. The next pages show a series of clashes between opponents, labelled 'Clash 1' and so on, with the characters involved presented in the first frame as avatars, labelled with their names (see Fig. 2.12). The avatar, as a temporary representation of the self within a virtual world that can be exchanged at

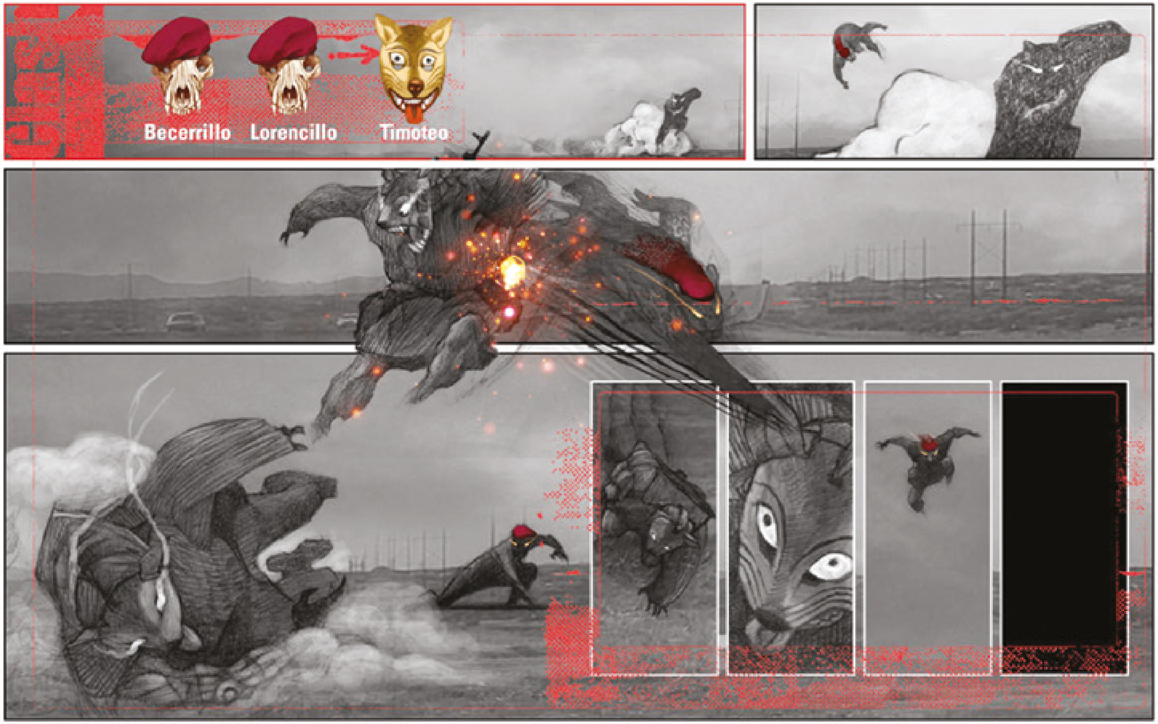

Becerrillo
Lorencillo
Timoteo

Fig. 2.12 The use of avatars contributes to the videogame aesthetic created in *Los perros salvajes* (Edgar Clement, vol. 1)

will, becomes a cybernetic equivalent of the *nahual,* drawing on its ability to adopt other forms and identities.

By treating these figures as contemporaneous, Clement directly contests the representation of indigenous culture in foundational texts of *indigenismo* such as Manuel Gamio's *Forjando patria (pro nacionalismo)* (1916) as 'retrasada con respecto a la civilización contemporánea' (backward in comparison with contemporary civilization) and unable to play an efficient role in a modern, technological society.[51] A comparison with the relationship established between the indigenous and the modern in Rivera's murals is also revealing. Both Barbara Braun and Linda Bank Downs discover a likeness of Coatlicue in Rivera's representation of a car factory stamping-press on the south wall of the *Detroit Industry Murals,* which associates the power of new technology with the terrifying might and greatness of the Aztec earth goddess, as well as with notions of both divine and human sacrifice.[52] For the most part, however – for example, in the National Palace mural – indigenous groups are positioned in Rivera's work as entirely lacking with respect to modernity, needing to be redeemed and ushered into it by *mestizo* intellectuals and socialist revolutionaries. Indigenous culture as such thus becomes dispensable and something to be superseded by modernity.

Clement's use of the avatar also points to an essential interchangeability of roles and identities on the battlefield that acts as a sobering reminder of how little appears to distinguish the violence of one militarized group from any other caught up in the Drug War. Although these pages appear to offer a blow-by-blow account of each fight, the action is not easy to follow, as significant ellipses separate the frames. Our attention is drawn instead to the forms of the figures in flight, which sometimes lose human characteristics as they pick up speed, their arms and legs dissolving into more ephemeral forms; we observe too how the combatants, locked into deathly embraces, become virtually indistinguishable. The animal-like forms they have adopted are so similar that they can be recognized only briefly by the flash of a red beret (the *kaibiles*) or the head of a dog (the *nahuales*/guerrillas).

In videogame theory, the avatar exposes the instability of subjectivization and the complex distribution of agency between player and the game apparatus or programmer. Bob Rehak reads the avatar in the light of Lacan's narrative of the ego's search for the lost 'other', arguing that this opens up the contradictions inherent in gameplay, 'which consists – at least in part – of a toying with unstable categories of identity, presence, and subjectivity'.[53] He also suggests that adopting an avatar involves 'willingly inverting self-other distinctions' and that ‘players invest an acted-on object with the characteristics of an acting subject’.[54] This shifting, or shared, distribution of agency can only be evoked rather than directly experienced in the pages of a comic. The pages of *Los perros salvajes* that feature avatars actually resemble the pre-rendered ‘cutscenes’ or ‘in-game movies’ that are embedded in some videogames, sometimes – as here – with the purpose of showing how a conflict between chosen combinations of combatants plays out. These are moments at which the gameplayer becomes a spectator, disrupting the interactive mode of the game, and scenes of this kind usually draw on cinematic techniques to mobilize a variety of perspectives, which are certainly present here. If games often make heavy use of a first-person perspective in order to enhance immersion and player agency, cutscenes remind us of the extent to which agency is, in reality, distributed between player and programmer, undercutting the illusion of unity between player and avatar.

In his study of videogames in Latin America, Phillip Penix-Tadsen describes the connection between the player and the game as a cyborg configuration: ‘By engaging in a pas de deux with the coded restrictions and affordances of the game software, the player merges with the technology of the video game in the act of meaning creation referred to as gameplay’.[55] Gameplay is a ‘collaborative performance’[56] in which the configurations of the game’s software and hardware engage the player at the level of embodied cognition. The game conditions the player’s body as the player appropriates the game. In the words of Martti Lahti, videogames are ‘a paradigmatic site for producing, imagining, and testing different kinds of relations between the body and technology in contemporary culture’.[57] Clement’s evocation of gameplay within *Los perros salvajes* similarly tests out forms of technological incorporation. It also highlights the instability of the relationship between the self and the alter-ego represented by the avatar, understood as a distinct self but paradoxically remaining dependent on the first self. Rehak proposes that gamers derive pleasure from such instability, which allows them to engage in ‘liminal play’ of a kind that speaks to our experience of subjectivity in the world as fragmented and multiple rather than unified and whole.[58] That this notion of multiplicity is not unique to the cybernetic era is made clear by the parallels Clement draws with Mesoamerican ontologies. Indeed, the mythology surrounding the *nahual* and its representation in *Los perros salvajes* provides an interesting model of how we might understand the multiple, distributed nature of subjectivity and agency that is particularly evident in cyborg identities. The guerrillas sometimes seem to transform themselves fully into dogs, but at other times they merely don a mask that represents the head of a dog, while clearly remaining human beneath it (*nahual* comes from 'covering' or 'disguise' in Nahuatl). Similarly, their *nahuales* are sometimes presented as separate from the guerrillas – they are taught how to 'use' them at the beginning of the first volume, and we see them sprucing up their *nahual* masks with a new coat of paint in the second (Fig. 2.13) – while, at other times, they are fully identified with their own selves as they metamorphose into them. This ambivalence may reflect the much-cited ethnographic confusion and inconsistency that has surrounded the terms *nahual* and *tonal*, and indeed the evidence that the word *nahual* is used by different communities (or even within the same community) to refer either to the animal double of a human soul, or the shaman's transformation into an animal.[59]

The analogy established by Clement between the animal mask and the cybernetic prosthesis gestures towards a common notion of multiplicity and difference. For Descola, *nahualismo* is typical of the 'wandering among other bodies that is undertaken by the components of a person' he observes in Mesoamerican beliefs.[60] These are characterized, for Descola, by 'analogism' (as distinct from animism, naturalism and totemism in his scheme of ontologies), which posits a world that is 'a multiplicity of reverberating differences' in which only analogy may bring a semblance of order and intelligibility.[61] A distinctive feature of analogic ontologies, Descola proposes, is 'This multiplication of the elementary pieces of the world echoing within each of its parts – including humans, divided into numerous components partially located outside of their bodies'.[62] This description of the human clearly embraces the cybernetic prosthesis and establishes a shared concept of selfhood that extends beyond the human body, dispersed across the human/non-human boundary. What is also clear is that Clement's procedure in *Los perros salvajes* is precisely one of ordering and rendering intelligible through analogies, a point that will be taken up in the conclusion to this chapter.

Clement's imagined, almost parodic, incorporation of aspects of indigenous culture into political life highlights the signal failure of earlier projects to construct and put into effect a fully integrated vision of the nation, as well as the current-day failure of the Mexican state *qua* state. It would be wrong to conclude, however, that *Los perros salvajes* constructs the possibility of a viable alternative worldview based on indigenous beliefs, or participates in any idealization of indigenous culture. The guerrillas, who draw on their *nahual* powers to transcend human and non-human realms in order to wreak their own form of

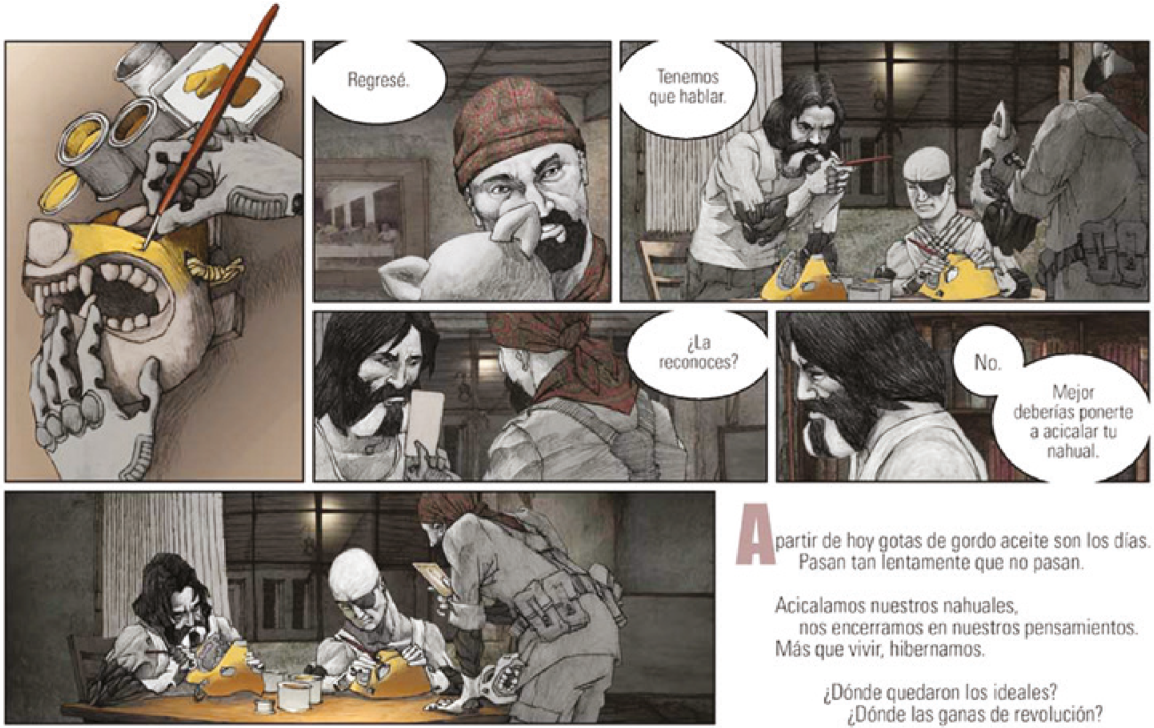

Regresé.
Tenemos que hablar.
¿La reconoces?
No.
Mejor deberías ponerte a acicalar tu nahual.
A partir de hoy gotas de gordo aceite son los días.
Pasan tan lentamente que no pasan.
Acicalamos nuestros nahuales,
nos encerramos en nuestros pensamientos.
Más que vivir, hibernamos.
¿Dónde quedaron los ideales?
¿Dónde las ganas de revolución?

Fig. 2.13 Guerrillas painting their *nahual* masks in *Los perros salvajes* (Edgar Clement, vol. 2)

private justice, also symbolize the impoverishment of indigenous culture as it – like almost everything else in Mexico – has been swallowed up in the Drug War. This is made clear when the guerrillas adopt their *nahual* masks to hide their identity as they participate in acts of abuse themselves. Indeed, the guerrillas/*nahuales* are not really associated with indigenous groups as such, as their physiognomy does not mark them out as indigenous in racial terms, although they do often wear clothing typical of *campesinos*, or peasants. What is being reproduced here, perhaps, is not the process by which the Indians have been (culturally) 'mesticized' in line with post-revolutionary nationalism but an alternative process by which *mestizos* have become 'indianized', partially assimilating indigenous beliefs and practices. It could therefore be objected that Clement effectively repeats the state's appropriation of certain elements of indigeneity for specific political aims.

In contrast to the cultural discourses of *mestizaje* at the beginning of the twentieth century, however, this appropriation does not give rise to any kind of utopian vision, forging instead an increasingly apocalyptic one. As references to specific political scandals begin to dominate the pages of the second volume, images of demons and the infernal underworld prevail and the sober colour palette is increasingly daubed with sulphurous reds and oranges. As the violence intensifies, the *nahuales* appear more like devils than dogs, and one guerrilla opts to change instead into a *xolotl* (a god of the underworld). At one point we see a wolf-like *nahual* adopt a human mask, rather than the other way around, as if to register the fact that the guerrillas are now almost permanently required to activate their *nahuales* in the context of the escalating crisis. The *nahuales* take their place within a much broader series of images and incantations, drawn from literary texts and folkloric performances, which chart Mexico's collapse into the obscene destruction of the end times. Many of the frames are imprinted with verses taken from José Emilio Pacheco's *El reposo del fuego* (1966), which envisions the inflagration and dissolution of Mexico, or with lines from the incendiary *Chants de Maldoror* by Comte de Lautréamont (1869), whose delirious, sadistic prose also conjures up the reign of evil and savagery (Fig. 2.14). The infernal theme is also pursued via the inclusion of lyrics from the 'Danza de los Diablos' that dates back to colonial times and forms part of the Day of the Dead celebrations in the Costa Chica of Guerrero and Oaxaca. The visual motif of a descent is also marked by Clement's preference for elongated vertical frames that draw the eye down to the bottom of the page, an effect that is magnified as the action in such frames often spills out further downwards beyond the panel. It is compounded for the reader of the web version, who must scroll down the page to see the lower part of the image.

The eschatological mode of *Los perros salvajes* might lead us to expect a conventional battle between good and evil. However, the putative superheroes – the *nahuales* – occupy an indeterminable space between resistance to repression and the pursuit of outright terrorism, and there are no actors in Clement's drama who are not morally reprehensible. His monsters cannot perform their usual role of shoring up the 'ontological hygiene of the humanist subject', as Elaine Graham puts it,[63]

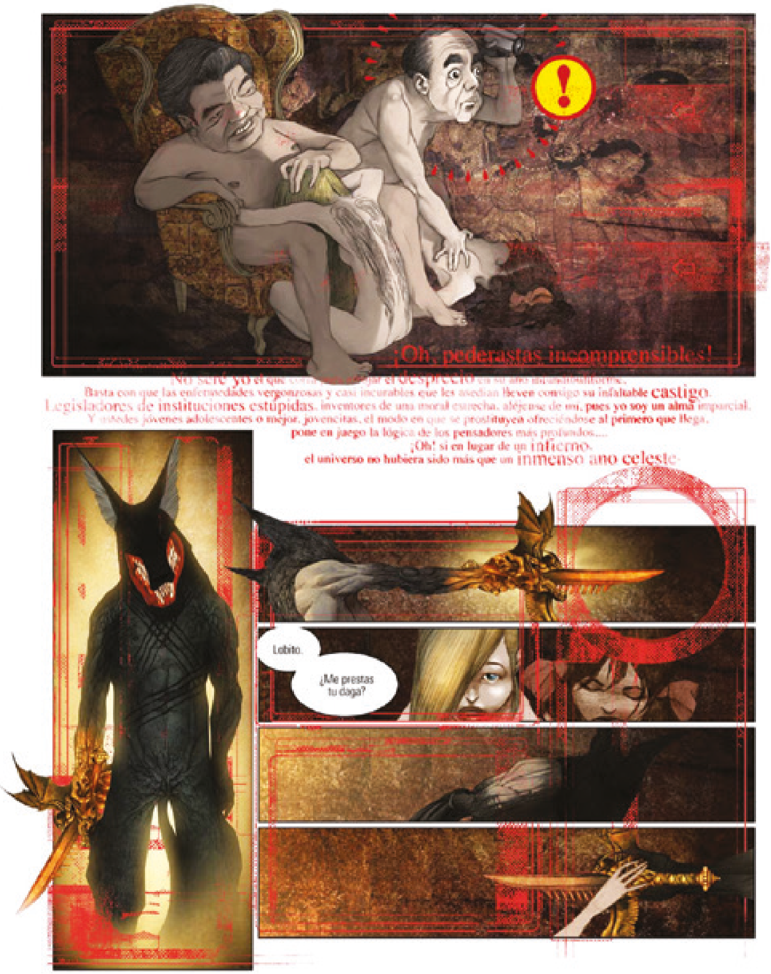

¡Oh, pederastas incomprensibles!
No seré yo el que [illegible] el desprecio [illegible]
Basta con que las enfermedades vergonzosas y casi incurables que les asedian lleven consigo su infalible castigo.
Legisladores de instituciones estúpidas, inventores de una moral estrecha, aléjense de mí, pues yo soy un alma imparcial.
Y ustedes jóvenes adolescentes o mejor, jovencitas, el modo en que se prostituyen ofreciéndose al primero que llega,
pone en juego la lógica de los pensadores más profundos....
¡Oh! si en lugar de un infierno,
el universo no hubiera sido más que un inmenso ano celeste
Lobito.
¿Me prestas tu daga?

Fig. 2.14 The infernal texts and imagery of *Los perros salvajes* (Edgar Clement, vol. 2)

as they are already patently human. Their transformations cannot be mapped onto a Jekyll-and-Hyde scenario in which the 'good' self recoils from the depravity of the 'evil' one, as no distinction is drawn between the intentions of the guerrillas and their *nahuales*. Both human and non-human are equally inhuman; this immediately invalidates the inhuman as a moral category that – as Neal Curtis suggests – paradoxically 'constitutes and saves the human [. . .], projecting all animality and barbarity outwards'.[64] The continuities between the human and the non-human in *Los perros salvajes* allow Clement to construct a radically antihumanist critique, registering the destruction of every ideal of progress or evolution in the face of the all-encompassing corruption and stupefying brutality of Mexico's Drug War.

The comic's appropriation of traditional myths for use in the contemporary context also demonstrates the power of graphic fiction, with its potential for remediation, to challenge and reimagine mythologies peddled by the state. As Bruce D. Campbell observes, the drastic reduction in the post-NAFTA period of the government support that had previously sponsored the growth of a national comic book industry has increased the importance of online self-publication in the form of webcomics. If such restrictions on conventional forms of publication are to be regretted, they also enhance the freedom of the graphic artist to pursue highly critical work that is fully independent from both state control and commercial constraints.[65] The increasing recourse to photojournalistic techniques and the proliferation of newspaper headline mock-ups in the second volume of *Los perros salvajes* – still a work in progress at the time of writing – reveals the extent to which graphic fiction may also step in, at times of national crisis, to take on the informative and critical perspective on unfolding news that is more often the preserve of print journalism. This function is particularly clear in the case of *Los perros salvajes*, which was developed first as a series of blog posts before being edited for publication in print as a graphic novel.[66] This platform allowed Clement to release a page or even an individual panel very soon after its composition, creating a sense of immediacy in his response to political events of the time.

Conclusion

In *E-Dem*, *Las playas del otro mundo* and *Los perros salvajes*, spirituality, magic and animism are fully integrated into futuristic fantasies in ways that contest Western conceptions of modernity. In the case of the first two, it is modernity's claim to be advancing towards a technological future without encumbering myths and superstitions that is voided. Technology is shown to be saturated with mysticism and modern science fully rooted in the magic of erstwhile eras as well as the fantasies of our own. *Los perros salvajes*, on the other hand, draws on indigenous beliefs to challenge the specific exclusions of Mexican modernity and to highlight the crashing defeat of the national project in the inhuman violence of the Drug War. All three graphic novels seek to unseat the arrogance with which humans consider themselves the sole authors of their history and find a potential source of redemption and regeneration in an embrace of philosophies that do not distinguish between humans and non-humans in the way that Western modernity does.

This provides the impetus for the explorations of gnosis and esotericism in these texts. As Davis suggests, however, new forms of gnosis of this kind do not aspire to an escape from the material world or from embodiment but to a renewed integration with it:

> If the original gnostic moment reflected an emerging sense of the self as a free agent, the latest mutation also gropes toward an embodied awareness of the collective dimension of being. After all, the myth of the individual – with its desires, its rebellious spunk, and its hopeless immortality projects – is now the dominant fiction of the corporate consumer world. What we are moving toward, perhaps, is an awakened consciousness of our links in this place, and the corresponding need to sustain this place with these relations in mind.[67]

This ‘collective dimension of being’ also involves non-humans. Jane Bennett, who adds her voice to those who dispute modernity’s ‘disenchantment tale’, finds an array of ‘sites of enchantment’[68] in the contemporary world that range from interspecies crossings and the science of complexity to ecospirituality and even forms of commodity consumption.[69] She contends, crucially, that ‘enchantment is a mood with ethical potential’, as it opens us to other selves and entities and makes us ‘more willing and able to enter into productive assemblages with them’.[70] The graphic novels discussed in this chapter engage in strategies of enchantment with precisely this aim, to heighten ethical awareness of the exclusions and the atrocities of the past and present and to lay out a new, or renewed, ethical orientation that begins from an understanding of the place of the human in a world that is (still) full of mysticism.

If technology in these texts is often allied to the forces of repression and alienation in society, we may find in the appropriation by *E-Dem* and *Los perros salvajes* of different media technologies – photography, television, videogames – an alternative, and decidedly more positive, understanding of the potential in technology for the staging of encounters, imagined or virtual but often embodied in some way, between humans and their others. If these encounters are almost entirely violent within the diegesis, the immersive capacity borrowed from the gaming aesthetic in particular may establish a different kind of relationship between the text and its reader. The reader is drawn in, by means of a collusion between technology and strategies of enchantment, to grasp hidden agencies that unite apparently disparate points in time and space, to adopt other viewing perspectives, to allow him or herself to be configured according to different ontologies, or even, momentarily, to take on other identities, human or non-human. Such strategies, if they do not always lead to an explicit ethical stance as they do in *E-Dem*, nevertheless provide the conditions for one.

In different ways, the three texts discussed in this chapter exploit the capacity of graphic fiction for remediation and visual analogy. They establish the medium as a powerful means to connect apparently divergent ontologies and systems of knowledge, such as science and magic, indigeneity and modernity, Renaissance Europe and pre-Hispanic Mesoamerica, *nahualismo* and cybernetics. Just as significant are the reflexive relationships established in both *Las playas del otro mundo* and *Los perros del paraíso* between contemporary graphic fiction and ancient Mesoamerican writing systems, in which writing was thoroughly entwined with visual imagery. The use of glyphs within pictures in Mixtec, Maya and Aztec screenfolds (or codices) could very feasibly be seen as a precursor to graphic fiction.[71] While they may root themselves in the pre-Hispanic past, however, these graphic novels also claim an uncompromising contemporaneity. They may do this by folding into their aesthetic the virtuosic imagery of videogames or the immediacy and ephemerality of newsprint and infographics. They may also create new audiences by circulating in digitized form on the internet and exploiting the potential of blogs as spaces that permit an immediate response to unfolding political events and create new forms of interaction with readers.

3

Archaeologies of Media and the Baroque

Like *Los perros salvajes*, Edgar Clement's first major work of graphic fiction, *Operación Bolívar*, also engages in a recuperation of indigenous culture for contemporary political ends, to contest linear (Western) conceptions of modernity and to construct a pre-history of the graphic novel. *Operación Bolívar*'s consistent evocation of colonial and pre-colonial codices, together with its emphasis on Christian angelology alongside indigenous mythical figures, constructs a genealogy for the Latin American graphic novel that finds its origin in the particular combination of texts and images common to Mesoamerican codices. Clement develops an important continuity between the baroque aesthetic that developed in Europe and Latin America around the time of the Conquest and its aftermath and the complex mediatic entanglements that mark contemporary digital culture. If *Los perros salvajes* condemns the failures of the Mexican state in the context of the twenty-first century Drug War and charts a descent into a monstrous, inhuman violence, *Operación Bolívar* – set in the earlier, post-NAFTA period – denounces violence of the neocolonial variety and traces a relationship with the colonial military conquest of Latin America. This connection is hardly innovative in Mexican and Latin American culture, of course. The striking originality of *Operación Bolívar* lies much more in its representation of the posthuman configurations that have emerged from the battle between capitalism and resistance, not just in our own era but also in the colonial period. This allows us to imagine a pre-history for posthuman thought and aesthetics that challenges the conventional divide established by posthuman theorists between early modern humanism and contemporary posthumanism, bidding us to consider the complexities of early modern thought and its legacies for the present.

Operación Bolívar found its first readers in a serialized format in *Gallito Comics*, an independent magazine published between 1992 and 2001. Created in the image of the French comics magazine *Métal Hurlant*, the broad range of content in *Gallito Comics* was unified by a commitment to stylistic diversity and a mode of anarchic political critique captured by its subtitle: 'materiales para resistir la realidad' (resources for resisting reality). At a time when the Mexican comics industry was in serious decline, dominated by the influx of Japanese manga and the superhero franchises of DC and Marvel, *Gallito Comics* provided an important platform both for the development of comic art in Mexico and for the creation of a national community of readers interested in graphic fiction for adults. *Gallito Comics* was a contradictory production, characterized by a strong affiliation with international developments in graphic fiction[1] as well as a clear preoccupation with the national social and political context. The magazine was infused by editor Víctor del Real's left-wing political convictions and driven by a desire to develop an aesthetic commensurate with the complexities of national life, dominated by rampant neoliberalization and the increasing violence of the drug trade.[2] It was in this context that *Operación Bolívar* was first published, between 1993 and 1994.[3] In a prologue to the 2008 edition, del Real describes the 'pretensión jactanciosa' (boastful pretention) of the project to be the inauguration of 'una estética particular que representara una visión de la vida y los conflictos del mexicano' (a particular aesthetic that represents a vision of the life and conflicts of Mexicans).[4]

Clement's comic was one of a number of fictional texts produced during the 1990s in Mexico to use a posthuman imaginary – embedded in the narrative tropes of science fiction and horror – to critique the neoliberal economic policies that were consolidated and enshrined by the North American Free Trade agreement (NAFTA) of 1994. The best known of these texts is *Cronos*, Guillermo del Toro's horror film of 1993, which borrows promiscuously from a wide range of European and Hollywood vampire narratives to 'imagin[e] the facilitation of free trade between the United States and Mexico as a monstrous draining of Mexico's (human) resources', in Dolores Tierney's words.[5] *Cronos* tells the story of antique dealer Jesús Gris from Mexico City who finds a mysterious device, part clockwork and part organic, which was invented in the first half of the sixteenth century by an alchemist and chief watchmaker of the Viceroy of New Spain. When the device latches onto him to drink his blood, it grants him immortality but at a price: Jesús also begins to thirst insatiably for blood. The plot revolves around a struggle over the ownership of the scarab between Jesús and a rich, dying US businessman. The metaphor of the biotechnological device makes a series of connections between Mexico's colonial past and the neocolonialism of the 1990s, as well as between a baroque religious iconography of blood sacrifice and contemporary fears about cyborg penetrations of the human body via technology. In his analysis of the film, John Kraniauskas argues that the figure of the vampire represents 'the cultural memory of the violent "subjection" of bodies and lives to the laws of the market and the nation-state: so called primitive accumulation'.[6] Against fantasies of technologically redesigned transhuman subjects, the film asserts the posthuman figure of the vampire to evoke the 'ruin of a body' violently dispossessed of subjectivity by the alienating forces of capital.

Like *Cronos*, the plot of *Operación Bolívar* draws connections between the Conquest of Mexico and contemporary capitalism as well as between the baroque religious iconography that functioned as an ideological tool and symbol of this conquest and a contemporary technological imaginary. The narrative is preceded by a brief introduction that connects the diegetic present with the Conquest of the sixteenth century. The reader learns that the Spanish conquistadors led by Hernán Cortés were accompanied by an army of angels. The image of armed angels crossing the Atlantic functions as an allegory for the role of Catholicism in the assertion of control over the native Aztec and Mayan populations. Resistance to this invading army of angels was led by *nahuales*, shamanic figures from Mesoamerican religions with the power to turn into animals (see Chapter Two). In the narrative present, angels and *nahuales* are still fighting it out on the streets of Angelópolis, a fictionalized Mexico City. However, the Manichean dynamic of invasion and resistance set up in the introduction has been rendered much less straightforward. The *nahuales* are now 'cazadores de ángeles' (angel hunters) and they hunt the angels not with the aim of political resistance but to make money, marking a partial inversion of the colonial dynamic. In present-day Angelópolis, angels are a valuable commodity: their flesh and blood are considered rare delicacies while their bones are ground down into 'polvo de ángel' (angel dust), a drug not dissimilar to cocaine. *Operación Bolívar* is narrated by Leonel, an angel hunter who is forced, over the course of the narrative, to confront the political dimension of his line of work when he learns of plans being elaborated by CIA-backed drug cartels to control all the governments in South America and turn the continent into one vast 'narco-democracy' in a travesty of Simón Bolívar's dream of a united Spanish America (hence the project's code name, 'Operación Bolívar'). As part of this plan, the hunters become the hunted as the CIA aim to sever the hands from the 'cazadores' and use them to manufacture cyborg soldiers to maintain the suppression of the south and to build 'angel dust' factories evocative of the *maquiladoras*, exploitative tariff-free manufacturing plants that proliferated across Mexico in the wake of NAFTA.

The cyborg configurations resulting from these plans clearly echo the function of posthumanism in *Cronos*, according to Kraniauskas: namely, to serve as a 'melancholy' reminder of the human victims of capitalist expropriation.[7] However, rather than simply functioning as a marker of loss, posthumanist discourses are mobilized in *Operación Bolívar* with the more optimistic aim of exploring the human and nonhuman assemblages enabled by media networks that were becoming increasingly complex as Clement's text effected its transition from comic book series to graphic novel. *Operación Bolívar* employs a baroque aesthetic not just to point to parallels between different historical modes of colonialism (in the manner of *Cronos*) but also to fold together different moments in time at which the boundaries between materiality and abstraction, together with hierarchies between subject and object, are rendered unstable and open to renegotiation. Through a transhistorical baroque aesthetic that elaborates a parallel between comic book structure and post-Conquest codices, the text creates its own precursors within an imagined posthuman genealogy. This chapter will first explore how Clement employs a neo-baroque aesthetic as a 'becoming-minor' of the seventeenth-century aesthetic movement associated with the Catholic Church. We then go on to analyse the neo-baroque in *Operación Bolívar* in the light of its construction of two forms of media. The first is the angel, a figure that is constructed in the book as a mediator between God and man, the material and the spiritual as well as between the historical baroque and the digital baroque. Secondly, we explore the self-reflexive construction of the graphic novel itself, through parallels Clement establishes between the form and post-Conquest codices, as a baroque medium that creates a space of conflict between competing epistemologies. Clement, we argue, employs the neo-baroque aesthetic to carry out an archaeology of the history of media in Mexico, uncovering and forging connections between moments of instability that point to alternative configurations between the material and the virtual.

The baroque aesthetic as media archaeology

By combining a baroque aesthetic – evident both in the page design and in the use of religious iconography – with a narrative that centres on the history of colonialism and resistance to colonialism in Mexico, Clement clearly positions *Operación Bolívar* within the tradition of the Latin American neo-baroque. The conceptualization of the neo-baroque as an anticolonial aesthetic, a creative repositioning from within Latin America of the dominant baroque aesthetic of the European counter-reformation, began to emerge during the 1950s, 1960s and 1970s, especially in the writings of Cuban intellectuals José Lezama Lima, Severo Sarduy and Alejo Carpentier.[8] Exploring these Latin Americanist traditions through the lens of Gilles Deleuze's philosophical appropriation of the baroque, Monika Kaup describes the Latin American neo-baroque as a 'becoming-minor' of an aesthetic conceived during the counter-reformation as 'a tool of European imperialism and inquisitorial repression'.[9] The baroque, these critics claim, was used 'against the grain' of its authoritarian institutional origins. As an example of this anticolonial baroque, Kaup cites instances of indigenous artisans inserting pre-Columbian symbols in Catholic baroque iconography and in the process 'undoing the colonial negation of their world'.[10] Among the most striking examples in Mexico are the visual references to Aztec deities and the depiction of angels with identifiable indigenous characteristics such as headdresses in the Rosary Chapel in the Church of Santo Domingo, Puebla.[11] By connecting experimental literature produced in Latin America during the 1950s and 1960s with aesthetic practices from the seventeenth century, Lezama Lima, Sarduy and Carpentier were constructing the baroque aesthetic as, in Irlemar Chiampi's influential formulation, 'an archaeology of the modern, one that allows us to reinterpret Latin American experience as a dissonant modernity'.[12] *Operación Bolívar* engages with these traditions on a number of levels, from the direct depiction of baroque church façades (the opening page of the first part of the novel shows luminous angels circling around the bell towers of Morelia Cathedral; see Fig. 3.1) to the depiction of the angels themselves, and to the mode of engagement demanded of its readers.

By connecting the Catholic iconography surrounding the Conquest with the dominant aesthetics of contemporary media networks, Clement's work echoes a number of recent critics within the field of media studies who use the baroque as a critical tool to analyse the contemporary proliferation of media. Angela Ndalianis argues that the increasing complexity of intermedial connections in which 'media

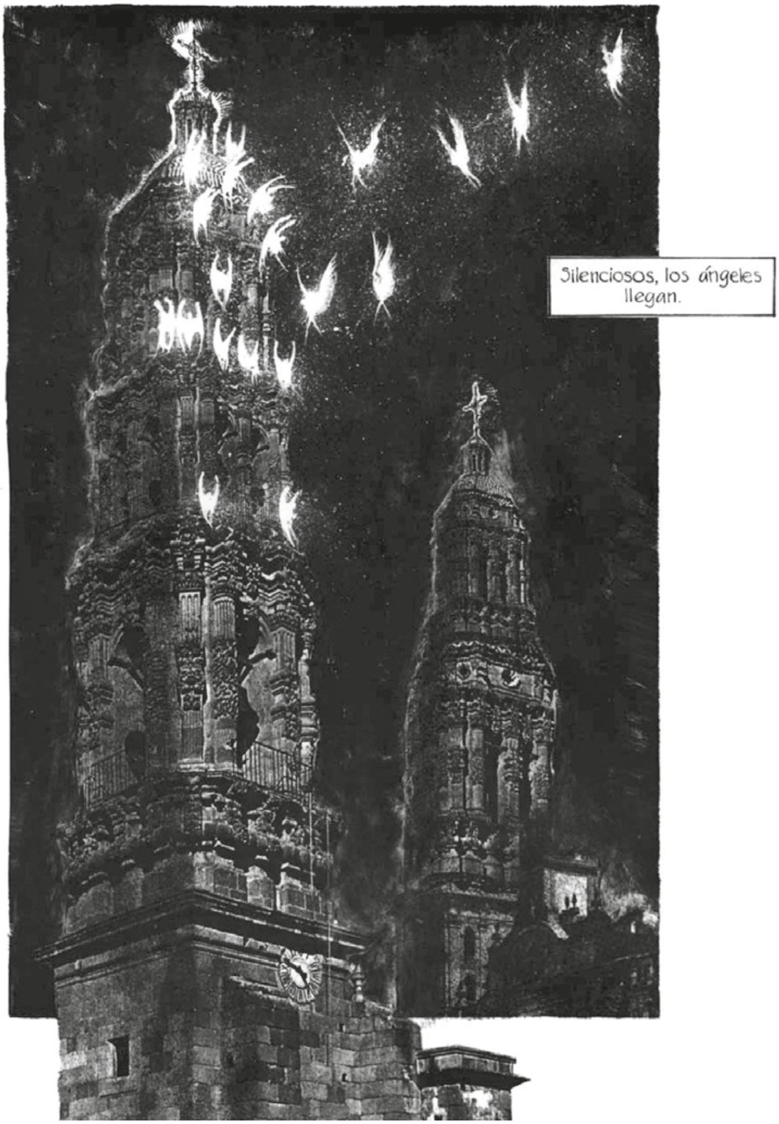

Silenciosos, los ángeles llegan.

Fig. 3.1 Angels circling Morelia Cathedral in *Operación Bolívar* (Edgar Clement)

merge with media, genres unite to produce new hybrid forms, narratives open up and extend into new and serial configurations' are driven by an assemblage of 'technological, industrial, and economic transformations', and that these 'reflect a dominant neo-baroque logic'.[13] In *Operación Bolívar,* this logic is mobilized to draw the reader's attention to the enfolded nature of bodies and technology in digital culture. Anna Munster argues that digital culture, including experimental uses of new media technologies and conceptions of posthuman identities, is a 'baroque event' that articulates a logic of '*differential* relations between embodiment and technics'.[14] Munster borrows Deleuze's conception of the logic of the fold (which he develops through a dialogue with the philosophy of Leibniz) to describe how the baroque unsettles those binary oppositions between the physical and the virtual, material and immaterial that have structured dominant conceptions of the technologies of the information age. In the baroque, these oppositions constantly impinge upon and infiltrate each other and the result of this 'convergence and divergence' is to 'produce ever-new and consistently mutating outcomes'.[15] In other words, the logic of the baroque is a way of thinking in terms of the relational ontologies championed by critical posthumanists. According to Munster, the information aesthetics dominant in the digital age produce the same differential logic as the historical baroque: both are part of the same 'event'.[16] In a way that echoes Karen Barad's critique of the practices through which 'differential boundaries' between the human and non-human are 'stabilized', the baroque aesthetic draws attention to how these boundaries are the product of a continual process of folding.[17] As we will see, Clement inserts the figure of the baroque angel into the context of digital culture to explore this logic of folding between bodies and technologies. He also echoes Munster by presenting the information aesthetics of contemporary media culture as sharing the differential logic of the historical baroque. The former has the capacity to actualize the resistant potential within the aesthetic practices associated with the colonial period. The association between digital technologies, military violence and economic gain in *Operación Bolívar* marks a crucial continuity between colonial and contemporary eras. This continuity is reinforced by their shared recourse to practices of folding-in and the erosion of boundaries between the human and the non-human. It is this that allows us to posit a posthuman genealogy of thought and cultural practice that reaches back at least to the baroque period, a point to be explored further in the concluding section of this chapter.

Operación Bolívar uses this baroque tradition to carry out an archaeology of the media of domination in contemporary Mexican culture. In his study of 'imaginary media', Eric Kluitenberg defines the growing discipline of media archaeology as 'an alternative to the dominant writing of media history, whose implicit construction of a unitary narrative of progress [...] tends to marginalize the significance of failed projects, the shards of media history, and to exclude the role of the phantasmatic in media culture'.[18] The recognition of 'aberrant trajectories in the development of technology and the media' provide glimpses of alternative configurations of power.[19] Uncovering these imaginary media and the 'impossible desires' that they mediate exposes what Siegfried Zielinski describes as 'past situations where things [. . .] were still in a state of flux, where the options for development in various directions were still wide open, where the future was conceivable as holding multifarious possibilities of technical and cultural solutions for constructing media worlds'.[20] Zielinski terms this approach an 'anarchaeology of media', emphasizing the anarchic, non-linear nature of its analytical thrust, which runs counter to more hierarchical and genealogical approaches to knowledge.[21] While the neo-baroque carries out a 'becoming-minor' of a dominant aesthetic, the imaginary media in Clement's work (which fuse the shamanic with the digital) reimagine visual technologies of domination in a way that undermines the hierarchies that they encode and naturalize: between subject and object, seer and seen as well as clear-cut oppositions between the material and the immaterial. The two principal forms of media excavated in *Operación Bolívar*'s anarchaeological expedition are the figure of the angel – who, as a messenger between God and man, is the very embodiment of media – and the graphic novel itself.

Angelology

The baroque construction of angels in *Operación Bolívar* plays a key role in the process of media (an)archaeology carried out by the book. Clement uses the figure of the angel as a tool for intervening into the increasingly dynamic interplay between materiality and abstraction in digital culture. Many of the critical analyses of Clement's work published to date centre on his depiction of angels. Héctor D. Fernández L'Hoeste argues that the use of angelic figures in *Operación Bolívar* demonstrates the extent to which the book remains caught within a national imaginary. Despite Clement's satirical tone, his work 'encaja bien dentro de las matrices historiográficas del acontecer nacional' (fits neatly into the official historiographical mould of national events).[22] In particular, the figure of the angel in *Operación Bolívar* reproduces the interconnections between Church and State produced by 'nuestra tradición estética y el relato national' (our aesthetic tradition and the national narrative).[23] As proof of this, L'Hoeste cites the depiction of a bare-breasted angel in the first part of the book, which he compares to the Ángel de Independencia statue, the national icon built in 1910 to commemorate a century since national independence. The misogynistic detailing of her body, together with the fact that no sooner does she appear in the book than she is brutally dismembered by the two *cazadores* Leonel and Román, underscore L'Hoeste's thesis that Clement's angelic depictions reinforce dominant patriarchal discourses about nationhood.[24]

However, *Operación Bolívar* taps into a more complex and transnational tradition of angelic representations than Fernández L'Hoeste suggests, and specifically one that uses the figure of the angel to probe the nature of postmodern media culture. In this way, the angel becomes central to Clement's baroque exploration of the complex interactions between materiality and abstraction in digital culture. Brian McHale uses the term 'postmodern angelology' to refer to the use in the postmodern North American fiction of Thomas Pynchon and William T. Vollmann of the figure of the angel 'as a realized metaphor of the violation of ontological boundaries'.[25] The angel shares its condition of liminality and its status as a conduit between adjoining ontological worlds with the cyborg. Both the angel and the cyborg 'symbolise the human aspiration to achieve a state beyond the human'.[26] In recognition of the fact that, in McHale's words, the 'angel-function' has been largely 'science-fictionalised', cyberpunk novels such as *Schismatrix* (1985) by Bruce Sterling and *Wetware* (1988) by Rudy Rucker have used angelic imagery in their fictional constructions of cyborgs. One of the main sources of humour in *Operación Bolívar* is the trope of the 'hollow' postmodern angel: the angel 'emptied of its otherworldliness and brought ingloriously down to earth'.[27] The epilogue section at the end of the book contains a 'dramatis personae' that doubles up as a typology of the angels and *cazadores* that populate Angelópolis. The entry for El Protector, the fallen angel who helps the CIA to effect their plan, tells us that he became a mercenary 'quando se privatizó El Cielo' (when Heaven was privatized; see Fig. 3.2). The fate of the angels also parodies the complex interconnections that characterize late-capitalist financial structures. Subsequent to being hired by the CIA, El Protector is trained to destroy the Vatican with weapons that were manufactured by a corporation in which the Catholic Church itself is an important shareholder.[28]

Contemporary media theory has also revisited the figure of the angel to explore how the communications technologies of the information age are reworking the boundaries between the human and non-human. In *Transmitting Culture*, Régis Debray draws an elaborate comparison between the study of angels in Early Christian theology and the study of contemporary media, which he terms 'mediology'.

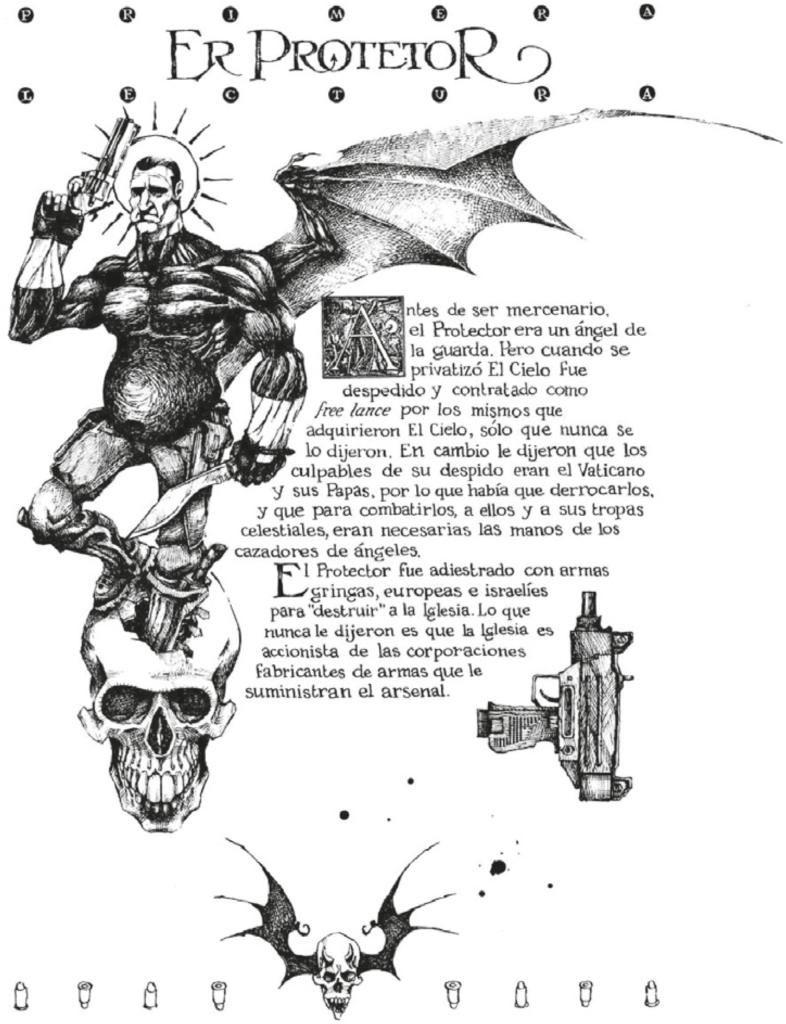

P R I M E R A
ER PROTETOR
L E C T U R A
Antes de ser mercenario, el Protector era un ángel de la guarda. Pero cuando se privatizó El Cielo fue despedido y contratado como free lance por los mismos que adquirieron El Cielo, sólo que nunca se lo dijeron. En cambio le dijeron que los culpables de su despido eran el Vaticano y sus Papas, por lo que había que derrocarlos, y que para combatirlos, a ellos y a sus tropas celestiales, eran necesarias las manos de los cazadores de ángeles.
El Protector fue adiestrado con armas gringas, europeas e israelíes para "destruir" a la Iglesia. Lo que nunca le dijeron es que la Iglesia es accionista de las corporaciones fabricantes de armas que le suministran el arsenal.

Fig. 3.2 Characterization of El Protector in *Operación Bolívar* (Edgar Clement)

The angelology of Pseudo-Dionysius, the Christian theologian of the late fifth and early sixth century, Debray argues, ‘should be read as mediology in a mystic or nebulous state’.[29] The figure of the angel in medieval angelology mediates between God and man. The intricate taxonomies of angels constructed by early Christian theologians demonstrate the fact that these celestial hybrids were intended to regulate the transit between man and God and in the process police the boundaries between the human and the divine. The development of 'celestial hierarchies' by Pseudo-Dionysius, in which the angelic hosts were divided into a number of hierarchically ordered sub-categories, ranging from seraphim to angels, took place alongside and served to reinforce the institutional normalization of Christianity. However, whereas the figure of the angel often functions in this official capacity as an institutionalized conduit between man and the divine, Debray points out that it can also function as a 'counterpower' that 'fluctuates unpredictably' and 'insolently' with respect to the established powers and is capable of 'short circuiting' the official hierarchies of transmission between man and God.[30]

Operación Bolívar's angels hesitate between reinforcing barriers and divisions and acting as 'counterpowers' that facilitate the breaching of ontological boundaries. On one hand, as Fernández L'Hoeste argues, the angel is employed as an icon of Mexican identity and as such functions to preserve the coherence of a national imaginary. However, it is a much more unstable figure than he suggests. The treatment of angels in the novel is part of Clement's wider strategy of rendering minor the dominant baroque aesthetic. The frame narrative in the comic emphasizes the role of angels in the Conquest of New Spain. The allegory of the Conquest developed in the introduction – according to which an army of angels does battle with the Mesoamerican shamanic *nahuales* for the possession of New Spain – makes literal the use of angelic iconography in the process of cultural colonization. Here Clement draws on works such as *Imagen de la Virgen María, Madre de Dios de Guadalupe* (1648), in which Miguel Sánchez offers an image of Hernán Cortés and his troops as an 'army of angels'.[31] According to the introduction of *Operación Bolívar*, for the indigenous warriors the angels were 'los emisarios de la destrucción' (harbingers of destruction). Clement's text teems with images of heavily armed angels. El Protector is depicted wearing full body armour, complete with easy-to-reach daggers strapped to his legs, and clutching a submachine gun drawn with fetishistic photorealist detail (see Fig. 3.3). Fernando Cervantes emphasizes the key role angels play in the evangelizing strategies employed by the Mendicant orders in New Spain. Mendicant chapels were 'often presided over by large angels placed symmetrically around a crest with a Christological or a Marian theme'.[32] However, this angelic tradition was also a moment of medial instability in which indigenous understandings of the porosity between the material and spiritual worlds were inserted into Catholic practices. Angels constituted a 'fulcrum point' between visible and invisible worlds and were used to introduce neophytes to the 'intrinsic relationship' between the natural and supernatural, the spiritual and the embodied in Mendicant spirituality.[33] These Mendicant practices were clamped down upon by subsequent Reformist tendencies that were suspicious of the potential for idolatry in the use of angelic iconography and sought to reinforce the dividing line between the natural and supernatural. However, Cervantes argues that these angelic traditions endured and were assimilated into the baroque. *Operación Bolívar* uses the figure of the angel to effect a series of transhistorical leaps between early modern angelology, the historical baroque and the baroque logic of contemporary media culture.

In a way that echoes Debray's analysis of the relationship between angelology and contemporary media theory, the Mexican angelology carried out in *Operación Bolívar* functions as a mediology of the present. The angelic tradition in Mexican culture is revived to connect contemporary digital culture to the blurring of the boundaries between the visible and invisible, material and immaterial in the baroque. The 'Introducción al Profano Lector' that precedes the narrative is framed with decorative baroque borders with a conquistador's crest on the top left corner and a grimacing cherub holding a pump-action shotgun at

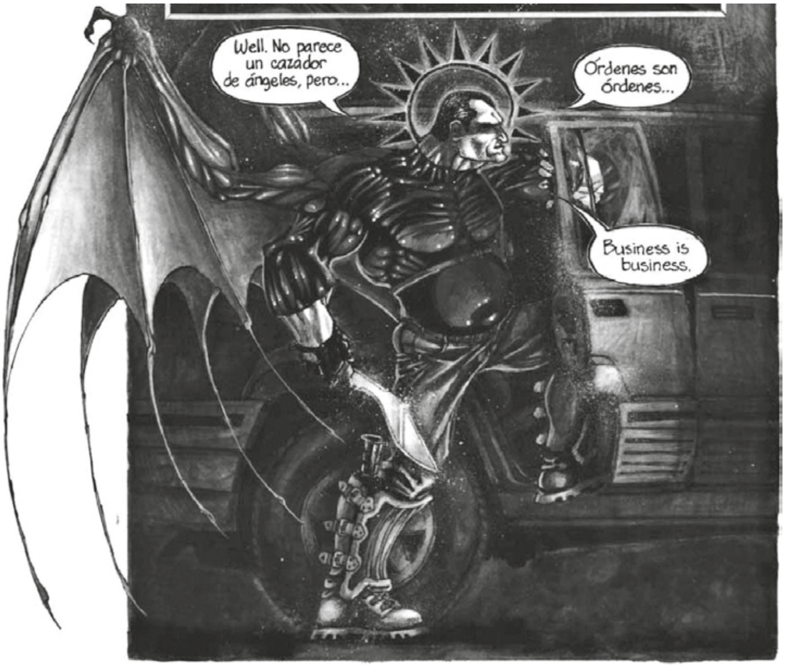

Well. No parece un cazador de ángeles, pero...
Órdenes son órdenes...
Business is business.

Fig. 3.3 Depiction of El Protector in *Operación Bolívar* (Edgar Clement)

the bottom. The placement of the angel at the border of the page draws attention to how it inhabits – at a more figurative level – a liminal zone between the written words addressed to the secular reader and the ineffability of the divine. The angels' position in the paratextual apparatus of the book (both in the introduction and the dramatis personae) presages their role as key liminal figures within the body of the narrative itself. The depiction of Angelópolis in the graphic novel evokes Michel Serres' description of the city of angels as a metaphor for the increasing interpenetration of the material and virtual in the global city of late modernity.[34] *Operación Bolívar* constructs this connection by presenting the angel as a commodity caught up in global circuits of exchange, killed by the 'cazadores de ángeles' and converted into a narcotic cocaine-like powder. The angels thus represent the point of contact between the city and the global circuits of exchange brought into being by the drugs trade. This process of converting the angel bones into 'angel dust' is depicted using typological illustrations that recall early modern scientific publications. One diagram of an angel is presented as a butcher's chart: 'ANGELUS CORPORIS: Corte estilo kosher' (Kosher-cut style; see Fig. 3.4). In a *reductio ad absurdum* of the typological enterprise of angelology, the angels are reduced to material specimens and varieties. The reader is shown cross-sections of angel eyes and different types of angel hair, each of which fetch a different price on the market. Angelology employs the same epistemological strategies in the spiritual realm as scientific practices used in the dissection of bodies. The parallel between angelology and the taxonomic passion of early modern science, embodied here in these diagrams, draws attention to how the angel in Christian theology functions as a point of contact between the brute materiality of the world and the immateriality of the divine. Throughout the book, angels are presented as being ambiguously positioned at a border zone between the material and immaterial, remaining beyond the material realm until they are touched by a *cazador*. A panel presenting a scene in which Leonel and Ramón torture one of the angels they catch informs the reader that 'Un ángel sólo siente dolor hasta que un cazador le toca. De otro modo permanece como materia divina, inconsciente et insensible' (an angel only feels pain when it is touched by a *cazador*. Otherwise it remains divine material, unconscious and insensible).

This ambiguous ontology establishes a parallel linking the interplay between materiality and immateriality in early modern angelology with the increasingly complex relationship between materiality and abstraction in the digital technologies that underpin late capitalism, for which the commodity form provides the 'fulcrum point', represented

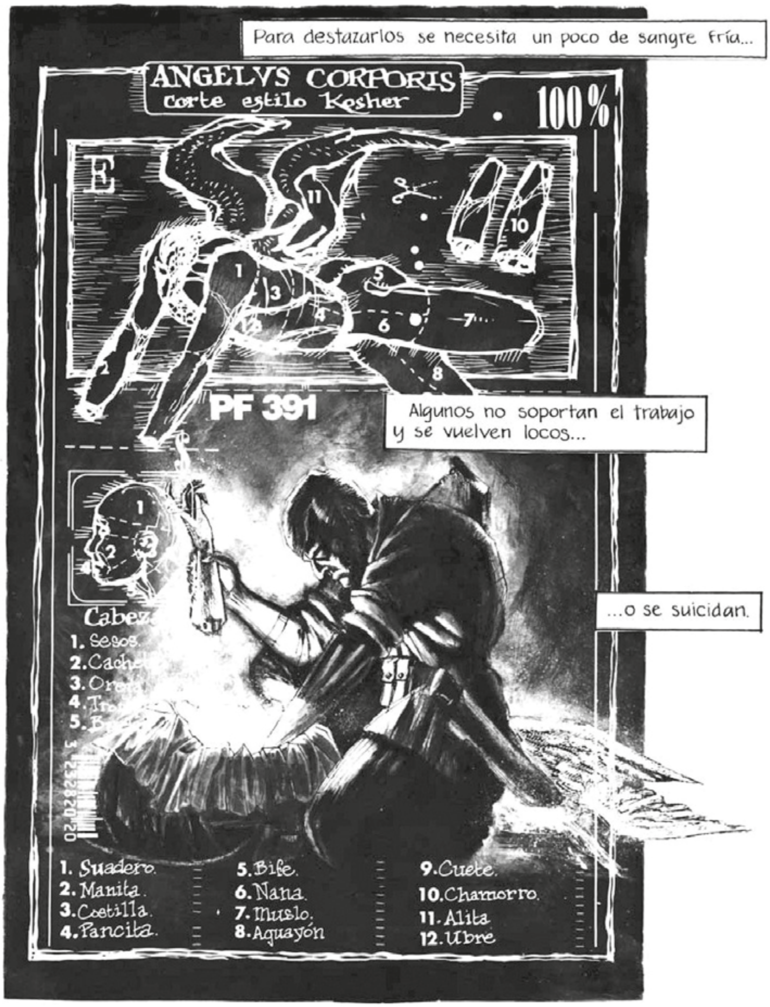

Para destazarlos se necesita un poco de sangre fría...
ANGELVS CORPORIS
corte estilo Kosher
100%
E
PF 391
Algunos no soportan el trabajo y se vuelven locos...
...o se suicidan.
Cabez
1. Sesos.
2. Cache
3. Ore
4. Tro
5. B
1. Suadero.
2. Manita.
3. Costilla.
4. Pancita.
5. Bife.
6. Nana.
7. Muslo.
8. Aguayón
9. Cuete.
10. Chamorro.
11. Alita
12. Ubre

Fig. 3.4 Angelic butchery diagram in *Operación Bolívar* (Edgar Clement)

by angels for Cervantes in earlier centuries.[35] The increasing domination of angelic products within the market in *Operación Bolívar* and the need for manufacturers of these products to become cyborg entities, using the hands of the *cazadores* as intermediaries, draws attention to what Slavoj Žižek describes as the 'spectralization of the fetish' in digital culture.[36] Paradoxically, the more immaterial the commodity becomes in a digital economy driven by acts of creative consumption in which the attention of users becomes the most valuable commodity of all, the more effectively it functions to conceal the determining network of social relations undergirding its value. By presenting the baroque angel as a metaphor for the commodity in a digital economy, Clement is returning to Karl Marx's appeal to 'the misty realm of religion' as an analogy for commodity fetishism in *Capital*.[37] Like Marx's commodity, the angels in *Operación Bolívar* are irreducible to their material reality and disclose the fantastic nature and the seductive power of the commodity. Their spectral character is visually referenced by their frequent appearance as ephemeral flashes of light or trails of stardust against a black background, as if they were overexposed figures or spectral traces revealed in a photograph. Out of this context of phantasmagoric angel-commodities emerges a complex posthuman scenario in which the material and immaterial are continually folded into one another. The seemingly virtual and abstract are thoroughly embedded in physical violence and repression, in a damning portrayal of the material consequences of contemporary digital capitalism in a neocolonial context.

Codices

The second baroque medium interrogated in *Operación Bolívar* is the image-text itself, constructed here as a diverse collage of different systems for combining texts and images. These range from illustrated manuscripts (complete with historiated initials, marginalia and miniature illustrations), atlases and newspapers to advertisements, instruction manuals and digital on-screen displays used in aerial combat and videogames, as well as the comic's own conventions of text captions and speech bubbles. In particular, the book develops a parallel between Mesoamerican codices and their role during the post-Conquest period and the function of the graphic novel in the context of late book culture.[38] This association is introduced in the first paratextual insertion in the Caligrama edition, a blank page with a line drawing of a winged angel on horseback announcing its arrival on a trumpet, which is accompanied by a text panel describing it as a 'símbolo de la conquista en el códice Ramírez' (symbol of the Conquest in the Ramírez codex; see Fig. 3.5). The page introduces the dominant themes of the narrative but also points to a more structural analogy between the graphic novel and the post-Conquest codex that is developed over the course of *Operación Bolívar*. The direct citation from the Ramírez Codex coupled with the wider structural parallels draw attention to the nature of both the post-Conquest codex and the graphic novel as transitional texts. The

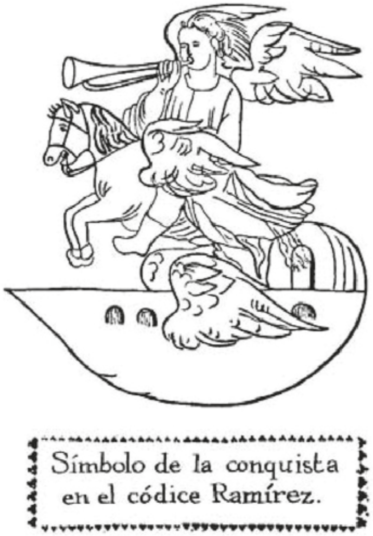


Fig. 3.5 Symbol of the Conquest from the Ramírez Codex, reproduced in *Operación Bolívar* (Edgar Clement)

former embodies a moment of transition between pre-Columbian and European Renaissance epistemes and the latter occupies a strategically transitional position between print culture and the digital realm. The Ramírez Codex, entitled *Relación del origen de los indios que hábitan esta Nueva España según sus Histórias* (*Account of the Origin of the Indians who Inhabit this New Spain According to their Histories*), was compiled in the late sixteenth century by the Jesuit priest and ethnographer Juan de Tovar. The book is believed to have been based partly on the work of Dominican friar Diego Durán and partly on the work of sources written in Nahuatl by indigenous Aztecs who had converted to Christianity shortly after the Conquest. Post-Conquest codices, such as the Ramírez Codex, are transitional texts in the sense that they encode a confrontation between incompatible Mesoamerican indigenous and Catholic-European systems of knowledge. The Ramírez manuscript's role in interpreting indigenous cultures for the purposes of conquest makes it an active agent in the colonial imposition of lettered Renaissance culture that Walter Mignolo traces in *The Darker Side of the Renaissance*.[39] The book is in many ways complicitous in the subordination of pre-Columbian pictorial forms of record-keeping to European systems of textual documentation. Although the Ramírez Codex echoes the conventions of pre-Conquest codices by including images created by indigenous informants, these images are all effectively subordinated in relation to the written word. Whereas pre-Conquest codices combine text and image in a non-hierarchical fashion, the images in Tovar's work are safely contained in a separate section of the book in which the only textual intrusions are explanatory labels. As Serge Gruzinski explains, by the 1570s when Tovar was working, textual labels had become 'the prime vector of information' and thus 'represent the triumph of the book'.[40]

However, despite their ultimate role in the epistemological colonization of indigenous cultures, the post-Conquest codices also embody a moment of transitional instability. The process of archaeology carried out by *Operación Bolívar* emphasizes this instability by constructing both the codex and its inheritor the graphic novel as a space of conflict for competing epistemes and the scopic regimes that embody and naturalize these epistemes. Lois Parkinson Zamora argues that post-Conquest codices are 'inordinate' baroque documents that integrate 'contradictory ways of seeing'.[41] Pre-Columbian systems of visual representation assert themselves against attempts by scholars such as Tovar to incorporate them into European Renaissance modes of visual knowledge through the segmentation of images into panels and the use of explanatory labels. In his analysis of the Ramírez Codex, J. H. Parry points out that, if most of these books were never allowed to be published, it is clearly because they were perceived to be dangerous by the prevailing political powers.[42]

In a way that echoes this dynamic, *Operación Bolívar* occupies a transitional space between print and digital cultures. This is firstly evident in the distribution strategies employed by Clement. As well as print versions such as the Caligrama edition studied here, the book has been made available as an online PDF in an embrace of digital distribution that foreshadows the more extensive use of online platforms for *Los perros salvajes* (see Chapter Two). Secondly, the transitional status is emphasized at the level of narrative in the book through tensions between what Martin Jay describes as the 'scopic regimes of modernity'.[43] On the one hand, the book repeatedly reproduces an instrumentalist, technological mode of envisioning. This is introduced in the first pages of the novel through the use of anatomical diagrams and is reinforced throughout the book in the form of technologically detailed drawings of weaponry. During the fight sequence at the end of the book a panel depicts Román, who has morphed into a *nahual*, seen through one of the CIA's helicopter gunsights (see Fig. 3.6). In this respect, the book itself embodies a militaristic mode of vision. Through the direct connection between anatomical drawings and hi-tech digital weapons guidance systems, *Operación Bolívar* draws

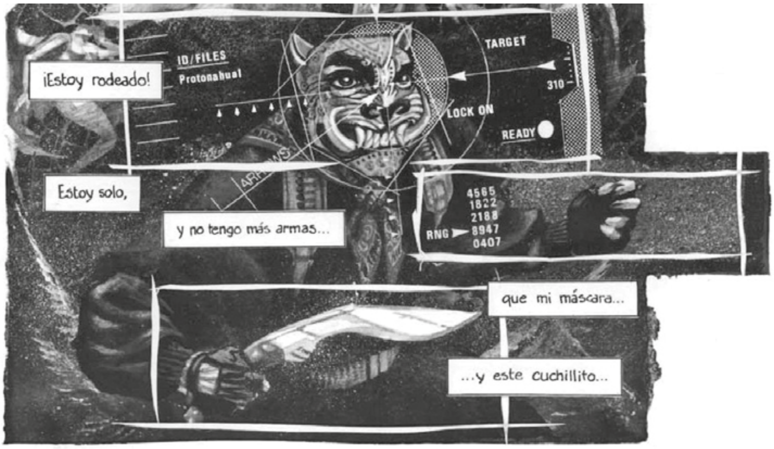


Fig. 3.6 A *nahual* seen through a gunsight in *Operación Bolívar* (Edgar Clement)

attention to the hidden epistemic violence inherent in scientific modes of seeing that present themselves as neutral, objective and natural.

However, the book also stages the limits of mechanistic Cartesian vision by confronting it with a baroque scopic regime, which Jay describes as a 'moment of unease in the dominant model'.[44] The book stages a baroque undermining of Cartesian vision through an emphasis on multiple fragmentary perspectives and an often bewildering excess of imagery drawn from different media and historical contexts. The relationship between the panel and the page in *Operación Bolívar* echoes the blurring of boundaries between architecture and art, structure and façade in the baroque aesthetic. As Helen Hills puts it, 'In the baroque, masses spill over, overflow; matter is uncontainable'.[45] There are no clear distinctions between diegetic imagery and structural supports in Clement's book. Panels bleed into the edges of some pages while other pages parody the conventions of baroque tableaux. When El Protector severs the hands of Juan Grande, for instance, the page is presented in the form of one of the stations of the cross, complete with a title that reads 'santísimo destino doloroso' (most holy and painful destiny; see Fig. 3.7). The narrative in *Operación Bolívar* rarely develops through a stable temporal progression performed in the type of panel-to-panel transitions enumerated by Scott McCloud in his analysis of classic comic book narration.[46] Rather, through the emphasis on the page as a primary unit, the reader is forced to forge plurivectorial paths across the text. The account of the Operación Bolívar conspiracy, for instance, is told

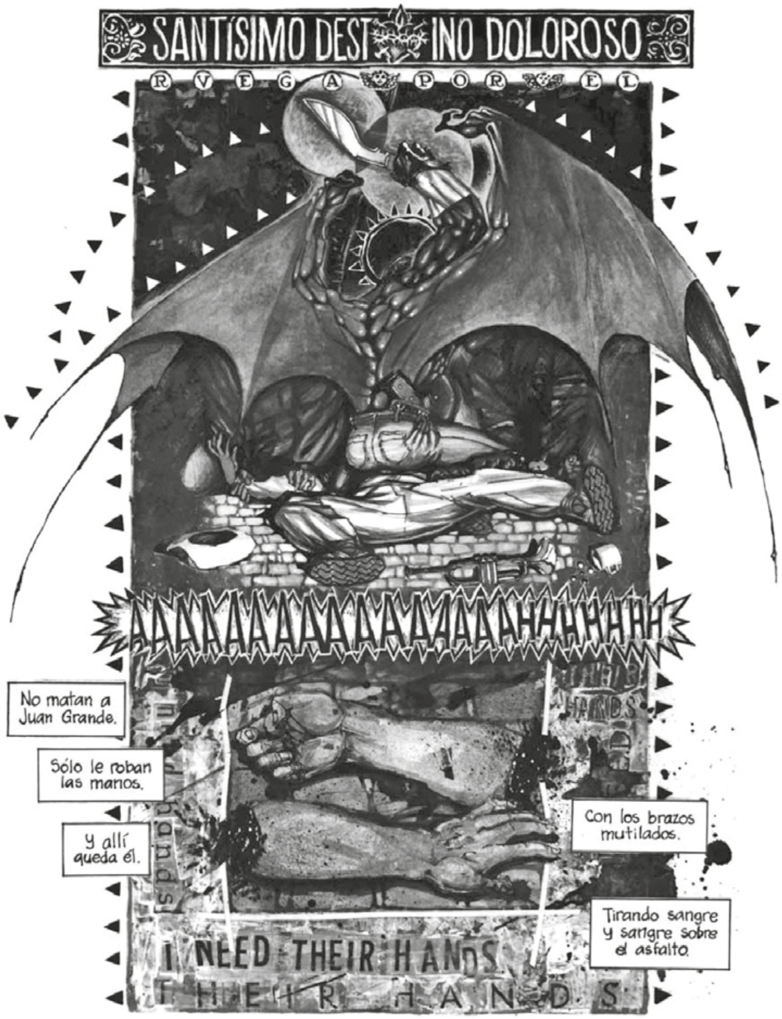

SANTÍSIMO DESTINO DOLOROSO
RVEGA POR EL
AAAAAAAAAAAAAAAAHHHHHH
No matan a Juan Grande.
Sólo le roban las manos.
Y allí queda él.
Con los brazos mutilados.
Tirando sangre y sangre sobre el asfalto.
I NEED THEIR HANDS
THEIR HANDS

Fig. 3.7 Baroque tableau in *Operación Bolívar* (Edgar Clement)

through a series of collages in which the reader is encouraged to make connections between historically disconnected elements such as a portrait of Simón Bolívar and a newspaper cutting concerning free trade agreements in the Americas (see Fig. 3.8). The complicating of panel-to-panel transitions in this way echoes the form of pre-Conquest codices, which were traditionally presented as folding 'books', created from long strips of bark, leather or other materials. Zamora draws out the baroque logic of the screenfold format in a way that clearly echoes the mode of plurivectorial narration required of *Operación Bolívar*'s reader: 'The screenfold structure allows the interpreter to see several folds at once, to consult folds in clusters rather than consecutively, to flash forward and back and across – that is, to move multidirectionally through the space of astronomical and calendrical signs'.[47] The mechanistic Cartesian vision represented by the scientific drawings is unsettled by the way in which the frame repeatedly folds into the image, thereby undermining the reader's distance from the storyworld. As frame and panel repeatedly fold into one another the reader's position of detached externality is destabilized. This structural dynamic echoes the manner in which the figure of the baroque angel in the book embodies a fracturing of the dominant scopic regime of modernity.

Claire Farago argues that post-Conquest codices echo the reconceptualization of the human carried out in the Council of Valladolid in 1550, in which Bartolomé de las Casas contested Juan Ginés de Sepúlveda's claim that the indigenous inhabitants of New Spain were less than human and therefore the 'natural slaves' of the Spanish by asserting that 'all the world is human'.[48] On the one hand, this functions at a thematic level in the attempts by missionaries to rework their definitions of the human to incorporate the cultures and traditions of the indigenous inhabitants of the newly conquered lands. Parry points out that one of the elements that Tovar excised from Durán's history was the theory – popular at the beginning of the sixteenth century – that the indigenous inhabitants were descendents of the Lost Tribes of Israel. The reasoning behind this theory was a refusal to accept that God would have left a branch of the human race isolated and 'cut off from the possibility of salvation'.[49] On the other hand, this renegotiation of human limits also takes place at a structural level through the temporary disruption of hierarchies between word and image and through the partial introduction of picture-based language systems into the heart of Renaissance print culture. One aspect of these texts that made them seem dangerous to sixteenth-century Spanish bureaucrats was the fascination they evidenced for the role of images in Mesoamerican cultures. Zamora explains that 'Indigenous American cultures privileged the capacity of the visual image *to be,* or *become*, its object or figure. The image contained its referent, embodied it, made it present physically and experientially to the beholder'.[50] This animation of the image is a counterpart to the permeability of boundaries between the body and the world that pervades the pre-Conquest codices and is retained in spectral form in the post-Conquest texts. *Operación Bolívar* makes a connection between the way codices function as vehicles for the redefinition of what is understood to be human and the use of the

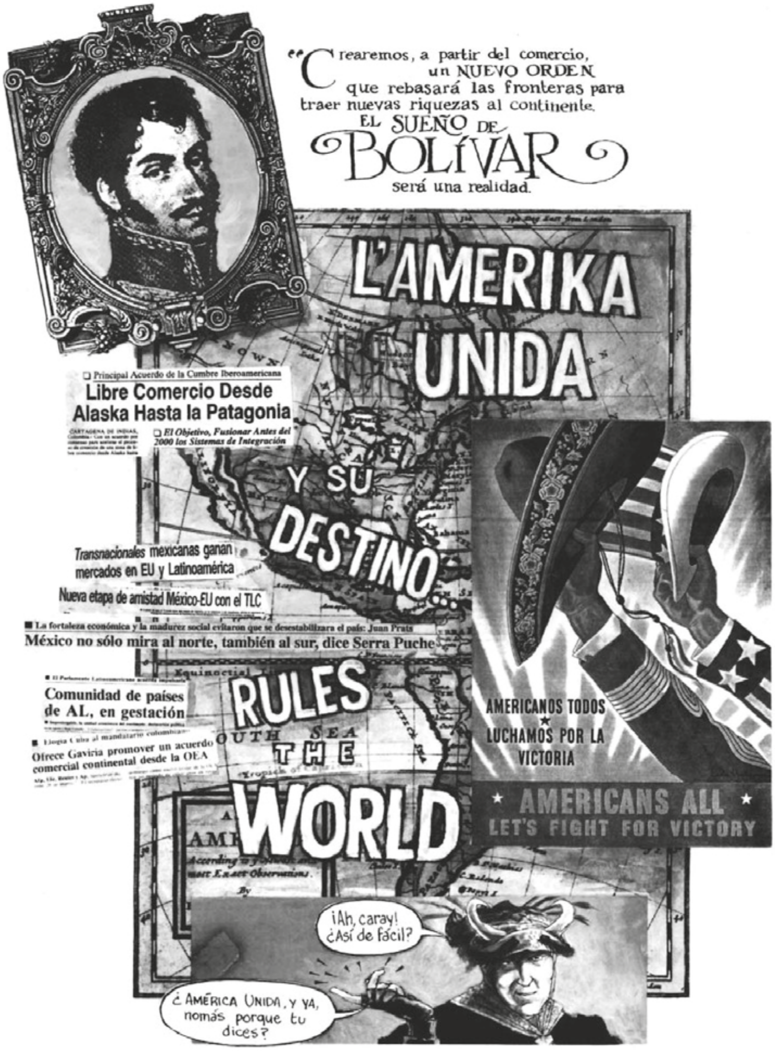

"Crearemos, a partir del comercio, un NUEVO ORDEN que rebasará las fronteras para traer nuevas riquezas al continente. EL SUEÑO DE BOLÍVAR será una realidad.
L'AMERIKA UNIDA Y SU DESTINO... RULES THE WORLD
Principal Acuerdo de la Cumbre Iberoamericana
Libre Comercio Desde Alaska Hasta la Patagonia
El Objetivo, Fusionar Antes del 2000 los Sistemas de Integración
Transnacionales mexicanas ganan mercados en EU y Latinoamérica
Nueva etapa de amistad México-EU con el TLC
La fortaleza económica y la madurez social evitaron que se desestabilizara el país: Juan Prats
México no sólo mira al norte, también al sur, dice Serra Puche
Comunidad de países de AL, en gestación
Ofrece Gaviria promover un acuerdo comercial continental desde la OEA
AMERICANOS TODOS ★ LUCHAMOS POR LA VICTORIA
★ AMERICANS ALL ★ LET'S FIGHT FOR VICTORY
¡Ah, caray! ¿Así de fácil?
¿AMÉRICA UNIDA, Y YA, nomás porque tú dices?

Fig. 3.8 Collage technique in *Operación Bolívar* (Edgar Clement)

graphic novel to perform posthuman subjectivity. The text compares the breaching of the boundaries between the human subject and the non-human object in both the baroque aesthetic and the distribution of cognitive and affective processes beyond the boundaries of the human in digital culture. The decentredness of the graphic novel structure, caught in the tensions between written word and image, stages this distributed conception of life.

The ongoing intermedial connections that structure the baroque aesthetic of *Operación Bolívar* have the effect of placing a strong emphasis on the materiality of both the sixteenth-century codices and the graphic novel itself. The frequent use and adaptation of pre-Columbian designs (see Fig. 3.9) and the pervasive uncertainty surrounding the status of frames and borders undermine the suppression of material specificity central to the tradition of textual scholarship that, in Hayles' argument discussed in the introduction, underpins the dominant discourses of humanism. However, through this emphasis on materiality, *Operación Bolívar* also problematizes the tendency in posthumanist discourse to caricature Renaissance humanism as being dominated by a commitment to the dematerialized, unified human subject. Clement repeatedly draws the reader's attention to the textures of the media used in the interests of conquest and domination, from the imitations of Inquisitorial documents in the Intermezzo section of the book to the collage of newspaper cuttings celebrating free trade agreements in the 1990s. This emphasis on their materiality echoes Mignolo's argument that the written word occupied a privileged position in the Renaissance

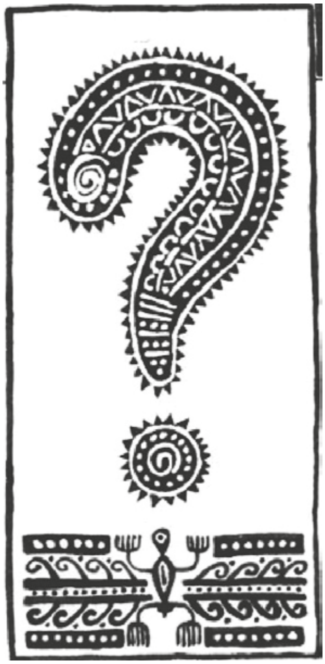


Fig. 3.9 Adaptation of pre-Columbian design in *Operación Bolívar* (Edgar Clement)

systems of knowledge that animated the Conquest. In her call for a focus on materiality in Latin American media theory, Shirin Shenassa points out that the Spanish humanist and grammarian Antonio de Nebrija in his *Gramática castellana* of 1492 argued that a strictly regulated and codified Castilian Spanish was a 'necessary precondition for national coherence as well as for the expected expansion of the Spanish Empire'.[51] It was only the advent of print media – which was contemporaneous with the Conquest – that made this regulation possible. In this way, Clement's book pre-empts a number of recent warnings that critical posthumanism should be alert to the complexities and contradictions of the humanist discourses it critiques. Joseph Campana and Scott Maisano argue that the Renaissance humanism rejected by much contemporary work on posthumanist thought is a straw man that bears little resemblance to discourses elaborated from the fourteenth to the seventeenth century that presented the human as 'at once embedded and embodied *in*, evolving *with*, and decentred *amid* a weird tangle of animals, environments, and vital materiality'.[52] Instead, as a counterpart to Latour's assertion that 'we have never been modern', they suggest that 'we have always been posthuman'.[53] *Operación Bolívar* repeatedly emphasizes the paradoxically posthumanist status of certain strands of Renaissance thought through its enactment of the 'becoming-minor' of the historical baroque aesthetic. By pointing to the differential logic shared by the historical baroque and the information aesthetic of the digital age through the figure of the angel, the book reveals a posthumanist logic at the heart of one of the main aesthetic vehicles for humanism during the colonial period. The blurring of neat distinctions between humanism and posthumanism carried out by Clement is emphasized in satirical fashion by the appearance of an image of an angelic version of da Vinci's Vitruvian Man alongside the butcher's diagram of angel cuts (see Fig. 3.10).

Conclusion

One of the critical effects of the (an)archaeological process carried out in *Operación Bolivar* is to unsettle teleological narratives of modernity. By connecting the graphic novel form to sixteenth-century codices, Clement's text inserts itself into a tradition of image-texts that undoes the dominant narratives of the development of writing systems. Elizabeth Hill Boone points out that most influential European studies of the nineteenth century – such as Isaac Taylor's history of 1899 – constructed an evolutionary narrative of writing 'progressing

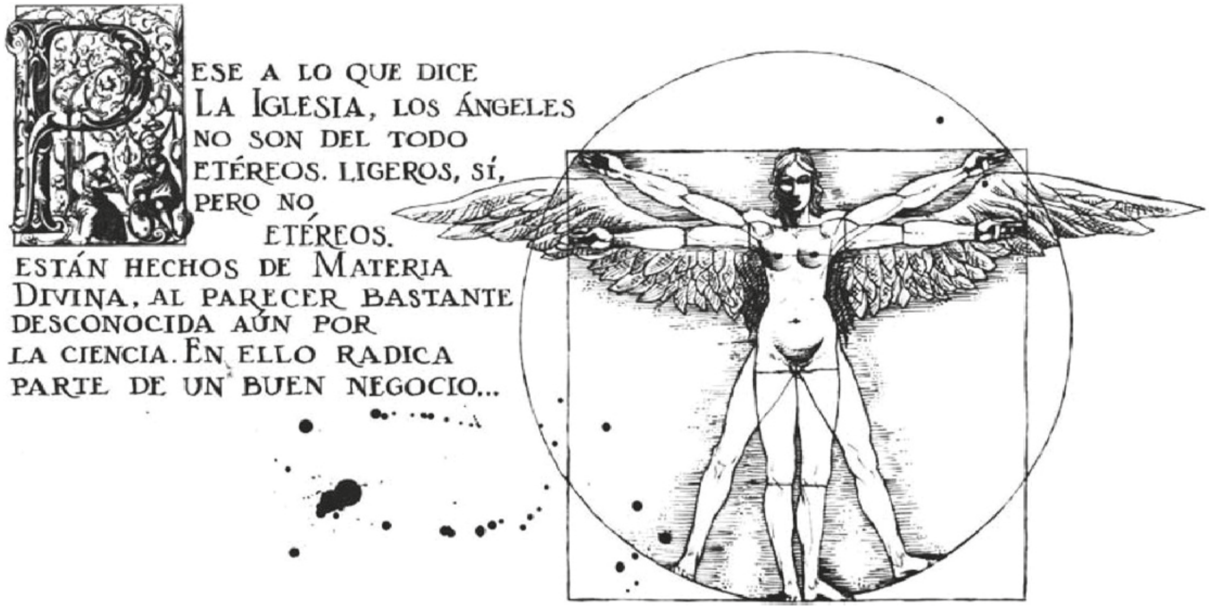

PESE A LO QUE DICE
LA IGLESIA, LOS ÁNGELES
NO SON DEL TODO
ETÉREOS. LIGEROS, SÍ,
PERO NO
ETÉREOS.
ESTÁN HECHOS DE MATERIA
DIVINA, AL PARECER BASTANTE
DESCONOCIDA AÚN POR
LA CIENCIA. EN ELLO RADICA
PARTE DE UN BUEN NEGOCIO...

Fig. 3.10 Angelic version of Vitruvian Man in *Operación Bolívar* (Edgar Clement)

from pictures to pictorial symbols, verbal signs, syllabic signs, and ultimately alphabetic signs'.[54] Through the parallels it constructs, *Operación Bolívar* aligns the graphic novel with a tradition that resists this narrative. By forging connections between the contemporary technological imaginary and the baroque, Clement also distances the text from posthumanist discourses that reproduce these narratives of technological progress. Rather, *Operación Bolívar* traces a number of transhistorical connections between moments of instability in Mexican media history. By aligning the medium of the graphic novel with these moments of instability, Clement provides a platform for the 'aberrant trajectories in the development of technology and the media' described by Kluitenberg. In his reading of *Cronos*, Geoffrey Kantaris argues that del Toro's film presents the representational culture of the book as 'redundant' in a posthuman present dominated by the image.[55] By contrast, in the immanent theory of the form carried out in *Operación Bolívar*, Clement presents the graphic novel as a medium strategically placed between print and digital cultures and therefore in a position of distant proximity to the mutating materialities of a posthuman age. By performing the posthumanist potential within the baroque aesthetic of the colonial period, Clement distances *Operación Bolívar* from the use of cyborg imagery in texts such as *Cronos* as a melancholy marker of loss and oppression. Rather, it functions as a part of a transhistorical baroque event, facilitating connections that undermine the hierarchies reinforced by dominant narratives of media.

4

Steampunk, Cyberpunk and the Ethics of Embodiment

The rise of cyberspace has brought with it fantasies of bodily transcendence, with the prospect of virtual forms of experience that extend our minds and actions into a supranational space in which we can be absolutely anyone at all, and perhaps – in the future – leave our imperfect bodies behind altogether. Although the cyberpunk genre in literature and film is generally critical of the liberatory claims made on behalf of cyberspace, it often reinforces the separation of mind and body that underpins transhumanist prophecies. In William Gibson's seminal *Neuromancer* (1984), for example, console cowboys leave their bodies behind when they jack into cyberspace, dismissing them as 'meat'. Steampunk, a related subgenre of science fiction inspired by the steam-powered machinery of the industrial era, propels us into a very different realm. It emphasizes instead our sensory, embodied interaction with the materiality of machines and replacing the smooth surfaces of seamless cyberspace technologies with do-it-yourself, infinitely tinkerable mechanics.

Recent work on the representation of technology in steampunk has identified its potential to reconnect us, as Stefania Forlini suggests, 'to the objects we make, and to our material environment'[1] and to recreate 'the affective value of the material world' more commonly associated with the nineteenth century than our own.[2] This chapter develops a reading of two Chilean graphic novels that experiment with steampunk and cyberpunk genres to challenge the supposed transcendence of the body in cyberculture, countering this vision with an insistence on the centrality of embodiment in human experience. As a wider movement encompassing fashion and design as well as forging new social communities, steampunk often brings a broader ethical purpose to its aesthetic projects. The same is true of these graphic novels, which point to the need for new approaches to human ethics in a posthuman universe. Whatever form these approaches may take, they will be rooted in an understanding that human cognition and consciousness are inseparable from our embodied experience, and that any conception of our transcendence of the material world is illusory and merely feeds the humanist fantasy of human domination over nature.

The 'alternative history' genre has a particular place in Chile's recent wave of science fiction and fantasy novels. Francisco Ortega and Jorge Baradit, the authors of the graphic novels discussed in this chapter, are key figures in the country's 'nueva narrativa fantástica' (new fantasy narrative), and have also collaborated on a number of projects, such as the *CHIL3: Relación del Reyno 1495–2010* compilation, in which Ortega, Baradit and Mike Wilson invited writers to reinvent Chilean history.[3] Ortega's novels *El número Kaifman* (2006)[4] and *Logia* (2014), together with Baradit's *Synco* (2008) and other contemporary novels such as Alberto Rojas' *La sombra de fuego* (2011), enter parallel universes nesting in the folds of time, and recount in a delirious key undiscovered crimes and conspiracies that change the course of history as we know it. The graphic novels *1899: cuando los tiempos chocan* (Ortega and Nelson Dániel, 2011) and *Policía del Karma* (Baradit and Martín Cáceres, 2011) perform a similar operation, revisiting decisive moments in Chile's past to imagine them differently, often with the aim of defamiliarizing and deconstructing a history of modernity and cybernetics. The effect of their heavy use of steampunk aesthetics is to draw attention to the human cost of Chile's modernization, revealing the real and material dynamics of oppression and exclusion out of which the modern, cybernetic nation is born.

Steampunk and the ethics of things in *1899: cuando los tiempos chocan*

1899: cuando los tiempos chocan returns to the War of the Pacific, fought by Chile against Bolivia and Peru between 1879 and 1883. The fantastical discovery of a new mineral, *metahulla*, catapults Chile into a leading position among the world's superpowers. Twenty years later, however, Inspector Uribe must try to solve the mystery of a series of apparent attacks on the futuristic infrastructure of Chile's new industries. In an encounter with two celebrated war heroes, Chile's Captain Arturo Prat and Peru's Admiral Miguel Grau – who have outlived their historical deaths in 1879 – Uribe learns that the momentous discovery of *metahulla* produced a fracture in history. This created a parallel world that is destined, eventually, to collapse back into the old one that manifests itself to him in dreams.

The text's gleeful mash-up of allusions to different historical and literary periods melds into a distinctively steampunk aesthetic. This is first apparent in the introduction of steam-age mechanics into futuristic technologies. The energy released from *metahulla* has powered unthinkable advances in transport and artificial intelligence, thrusting Chile into the future. In a nod to Japan's famed bullet trains, invented over 60 years later, Uribe travels from Concepción to Santiago in a train 'con su morro en forma de bala' (with a bullet-shaped nose). Even more impressively, however, the Chilean version is suspended from a single overhead rail. Yet these machines are not the graceful progeny of stylish contemporary engineering, but hulking and poisonous contraptions. A splash page representing Santiago juxtaposes a futuristic monorail with horses and carts, gas lamps and Victorian-style bustles, all enveloped in the thick billows of smoke that emanate from the city's myriad chimneys (see Fig. 4.1). The 'Numbers', the humanoids that now boost Chile's police force, bear all the hallmarks of a steampunk creation. They present a spindly version of the human biped, with their casing, joints and screws undisguised by any human-like cladding; these are replaced with clunky bolts, goggle-like eyes and fumes belching from a large battery backpack (see Fig. 4.2).

Page composition and inking in *1899* reinforce this steampunk aesthetic, harking back to the use of the halftone technique in the printing of photographs in newspapers towards the end of the nineteenth century and evoking the use of heavy machinery in print runs. The persistent use of overlapping or inset panels and narrative boxes creates a layered collage, as if individual panels had been physically cut and pasted onto the page, mounted on top of each other (see Fig. 4.3). The effect recalls the traditional 'paste-up' in comic production, a laborious process that would precede the making of a printing plate. The book itself is printed in black and white on lower-grade, uncoated paper, with a slightly fibrous feel, contrasting with the full-colour printing and glossy paper of many recent Chilean graphic novels. The heavily pixellated effect produced for greys resembles newspaper image reproductions; the pixels even appear patchily inked and finger-smudged in places, simulating the rushed print runs of newspapers or comics magazines for mass circulation (see Figs 4.1 and 4.2).[5]

The technologies *1899* imagines are similarly imperfect and messy, disgorging volatile, polluting gases that point to the uncounted human

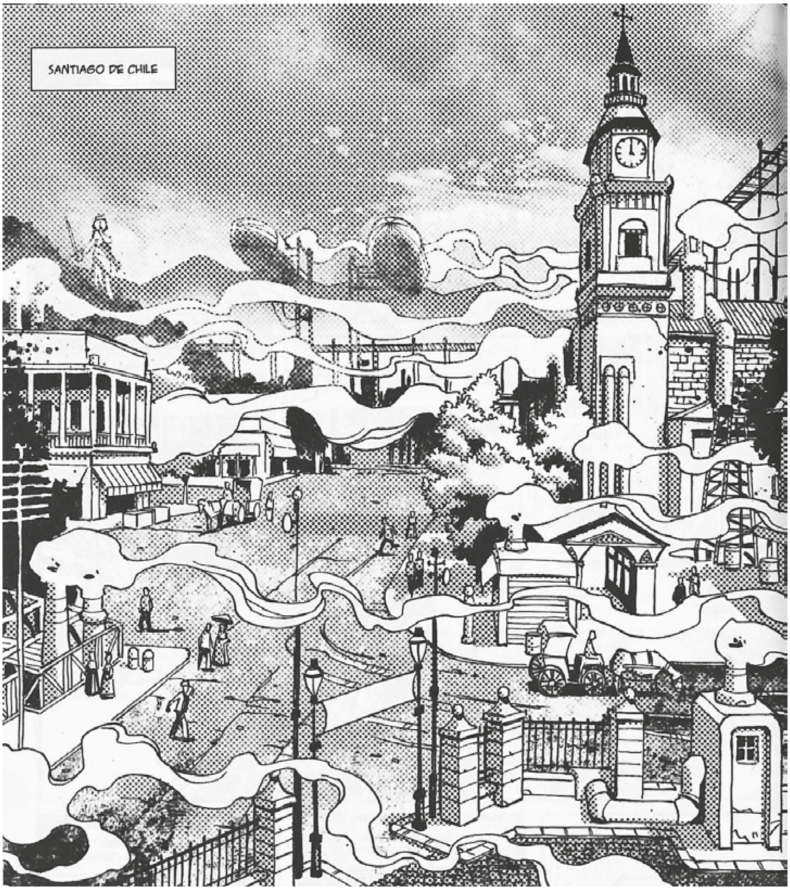


Fig. 4.1 A steampunk vision of the city of Santiago in *1899: cuando los tiempos chocan* (Francisco Ortega and Nelson Dániel; panel detail)

and environmental cost of the hasty adoption of new inventions. As we will argue, far from glorying in Chile's fictitious place at the forefront of scientific development, Ortega and Dániel draw on the rematerializing, re-embedding effects of steampunk poetics to censure the expansionist aims of Chile's past and to reinsert the nation's modernizing progress within a history of exclusion and exploitation. The capacity of steampunk to bring humans (back) into intimate relationships with the tools and objects we have fashioned allows *1899* to sketch out the need for a greater ethical engagement with the material world in a context in which humans have become – and indeed always were – ontologically inseparable from the technologies they have created, and that continually shape them in turn.

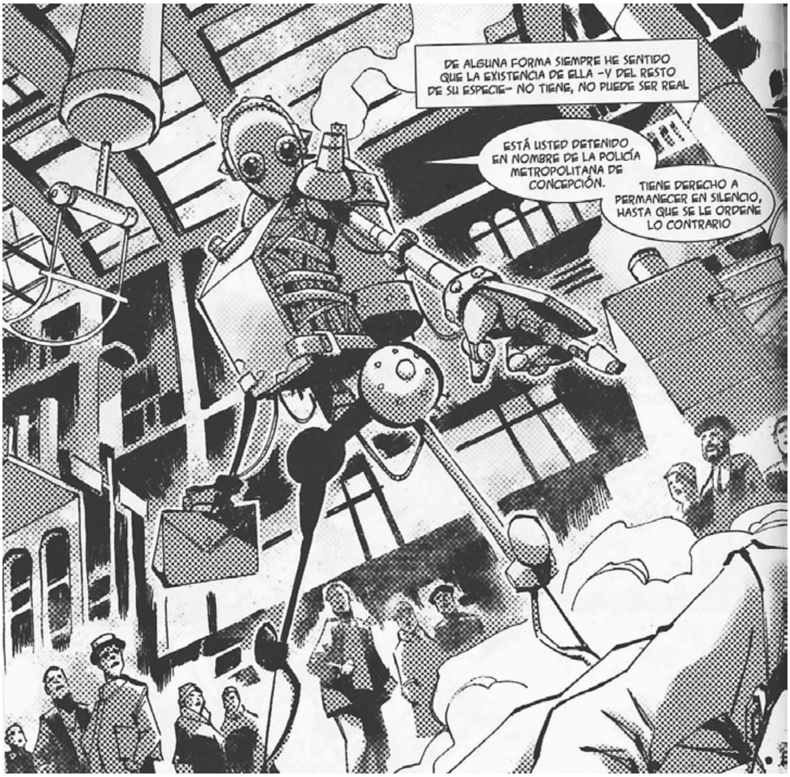

DE ALGUNA FORMA SIEMPRE HE SENTIDO QUE LA EXISTENCIA DE ELLA –Y DEL RESTO DE SU ESPECIE– NO TIENE, NO PUEDE SER REAL
ESTÁ USTED DETENIDO EN NOMBRE DE LA POLICÍA METROPOLITANA DE CONCEPCIÓN.
TIENE DERECHO A PERMANECER EN SILENCIO, HASTA QUE SE LE ORDENE LO CONTRARIO

Fig. 4.2 Steampunk humanoids in *1899: cuando los tiempos chocan* (Francisco Ortega and Nelson Dániel; panel detail)

Making use of steampunk's retrofuturistic mode, Ortega and Dániel are able to concertina the historical development of technology. The result is that cybernetic breakthroughs such as bionic hands and AI humanoids are brought to share the same historical space as steam ships and railways. This allows them to embed futuristic technologies within a material world of pollution and human exploitation rather than propagating the lie of 'clean' technology so easy to believe when we contemplate the smooth and shiny surfaces of contemporary appliances. If many of *1899*'s machines – the zeppelin, the Great Eastern[6] – are now obsolete, it is because they are associated with historical disasters. It is explained that Concepción, once a humble fishing village and now a futuristic metropolis, has arisen out of the ashes of the terrible explosion that took place at a nearby mine, marking Chile's first encounter with the power of *metahulla*. Uribe reflects that 'murió mucha gente, es verdad, pero fue el precio que pagamos para saltarnos cien años de avances'

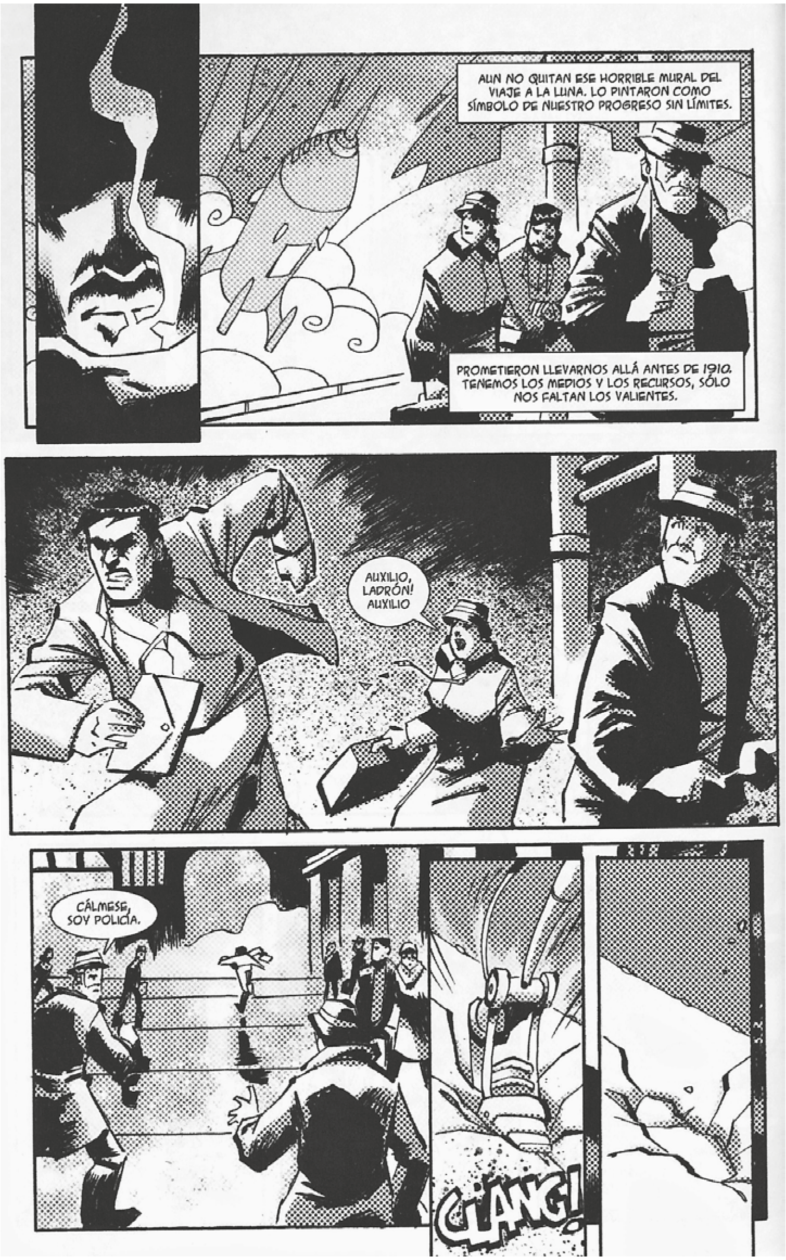

AUN NO QUITAN ESE HORRIBLE MURAL DEL VIAJE A LA LUNA. LO PINTARON COMO SÍMBOLO DE NUESTRO PROGRESO SIN LÍMITES.
PROMETIERON LLEVARNOS ALLÁ ANTES DE 1910. TENEMOS LOS MEDIOS Y LOS RECURSOS, SÓLO NOS FALTAN LOS VALIENTES.
AUXILIO, LADRÓN! AUXILIO
CÁLMESE, SOY POLICÍA.
CLANG!

Fig. 4.3 Old-style inking and paste-up effects in *1899: cuando los tiempos chocan* (Francisco Ortega and Nelson Dániel)

(many people died, it's true, but it was the price we paid to leapfrog over a hundred years of development). That price did not secure any greater safety for Chile's citizens, however, as the unstable *metahulla* regularly combusts, destroying trains and refineries. Dangerous, heavy, polluting steampunk machines remind us constantly of the human and environmental damage wrought by rapid technological advance.

Forlini draws examples from art and literature to show how steampunk – which she identifies as a 'craft and lifestyle movement' as well as a 'sub-genre of science fiction'[7] – consistently raises the question of the ethics of our relationship with things, calling us to recognize the 'mutual constitutivity in which humans make and are made by technological things'.[8] She examines a series of steampunk artworks presented in the 2008 Seattle exhibition *Anachrotechnofetishism*, drawing attention to the values of recycling, sustainability, making and tinkering associated with the movement.[9] As she claims, 'steampunk is about learning to read all that is folded into any particular created thing – that is, learning to connect the source materials to particular cultural, technical, and environmental practices, skills, histories, and economies of meaning and value'.[10] In a similar manner, *1899* re-embeds its airships and cyborgs within the hazardous practices of mining and environmental destruction on a vast scale. This is not a sleek, modern utopia but a technological coup birthed in catastrophe and sustained by political intrigue and social exclusion. The miraculous discovery of *metahulla*, it would appear, has done nothing to prevent the growth of Chile's huge social and economic inequalities. Prat lives in an ostentatious mansion in Providencia, home to 'una comunidad rica de santiaguinos con demasiado dinero y mucho tiempo libre' (a rich community of Santiagoans with too much money and a lot of free time). In Chile's brave new world, not every citizen has benefited from rapid modernization: veterans camp out on its streets, begging for money, disabled as a result of the country's early misadventures with the volatile *metahulla* and 'abandonados por un país que se acostumbró demasiado al éxito' (abandoned by a country that has become too accustomed to success).

Graphic fiction from Latin America has often sought to invert (neo)colonial hierarchies in its depiction of technology, imagining an upturned world order in which the least modernized countries are thrust towards the vanguard of global development. Héctor G. Oesterheld's *La guerra de los Antartes* (Argentina, 1974), for example, describes a utopia in which Zaire boasts the world's most sophisticated technology, and Argentina, Cuba and Peru have become highly developed, modern (and socialist) nations: until, that is, Russia and the US strike a backroom deal with the alien invaders to share profits in exchange for total domination over South America. Ortega and Dániel's *1899*, conversely, does not perform a 'writing back' from the margins of colonial history in order to denounce European and North American imperialism. Instead, it turns the focus of its critique onto Chile's own nineteenth-century expansionism. The nation's *metahulla*-charged bellicose ventures have left its officers and conscripts traumatized, wounded and even suicidal: a tormented Captain Carlos Condell, a hero of the War of the Pacific, shoots himself in the head a few years later (unlike the real historical figure). The punishment inflicted on Peru is grossly disproportionate, culminating in the annihilation of Lima by means of a *metahulla* bomb that closely resembles a nuclear explosion. The event is fictional, of course, but Ortega insists, 'no encuentro que sea algo tan distinto a lo que realmente sucedió' (I don't think it's that different to what really happened), alluding to the brutal history of Chile's occupation of Lima during the war.[11]

Chile's military aggression is associated in *1899* with a broader dynamics of domination that stems from a humanist belief in the power and the right of humans to subdue nature. In her analysis of the relationship that steampunks establish with things, Forlini marks a troubling ambivalence. While their investigation of the close relationship between humans and the material world opens the way for a radically new perspective on technology, this may also manifest itself in a return to dreams of technological mastery associated with the Victorian era. By idealizing the bygone culture of the amateur scientist who could forge his own inventions and tinker with others, steampunks leave unquestioned the concept of human mastery and therefore fall short of exploring alternative kinds of relationship between people and things. In this way, Forlini suggests that 'their idealisation of mastery risks re-inscribing the values of liberal humanism onto posthumanism and may instead perpetuate a fantasy of control and domination as old as technology itself'.[12] Despite its clear investment in the steampunk genre, *1899* does not permit any such 'idealisation of mastery', either for individuals or for the nation. The text is devoid of nostalgia, opting instead for a tragic key in its narration of the hubris of Chile's war heroes. Prat's post-war scientific expeditions and inventions end in disaster or insignificance. During the first attempt ever made to reach the South Pole in 1891 – a full decade before the first historical expedition undertaken by Robert Scott – he is cruelly repelled by a battalion of starfish-shaped parasitic vampires that invade the minds of his officers and drive them to insanity. Any plans that Chile might have had to take possession of the virgin territory of Antartica before the Europeans got there had in any case been thoroughly shot to pieces by Prat's discovery of the ruins of a pre-human civilization. Prat redesigns an old British merchant navy ship as a floating laboratory in order to further research into sperm whales,[13] and goes on to discover several mythical or extinct sea monsters, such as the megalodon and the kraken. But the finest resources of fantasy in *1899* only magnify a history of trauma and catastrophe, not one of an illusory domination over the natural world. *Metahulla* will finally claim the lives of both Prat and Grau, and we are led to suspect that this alternative, parallel, anomalous strand of Chilean history will soon implode.

Even more significantly in its construction of a posthumanist perspective, *1899* depicts a world in which human agency is far from the primary shaping force. The continued attacks on Chile's infrastructure, the object of Uribe's investigation, remain without full explanation in *1899*. We do know that they are not the work of Peruvian terrorists, as the popular imagination would suggest. In fact, nothing in the text contradicts Prat and Grau's claim that the explosions are simply the work of *metahulla* itself and not carried out under any human direction. This representation of *metahulla* complicates the conventional division between humans and non-humans, according to which human actors take steps to change the inert world around them. Bound together in intricate relationships with uncertain consequences, both humans and non-humans in *1899* are responsible for the dramatic changes – of development and destruction – that have shaped Chile's material and social landscape. Neither nature nor technology in *1899* may be reduced to a means, to be used in the pursuit of human-designed ends: they are never simply just an instrument of human desires or an extension of human powers. *1899* thus affords us a glimpse of a posthumanist conception of the world in which technologies – as Bruno Latour argues – 'introduce a history of enfoldings, detours, drifts, openings and translations' that divert human intentions and thoroughly betray our original desires.[14] This vision unmakes the hierarchical relationship between humans and technologies as ontologically separate entities that has underpinned Western notions of modernity. As Latour argues:

> Behind the tired repetition of the theme of the neutrality of 'technologies-that-are-neither-good-nor-bad-but-will-be-what-man-makes-of-them', or the theme, identical in its foundation, of 'technology-that-becomes-crazy-because-it-has-become-autonomous-and-no-longer-has-any-other-end-except-its-goalless-development', hides the fear of discovering this reality so new to modern man who has acquired the habit to dominate: there are *no masters anymore* – not even crazed technologies.[15]

The disturbing revelation of *1899* is precisely that 'there are *no masters anymore*', as human and non-human forces are enmeshed in vast networks with unforeseeable outcomes. If *1899* explicitly adopts a version of Asimov's laws of robotics – we are told that Ygriega is unable to act in disobedience to a superior or to attack a human being – it is not to mobilize the oft-feared conflict between humans and intelligent machines and to ask which will finally attain ascendancy. It is, instead, to raise the question of our ethical response to non-humans in a context in which it is both futile and vain to continue to treat humans and non-humans as fully discrete in relation to their agency or even their ontological status.

In Ygriega's programming, we see the failing of humans to engage with the ethical responsibility that arises from our co-evolving relationship with the material world. As Lucas D. Introna suggests, our anthropocentric perspective constructs things as mere objects for our own use, and 'our concern for things [...] is not our instrumental use of them, the violence of our inscriptions in/on them, but that such scripts may ultimately harm us'.[16] No provision is made in *1899* for the protection of the Numbers, and if Uribe prevents Ygriega from being blasted to pieces at the end, it is primarily to save his own skin. His subsequent salvation at her own hands does change their relationship, however, and the narrative as a whole charts Uribe's increasing awareness of the new ethical demands of a cyborg world. The Numbers are often the target of violence on the part of citizens who recoil from them with fear, and the smoke they generate is widely suspected to be poisonous. This rejection on the part of the public is the reason that only 20 models are active, despite the fact that they were first manufactured several years ago. Uribe at first voices a similar suspicion, associating Ygriega with 'esa generación de abominaciones mecánicas [...] un atentado contra los designios de Dios' (that generation of mechanical abominations [...] an affront to the designs of God). Although he has a natural dislike for working with the Numbers, he does react with righteous anger when Ygriega encounters apartheid-style discrimination, being forced to take her seat in the goods van on the train. The composition and layout of *1899*'s panels clearly signal to the reader that Ygriega is to be considered the equal of her human makers. At Prat's house, for example, and in the encounter with Grau on the Huáscar, close-ups of her face are markedly given the same treatment as those of her human interlocutors, framed in identically sized panels and placed side-by-side (see Fig. 4.4).

Forlini observes the importance in Neal Stephenson's *The Diamond Age: Or, A Young Lady's Illustrated Primer* (1995) of the 'slippage between our treatment of things and our treatment of people'. In a similar vein,

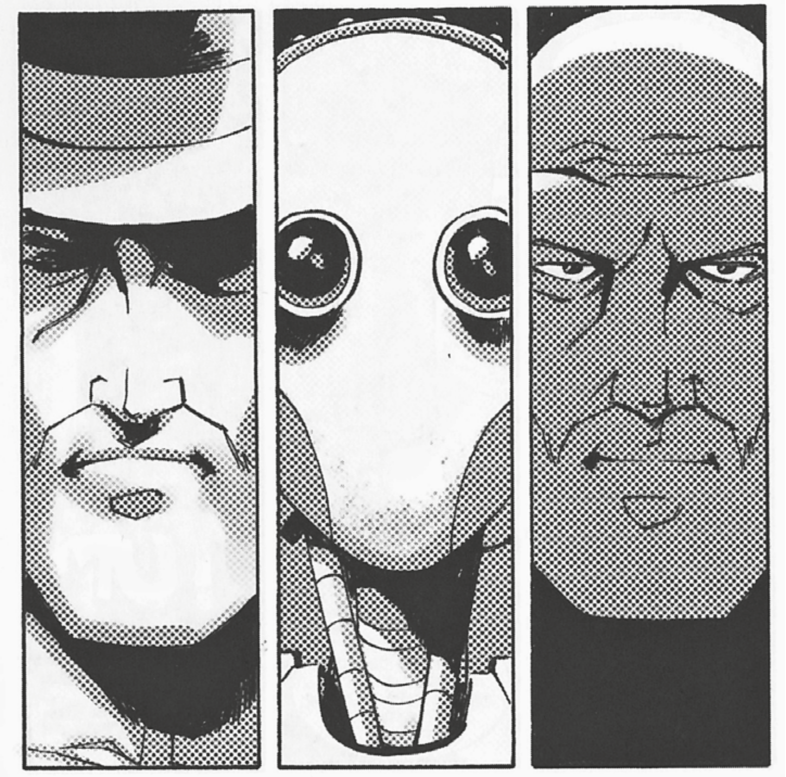


Fig. 4.4 Ygriega as the equal of Prat and Grau in *1899: cuando los tiempos chocan* (Francisco Ortega and Nelson Dániel)

Introna argues that our treatment of things takes on an important ethical dimension in a posthuman world, not least because ‘our moral indifference to so many supposedly significant beings (humans, animals, nature, etc.) starts with the idea that there are some beings that are less significant or not significant at all’.[17] In *1899*, it is made clear that tools and technologies are not simply brought forth for human purposes; they ‘disclose us’ in turn, in the manner described by Introna.[18] As they do so, they do not simply reveal us as ‘users’ or ‘manipulators’ of tools; they bear witness to our longing to overcome finitude, by erecting ever-higher buildings, while their fragility – ending up on scrapheaps – points to our own.[19] Further, as Introna suggests:

> If it is increasingly difficult to draw the boundary between our objects and us [. . .] then it is rather a small step to take for an ethics to emerge in which all things – human and non-human alike –

> circulate as objects: ‘things-for-the-purposes-of’ the network. [. . .] Thus, the irony of an anthropocentric ethics of things is that ultimately we also become ‘objects’ in programmes and scripts, at the disposal of a higher logic (capital, state, community, environment, etc.).[20]

In a similar way, in *1899,* the reckless exploitation of *metahulla* not only discloses a disregard for the natural environment but also extends this logic to its human participants. These take on the role of the dispensable pawns of a shadowy conspiracy, tossed aside when they are no longer needed. A clear case of such expendability can be found in the figure of Uribe, who serves only to bring *metahulla* (in the form of Ygriega) to Prat and Grau, and to satisfy their desire for immortality by carrying their knowledge of the mineral to a parallel universe. The things of *1889* reveal their human users to be guided by a misplaced nationalist hubris that blinds them to the suffering of their own fellow citizens, treated as tools for mineral extraction or war-mongering and then abandoned as if they were disposable objects. This lack of care also obscures from these powerful figures their own inscription within the power-seeking programmes of others or the ‘higher logic’ of national security or modernization.

A concern for the ethical injustice of binding humans into machine assemblages and for the violation of the natural landscape takes us right back, of course, to the Victorian era that provides the inspiration for steampunk. What pulls us into a posthuman universe is *1899*’s understanding that it is not merely a question of how we as humans use or abuse the power that is ours. Cyborg technologies reveal to us what has always been the case: that humans are inseparably bound to nonhuman objects, and that these do not simply exist for our use, but play their own, forceful, part in shaping the course of human history. The technologies powered by *metahulla* forge new relationships and create new moral universes, bringing things and people together in ways that are unpredictable and impossible to untangle. Mike Perschon argues that in contrast to other subgenres of science fiction, the technologies of steampunk ‘are matters of aesthetic form, not scientific function’.[21] In *1899,* these technologies also become matters of ethics. The text’s exploration of the affective qualities of technology is playfully enhanced by techniques that emphasize the material processes – inking, paste-up and cheap bulk printing – on which graphic fiction itself depended in a predigital age. This insistence on materiality and modes of embodiment is not, however, unique to steampunk. As the other analyses presented in this book show, steampunk in the graphic novel should perhaps be considered a hyperbolic instance of graphic fiction's more generalized capacity to reveal the vital importance of embodiment in human cognition and empathy, and thereby the central role it may play in exploring questions of ethics in a posthuman world.

Cybernetics, communication and control in *Policía del Karma*

Policía del Karma (Jorge Baradit and Martín Cáceres, 2011) shares many concerns with the cyberpunk fictions that began to emerge in the 1980s in the United States, authored by William Gibson, Pat Cadigan, Bruce Sterling, Lewis Shiner and others. Like many of these texts, as well as films such as *Blade Runner* (Ridley Scott, 1982), *Policía del Karma* fuses advanced cybernetics with the low-tech, anti-establishment aesthetics associated with punk. It delivers a critique of the social impact of technology in a world in which corruption is rife and there are no clear hierarchies, and in which cyborgs join low-life misfits and drug-users roaming the sleazy streets of the city. With a nod to the predictive Precrime system conjured up in Philip K. Dick's 'The Minority Report', adapted for cinema by Steven Spielberg in 2002, *Policía del Karma* imagines a world in which individuals may be pursued for crimes committed by a previous incarnation of themselves, and of which they are entirely ignorant.

Identifying itself with the steampunk variant of cyberpunk, *Policía del Karma* depicts technologies that clearly date from an industrial age. These often recall Soviet-era machinery, privileging function over aesthetic design and military purpose over other uses, and sidestepping the process of miniaturization that has transformed technology in recent decades. Nothing is digital in *Policía del Karma*: everything is agonizingly corporeal, and the machine-human couplings that have inspired many cyborg fictions are here rendered grotesquely literal, with plugs and cables wedged into every orifice (see Fig. 4.5). Even virtual or supernatural modes of transindividual connection are made thoroughly material, with spiritual essences and flows measured and harnessed as if they were chemical substances or electrical charges. Each sector of the population in *Policía del Karma* plays a unique role in tapping into or processing different sources of energy and information. The 'nepaleses', for example, are kept in a permanent state of coma and function as 'módems humanos' (human modems), 'convirtiendo efluvios astrales en información digital descargable' (converting astral flows to downloadable digital information). The human body becomes the site of multiple encounters between the spiritual/psychic and the material or a conduit by means of which the flows of cyberspace may be converted into information.

Policía del Karma has no regard for the myth of a disembodied, virtual existence that will afford us enhanced cyborg powers in a posthuman future. The industrial-era technology envisioned here highlights the vulnerability of the human body to pain: every contact between body and machine is excruciating, and used to further the domination of one group and the exploitation of another. This is not a typical representation of cyberspace, in which robotics replaces human labour and a virtual existence appears to remove biological needs and limitations. Here, humans are bodily enmeshed in the system, playing key

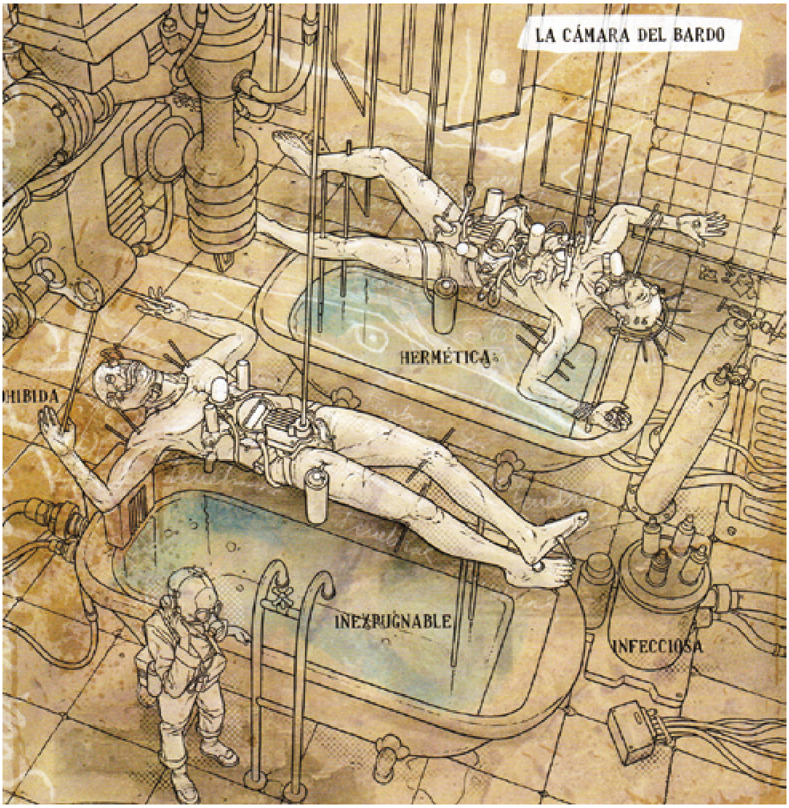


Fig. 4.5 The excruciating human-machine couplings of *Policía del Karma* (Jorge Baradit and Martín Cáceres; panel detail)

roles as cogs, modems and conduits. The brutal intrusion of machines into human bodies is emphasized by the graphic portrayal of orifices violated and skin stretched taut around butchers' hooks (see Fig. 4.6), which may even cause the physiological recoil of anticipated pain in the reader, reminded of his or her own entrapment within a body that is a highly effective pain-manufacturing machine. The use of a colour wash in *Policía del Karma* allows for unusual intricacy in drawing, avoiding the simplification of objects and their boundaries that would be the effect of more conventional fill-in, block colour. As well as heightening the austerity of this world – most of the colour washes are in shades of sepia or a cold, metallic blue – the technique emphasizes all the trailing wires, connections, plugs and sockets of this hyperconnected, steampunk world (see Fig. 4.7).

The myriad arousals, penetrations and couplings of *Policía del Karma* give it a marked sexual charge and, as in many cyberpunk texts, the gender traits of its characters are pronounced. The politics of gender in cyberpunk has become the subject of vigorous debate, with many critics lambasting its masculinist vision and its perpetuation of gender stereotypes. Andrew Ross dubs cyberpunk 'a baroque edifice of adolescent male fantasies',[22] and Nicola Nixon finds that the alternative world constructed in Gibson's *Neuromancer* 'allows not only a reassertion of male mastery but a virtual celebration of a kind of primal masculinity'.[23] For others, the treatment of gender in cyberpunk is highly ambiguous, seeming both to perpetuate and subvert stereotypes.[24] Writing about gender in cyberpunk cinema, Samantha Holland explains the root of the difficulty: 'the pumped-up hyper-masculine bodies of the male cyborgs can be read either as straight reassertions of hegemonic masculinity, *or* as hysterical over-compensations for a masculinity in crisis'.[25]

The representation of gender in *Policía del Karma* is equivocal in the extreme. While all power relations in *Policía del Karma* are manifestly gendered, in some men dominate, and in others, women. The bullying PDK soldiers are actually directed by beings known as 'las Muertas', who are gendered female, as are the Orugas who control the male Nepalese. Control over the reproductive process and of vital energy sources is not always, or even usually, exercised by men over women. However, the Orugas are born as a result of a ritualized orgy of rape, by means of which nuns give birth to Gemini babies. The male babies are drowned and their blood drained to be fed to female babies (the Orugas), who are imprisoned in order to operate the Nepalese until they have their first menstruation, at which point they too are killed and devoured. Both male and female children born in human families are exploited.

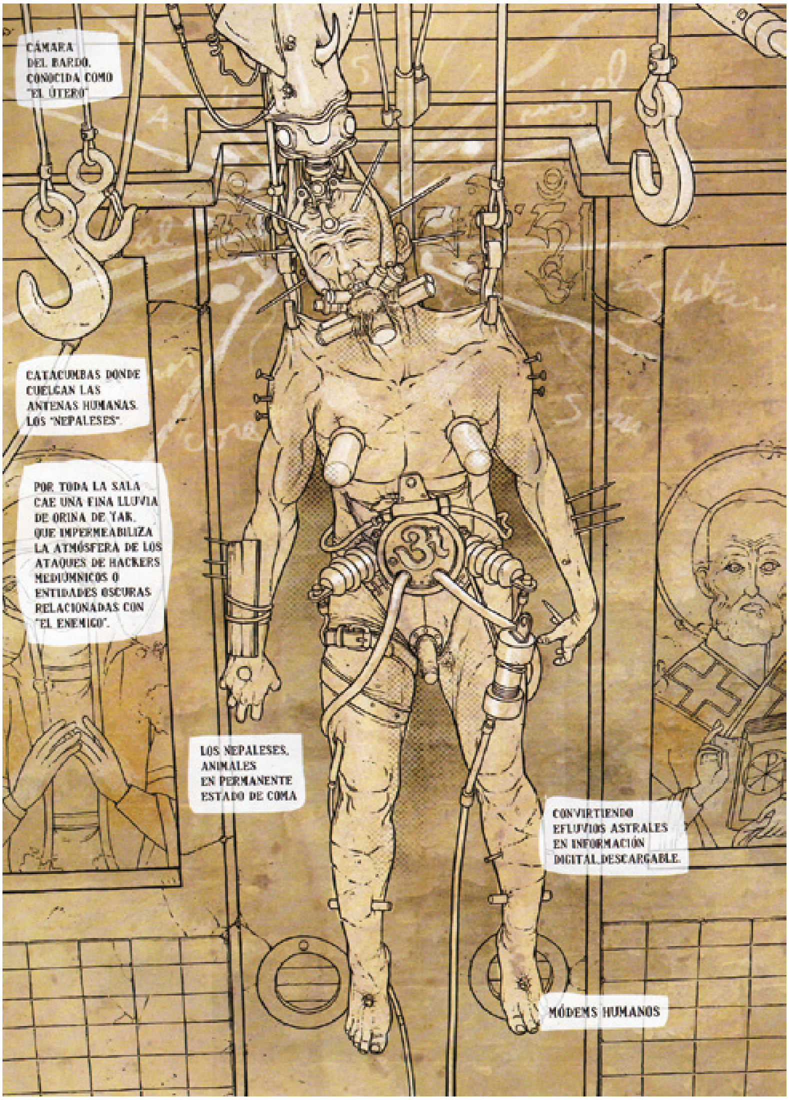

CÁMARA DEL BARDO, CONOCIDA COMO "EL ÚTERO"
CATACUMBAS DONDE CUELGAN LAS ANTENAS HUMANAS. LOS "NEPALESES".
POR TODA LA SALA CAE UNA FINA LLUVIA DE ORINA DE YAK, QUE IMPERMEABILIZA LA ATMÓSFERA DE LOS ATAQUES DE HACKERS MEDIÚMNICOS O ENTIDADES OSCURAS RELACIONADAS CON "EL ENEMIGO".
LOS NEPALESES, ANIMALES EN PERMANENTE ESTADO DE COMA
CONVIRTIENDO EFLUVIOS ASTRALES EN INFORMACIÓN DIGITAL DESCARGABLE.
MÓDEMS HUMANOS

Fig. 4.6 Bodies hung on butcher's hooks in *Policía del Karma* (Jorge Baradit and Martín Cáceres; panel detail)

The third child is appropriated, whether it is a girl or a boy, and sentenced to a life spent serving society: either dismembered to become a part of an industrial machine, enslaved as a sexual toy for the elite or recruited as a soldier for the PDK. Critics of the representation of gender in cyberpunk have often focused on the depiction of the male hacker

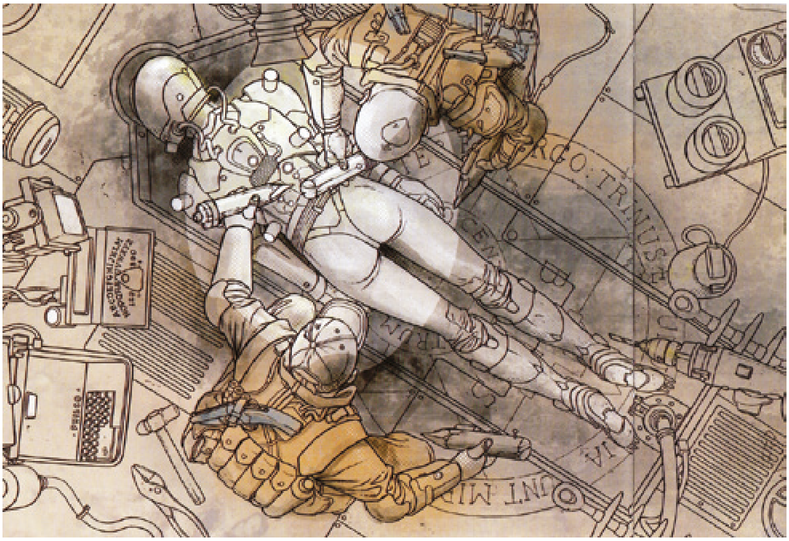


Fig. 4.7 The hyperconnected world of *Policía del Karma* (Jorge Baradit and Martín Cáceres; panel detail)

'jacking in' to cyberspace, figured as female, which becomes a space of adventure, self-realization, to be subjected to male domination. The gender dynamics of *Policía del Karma* are much more ambiguous: both male and female bodies are entered, and no uniformly heterosexual imaginary underpins its representation of how cyberspace works. The PDK soldiers are, in fact, more commonly depicted as entered rather than entering, forming part of a 'hub of a thousand tentacles' inserted into the vagina or the anus. 'La Muerta', the being that directs them, will in this way forge them into a single consciousness during PDK operations, to the extent that 'Cuando ataquemos seremos uno. Podrán sentir a cada uno desde su interior' (When we attack, we will be as one. You will feel each other inside you). The world of *Policía del Karma* is characterized by multiple, mutual penetrations that take us far away from any normatively gendered representation of cyberspace.

Hypermasculinity is pervasive in the text, but it is not presented as an ideal. Geared-up and ready to obliterate the enemy, the PDK soldiers have all the trappings of macho militarism, from bazookas to uniforms boasting multiple utility pockets. In another set of clichés, masculinity is linked both to size of erection and to hunting prowess, as Tenzing (one of the Nepalese, wired up to cyberspace) becomes excited by the police hunt and reveals their target's location by means of a powerful erection. However, this produces a sensory overload that threatens to short the fuses. Tenzing cannot control his orgasm and simply gives in to the pleasure, which means that he eventually has to be disconnected from the system he is jeopardizing, and this brings about his death. In this way, the representation of gender and sexuality in *Policía del Karma* often introduces us to the dangers of hyperconnectivity in a cyborg world. Hyperconnectivity may magnify pleasure but it also leads to a sensory excess that cannot be controlled, ending in death. Hayles suggests that 'Human subjectivity cannot stand the blast of information overload that intimacy implies when multiple and intense connections are forged between silicon and silicone, computer networks and cyborg sexuality',[26] describing the dangers of unduly intimate connectivity in a way that chimes strongly with the narrative world of *Policía del Karma*. Connecting to cyberspace for the PDK soldiers in *Policía del Karma* starts a process that will end in an early death, as a virus that is already bringing about the putrefaction of the Muertas is introduced into the bodies of the PDK soldiers. This virus, which allows them to participate, temporarily, in a collective unconscious and to work more effectively as a team during operations, is also the virus that will eventually kill them.

The representation of gender in *Policía del Karma* could be read as bearing witness to a crisis in masculinity in a hyperconnected world. The soldiers' gung-ho militarism appears entirely out of place in a world in which far more subtle ethical judgements are required to sift good from evil. Hypermasculinity also seems to be a mask for a sense of lack and vulnerability: the PDK males believe that they are ultimately no match for their female counterparts. If in public the male members of the PDK dismiss Mariana as ineffective because she is a woman, an anonymous narrator (who also appears to be a member of the PDK) tells us that 'la Muerta' is a 'real' PDK and that 'nosotros somos basura al lado de su resplandeciente alma' (we are garbage in comparison to her radiant soul). 'Las Muertas' are always women and have special powers to process the information received from the Nepalese and to take part in a collective unconscious that is exclusive to them. We are told that women are the only 'real' members of the PDK and naturally more suited to its mission as their ovaries point up to heaven, while testicles, hanging down, tie men to the earth. This fear that women may be naturally more able to adapt to this world of virtual connectivity seems to be justified in the narrative of *Policía del Karma* itself. Only Mariana is equipped with the emotional intelligence to respond ethically to the situation and to question the status quo rather than simply to follow orders and to indulge in licensed thuggery. It is she who is able to establish an affective bond with the victims and to understand how their predicament mirrors her own, ripped from her family home at an early age with no idea of what was happening to her. These connections are established for the reader by means of intercalated flashbacks to the scene of Mariana's own abduction. She alone is able to perceive how her actions perpetuate a system of exploitation; she is less fit for armed battle as a result, but more conditioned to take a holistic approach to understanding how the system works and to question its injustice.

Ultimately, however, it is clear that the representation of gender and sexuality in *Policía del Karma* is not embedded in heterosexual power relations, and nor does it stem from a critique of such dynamics. It becomes, instead, a visual metaphor for (or more accurately, a metonymic instance of) communication and structural coupling within a system in which power hierarchies are ambiguous and diffuse. Exploring this will help us to unfold *Policía del Karma*'s insights concerning the nature of cybernetics, as well as the relevance of cybernetics theory for an understanding of the social life of technology in a posthuman society.

Thomas Foster perceptively suggests that 'Cyberpunk does not simply devalue the body but instead also foregrounds and interrogates the value and consequences of inhabiting bodies'.[27] *Policía del Karma* does not, we will argue, 'devalue' the body at all in this way, but on the contrary understands embodiment as the necessary condition for cognition and empathy. However, it certainly 'interrogates the value and consequences of inhabiting bodies', as Foster maintains, and shows a particular interest in how individuals are linked in material ways to other individuals or to the information system in a cybernetic society. *Policía del Karma* is strewn with bodies that are kidnapped, violated, dismembered, sacrificed, enslaved or decomposing as a result of their coupling with the social system. As we have seen, sexual organs mark particular points of physical vulnerability for both characters of both genders, at which pain can be inflicted and the body entered. The body's orifices often become nodes of transmission and reception which bring together the astral and the material spheres, or which allow for new forms of para-subjective consciousness among humans. In the end, *Policía del Karma* takes us away from any social, cultural or ideological understanding of gender and sexuality as a form of alterity. Our different orifices have no meaning beyond their utilization as sockets, plugs and channels that yoke us in specific and material ways to systems of communication and the distribution of biological and spiritual energy.

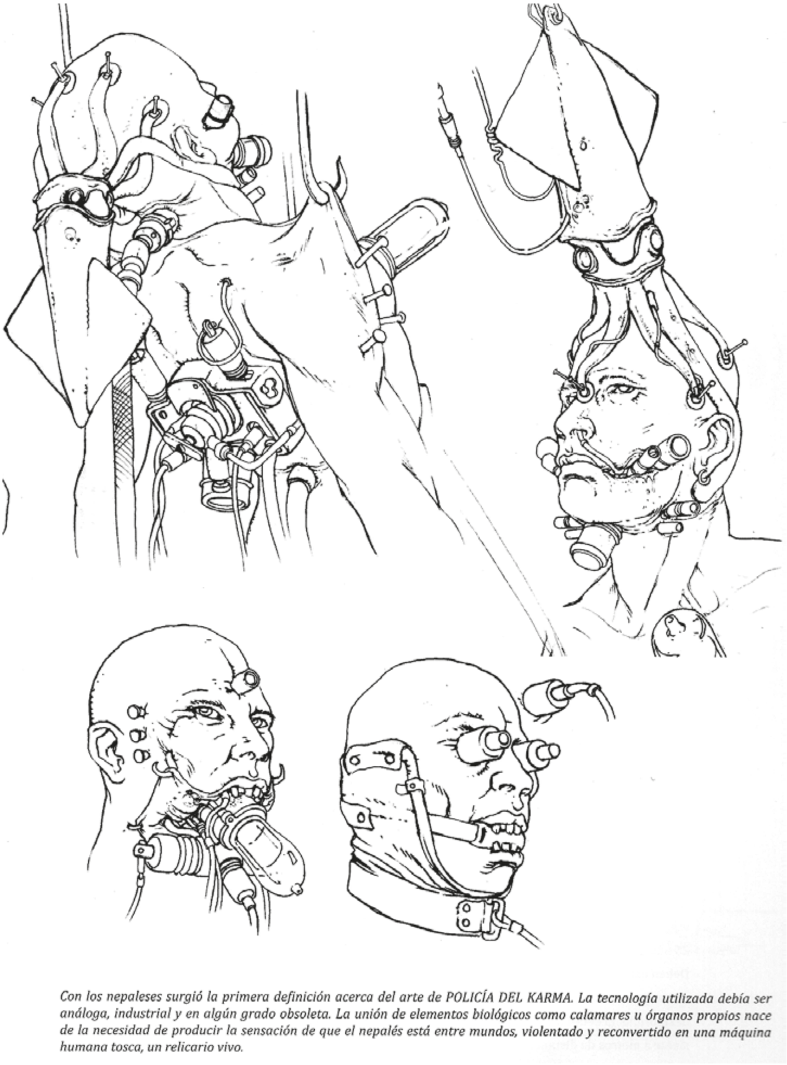
Attending to the Latin American and specifically Chilean history of these communication systems – referenced within *Policía del Karma* –

allows us to situate its ready subsumption of gender politics, or even a potential critique of the use of technology in human exploitation, within a study of cybernetic connectivity and systems theory. Baradit and Cáceres open up a possible avenue for a Latin Americanist reading of their graphic novel when they point to its representation of a technology that is never explained but simply used, without scrutiny, 'tal como lo hacemos hoy en América Latina, donde se usa la tecnología sin tener la experiencia de producirla, aún como indígenas asombrados frente a un espejo' (just as we do today in Latin America, where technology is used without the experience of producing it, as if we were still indigenous people astonished by a mirror). The use of anachronism in *Policía del Karma* is also associated with Latin American experiences of technology for Baradit and Cáceres, who suggest that 'La mezcla de tecnologías obsoletas y de punta no difiere mucho de lo que ocurre en cualquier país latinoamericano. Sincretismo religioso y mecánico' (The mixture of obsolete and cutting-edge technologies is not very different from what happens in any Latin American country. Religious and mechanical syncretism).

However, we may develop a more precisely situated reading of the text's representation of technology by approaching it as an imaginative exploration of Synco,[28] a real cybernetic project from the 1970s in Chile and the focus of a previous novel by Baradit. *Synco* (2008) is a fantasy novel that explores a real project launched by Salvador Allende in the years before the 1973 coup, with the assistance of the British cybernetician Stafford Beer. The goal was to create a cybernetic system of management that would process information from across the nation, making nationalization projects more efficient. 'Synco' is emblazoned on one of the buildings in the first full-page panel of *Policía del Karma*, and the text's depictions of a squalid underworld of enslaved labour clearly recall those of Baradit's novel. In her study of Allende's project, Eden Medina highlights its ambition, particularly given the severe technological limitations in Chile of the early 1970s. The economic blockade imposed by the United States made it impossible to access modern technologies, and Synco was in fact initially designed around a single IBM computer and a network of telex machines (by then, ubiquitous and rather old-fashioned technology).[29] In *Synco*, Baradit draws attention to this gap between political or economic aspiration and technological reality, describing Chile as 'un país prefabricado con los restos de la modernidad' (a country prefabricated with the leftovers of modernity) and Santiago as 'un parque temático de bajo presupuesto' (a low-budget theme park).[30] The relatively low-tech quality of the project is also referenced in the trailing cables of *Policía del Karma,* in which everything is wired, including the TV remote control. Interestingly – and particularly given the centrality of human bodies to the functioning of the system in *Policía del Karma* – Synco was not intended to replace human labour through automation, because Allende had committed himself to increase employment. The idea was also that the system would operate differently from a Soviet one, being more decentralized and with greater participation from the workers.[31]

The reality – to the extent that Allende was able to develop Synco before the coup of 1973 – was of course rather different, particularly given Allende's propensity in a situation of crisis to operate a 'top-down' version of socialism.[32] Furthermore, Medina suggests that the sleek, futuristic operations room was an illusion that obscured a reality: 'mantenía en las sombras a la vasta red de individuales, materiales, conocimientos e información que se requería para que la gerencia económica pareciera así de simple' (it concealed the vast network of individuals, materials, knowledge and information that was needed for the management of the economy to appear so simple).[33] In *Synco,* Baradit refers to 'el leviatán oculto bajo Santiago de Chile' (the leviathan hidden beneath Santiago).[34] *Policía del Karma* also strikes out this illusion of smooth modernity, exposing instead the reality of human labour and suffering that underpins it.

In doing so, it renders literal a series of metaphors used in cybernetics theory, and which were central to the design of the Synco system. Cybernetics is grounded on a series of analogies that draw parallels between the behaviour of biological, mechanical and social systems. It frequently borrows the language of biology to describe the organization of systems: for example, both Norbert Wiener, the first cybernetics theorist, and Beer, Synco's designer, built on the findings of Humberto Maturana and Francisco Varela in their work on feedback mechanisms in living systems. Beer's work took inspiration from the workings of the human body, and he made liberal use of organic and biological metaphors in describing the operations of Synco.[35] Cybernetics as a field of knowledge brings together concepts from biology with others from engineering, and these become the two key visual frameworks employed in *Policía del Karma*. In their epilogue, Baradit and Cáceres explain that the use of biological and industrial components in the construction of characters like the Nepalese (for example, the combination of squid-like tubes and oversized bolts shown in Fig. 4.8) was intended to position them as straddling these two different worlds. Human bodies often literally take the place of cogs in a mechanical system in the PDK world,



Con los nepaleses surgió la primera definición acerca del arte de POLICÍA DEL KARMA. La tecnología utilizada debía ser análoga, industrial y en algún grado obsoleta. La unión de elementos biológicos como calamares u órganos propios nace de la necesidad de producir la sensación de que el nepalés está entre mundos, violentado y reconvertido en una máquina humana tosca, un relicario vivo.

Fig. 4.8 The combination of biological and industrial components in characters in *Policía del Karma* (Jorge Baradit and Martín Cáceres)

and biological matter – arteries, synapses, dendrites, roots – become metaphors for communication systems. Connectivity is often described in terms that link the circulation of digital information and the virtual connections between PDK soldiers with the flow of blood or the invasive activity of viruses or parasites. We are told, for example, that 'El karma es como vidrio molido atravesando sus venas, convirtiéndose en ceros y unos […] entrando en un cuerpo a otro como gusanos a un cadáver' (Karma is like powdered glass piercing your veins, transforming itself into zeros and ones […] entering one body from another like worms invading a corpse). Like cybernetics theory, *Policía del Karma* draws on our knowledge of homeostasis – that delicate equilibrium that ensures the survival of each part of the organism – in representing the transmission and reception of information. There is a persistent attention to environmental conditions, flows in and out of the human body, the encoding and decoding of messages and the tension between stability and change.

This emphasis goes some way to explaining the remarkable absence in *Policía del Karma* of any reference to authoritarianism, socialism or indeed any kind of political system whatsoever. It appears instead to lean towards a systems-theory approach, such as those inspired by cybernetics, to explore how control and communication operate within a closed system. No central entity controls the networks that make up cyberspace; it is not ordered or regulated by a single hierarchy of power. Power in *Policía del Karma* is similarly local rather than total, and the different sectors of its society are bound together by multiple operations of subjugation; the PDK is clearly a kind of paramilitary force, but it is obviously acting beyond its remit (for example, in appropriating some of the Nepalese for their own purposes), and no central regime is in evidence that might punish such transgression. The bio-psychic network that links the PDK soldiers during the operation to hunt down Carranza means that each soldier is dependent on and vulnerable to the others in a way that works against a hierarchical command structure.

If the concept of control is often associated with domination, Beer's Synco – like many cybernetic projects – advances a different definition, according to which control means self-regulation, or the capacity of a system to adapt itself to changes within itself and its environment and thereby to survive.[36] As Medina suggests, it was to work 'como una red dispersa y no como una jerarquía' (like a dispersed network and not like a hierarchy), and actions were to be based on knowledge and information rather than authority or bureaucratic political processes.[37] Baradit's version makes it clear that the absence of a centralized authority does not eradicate the practice of tyranny. However, we realize that all activity in *Policía del Karma* is carried out with the purpose of maintaining the system: there is no greater teleology in view. For all the heavy, industrial machinery that dominates this society, absolutely nothing is being produced: the energy milked from its human members is simply destined to maintain the system of which they are part. There is no higher aim for which the downtrodden are sacrificed, no dream of human perfection that animates experiments with the limits of the body, no processes of commodification through which individual enrichment might take place. Neither is there an identifiable ruling power that perpetuates the regime for its own purposes.

This absence of an overarching organizing principle makes it difficult to produce a conventional ideological reading of *Policía del Karma*. It creates an effect similar to that of systems-theory analyses, such as those pursued by Niklas Luhmann, in displacing humans from a position of domination in society. As Hans-Georg Moeller points out, Luhmann's antihumanism denies humans the 'central role' in society and treats both human beings and their social systems as complex assemblages.[38] These are not explained with reference to 'human nature' or other essentializing ideas; instead, Luhmann pays a properly historical attention – shared by much science fiction and alternative histories – to how social reality has come to take the form it currently takes, and how it might have turned out otherwise. He insists on 'the contingency and even the unlikelihood of the present state of affairs'.[39] Like Luhmann's *Theory of Society*, *Policía del Karma* investigates the 'structural couplings' between consciousness systems, communication systems and living bodies in a way that does not position human beings as transcendent in relation to the systems in which they take part, nor in a dominating role with respect to the technologies with which they interface.

As Moeller observes, systems theory acknowledges that society 'can no longer be aptly understood as a human one'.[40] He notes that the *Matrix* films provide a good example of structural couplings between mind and body, and between body and communication, in which 'human bodies perform as batteries or fuel for computer programs that in turn function as the masterminds of a virtual society'.[41] This represents one of a number of points of contact between the *Matrix* trilogy and *Policía del Karma*, as many of the graphic novel's characters are also treated as sources of energy or communication channels that maintain the equilibrium of a complex society that exceeds the human and has not been organized for their benefit. As Moeller suggests, however:

> In the movie, of course, there is a hierarchy of exploitation and domination among these three spheres, where the computer program has enslaved the 'authentic' realm of human bodies, and the story hinges on the notion that a liberation of this realm is possible and necessary. This is precisely the kind of humanist fantasy that Luhmann's theory is meant to debunk.[42]

Policía del Karma does not fall into this same humanist error, although it arguably comes close to committing one or two of its own. Mariana's defiant insistence at the end that her name is not 'no. 47' but 'Mariana' does contain the seed of a humanist-inspired rebellion. However, it is never actualized and indeed remains unimaginable within the novel's narrative world. There are no systems that are more 'authentic' than others in the text, and no simple hierarchy of domination, but a complex series of structural couplings that have evolved in a contingent manner, together with no real narrative impetus towards 'liberation', a concept that would be virtually meaningless in this context.

The largely descriptive rather than normative angle taken by *Policía del Karma* – again, consistent with a systems-theory approach – does not advocate for political change in its world, although it does afford us a rather grim version of a socialist regime that has been stripped of any utopianism. The text does raise probing questions of an ethical nature, however. What happens, for example, to the notion of individual responsibility in a posthumanist society, in which a kind of collective or trans-individual psyche may be found guilty of crime and take on the role of punishing it? We are also led to question the manner in which moral communication in this society has evolved to hold in disregard the pain of others, and to prioritize judgement over mercy. We are encouraged to reflect on the fact that – while we are willing and able to imagine forms of psychic life that transcend the individual – our 'instinctive' (modern and humanist) sense of justice still conceives of the individual as the basic unit by which we measure culpability and mete out punishment, and considers barbaric the concept that the son should atone for the sins of the father.

The biological metaphors often adopted to describe the colonization of minds and bodies within cyberspace – invasion, virus, metastasis – are also extended by Baradit and Cáceres to define the multimodal nature of *Policía del Karma*. As well as a graphic novel, the project includes a trailer, a soundtrack, mini-mockumentary films and a blog. Baradit's account of the scope of the project reveals the extent to which he conceives the graphic novel as a microcosm of how cyberspace itself functions:

> es una metástasis más que un virus. Como me gusta decir, la novela gráfica no es un sol en torno al cual giran virales y merchandising vacuos, sino un nodo relevante de una estructura molecular donde cada componente es autovalente. Y que en conjunto construyen una catedral flotante, hecha de nodos que entran y salen

> del softworld al hardworld. Una obra dispersa en multiplicidad de plataformas. Un parásito que anida en el encéfalo de los talentosos que se sientan inspirados. 'PDK' es una obra rizomática. Un tumor hecho de inteligencia colectiva.[43]
>
> (it is a metastasis rather than a virus. As I like to say, the graphic novel is not a sun around which vacuous viral marketing campaigns orbit, but an important node in a molecular structure in which every component is self-sufficient. And that together construct a floating cathedral, made of nodes that move between the softworld and the hardworld. A work distributed across multiple platforms. A parasite that nests in the brain of the gifted and the inspired. 'PDK' is a rhizomatic work. A tumour formed of collective intelligence.)

Unlike a virus, which spreads via contact, metastasis refers to the transfer of a disease to another part of the body, and particularly the development of secondary growths a distance from the primary site of a cancerous tumour. The etymology of the term takes us back to its original meaning in Greek: 'a removing, removal; migration; a changing; change, revolution'.[44] It engages the multiplatform nature of the *Policía del Karma* project and its prodigious reach into different media and social discourses. The graphic novel element of *Policía del Karma* itself demonstrates the potential for the transformation and migration of its narrative nuclei. A good fifth of the book is given over to the reproduction of the original story on which the graphic novel is based, intercalated by alternative illustrations created in a range of styles by other Chilean artists. The effect created is that of a window into multiple possible graphic worlds, as the narrative leaps from one illustrator to another. The PDK blog[45] employs an inverse strategy, as a selection of Cáceres's illustrations in *Policía del Karma* become prompts for new stories composed by other writers. A similar technique is used in *1899*: the book's back material includes vignettes drawn by other artists relating to parts of the story not covered, including mocked-up magazine articles.

Video mockumentaries uploaded onto the *Policía del Karma* website[46] investigate an unexpected reference to a mysterious secret armed force ostensibly captured on an amateur video camera during a police raid in Santiago. Traces of this force have been found, we are told, as far back as 1897, when Chile's strategy in the Pacific War, under Arturo Prat, involved the creation of a psychic web of mediums to share information.[47] The PDK dates from this time, but has now got out of control. We witness transmissions by the sinister Commander Proxy, speaking in German and Hebrew, with a hammer and sickle insignia on his forehead, and are told that the 1973 coup never really happened, and that Michelle Bachelet was assassinated towards the end of the 1970s. The website also contains links to the soundtrack for *Policía del Karma*, composed by the 'Lluvia ácida' duo. If you sign up to the PDK via the website you are given a new, reincarnated identity, along with a certificate detailing the punishments (which include 120 years of forced labour and being skinned alive) to which you have been sentenced for the crimes you have committed in past lives. The sentence may be commuted to lifetime service in the PDK, under a regulation ostensibly approved by Sebastián Piñera, then President of Chile.

Policía del Karma thus succeeds in distributing itself across multiple media and playfully inserting its paranoid stories of conspiracy and occult practices into narratives of Chilean history. Its metastatic transmissions and transformations reproduce, to a certain extent, the multiplatform tactics of contemporary marketing campaigns. However, its emphasis on the *distributed* nature of authorship encourages us to understand, instead, the potential for graphic fiction to exemplify the non-hierarchized structural couplings that characterize a cybernetic age. The contemporary graphic novel becomes an excellent medium through which to explore the nature of those structural couplings: between advertising, mass media, media materiality, living bodies, systems of consciousness and communication, and (with particular poignancy in the case of *Policía del Karma*) law, violence and the economy.

Conclusion

Forlini argues that steampunk recovers 'a more intimate relationship to and understanding of the material world' in a way that counters the visions of a disembodied posthuman future that emerge from what N. Katherine Hayles describes as the '*systematic devaluation of materiality and embodiment*' in contemporary theory and literature.[48] This is certainly the aim and the effect of the steampunk technologies of *1899* and *Policía del Karma*. While the human-machine couplings they imagine are often noxious and excruciating, they succeed in decentring the human in a way that elevates the non-human and suggests the possibility of relationships between humans and non-humans that are not forged on the basis of domination but on a recognition of our shared materiality and our entwined destinies. Simultaneously, they insist on the material, embodied nature of human perception and experience.

Given its materializing operations, graphic fiction has a particular capacity not just to produce an understanding of the material world, but also to present cognition itself as an embodied process. The 'embodiment thesis', which brings together the work of cognitive linguists, philosophers and biologists, advances the idea that cognitive processing is deeply dependent on the involvement of the body beyond the brain. Landmark studies such as George Lakoff and Mark Johnson's *Metaphors We Live By* (1980) and *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought* (1999), as well as *The Embodied Mind: Cognitive Science and Human Experience* (1991) by Francisco Varela, Evan Thompson and Eleanor Rosch, have demonstrated ways in which cognitive processes are distributed, involving the agent's body, social context and natural environment as well as his or her brain. As Lakoff explains, this insight challenges 'large parts of the Western philosophical tradition' that have located the essence of the human in the exercise of a disembodied reason.[49] *Policía del Karma* abounds in examples of embodied cognition, from the cancer-inducing injections that produce a collective consciousness among the PDK soldiers to the electrical charges that give the Nepalese powers of foreknowledge. The graphic novel's peculiar power to expose the embodied nature of cognition is discussed further in Chapter Six.

The emphasis on materiality and embodiment in both *Policía del Karma* and *1899* usher us towards an understanding, not just of the embodied nature of human cognition, but also of the new ethical demands of a posthuman world. The graphic novel's appeal to sensory experience also produces an ethical response in its readers, in ways that will be taken up more directly in the Conclusion. If the act of projecting oneself into another's embodied experience is the *sine qua non* of an ethical life, the robustly material cyborgs and hulking industrial machinery of *1899* and *Policía del Karma* invoke our tactile and affective relationship with technology and extend that ethical engagement to include non-humans and posthumans.

5

Urban Topologies and Posthuman Assemblages

As has been repeatedly observed in scholarship on graphic fiction – and as discussed in the Introduction – comic book cultures are predominantly urban phenomena, arising with the flourishing of mass urban culture around the beginning of the twentieth century and yielding texts that both mirror and shape the dominant modes of perception demanded by city life. The close structural connections between comics and cities have allowed comics to function as important vehicles for the critique of urban modernity. In Latin America, they have become particularly effective discursive spaces for questioning and challenging the consequences of neoliberalism for the region's cities. In Argentina, comics such as *Ciudad II* (Ricardo Barreiro and Luis García Durán, 1993) use the specificities of the form to expose the fragmentation of urban communities wrought by the neoliberal policies of Carlos Menem's regime.[1] In Mexico, the independent magazine *Gallito Comics* under the stewardship of Víctor del Real became a powerful voice in the opposition to the privatization of space (the 'saqueo') in Mexico's Distrito Federal during the 1990s. Comic book artists in Brazil have been particularly incisive commentators on urban change in the country. *Morro da Favela* (2011), a collaboration between André Diniz and the photographer Maurício Hora, explicitly opposed the way the city of Rio de Janeiro was being reshaped by speculative real estate investment in the run-up to the two mega-events of the football World Cup (2014) and the Olympics (2016). One of the most acute commentaries on the socio-technological dynamics that drove the protests in São Paulo in June 2013 – which subsequently swept across Brazil's urban agglomerations – emerged from the city's lively comic book culture. *O Beijo Adolescente*, created by Rafael Coutinho and published in a multi-book series from 2011 to 2015, is a compelling portrait of the city in the midst of an ongoing crisis that came violently to the surface during the ‘revoltas de junho’ (June revolts). The three-part narrative focuses on a network of media-savvy teenagers thought to possess superpowers in a futuristic São Paulo depicted from the perspective of the margins, in the tradition of cyberpunk science fiction. The plot charts the fluctuating fortunes of this group, known as the Beijo Adolescente, in the face of a number of diffuse threats, including the unexplained exclusion of its members from the group when they turn 18. Although a number of plot strands intersect throughout the series, the narrative focuses on 14-year-old Ariel who, when we meet him at the beginning of the first book, is inaugurated into the gang by veteran member Tomás.

Coutinho’s fiction intersects in a number of ways with an intense period of social unrest in Brazil. On a superficial level, *O Beijo Adolescente* reflects and foreshadows events in São Paulo preceding and succeeding the protests of 2013. In their movements, the BA (as they come to be known) live the dream of increased mobility around the city for poorer inhabitants of São Paulo articulated by the Movimento Passe Livre – one of the main movers in the 2013 demonstrations – which led the protests against the profit-oriented organization of public transport in the city.[2] During Ariel’s inauguration into the BA, the two teenagers bypass the public transport system by leaping over buildings and hurtling down roads on skateboards (see Fig. 5.1). The image of precocious teenagers seizing the reins of power – one of the central dynamics in the comic – was also temporarily realized by students’ occupation of São Paulo schools in protest against state plans to reorganize the education system. However, Coutinho’s work also brings to light a change that was implicit in the 2013 protests. This involves a shift towards an understanding of the agency behind social change as being emergent from a network of connections between the material structures of the city and the virtual information that increasingly mediates the occupants’ interaction with urban space. In this respect, the graphic novels bring a posthumanist perspective to bear on this key moment in Brazil’s social and political crisis. In an interview given in 2015, Moysés Pinto Neto argues that feedback loops between street protests and the activism and organization that took place on social media – which created ‘um efeito de contágio e integração inédita entre rua e redes digitais’ (an effect of contagion and unprecedented integration between the street and digital networks) – introduced a new ‘grammar’ to Brazilian politics.[3] This grammar displaces the centrality of individual politicians and individual movements towards a posthumanist conception of agency as located at the intersection of human and non-human actors and at the points of convergence between the material and the virtual. *O Beijo Adolescente* performs this perspective through its construction of urban space as topological rather than topographical: that is, as a function of vectors, forces and assemblages that transcend static notions of space, distance and perspective, allowing for an emphasis on virtual or imaginary relations. This chapter will trace the articulation of three systems of spatial organization within the graphic novel series: the BA, the June 2013 protests and the construction of urban space within the comic itself. Drawing out the connections between these will lead to an understanding of how Coutinho charts shifting expectations of social change in São Paulo and beyond and why graphic fiction has emerged as such a powerful platform for exploring these shifts.

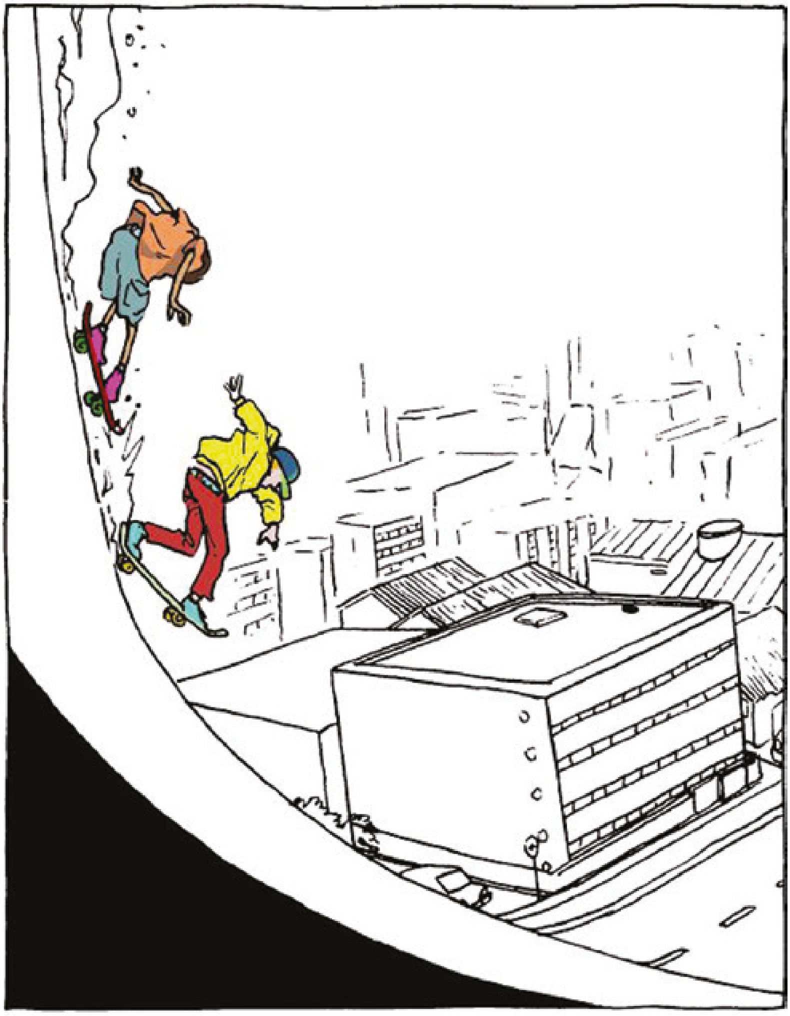


Fig. 5.1 Traversing the city by skateboard in *O Beijo Adolescente: Primeira temporada* (Rafael Coutinho)

Consumer culture

Coutinho's narrative also resonates with a series of happenings, referred to by the press as *rolezinhos* (a slang term that means 'strolling'), which were organized through social media websites and took place around the same time as the June 2013 revolts in shopping malls in the peripheries of São Paulo. These happenings sparked a lively debate in the press about their connection to more explicitly political events that were taking place elsewhere in the city. Although the protagonists of these interventions did not explicitly express political agendas, their defiance of restrictions to mobility around the city echoed the ethos of the Movimento Passe Livre.

Furthermore, the role of social media networks in both organizing these events and amplifying their impact is exemplary of the 'contagion and integration' between offline and online worlds described by Neto. Pedro Erber draws connections between these apparently more spontaneous and less obviously political interventions into urban space in São Paulo with the claims to the city that drove the 2013 June revolts.[4] He focuses on the incapacity on the part of the state to get to grips with new forms of sociability as well as the difficulty experienced by critics and commentators in categorizing and conceptualizing these events. As protests, he points out, the *rolezinhos* were highly ambiguous. Unlike the protagonists of similar spatial occupations of the 1960s, the Paulista teenagers were not calling for a rejection of the consumer society that produces inequalities, but instead increased access to this society. Their interventions into shopping malls were performances of conspicuous consumption in which the teenagers dressed up and acted like the middle-class consumers who are more openly welcomed there by the shops' proprietors. Erber argues that the strength of the protests derives precisely from the fact that it is 'hard to pin down the ambiguous politicality' of these apparently directionless occupations of space in the city.[5] Furthermore, the *rolezinhos* and the scandalized reaction to them drew attention to the increasing complexity of modes of social inclusion and exclusion, proximity and distance, in urban spaces that are overlaid by the virtual information spaces accessed by mobile computing devices.

The Beijo Adolescente organization in Coutinho's graphic novels embodies the ambiguities that Erber identifies in the protagonists of the *rolezinhos*. In many ways, they are driven by a desire for inclusion in the society from which they are excluded. Despite their use of a language of resistance and protest, they are characterized by their close connection with consumer culture. During his initiation into the BA, Ariel discovers that its members have become experts at capitalizing on their superpowers to acquire lucrative sponsorship deals. During his initiation, Tomás tells Ariel that from now on he can walk into any shop and simply take the merchandise without paying. Nobody will stop him, as all manufacturers will want him to be associated with their brand. Palhaço (Clown), who is the ostensible leader of the group despite being only around 14 years old, presents himself as the inspirational figurehead of a successful media corporation. When the reader is introduced to Palhaço, he explains his vision for the group to a chat show host: 'Hoje são mais de 2 milhões espalhados pelo mundo, somos donos das nossas próprias emissoras, marcas de roupas e acessórias . . . Temos ações na bolsa, franquias de lanchonetes, esportes, controlamos o fluxo de informação pros nossos interesses, e mais do que tudo, somos . . . unidos . . .' (Today there are more than 2 million spread around the world, we're the heads of our own broadcasting stations, clothing and accessory brands . . . We own stocks in the stock market, fast food chains, sports, we control the flow of information in our interests and most of all, we are . . . united . . .; see Fig. 5.2). Two things are clear from Palhaço's speech. Firstly, in his view, the Beijo Adolescente teenagers are exemplary of the 'immaterial labourers' described by Maurizio Lazzarato, who coined the term to refer to the shifting nature of labour in the information age, ushered in by a post-industrial economy in which production and consumption are becoming increasingly difficult to distinguish. With the spread of computer technologies during the 1970s, labour has become more immaterial in two ways. Firstly, workers in factories are increasingly reliant on computer interfaces. Secondly, with the rising importance of brands during the 1980s and 1990s, the production of the 'cultural content' of commodities entails activities that are not usually considered work. Immaterial labour can involve ways of 'defining and fixing cultural and artistic standards, fashions, tastes, consumer norms, and, more strategically, public opinion'.[6] Palhaço's list of the activities carried out by the BA does not distinguish between more traditional conceptions of labour, such as owning and running snack bar franchises, and managing the 'fluxo de informação' about the organization that circulates in the media. By buying certain brands and not others, on his first day as a BA member Ariel is already engaging in immaterial labour, associating certain images with those of the BA and intervening in flows of publicity and information.

Secondly, it becomes clear that the fundamental concept underpinning the BA is the product of a branding exercise. The possibility that the whole phenomenon is a marketing ploy haunts the narrative. In the second panel in the first book, a sceptical-looking figure states: 'É puro marketing. É a cueca do superhomem tamanho PP. Ridículo!' (It's pure marketing. Superman's underpants in extra small size. Ridiculous!).[7] The members are repeatedly reminded that they need to have 'faith' in the BA and this faith is presented as a corollary of the consumer confidence needed for the brand to perform well in the market place. Nigel Thrift has pointed out that, due to a general 'powering up of communication' in the internet age, the peaks and troughs of consumer confidence are more volatile than ever.[8] Affects spread across the posthuman socio-technological assemblages of the digital economy like wildfire. The brand that Palhaço describes is a socio-technological assemblage, consisting of an interconnecting network of activities, images, narratives and products that is both global in scope and specific to the local urban context. The production of the BA brand resembles what Celia Lury describes as 'a process of assembling culture' and the production of the paradoxical type of mass proper to a society of mass individualism.[9] As Lury explains, 'what is at issue in contemporary brand development is whether and how mass may be dispersed and collected, aggregated and dis-aggregated, differentiated and integrated'.[10] The BA brand, understood as an assemblage, is a constantly mutating entity, the inside and outside of which are continually changing. Palhaço hints at this conception of a brand assemblage later in the book when he warns novices that the only thing that binds them to the BA is their style, which is made up of a combination of sponsorship deals with clothing and bicycle manufacturers. Because Palhaço brokered these sponsorship deals, he warns the gang that: 'posso criar à partir de amanhã novos moleques alados' (I can create new winged boys tomorrow). The boys are an interchangeable element in the brand assemblage. The BA is an assemblage that mutates in relation to passing fashions, repeatedly expelling styles and adherents and incorporating within it what had previously been excluded. In the process, the brand constantly blurs the boundaries between its inside and outside. This is reinforced by the repetition throughout the books of the 'Beijo Adolescente' graphic in a bewildering range of different fonts and colours and occupying both diegetic and nondiegetic spaces. The words sometimes form an integral part of the city's architecture – plastered across screens, billboards or pavements – while at other points they are relegated to decorating the gutters or margins of the page; in all cases, however, they take on the forms and styles of the urban environment into which they are inserted, turning its materiality into a brand logo (see Figs 5.3 and 5.4).

Coutinho's comics draw out the fact that what is at stake in these ambiguous relations between material and virtual, inside and outside,

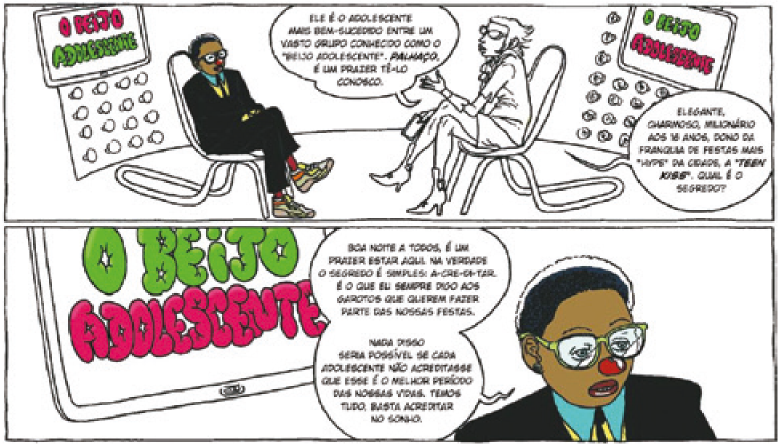

O BEIJO ADOLESCENTE
ELE É O ADOLESCENTE MAIS BEM-SUCEDIDO ENTRE UM VASTO GRUPO CONHECIDO COMO O "BEIJO ADOLESCENTE". PALHAÇO, É UM PRAZER TÊ-LO CONOSCO.
O BEIJO ADOLESCENTE
ELEGANTE, CHARMOSO, MILIONÁRIO AOS 18 ANOS, DONO DA FRANQUIA DE FESTAS MAIS "HYPE" DA CIDADE, A "TEEN KISS". QUAL É O SEGREDO?
O BEIJO ADOLESCENTE
BOA NOITE A TODOS, É UM PRAZER ESTAR AQUI. NA VERDADE O SEGREDO É SIMPLES: A-CRE-DI-TAR. É O QUE EU SEMPRE DIGO AOS GAROTOS QUE QUEREM FAZER PARTE DAS NOSSAS FESTAS.
NADA DISSO SERIA POSSÍVEL SE CADA ADOLESCENTE NÃO ACREDITASSE QUE ESSE É O MELHOR PERÍODO DAS NOSSAS VIDAS. TEMOS TUDO, BASTA ACREDITAR NO SONHO.

Fig. 5.2 Interview with Palhaço in *O Beijo Adolescente: Primeira temporada* (Rafael Coutinho)

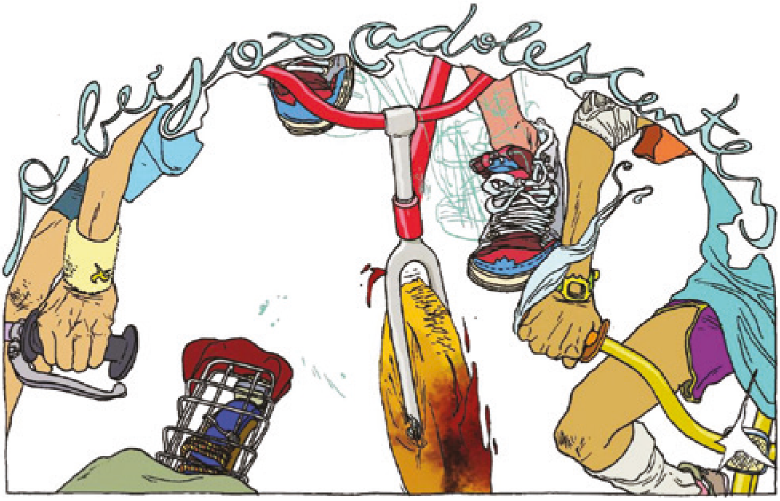

o beijo adolescente

Fig. 5.3 Detail of logo in *O Beijo Adolescente: Primeira temporada* (Rafael Coutinho)

is a shift in the conception of change itself. *O Beijo Adolescente* is pervaded by a sense of constant ongoing but paradoxically changeless change. As immaterial labourers par excellence, the members of the BA are presented as innovators, either developing the latest software, images and narratives or capitalizing on the software, images and narratives produced collectively by fellow immaterial labourers through the internet.

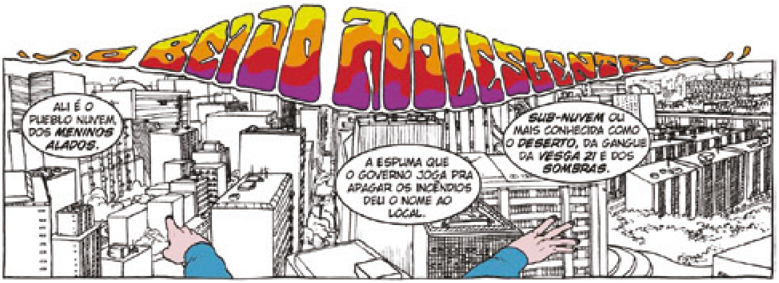

O Beijo Adolescente
ALI É O PUEBLO NUVEM, DOS MENINOS ALADOS.
A ESPUMA QUE O GOVERNO JOGA PRA APAGAR OS INCÊNDIOS DEU O NOME AO LOCAL.
SUB-NUVEM OU MAIS CONHECIDA COMO O DESERTO, DA GANGUE DA VESGA 21 E DOS SOMBRAS.

Fig. 5.4 Detail of logo in *O Beijo Adolescente: Primeira temporada* (Rafael Coutinho)

In the second book, the leader of a break-off faction of 'piratas' (pirates) hints that the BA's 'poderes' or superpowers are actually acts of creative consumption associated with immaterial labour. He champions his rival group as active producers rather than mere consumers like the BA. 'Somos produtores de novas ideias, e não apenas consumidores famintos como vocês' (We are producers of new ideas, and not just ravenous consumers like you). The BA members exist on the cusp of the latest developments, at the point at which it is impossible to tell whether they are driving the change or being driven by changes in technology. The BA assemblage is in a state of constant mutation, with new gangs being included and excluded, new members joining and 'disappearing' when they turn 18. And yet, despite the changes, its overall form keeps its shape and coherence. The BA thus resembles a manufactured pop band that endures through the years despite a constant turnover of members.[11] In an illuminating exchange in the second book between Ariel and a fellow BA member called Baronesa, the protagonist wonders whether he has power to change the situation and the system in which he is immersed. Ariel asks: 'Será que escolhemos ou somos escolhidos? Será que somos capazes de mudar o curso?' (Do you think we choose or are chosen? Do you think we have the capacity to change the course of things?). To which the Baronesa replies: 'Ariel jolie. . .pra pessoas como nós, mudar é uma jogada de marketing' (My dear Ariel . . . for people like us, change is a marketing trick). Through this paradoxical approach to change, the comic draws out the ambiguity surrounding the conception of change that inheres in the protests of the *rolezinhos*. Erber highlights the fact that one of the main sources of confusion among critics of these shopping mall happenings was the fact that the protagonists were not demanding a radical change in society but inclusion in the prevailing system. The similarities between the protagonists of the *rolezinhos* and the BA immaterial labourers make clear that this kind of social change is presented as continuous and immanent to the prevailing logic of capitalism.

There are interesting parallels between Palhaço's account of the Beijo Adolescente and the characterization by journalists and critics of *otaku* fans of Japanese manga and anime culture, a term that refers to stay-at-home computer geeks, web surfers and compulsive videogame players. Thomas LaMarre has pointed out that critical accounts of *otaku* culture hesitate between characterizing them as the embodiment of a refusal of work (traditional modes of production) or the 'postmodern harnessing of communicative labour'.[12] In other words, they are alternately viewed as the ultimate threat to, and the saviours of, the economy. At stake in the fascination and phobia surrounding *otaku* culture are the hopes and fears associated with the concept of digital immanence, the autonomy of socio-technological assemblages in the digital age, and hence the location of agency behind social change in an increasingly technological world. Like the *otaku*, the BA exist in a symbiotic relationship with the market. In the second book, Palhaço is beginning to lose his grip on power. One of the many interconnected plot lines running through the book involves two software developers based in a *favela* in Rio de Janeiro. The developers have produced adapted pirate versions of two massively multiplayer online role-play games (MMORPGs) called WOOMB and MALL LIFE, which were designed by Palhaço and became a key part of the Beijo Adolescente brand. The pirated versions have become more successful than Palhaço's originals and the narrative opens with his journey from São Paulo to Rio de Janeiro to buy the rights to the pirated editions and incorporate them into the BA brand (see Fig. 5.5). To Palhaço's surprise, the two web developers have already sold the rights to the pirated games to a break-off faction of the Beijo Adolescente that has based itself, along with the servers that support the pirated online world, on a sea platform off the coast of Rio. Palhaço's realization that he has become the new official institution that others are trying to pirate and undermine leads to the loss of his status within the BA. In its perpetual drive towards the changeless change of 'innovation', the assemblage has moved on without him. The amorphous BA assemblage has outlived him and reassembled in a new configuration. His confrontation with the pirate web developers serves as a reminder that he was only ever a partial agent of social change. He realizes that the warning he gave to the '*meninos alados*' is also relevant to himself: he is an interchangeable part of the socio-technological brand assemblage.

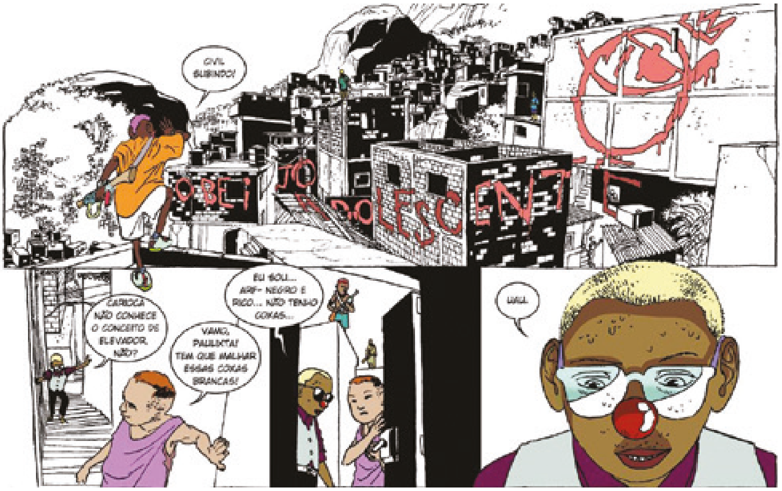

CIVIL SUBINDO!
O BEIJO ADOLESCENTE
CARIOCA NÃO CONHECE O CONCEITO DE ELEVADOR, NÃO?
EU SOU... ARF- NEGRO E RICO... NÃO TENHO COXAS...
VAMO, PAULISTA! TEM QUE MALHAR ESSAS COXAS BRANCAS!
UAU.

Fig. 5.5 Confrontation with pirates in *O Beijo Adolescente: Segunda temporada* (Rafael Coutinho)

The topological city

The comic connects this cultural imperative of perpetual change, and the constantly morphing assemblages that are the product of this logic, with the experience of topological urban space that it produces for the reader. In this respect, *O Beijo Adolescente* echoes a growing number of social theorists who argue that topographical understandings of space – embodied by the rigidities and certainties of Euclidean geometry – fail to capture the complexities of power in times of intensifying globalization. In contrast to the fixities of topography, topology is characterized by the study of geometrical figures that hold their shape despite spatial contortions and transformations. Rob Shields argues that only topology provides an adequate vocabulary for conceptualizing the distributed and decentralized workings of power in the digital age. Common conceptual tools for thinking about globalization, such as David Harvey's 'time-space compression', evoke not Euclidean space but a 'rubber sheet geometry' that 'is only possible in an elastic topological space'.[13] An emphasis on assemblages rather than networks, focusing on the socio-technological formations that are rendered increasingly decentred and distributed by digital technologies, is a symptom of this topological turn in understandings of space. In their influential essay on the spaces of science and technology, John Law and Annemarie Mol take issue with the excessive rigidity of the use of 'network' as a metaphor for 'the global'.

The understanding of networks in Actor-Network Theory, structured by an interplay of 'immutable mobiles', fails to convey that the spread of ideas, information and technologies is often much more fluid. Globalization, they conclude, 'is not about networks but about fluidities'.[14] The *rolezinhos* were a strikingly topological event in that they drew attention to the complexity of sociality in urban spaces that are increasingly mediated by globalizing communications devices. In a journalistic article published at the time of the events, Ivana Bentes argues that their unsettling effect was to highlight both the race-based systems of exclusion that govern Brazil's consumer spaces and the failure of the state to comprehend emerging modes of sociability and mobility being made possible by digital culture.[15] In this respect, the *rolezinhos* are exemplary of a range of spatial practices from graffiti, *pichação* (a style of tagging specific to São Paulo), skateboarding and parkour that have contributed to the articulation of a new spatial order in downtown São Paulo. Teresa P. R. Caldeira has argued that these new practices of social visibility draw attention to the reorganization of practices of social exclusion that took place in the city centre during the democratic 'abertura' (opening) period of the late 1980s and 1990s. The withdrawal of wealthy Paulistas from the central areas of São Paulo during this period led to a 'breakdown of the old modus vivendi that kept separations and inequalities in place'.[16] The skateboarders and graffiti artists that Caldeira studies draw attention to the fact that the spatial strategies of separation and inequality have not disappeared but become more complex. As a result, the tactics employed to evade these practices have had to become more mobile and agile.[17]

A topological perspective is partly constructed in Coutinho's books through the staging of the failure of topographical understandings of space. In the first book in the series, a key element in the characterization of the organization offered by its most vocal members is that membership enables a different, more powerful perspective on the city. At the beginning of Book One, Tomás claims that this perspective is made possible by a high degree of mobility that allows the teenagers to transcend the barriers placed in their way during everyday life. However, it is the failure of Tomás' attempt at spatial mastery – and the effect of this failure on the direction of the Beijo Adolescente assemblage – that brings into view the powerful topological perspective developed in the comic. It is through the presentation of Tomás' topographical vision of space in Book One that the topological assemblages are most clearly set into relief. In one of the opening sequences, Tomás, whose role in the organization is that of an 'olheiro' (watcher) charged with looking out for potential new recruits, takes his disciple to a viewing platform on the top of a high-rise building (see Fig. 5.6). The panel consists of a black-and-white pen sketch of a panorama of the city with Tomás and Ariel, the only figures in colour, standing with their backs to the viewers and surveying the scene: ‘Essa é a nossa cidade’ (This is our city). In two subsequent panels on the following page, Tomás points out which BA factions are in charge of the various zones in the city. The scene is reminiscent of Michel de Certeau’s famous account of the ‘voluptuous pleasure’ he experiences in ‘reading’ the ‘human text’ of New York City from his vantage point on the 110th floor of the World Trade Center.[18] He contrasts this ‘ecstasy of reading’ to the ‘ordinary spatial’ practices carried out by walkers who live ‘below the thresholds at which visibility begins’.[19] However, this promise of complete knowledge proves to be illusory. Over the course of the three books, Ariel and the reader find themselves immersed in increasingly complex plot lines and networks of power. The topographical conception of the city, presupposed by Tomás’ visual tour of the urban landscape, is frustrated by the complex topological reality that becomes increasingly apparent. The power dynamics in the city resist Tomás’ attempt to impose control over it by gaining what de Certeau describes as a ‘totalizing’ perspective. The two central dynamics emphasized in the series are the mutating forms of exclusion and the logic of the brand assemblage that structure the Beijo Adolescente. The first book ends with Tomás turning 18 and being ejected from the BA. His demise marks the failure of the conjunction between vision

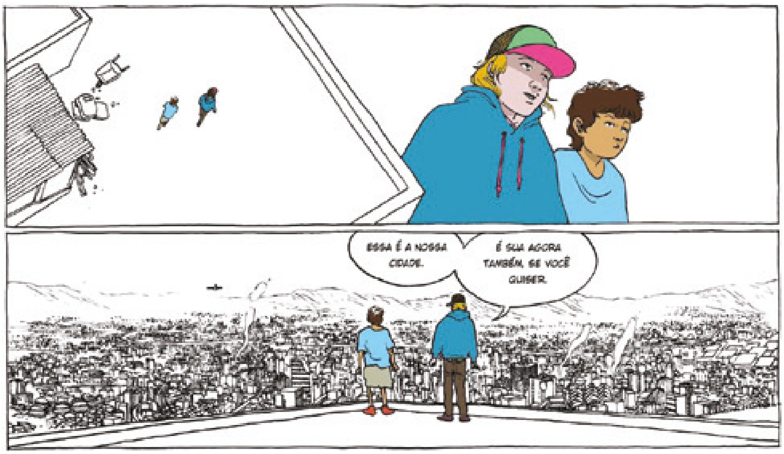

ESSA É A NOSSA CIDADE.
É SUA AGORA TAMBÉM, SE VOCÊ QUISER.

Fig. 5.6 Surveying the city in *O Beijo Adolescente: Primeira temporada* (Rafael Coutinho)

and power that he embodies. Similarly, the transcendence of the social boundaries and exclusions that structure the city, promised to Ariel with his membership of the BA, fails to fully materialize. Instead, in keeping with the spatial practices described by Caldeira, the BA members draw attention to the continuity of exclusionary practices. These simply mutate into different forms, finding new expression in the modes of inclusion and exclusion that govern the social media networks through which the characters interact.

The Beijo Adolescente lends visibility to demographic groups whose exclusion is key to the smooth functioning of the city. Ariel's unusual super ability draws attention to his abject social status, and the use of this position of abjection as a source of power. When Tomás recruits Ariel, he finds him vomiting into a school toilet surrounded by his laughing peers. Taking a closer look, Tomás sees that the reason for their laughter is that Ariel's vomit is luminous and technicoloured. Later, when a boy from school is bullying him, Tomás emits a powerful stream of vomit onto him. Ariel's strange skill functions as a metaphor for the BA's status as abjected from the normal centres of financial and political control and their use of this status as a source of power. In a similar manner to the graffiti artists discussed by Caldeira, membership of the BA is a claim to visibility. This is emphasized by the use of colour in the book. For the most part, the first book uses black-and-white pen drawings for backgrounds and adult figures and reserves full colour for the teenage members of the Beijo Adolescente. When Tomás turns 18 and loses his powers and membership of the BA he is drained of colour, becoming invisible once again and merging into the background of everyday life in the city.

The city in Coutinho's books is presented as a multiplicity of the topological space-times of the 'augmented realities' produced by ubiquitous mobile computing. Face-to-face interaction between BA members is supplemented by a range of other modes of technologically mediated communication, from chat forums and SMS texts to the immersive virtual reality worlds discussed earlier (see Fig. 5.7). The page layout frequently presents these different modes in layers over the physical space of the city. The edges of computer screens and mobile phone displays often take the place of panel borders in the books. The merging of digital communications technologies with page composition emphasizes the active role of these technologies in structuring both the characters' and the reader's experience of the city (see Fig. 5.8). Benjamin H. Bratton writes illuminatingly about the changes in urban experience resulting from the current phase in the global spread of digital information networks: namely, a move 'from an embedded *sous*-terrestrial network to a pervasive in-hand circuit of body and information cloud' in which 'computation evolves from a rare, expensive national asset to a cheap ubiquitous vapour'.[20] Bratton uses the term 'iPhone city' to refer to the increasing use of smartphones as a mobile interface between mobile phone users and the city. Through the proliferating number of apps providing the user with information and reviews along with the various networked and image-based social media platforms, the smartphone becomes a 'window onto the hidden layers of data held in or about' the immediate environment.[21] However, it also becomes a technology for changing that environment, since 'interaction with this information is recursive'.[22] The way people use that information 'on a micro level' (whether it is eating in a restaurant or buying products in a recommended shop) becomes 'new information that in turn informs what everyone else sees on a macro level'.[23] Developers of urban apps who are programming this porous urban space 'cast the city as a shared nervous system' as city dwellers increasingly grow to rely on mobile phone technology to 'proprioceptively map' the body's 'displacement in real and imagined geographies'.[24] Geographers have used the term 'augmented reality' to refer to the way that, as Mark Graham, Matthew Zook and Andrew Boulton put it, 'everyday life in urban places is increasingly experienced in conjunction with, and produced by, digital and coded information'.[25] The notion of augmented reality is used to conceptualize 'the indeterminate, unstable, context dependent [. . .] material/virtual nexus mediated through technology, information and code, and enacted in specific and individualized space/time configurations'.[26] These individualized 'space/time configurations' are topological in nature as the material and virtual are continually folded into one another. Furthermore, production and reproduction of these augmented realities imply a process of immaterial labour since it entails 'a blurring of the boundaries between content authorship and consumption'.[27] Like any form of mapping, the construction of augmented realities is an exercise of power since it selects, channels and distributes information that asserts the interests of specific worldviews and agendas, usually those of the market and the state.

In the first *O Beijo Adolescente* book, while he is showing Ariel around the city from the new perspective afforded by his membership of the BA, Tomás emphasizes the interconnectedness of the virtual and the material through a hyperbolic demonstration of the recursive nature of city dwellers' engagement with virtual systems. While skateboarding through the city Tomás tells Ariel to imagine his membership of the BA

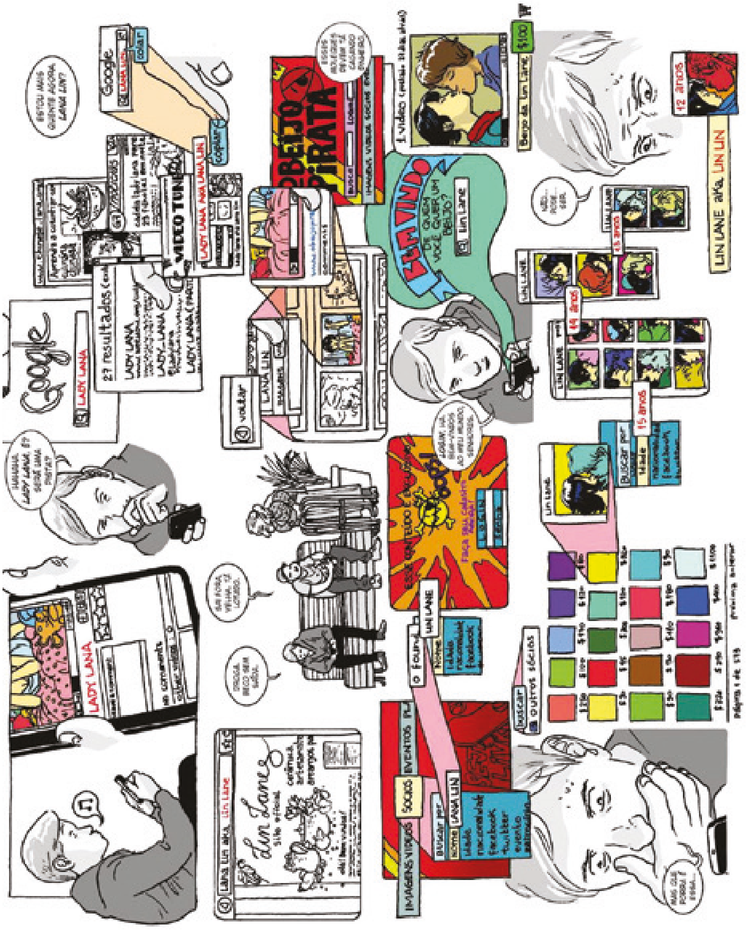

LADY LANA
Google
LADY LANA
27 resultados
VIDEO TUNE
O BEIJO PIRATA
voltar
LIN LANE
BEM VINDO
DE QUEM VOCÊ QUER UM BEIJO?
Lin Lane
$100
1 video
Beijo da Lin Lane
15 anos
14 anos
16 anos
12 anos
LIN LANE aka. LIN LIN
IMAGENS VIDEOS SÓCIOS EVENTOS
Buscar
outros sócios

Fig. 5.7 Smartphones in *O Beijo Adolescente: Segunda temporada* (Rafael Coutinho)

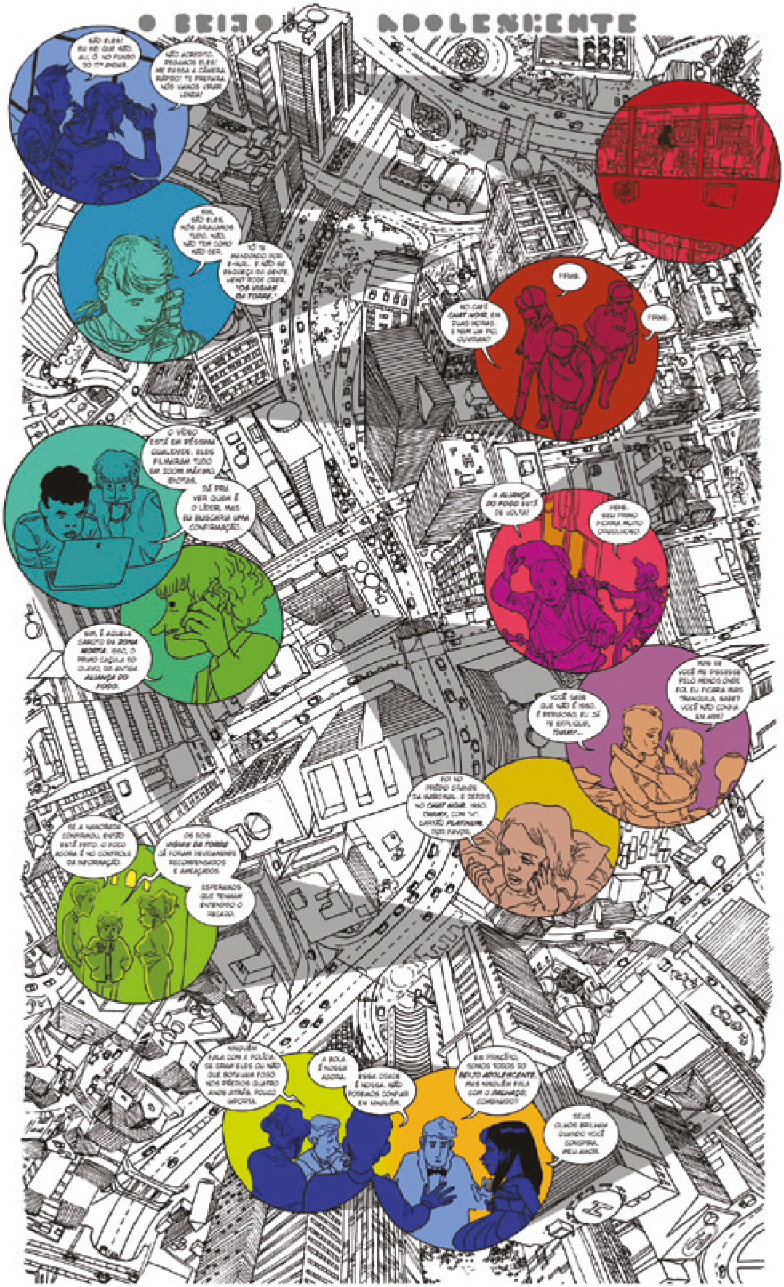

O BEIJO ADOLESCENTE
FIRME.
FIRME.
A BOLA É NOSSA AGORA.

Fig. 5.8 Layering of digital communication over urban space in *O Beijo Adolescente: Segunda temporada* (Rafael Coutinho)

as a role-play computer game, with the difference that, in contrast to computer games, his actions have direct repercussions in everyday life. ‘É meio como um jogo, tipo RPG. Só que ao invés de você jogar no computador, nesse você joga onde quiser, com todo mundo’ (It’s a bit like an RPG game. Except that rather than playing on the computer, in this one you play wherever you want, with the whole world). The fusion between virtual computer game worlds and material everyday urban experience is heightened in Book Two. A number of the interconnected narratives that constitute the second instalment in the series centre on the two role-play games that the Rio-based software developers pirated. A footnote attached to the first mention of MALL LIFE explains that the original game was first created in partnership between the Beijo Adolescente, Facebook and Second Life, the online fantasy world that allows users to construct virtual environments and socialize using virtual avatars. The game takes place in a giant shopping mall in which teenagers from all over the world can buy clothes and interact. The items bought or exchanged in the online world are materialized outside of the game and can be collected in registered shops. (In the pirated version of the game users can adopt psychopathic avatars who rampage around the shopping mall killing people.) As well as strengthening the parallel between the Beijo Adolescente and the protagonists of the *rolezinhos*, the shopping mall brings to life Tomás’ description of the BA teenagers’ experience of urban space as infused with the virtual. Throughout the book, the central characters frequently don virtual reality helmets to access the virtual worlds of MALL LIFE and WOOMB. When the reader is reintroduced to Ariel, who is now a global pop phenomenon, his first move as he comes off stage is to plug into the WOOMB universe (see Fig. 5.9). The idea behind this game is that users (embodied through a selection of ‘cute’ avatars) administer a gestational fetus. Gamers can also interact inside this virtual body, the full extent and functioning of which remains beyond their control. This game renders literal Bratton’s description of the digital city as a ‘nervous system’, shared by users who rely on their devices to construct proprioceptive maps of the city. In characteristically topological fashion, the game undoes the separation of inside and outside the body.

The online virtual worlds that become an increasingly dominant presence in Book Two bear witness to changing perceptions of urban space that emerge from the overlapping usage of mobile digital and face-to-face communication. The repetition of images in Book One, for instance, stages the logic of the viral spread of images on the internet. The third page of Book One depicts the ‘meninos alados’ finding the stencilled silhouette on the ground that indicates the disappearance of

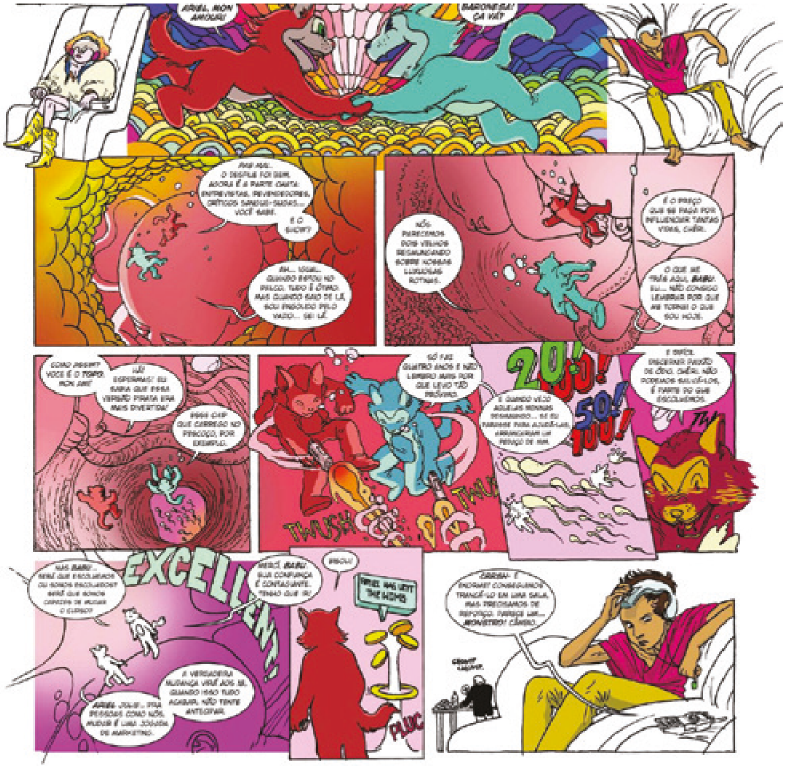

ARIEL, MON AMOUR!
BARONESA! ÇA VA?
20!
50!
100!
TWUSH
EXCELLENT!
PLUC

Fig. 5.9 Online role-playing game in *O Beijo Adolescente: Segunda temporada* (Rafael Coutinho)

a BA member by the mysterious force that haunts the series as a whole. The jagged and elongated figure is reminiscent of the characters used in the tagging style known as *pichação* that adorn buildings and bridges across the city. The image returns later in the book, this time viewed through the screen of a smartphone being watched by a group of BA skateboarders (see Fig. 5.10). The repetition of the image in the book not only echoes the persistently viral nature of much street art – such as tagging and stencil work – but also mirrors the increasingly complex interactions between the material and the virtual promoted by many of its practitioners. The work of São Paulo street art collective SHN, for instance, emphasizes the constant interaction between the material and the virtual. In 2014 they produced a book consisting entirely of screen grabs of Instagram photographs showing the collective's most recognizable viral images pasted, stencilled or painted onto walls around the world, from São Paulo to London.[28] The use of a book to reframe and

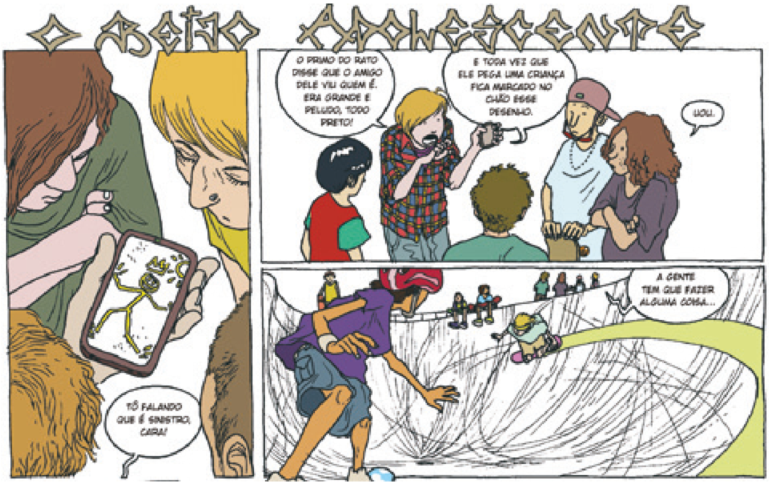

O BEIJO ADOLESCENTE
O PRIMO DO RATO DISSE QUE O AMIGO DELE VIU QUEM É. ERA GRANDE E PELUDO, TODO PRETO!
E TODA VEZ QUE ELE PEGA UMA CRIANÇA FICA MARCADO NO CHÃO ESSE DESENHO.
UOU.
TÔ FALANDO QUE É SINISTRO, CARA!
A GENTE TEM QUE FAZER ALGUMA COISA...

Fig. 5.10 Viral images in *O Beijo Adolescente: Primeira temporada* (Rafael Coutinho)

fix the viral nature of Instagram images draws attention to the complex interplay of the material and the virtual at the heart of networked image culture. The SHN book carries out a conflation of the material and the virtual, presenting the city streets as spaces of virtual becoming that morph to the rhythm of the regular transformations carried out by graffiti artists. The Beijo Adolescente books carry out a similar conflation of the material and the virtual in their characterization of the city. As the narrative develops, the BA ethos of continual innovation seems to infuse the city itself; in Book Two, the distinction between the virtual world of the online role-play games and material reality is gradually eroded. The second half of the book is dominated by Ariel's visit to the grounds of a mysterious house called the 'Morada Infante' (Childhood Residence). Despite the fact that the house and elaborate gardens that surround it are ostensibly a part of the real world and not one of the role-play realms in which Ariel spends much of his time, a computer game logic seems to prevail there. Ariel encounters a number of children who have been forced, by some mysterious invisible power, to perpetually obey the laws of a children's game. Horrified by the children's imprisonment, he tries to help them escape by smashing the ubiquitous surveillance cameras that have been disguised as giant flowers. It subsequently emerges that the entire episode has been captured on camera and transmitted to his fans via the internet. The section culminates with a page that shows Ariel's followers discussing whether his actions in the house

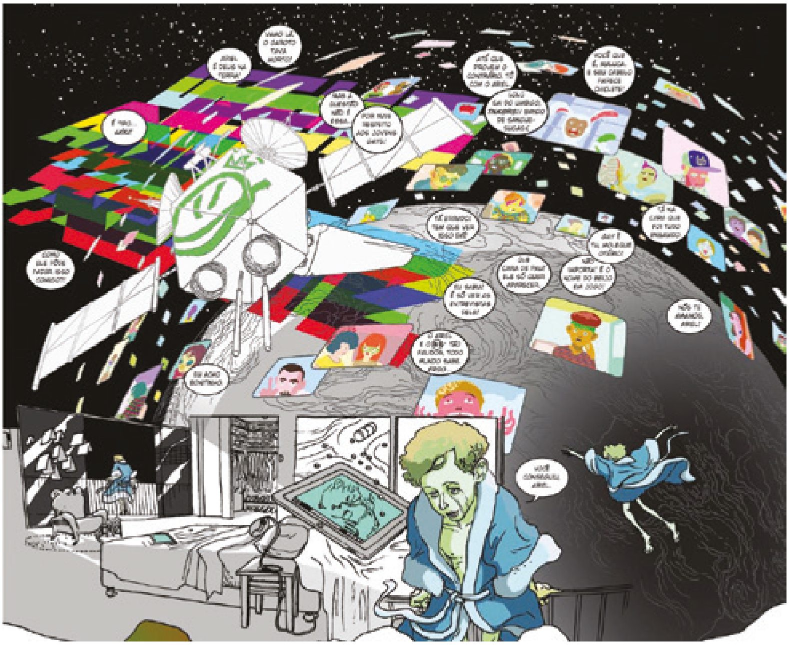


Fig. 5.11 Augmented realities in *O Beijo Adolescente: Segunda temporada* (Rafael Coutinho)

were self-consciously performed for the camera or whether they were spontaneous. The effect is to undermine the distinctions between the online virtual gaming world and real urban life as well as the difference between online avatar and offline self. Rather, the two are depicted as constantly affecting and mutating into each other (see Fig. 5.11).

Comic book topologies

As discussed in the Introduction, Jason Dittmer and Alan Latham argue that, due to their characteristic modes of plurivectorial narration, comic books and graphic novels may help readers view space as a relational entity in which the material world of the urban environment and the virtuality of social relations are closely intertwined. Space, in cities and comic books alike, is 'a kind of becoming [that is] emergent through the relations between different entities'.[29] For Dittmer, the work of Chris Ware, and in particular his 2012 book *Building Stories*, demonstrates that comics are an ideal medium by means of which we may grasp the nature of urban assemblages, holding great potential to 'educate' the reader about the 'human-nonhuman interactions that are continually unfolding all around us in the processes of dwelling, as well as the various competing temporalities of urban life that they intersect in the unfolding of the present'.[30] *Building Stories*, Dittmer argues, is proof of the medium's capacity to narrate urban assemblages 'in ways that enable new potentials in us and in the city' and inculcate in readers 'new sensitivities toward dwelling in assemblage'.[31] Coutinho exploits this potential within graphic fiction in a number of ways. Firstly, the material format of the books draws attention to the close and ambivalent interactions between the material and the virtual that structure the book's narrative. The books are printed on high-quality glossy paper. As Ian Hague points out in his study of the materiality of comic books, as well as being part of a claim to prestige, the use of glossy paper can be highly culturally significant.[32] On the one hand, the 'veneer of smoothness' of gloss 'tends towards concealing the labour involved in the page'.[33] From this perspective, the use of glossy paper entails a denial of materiality. On the other hand, Hague points out that a glossy page can produce the opposite effect of reinforcing materiality. As light glints off its surface, the reader's attention is drawn to the facticity of the page at the expense of the nature of the images printed on them. The use of high-spec glossy paper in the Beijo Adolescente books produces an interesting interplay between both of these effects. On the one hand, the gloss is in keeping with the focus on the superficiality of commodity and image culture in the narrative. The smoothness of the page evokes the mobility and frictionless flow of information that is the ideal of the BA brand. On the other hand, the gloss places an emphasis on surface and the materiality of the book. The interplay between these two effects is in keeping with the topological construction of urban space in the comic in which the oppositions between surface and depth, the virtual and the material are repeatedly evoked only subsequently to be undermined. This ambiguity is reinforced by the unusually large format of the books, which measure just under 40 cm long and 24 cm wide. On the one hand, the size aids the books' insertion into the image-driven commodity culture described in the narrative. The pages of the comic are ready-made posters designed to be gazed at as stand-alone tableaux. The emphasis of the design is clearly on the page rather than the panel. On the other hand, the size of the book leads to an awkward reading experience, as it is impossible to read text in both the top left hand corner and the bottom right corner without physically moving either the book or the reader. The book therefore defies the current trend towards miniaturization, digitization and portability in reading devices, insisting on the embodied nature of reading as a practice. Hague points out that increasing the physical size of a comic book is often connected to an 'emphasis upon size itself as the subject of the work'.[34] This is certainly the case with *O Beijo Adolescente*, in which the size of the comic evokes the overwhelming dimensions of São Paulo and the bewildering ubiquity of the BA assemblage. The ambiguous cultural meanings produced by the size of the comic are complicit with Coutinho's evocation of the closely entwined realms of the virtual and the material in the city.

The intensification of certain stylistic effects used by Coutinho in the progression from Book One to Book Two is in keeping with the transition from a topographical to a topological sense of the city. Two techniques used in the second book function as structural corollaries to the emergence of a topological sense of urban space ushered in by the decline of the 'olheiros' (watchers). The first is a concentrated use of non sequiturs, one of the modes of panel-to-panel transitions identified by Scott McCloud in *Understanding Comics*.[35] This technique is first introduced on the very first page of Book One, in which 16 panels – clearly demarcated from each other through the use of guttering – depict a number of characters (some of whom return later in the book) discussing the identity of the Beijo Adolescente at various times and in different places throughout the city (see Fig. 5.12). The very first panel shows a figure, in colour (indicating membership of the group), saying: 'Como assim "o que é" o Beijo Adolescente?' (What do you mean 'what is' the Beijo Adolescente?). Another panel shows a coloured figure claiming: 'É tipo assim . . . um lance que . . . flui . . . Tá ligado?' (It's kind of . . . a movement that . . . flows . . . Get it?). A panel towards the end of the page shows a close-up of a television screen showing a news broadcast about a fire in the city. One of the firefighters present at the scene exclaims: 'O fogo não para de se espalhar! É impressionante!' (The fire doesn't stop spreading! It's incredible!). The montage between the disparate disjunctive segments enacts the identity of the Beijo Adolescente that gradually becomes clear over the course of the narrative. This identity is best understood as a constantly mutating socio-technological assemblage that cannot be located in one fixable space-time. This non sequitur structuring strategy dominates Book Two, the narrative of which is punctuated by seemingly unconnected segments. This fragmentation intensifies as, at the level of narrative, the BA assemblage seems to approach a point of dissolution.

To similar effect, there is an increased focus on the page rather than the panel as the narrative develops. Although there are moments in Book One at which one panel seems to break out into another, panel integrity remains mostly intact. This integrity is consonant with the

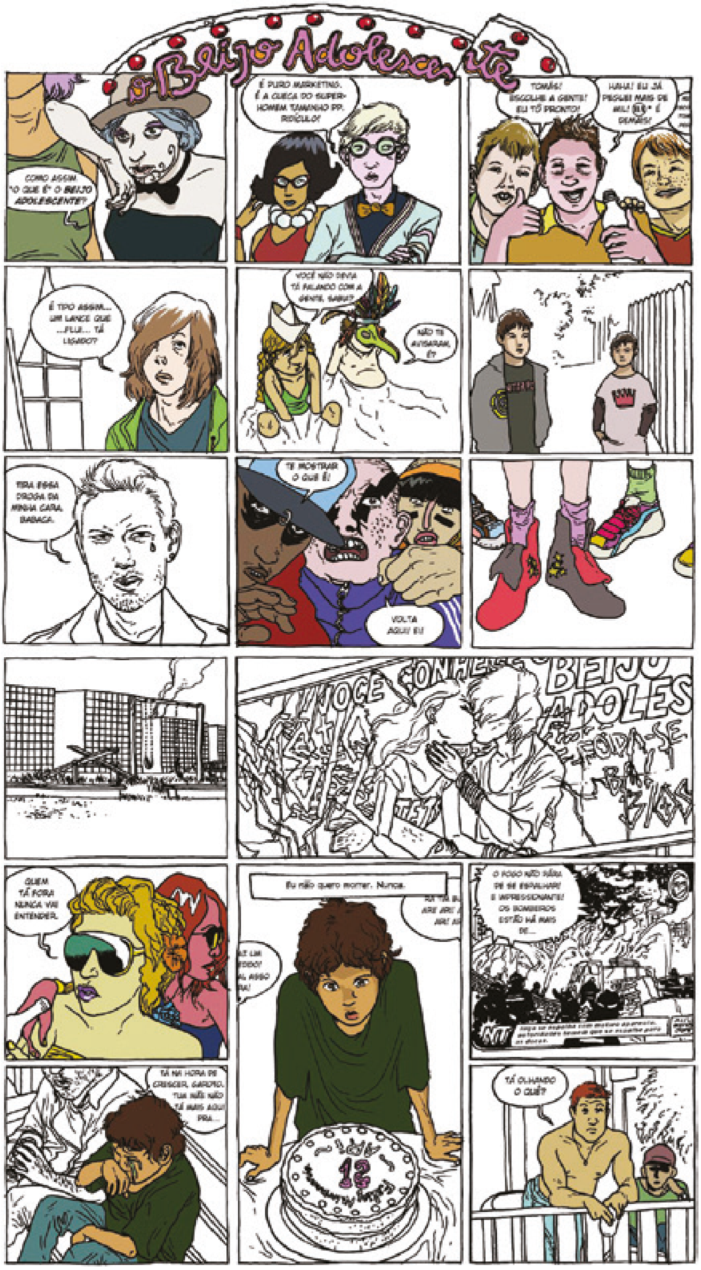

O Beijo Adolescente
COMO ASSIM "O QUE É" O BEIJO ADOLESCENTE?
É PURO MARKETING. É A CUECA DO SUPER-HOMEM TAMANHO PP. RIDÍCULO!
TOMÁS! ESCOLHE A GENTE! EU TÔ PRONTO!
HAHA! EU JÁ PEGUEI MAIS DE MIL! [illegible]* É DEMAIS!
É TIPO ASSIM... UM LANCE QUE ...FLUI... TÁ LIGADO?
VOCÊ NÃO DEVIA TÁ FALANDO COM A GENTE, GABU?
NÃO TE AVISARAM, É?
TIRA ESSA DROGA DA MINHA CARA, BABACA.
TE MOSTRAR O QUE É!
VOLTA AQUI! EI
VOCÊ CONHE
BEIJO ADOLES
FODA-SE
QUEM TÁ FORA NUNCA VAI ENTENDER.
Eu não quero morrer. Nunca.
O FOGO NÃO PÁRA DE SE ESPALHAR! É IMPRESSIONANTE! OS BOMBEIROS ESTÃO HÁ MAIS DE...
TÁ NA HORA DE CRESCER, GAROTO. TUA MÃE NÃO TÁ MAIS AQUI PRA...
12
TÁ OLHANDO O QUÊ?

Fig. 5.12 Page one of *O Beijo Adolescente: Primeira temporada* (Rafael Coutinho)

dominance of a linear narrative that follows the simultaneous rise of Ariel and fall of Tomás. Books Two and Three consistently undermine the coherence of the panel. The constantly changing rhythms created by significant variations in panel size and number evoke what Valérie Cools identifies as the phenomenology of Japanese manga, 'characterized by folds' and constantly mutating forms.[36] Here, Cools is using the term developed by Deleuze in his engagement with the work of Leibniz and baroque aesthetics to describe subjectivity as a process in which the 'outside' or non-human is constantly folded into the 'inside' or the human. In his explanation of this concept, Simon Sullivan describes the Deleuzian account of subjectivity as a 'topology' of a 'variety of modalities of folds, from the folds of our material bodies [. . .] to the folding of time'.[37] In Book Two, each page presents a different configuration of panels, which are incorporated or folded into the narrative in the same way that new socio-technological configurations are folded into the Beijo Adolescente assemblage. The prominence of the page in Books Two and Three is marked by the use of what Hague terms 'bleeding' to describe the printing of images right up to the corners of the page.[38] This effect, which is absent in Book One, dominates almost every page in Books Two and Three. This effect unsettles the neat temporal progressions delineated by McCloud's typology of panel-to-panel movement and, as Hague observes, 'serves to reduce the distinction between the diegetic environment and the reader's environment by removing the empty border between them'.[39] In Book Two, this has the effect of 'minimising the reader's perception of the comic as object', as Hague suggests.[40] It produces a sense of immersion, a dissolution of the boundaries between reading subject and object and between the individual and the assemblage.

Conclusion

Through this connection between the narrative emphasis on the topological nature of the city and urban culture on the one hand, and the topological materiality of the book on the other, *O Beijo Adolescente* creates a critical space of reflection on the possibility of change in São Paulo. By staging a complex topological construction of the city, Coutinho's texts intervene in debates about power in the city and the mutating nature of social exclusion processes by shifting attention to the level of socio-technological assemblages. The comic effectively forges a series of connections between the spatial practices of graffiti, skateboarding and parkour identified by Caldeira as practices of social fragmentation and disarticulation and the online activities of immaterial labourers, weaving them into an emergent social assemblage. The unique perspective brought by the comic form in its staging of this urban assemblage decentres the human by drawing attention to the constitutive human-non-human multiplicity of relations. Ultimately, the 'new sensibility' that it instils in the reader is that agency (the agency that Caldeira ascribes to the urban practices of graffiti, skateboarding etc.) is emergent in a network of human and non-human relations.

Coutinho's work suggests that the understanding of change implicit in the *rolezinhos* is indicative of a wider social shift. This shift is in line with what Celia Lury, Luciana Parisi and Tiziana Terranova call the 'becoming topological of culture' in their analysis of how the concept of topological space is 'emergent in the practices of ordering, modeling, networking and mapping that co-constitute culture, technology and science'.[41] In the multiplication of connections and networks that characterize this process, 'change is established as constant, normal and immanent, rather than exceptional or externally produced'.[42] For Lury, Parisi and Terranova:

> culture is increasingly organized in terms of its capacities for change: tendencies for innovation, for inclusion and exclusion, for expression, emerge in culture as a field of connectedness, that is, of ordering by means of continuity, and not as a structure based on essential properties, such as archetypes, values or norms, or regional location.[43]

Coutinho's most original manoeuvre is to connect this logic of constant and paradoxically changeless change to the social crisis gathering momentum in São Paulo at the time his graphic novels were published.

This understanding of change as immanent and constant – produced from inside rather than from an external position or via a revolution in social forms – stakes out the apparent limits of social and political change under global capitalism. It opens up an unbridgeable chasm that separates contemporary concepts of innovation and development from past ideologies of revolution and radical social transformation that shaped Latin America so powerfully during the 1960s and 1970s. It is clear that Coutinho's presentation of the Beijo Adolescente is far from celebratory. He frequently draws attention to its exclusionary effects, its thoroughgoing complicity with celebrity culture and marketing opportunism and its dubious success in creating a positive source of values and identities for many of its members. The *O Beijo*

Adolescente books conspicuously (and perhaps consciously) fail, however, to articulate an alternative to the highly compromised and complicit forms of change they imagine. They focus instead on tracing the formation and function of the powerful human/non-human assemblages that bind us to contemporary virtual technologies. This begs the question of what critical modes of thinking may be enabled – or disabled – by posthuman thought with respect to the complex socio-technological imaginaries that govern relations between humans, and between humans and non-humans, in late capitalism. This question is taken up elsewhere in this book, and directly addressed in the Conclusion. In the case of Coutinho, however, it is clear that a critical mode of thought is manifest in his commitment to charting the material effects of virtual worlds, and to revealing the continuing practices of human exclusion that survive – and are perhaps intensified by – the introduction of virtual and digital technologies that embed us ever more comprehensively in a posthuman world.

6

Post-Anthropocentric Ecologies and Embodied Cognition

On 30 June 1908, in a remote part of Siberia, a violent explosion in the sky killed hundreds of reindeer and flattened 80 million trees. The Tunguska Event, as it is called, has not satisfactorily been explained. Many scientists believe that an asteroid colliding with the Earth's atmosphere caused it, as no crater was ever found; in the absence of definitive proof, other theories have abounded, involving black holes, UFOs or the retribution of an angry god.

Published a century later, Alexis Figueroa and Claudio Romo's *Informe Tunguska* (Chile, 2009) captures the apocalyptic character of the event in an apocryphal report, which transports the meteor explosion to the island of Chiloé and to the year of Pinochet's coup, 1973. The reference to the Tunguska Event is intended, we are told in the prologue, to 'designar metáforicamente las consecuencias del acontecimiento devastador, moral, física y socialmente, sufrido durante largos años por nuestra nación' (refer in a metaphorical way to the consequences of the morally, physically and socially devastating situation suffered over many years by our nation). The book brings together fictitious memos, interviews, official reports, encyclopedia entries and excerpts from the diaries of scientists sent to investigate the phenomenon. It suggests an allegorical relationship between the authoritarian repression of Pinochet's regime and a series of biological mutations in the humans who suffered the impact of the explosion.

The striking repeated motifs of *Informe Tunguska* construct the universe as a series of fractal (self-similar) relationships, which fold together the microscopic and the cosmic, the organic and the inorganic and the human and the non-human, in ways that emphasize their shared formal attributes. A posthuman, post-anthropocentric vision emerges from the practice of 'unfolding the self onto the world, while enfolding the world within' (Rosi Braidotti).[1] As Robert Pepperell argues, post-anthropocentric perspectives such as those generated in this graphic novel undermine the notion of humans as 'unique, isolated entities', drawing us instead 'towards a conception of existence in which the human is totally integrated with the world in all its manifestations, including nature, technology, and other beings'.[2] *Informe Tunguska*'s experiments with scale and discontinuity also, we will argue, draw attention to certain modes of reading that are unique to the graphic novel and which point to the importance of embodied theories of cognition. Drawing on Eduardo Kohn's analysis of non-human semiosis in *How Forests Think: Toward an Anthropology Beyond the Human*, we will suggest that the use of repeated forms in *Informe Tunguska* demonstrates the rich potential in graphic fiction for engaging in a kind of semiosis that diminishes the difference between human and non-human signification.

Scale and fractal self-similarity

The visual design of *Informe Tunguska* is extraordinarily heterogeneous. Some panels contain crude drawings using thick black lines, wide swathes of a single colour, a flattened perspective and a deliberately two-dimensional effect. Other panels acquire the complexity of detail and subtle shadowing of photorealism, with some frames making use of photographs of plant forms or rocks to provide background textures or to stand in for stormy skies (see Fig. 6.1). Red tints lend an apocalyptic tone to these backdrops or highlight painfully exposed human flesh. There is an unusual degree of separation between text and image. Speech bubbles are entirely excised and many panels contain no text, while some pages are entirely given over to written reports; the captions that do exist are often citations from other texts, from Borges, Kafka or the writers of the Old Testament, among others. This intertextual mode of construction is announced in the text itself, as one of the characters reflects that 'es como si viviésemos en una fantasía real, habitantes de un mundo construido a partir de una mezcla de historias' (it is as if we were living in a real-life fantasy, inhabitants of a world constructed on the basis of a mixture of stories). In a reversal of the usual creative process in graphic fiction, Figueroa's script did not form the basis for Romo's illustrations; instead, the texts were inspired by Romo's images and woven around them.[3] The looser relationship between text and image allows for a greater polysemy and lends *Informe Tunguska* the unorganized, miscellaneous quality of an archive.

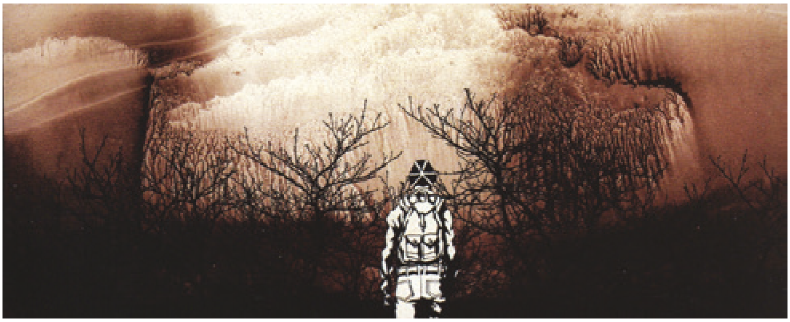


Fig. 6.1 A photograph of rock erosion becomes a stormy sky in *Informe Tunguska* (Alexis Figueroa and Claudio Romo; panel detail)

There is a constant play in *Informe Tunguska* with scale and similarity, in which framing and telephoto techniques are used to erode the distinction between human and non-human worlds. The first part of the text opens with a two-stage zoom-out sequence that focuses on the petals and filaments of a flower. The tight framing does not allow us to place the image in its context until the third panel. Here we realize that what we have been viewing is a design printed on the cover of book, in which the flower has become part of an institutional logo for a concentration camp. A sequence towards the end of the second section is constructed by means of a similar technique. We are first shown a form that appears to be the representation of a species of bug, possibly from a marine habitat, with concentric circles for eyes and highly patterned fins and antennae (Fig. 6.2). The organism's elaborate fins and fronds are reminiscent of the marine creatures of Ernst Haeckel's *Art Forms in Nature* (1904), which spreads out before us the surprising beauty, symmetries and intricate ornamentation of natural forms, providing a wealth of inspiration for art and design in Haeckel's time and beyond. As we turn the page, successive zoom-outs reveal that Romo's creatures are, in fact, part of a design for the fabric of an armchair (Fig. 6.2). Everywhere in *Informe Tunguska* the forms and patterns of nature are co-opted for use in human culture, and often presented in such a way that we are initially tricked into perceiving organic flora and fauna where we later see designs or adornments fashioned by human hands.

In his analysis of Haeckel's project, Olaf Breidbach emphasizes its domesticating effects: his drawings, while glorying in the strangeness of these exotic organic forms, make nature 'approachable' and 'brings the utterly foreign into the living room, so to speak'.[4] A similar effect is achieved in *Informe Tunguska*, which also (literally) incorporates these

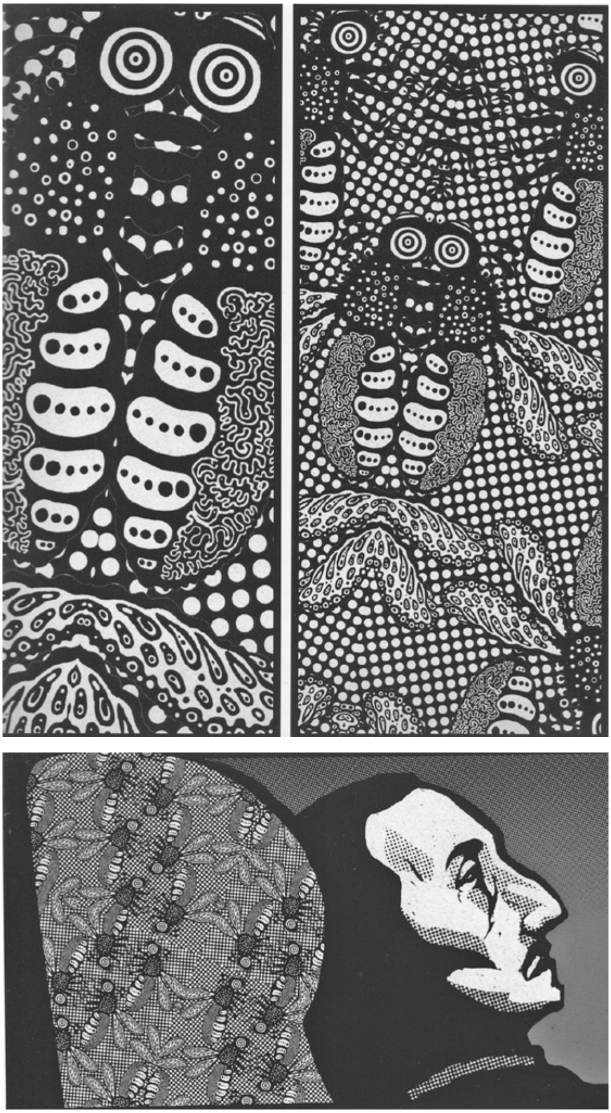


Fig. 6.2 Successive zoom-outs reveal natural forms as part of human designs in *Informe Tunguska* (Alexis Figueroa and Claudio Romo)

astonishing, fantastic images into a comfortable and familiar piece of living room furniture. For Breidbach, the ‘aestheticization’ of nature in *Art Forms in Nature* reveals the extent to which ‘Haeckel’s conception of nature is a conception of culture’.[5] He understands this to mean that his vision of nature is not at all objective, but indelibly marked by what is fashionable at the time, namely Art Nouveau.[6] However, it is also possible to cast this relationship between nature and culture differently – both in Haeckel's work and in *Informe Tunguska* – in a way that does not return to the question of the objectivity (or otherwise) of scientific descriptions of the world, but instead reveals the fundamental interdependence of nature and culture and their origin in shared forms and patterns.

Romo and Figueroa exploit a particular ambiguity that results from the discontinuous framing of images within panels in graphic fiction, which affects the reader's ability to judge relative scale. As the images we see are not part of a moving visual sequence – which would clearly denote whether we are witnessing a zoom-in or a zoom-out – this allows a certain play with scale whereby a tiny detail shown in one frame may come to represent a very large object in a later sequence. An example from the end of the first section illustrates this dynamic, folding together the structure of human physiology and similar forms at a much larger scale in the cosmos. As the focus of the six panels on the page zooms in ever closer to the prisoner sitting in the cell, and then into his eye, we arrive at the image of what could be a scratch on a bloodshot cornea (Fig. 6.3). A few pages into the second section, the two components of this image are repeated, rescaled and refunctioned, to produce the arc of a comet before it explodes on impact with the ground (Fig. 6.4). Another panel depicts trees ravaged by wind and fire following the blast (Fig. 6.5). These images seem to be taking place on a cosmic scale, but the narrative sequence of panels would suggest that it is a microscopic event taking place within the human eye. Our hesitation is heightened by the lack of texture or background detail that would allow us to place these images more confidently within a particular context.

The continual confusion between biological organisms and their representation in human art, fashion and culture, or between human organs and cosmic matter, is made possible by the particular representational conventions proper to graphic fiction. *Informe Tunguska* consistently plays with the conventional 'suspension of disbelief' with which we interpret comic images as representing a reality beyond the page. The simplifications and flattened perspective of the drawings in the first section, together with the use of a single primary colour, are highly suggestive of naïve art; this style adds poignancy to the tragic human drama unfolding within the concentration camp. However, this sequence, crude and unrealistic in its artifice, is quickly revealed to be, precisely, artificial. An oversized hand descends from above to remove a building from the scene in a gesture that reveals that the concentration

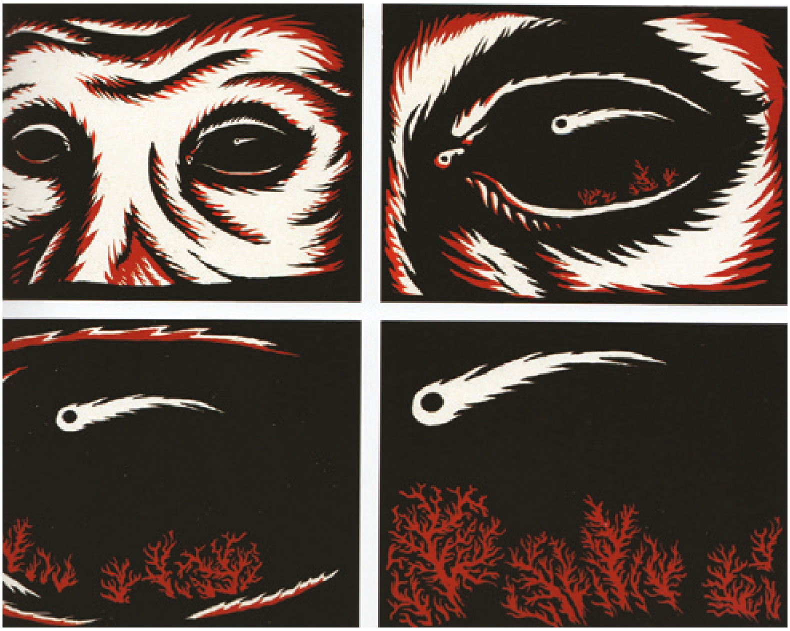


Fig. 6.3 A zoom-in on the prisoner's eye in *Informe Tunguska* (Alexis Figueroa and Claudio Romo)

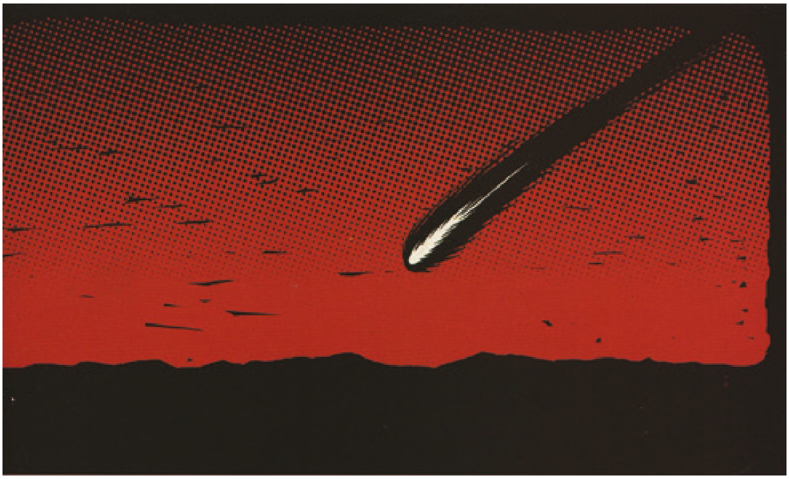


Fig. 6.4 The scratch on the eye is rescaled to become a comet (Alexis Figueroa and Claudio Romo, *Informe Tunguska*)

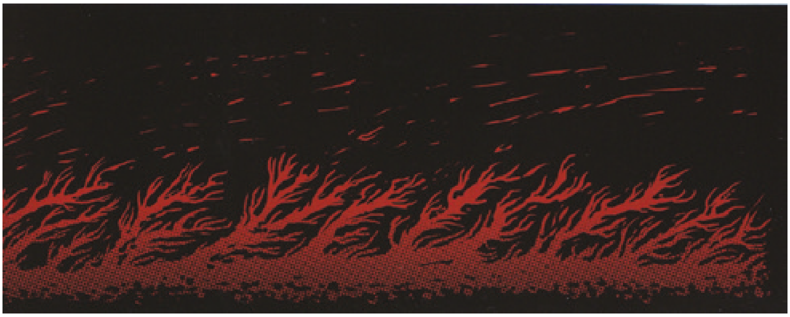


Fig. 6.5 The bloodshot cornea is recontexualized as trees in the blast (Alexis Figueroa and Claudio Romo, *Informe Tunguska*)

camp is merely a model, complete with toy soldiers (Fig. 6.6). On the next page, a wider angled shot reveals the owner of the hand, dressed in military uniform, painting in red one of the huts of his model concentration camp. We have been deceived by the conventions of comic-book narration into believing that these drawings – however rough and unrealistic – represented the world of reality. What we had taken to be the visual representation of a material world turns out to be a material object within that world. As we will argue, this is the crucial operation of *Informe Tunguska*: to ground the visual within the material, and thus to embed culture and the media within the natural, material world and not in any transcendent position above or beyond it.

One of the main recurrent self-similar patterns in *Informe Tunguska* is that of a branching network, which is used variously to represent the bifurcation of blood vessels (see Fig. 6.7), trees or roads or the patterns of rock erosion. The similarity between human anatomy and plant structure is reinforced at several points, such as the panel in Fig. 6.8, where it is set into relief by the use of black and white and high-contrast imaging. The photographs of limestone erosion frequently used as backgrounds for panels also show the typical branching patterns formed by dendritic drainage, which resemble the veins of a leaf. This branching pattern, with its fractal logic, is a key case studied in Kohn's *How Forests Think*. Proposing that an understanding of form that extends beyond the human is crucial to the pursuit of a post-anthropocentric anthropology,[7] Kohn argues that we should approach form, not as something that is only ever imposed by humans on the physical world – particularly via the specific categories of perception produced by human language – but that emerges within it, as 'a product of constraints of possibility'.[8]

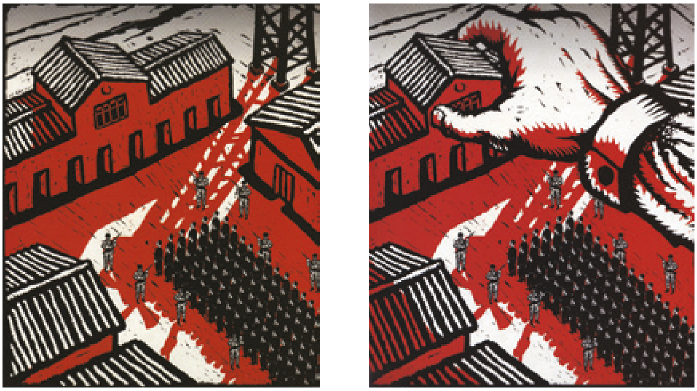


Fig. 6.6 *Informe Tunguska* (Alexis Figueroa and Claudio Romo) deceives us into taking for real what is revealed to be merely a model of the real

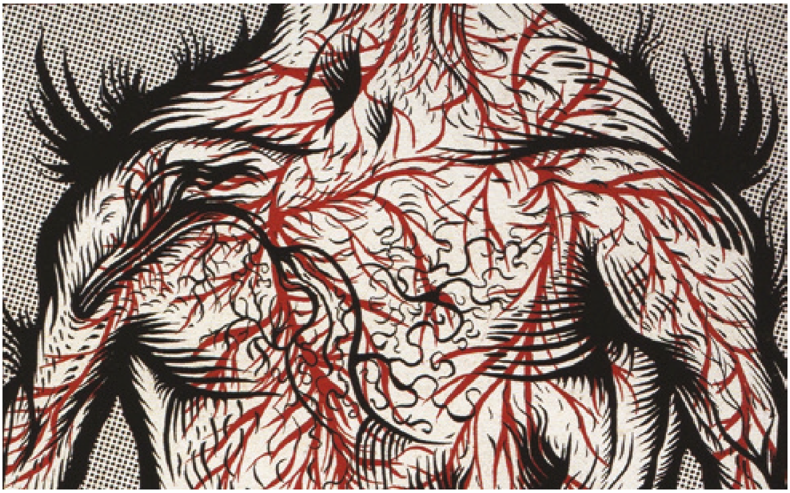


Fig. 6.7 Branching network of veins in *Informe Tunguska* (Alexis Figueroa and Claudio Romo; panel detail)

Kohn explores the 'forms' and 'regularities' shared by landscape, animal behaviour and human culture in the example of the rubber economy in the Amazon. He argues that the forms taken by human economy and culture in the region are directly linked to the 'constraints of possibility' that govern the growth of rubber trees and the distribution of water across the Amazon.[9] The fact that the distribution of rubber trees follows the branching of streams and rivers across a landscape is

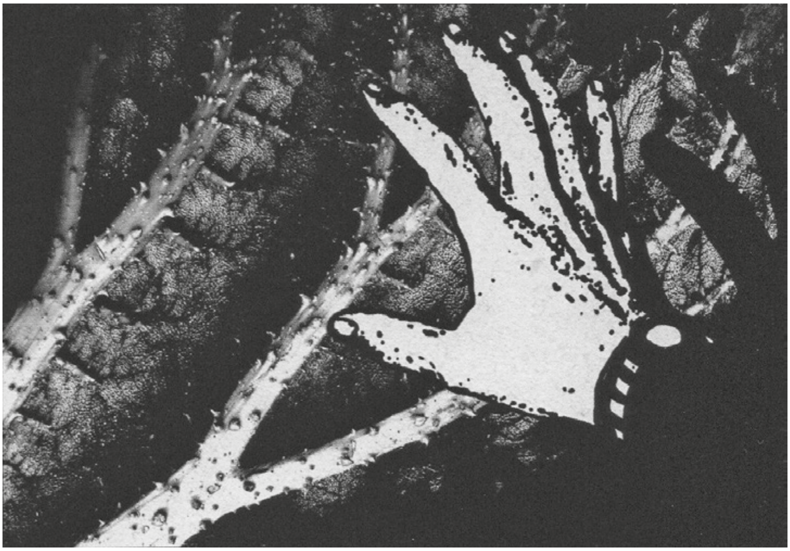


Fig. 6.8 Similarities between human anatomy and plant structure in *Informe Tunguska* (Alexis Figueroa and Claudio Romo; panel detail)

reinforced by the fish that eat the fruit of the rubber tree, whose seeds are then dispersed along the course of the river. The rubber economy exploited this pattern, navigating up river to harvest rubber and float it back to ports, uniting these physical and biological domains by exploiting their formal similarities.[10] The riverine network follows a self-similar pattern across scale, with tiny tributaries flowing into larger streams and in turn into larger rivers. This branching pattern also then describes the 'vast network of creditor-debt relations' which emerged in the local economy, 'which assumed a nested self-similar repeating pattern across scale that was isomorphic with the river network. A rubber merchant located at one confluence of rivers extended credit upriver and was in turn in debt to the more powerful merchant located downriver at the next confluence'.[11] In Kohn's work, examples of this kind of patterning, bringing together trees, rivers and economies, demonstrate that 'form need not stem from the structures we humans impose on the world' and can instead 'emerge in the world beyond the human'.[12] Focusing on how this form is harnessed within human society and culture allows us to theorize the relationship between the human and the non-human, Kohn claims, in ways that do not simply impose the 'language-like ways of thinking' of the human world onto the non-human.[13]

Informe Tunguska demonstrates in a similar way something of the extent to which human organization, culture and modalities of thought emerge from forms found in nature. Both the text and the illustrations abound in the repetition of organic forms that erode distinctions between the human and the non-human (animal, vegetable and mineral). Some of the images resemble the hybrid human-reptilian figures of H. R. Giger's designs for *Alien* (1979) or his works *Astro-Eunuchs* (1967) and *Atomic Children* (1967), inspired by the potential mutations that might be caused by nuclear war. We are told that the mutations caused by the explosion have in many cases led to deformities, transforming human flesh into 'una sustancia ciliada, de consistencia gelatinosa, que imita las formas de los vegetales' (a ciliary substance, with a gelatinous consistency, that imitates the forms of plants). The torso of one man found by the investigators has become 'un amasijo de tentáculos espinosos y entrelazados' (a tangle of intertwined bony tentacles). One of the scientific team members describes the cave she enters as a 'vientre' (belly), as its walls seem to be covered with a red film, studded with little hairs or cilia. Another describes a crater containing viscous black water, from which metal structures extend, mimicking the broken spines of monstrous, horned animals. Trying to find his way out of an abnormally dense forest, he sees forms in the wall of vegetation that grotesquely replicate human and animal organs – bladders, faces, eyes – and he is terrified to recognize the visages of his companions, as well as his own. Nature and culture, the human and non-human are everywhere bound together in *Informe Tunguska* in an endless mirroring and multiplication of forms. Continual references to swarms and multitudes join a cluster of words and images that relate to thickets, tangles and knotted masses – as well as mutation, viscosity, density and moisture – to create a sense of an alarming fecundity, transformation and expansion in which humans and non-humans alike are caught up.

Human and non-human semiosis

Kohn returns to the theory of semiotics developed by Charles Sanders Peirce (1839–1914) arguing that the shared forms that bind humans to the non-human world allow us to glimpse a kind of semiosis – iconic and indexical, rather than symbolic – shared by both human and non-human organisms. Kohn's reliance on Peirce's understanding of sign systems (much broader than Saussure's, which was wholly based on human language[14]) allows him to affirm that all life forms, not just humans, take part in processes of signification, which are ‘ultimately inferential’,[15] producing signs and interpreting the world around them. He gives the example of a monkey taking fright at the sound of a tree crashing to the ground. At a basic level, he reminds us, a sign is ‘something which stands to somebody for something in some respect or capacity’, and for that reason ‘significance is not the exclusive province of humans because we are not the only ones who interpret signs’.[16] Humans become, in his analysis, merely one element of an ‘ecology of selves’ that draws together all life forms that use signs as a form of communication, and that engage in ‘means-end relations, strivings, purposes, telos, intentions, functions and significance’.[17]

Kohn encourages us to ‘decolonize thought’ and to grasp that ‘thinking is not necessarily circumscribed by language, the symbolic, or the human’.[18] One way we may overcome the false dualism between the human and the non-human is to grasp the extent to which our attempts to understand and represent the world around us are always already embedded in its own ‘webs of semiosis’, which are, as Kohn suggests, ‘greater than human’.[19] He draws on Peirce’s understanding of the world as characterized by ‘the tendency of all things to take habits’,[20] arguing that ‘habits, regularities, patterns, relationality, future possibilities, and purposes [. . .] can originate and manifest themselves in worlds outside of human minds’.[21] He gives examples of entropy and self-organizing processes, such as the formation of whirlpools or crystal lattice structures. If habits, forms and signs exist in the non-human world, he maintains, ‘form need not stem from the structures we humans impose on the world. Such patterns can emerge in the world beyond the human’.[22] Or, in other words, ‘Our thoughts are like the world because we are of the world’.[23]

In fact, two possible readings of *Informe Tunguska* open up, which illustrate the tension between the symbolic and semiotic approaches discussed by Kohn, and lead to two opposing conceptions of the relationship between the human and non-human worlds. If we take a symbolic approach to reading the graphic novel, the human encounter with the natural world is experienced as traumatic, largely because of the metaphorical relationship constructed between the devastating impact of asteroid explosion and the violence of dictatorship. This symbolic reading of the text is deeply problematic from a political point of view, as it lends Pinochet’s coup the cataclysmic inevitability of a natural catastrophe, and thus effectively does away with the idea of political agency. A semiotic approach – in the sense given to this term by Peirce and Kohn – would yield a very different reading. It would start from a discovery of the shared forms that transcend the boundary between humans and the non-human world. If we consider the branching pattern most often repeated in *Informe Tunguska* – which establishes a formal similarity between plants, animal tentacles and human blood vessels – we might observe that branching signifies growth and survival, being a way of expanding exposure to energy sources (oxygen, water, light). It also builds in redundancy, meaning that the cutting-off of a particular branch does not endanger the organism as a whole. Thus, while a symbolic reading of the text would emphasize authoritarian repression, biopolitical control, isolation, imprisonment and death, a semiotic one would emphasize growth, resourcefulness, commonality, motility and survival.

This possible reading is reinforced by the text's metafictional elements. Through its intertextual references, *Informe Tunguska* itself constructs a branching network of texts and images that ramify and multiply, extending outwards to connect diverse points in time and space. They suggest a commonality of human experience that may be found at the limits of the human: in mutation and monstrosity (Kafka's *Metamorphosis*), in the excruciating invasions of the non-human Other (Job's broken and festering skin, covered with worms), and in terrifying encounters with the supernatural and the alien (Moses and the burning bush; Job and Leviathan). The effect of these textual networks is to break through the force field that keeps Chiloé isolated from the rest of the world and arrested in time, demonstrating the dispersive, transformative power by which cultural ideas and texts multiply and circulate. The diffusion of cultural ideas, images and texts is likened to the dispersal and colonization of seeds and spores, in a way that emphasizes their ability to survive, despite adverse circumstances. The comparison also highlights the role of chance and contingency in cultural transmission, as ideas may take root far from the original place of their enunciation, travelling on the winds, far beyond human control. A tiny seed contains a whole constellation of possible worlds. The final sequence of *Informe Tunguska* gives us a glimpse of these 'semillas cósmicas, esporas de historias … organismos semidivinos, que vagan por los inmensos espacios, dejando una estela de posibilidades: ensimismados mundos virtuales que buscan el eco de la materia para realizarse y vivir' (cosmic seeds, spores of stories … semi-divine organisms, that roam across immense spaces, leaving in their wake a trail of possibilities: self-enclosed virtual worlds that seek the echo of matter in order to materialize themselves and live).

Embodied cognition and the graphic novel

In *Informe Tunguska*, as in graphic fiction as a medium more broadly, we may also discern an extraordinary potential to further Kohn's project of decolonizing thought. This lies in its predominant use of iconic and indexical signs that lessen the gap between representation and reality, exploring semiotic rather than (or as well as) symbolic forms of representation. But it is also rooted in its emphasis on the embodied nature of cognition and its materializing effects.

If the sequence of panels in conventional comic narration typically shows successive actions taking place within a passage of time, the 'visual logic' of the contemporary graphic novel is, as Jan Baetens and Hugo Frey suggest, 'less syntagmatic'.[24] *Informe Tunguska* makes use of time stamps (00:01, 00:02, etc.) as intertitles to mark new sections of the book, and occasionally within panels, to reference the condensed temporality of the explosion or to carve up the action into photographic instants separated by minute divisions of time. Overall, however, the arrangement of panel sequences is not primarily designed to show the passage of time but to play with different scales and perspectives, and to exploit the ambiguities arising from these. *Informe Tunguska* explores visual 'tricks' of the kind developed in Joan Fontcuberta's photography, whose *Constellations* (1993) appear to be stunning images of stars spread across the night sky, but are actually dead flies and dust on a car windshield. Aside from blurring distinctions between nature and culture in the manner discussed earlier, these 'tricks' also alert us to the relationship between perception and proprioception: how we process the sensory information that gives us a sense of the body's position within space, relative to the object we are viewing. The 'mistakes' we are constantly forced to make in *Informe Tunguska* point to the extent to which cognition is embodied in the manner described by psychologists, neuroscientists and philosophers of mind such as James Gibson, Vittorio Gallese and Francisco Varela. They reveal that our perception and understanding of the world are grounded in our sensory grasp of space and movement relative to our own position, and are therefore thoroughly embodied.

Against a line of thought that equates human intelligence to computational processes, Varela, Thompson and Rosch insist that cognition should be understood as 'embodied action',[25] and that 'organism and environment are mutually enfolded in multiple ways'.[26] In their use of the term 'embodied', they intend to emphasize two points: first, that 'cognition depends upon the kinds of experience that come from having a body with various sensorimotor capacities', and second, that 'these individual sensorimotor capacities are themselves embedded in a more encompassing biological, psychological and cultural context'.[27] This approach allows them to negotiate a 'middle path' between representationalism's two extremes: that cognition is 'the recovery of a pregiven outer world' or that it is 'the projection of a pregiven inner world'.[28] Human cognition thus emerges as a product of the relationality of humans to the non-human environment.

Gibson describes a series of experiments carried out with a cinema screen and other devices to demonstrate the 'kinaesthetic' nature of vision, which registers movements of the body relative to the ground (proprioception), as well as the body's positioning within a certain space.[29] As Anne Rutherford observes, 'This is the core of [Gibson's] ecological approach to perception: that perception is an environmental process'. The perceiver does not simply receive data about an environment 'out there', but constantly locates him or herself within that environment, and perceives its objects and surfaces in relation to the body.[30] Given the discontinuous nature of panels in graphic fiction, the greater cognitive effort required of the reader (as opposed to the spectator of a film, say) often involves a heightened awareness of space, together with our position within it relative to other objects, as a key element in cognitive reasoning. *Informe Tunguska*'s particular play with scale and perspective defamiliarizes and thus draws attention to the embodied nature of perception.

The embodied mind theories developed by a number of cognitive scientists and psychologists bear clear affinities with Kohn's project of extending anthropology beyond the limits of human thought and language. Mark Johnson's *The Meaning of the Body: Aesthetics of Human Understanding* (2008) builds on his classic text published with George Lakoff in 1980 (*Metaphors We Live By*), marshalling evidence against the illusion of a disembodied mind and the primacy of linguistic structures in creating meaning. Johnson and Lakoff list a number of key concepts that appear to be pre-linguistic and are strongly related to the 'spatial orientation' of human experience, including 'up-down, in-out, front-back, on-off, deep-shallow, central-peripheral'.[31] These are then often taken up metaphorically in language: 'up' connotes health and happiness (as a body is upright and erect if physically well), while 'down' connotes sickness and depression (a drooping posture or body unable to stand), yielding phrases such as 'high spirits', 'feeling down', 'in top shape' or 'declining health'.[32] In his later work, Johnson draws on the pragmatist thought of William James and John Dewey to argue that 'Conceptual meaning arises from our visceral, purposive engagement with the world'.[33] Reversing the usual priority given to language in shaping human thought, he contends that 'Meaning traffics in patterns, images, qualities, feelings, and eventually concepts and propositions'.[34]

In their book *Embodied Cognition and Cinema*, Maarten Coëgnarts and Peter Kravanja and other contributors have explored the potential in such theories for enriching our understanding of the cognitive processes involved in cinema spectatorship, and particularly the relationship between perception and causality. Miklós Kiss finds in Gallese's 'Feeling of Body' (intended to supplement a 'Theory of Mind') a useful tool for understanding how spectators share a 'visceral link' with film characters that goes beyond a 'mental connection'.[35] Gallese and Hannah Wojciehowski draw on evidence of 'mirror neurons' to elaborate a theory of 'embodied simulation', which 'mediates the capacity to share the meaning of actions, basic motor intentions, feelings, and emotions with others, thus grounding our identification with and connectedness to others'. They claim, therefore, 'intersubjectivity should be viewed first and foremost as intercorporeity'.[36]

Interestingly, Gallese and Wojciehowski frame their analysis within a discussion of the rise of 'neurohumanism', suggesting that the embodied cognition approach affords 'a revisionary account of human uniqueness without divorcing it from nature'.[37] Coëgnarts and Kravanja posit, in a similar vein, that 'For Johnson, meaning is always a matter of human understanding. It involves the question of how humans make sense of the world by means of their ongoing bodily engagement with it'.[38] However, it is clear that many of the spatial experiences described here as central to human cognition would also be shared by animals – and even by plant life and forms in landscape – if we adopt Kohn's approach to analysing signs and forms in the non-human world. Johnson explains that:

> An embodied view of meaning looks for the origins and structures of meaning in the organic activities of embodied creatures in interaction with their changing environments. It sees meaning and all our higher functioning as growing out of and shaped by our abilities to perceive things, manipulate objects, move our bodies in space, and evaluate our situation. Its principle of continuity is that the 'higher' develops from the 'lower,' without introducing from the outside any new metaphysical kinds.[39]

This kind of 'thinking' is very similar to that which Kohn finds to be evidenced in the habits and forms of the non-human realm.

If embodied cognition theories offer intriguing insights into the relationship between perception and meaning in cinema spectatorship, we would argue that their potential is at least as great for exploring meaning in the graphic novel. The powerfully kinaesthetic qualities of graphic fiction often overshadow linguistic forms of meaning-production. Unlike cinema, graphic fiction renders clearly visible the central cognitive operation by which we conceptualize time as movement within space.[40] Page composition allows similarities in movement or form to be suggested between adjacent panels in a way that is not mediated through language, a capacity peculiar to graphic fiction as a mode of narration based on sequential, unmoving images. So, for example, we are invited to grasp the mutual enfolding of the microscopic and the cosmic through a fractal imitation of forms in Figures 6.4 and 6.5 earlier or to appreciate the resemblances between Aztec reliefs and comic-book images in *Las playas del otro mundo* (see Chapter 2). The cinematic equivalent of the matched cut does not retain the power of this device in graphic fiction, which lays alongside each other the forms to be compared. Other ways in which the graphic novel often points towards an embodied theory of perception and cognition would include its typical emphasis, as observed by Baetens and Frey, on the multiperspectival representation of bodies[41] and on the visceral elements of experience.

The graphic novel also takes distance from a linguistic approach to understanding perception and meaning in its intensely (re)materializing effects. These may involve foregrounding the material techniques of its production (see the discussion of *1899* in Chapter 4) or forming assemblages with the urban environment (see the discussion of *O Beijo Adolescente* in Chapter 5). They often draw our attention away from the mediating operations of language and discourse and towards questions of mediatization. They explore ways in which graphic fiction might extend beyond the two-dimensional page in order to engage other senses, such as hearing (see the discussion of 'Aurora pós-humana' in Chapter 7), to propagate itself in forms of web-based media (see the discussion of *Policía del Karma* in Chapter 4) or to take on, as in the case of *Informe Tunguska*, the solid dimensions of ceramic sculpture.

The final section of *Informe Tunguska* features photographs of sculptures Bárbara Bravo created in response to the graphic novel. These are displayed alongside selected prints of the graphic novel panels in an exhibition held in 2009 in the Pinacoteca of the Universidad de Concepción. Bravo's sculptures are an exercise in a fictional paleontology, creating an invented history by giving form to the mutated bodies and referencing the religious rituals that arose in the aftermath of the explosion narrated in *Informe Tunguska*. The close-up reproductions of the photographs in the book (see Fig. 6.9) emphasize the imitation in ceramic form of the cilia and tentacles that are ubiquitous in the graphic novel's images.

Romo explains that the intention was to 'construir un cómic que a la vez fue una exposición; es decir, que dejó registros materiales' (construct a comic that was at the same time an exhibition; that is to say, that it left behind material records).[42] Figueroa, for his part, refers to the comic as 'un elemento artístico contemporáneo capaz de aglutinar en sí técnicas, procedimientos y tradiciones de múltiples disciplinas' (a contemporary artistic medium capable of agglutinating techniques, procedures and traditions from multiple disciplines).[43] He explains that he was interested in exploring 'la idea de un libro tridimensional. Es decir un "libro" que extiende la construcción de sus páginas al espacio de tres dimensiones, concretándose en texto-dibujo en tanto novela gráfica, en ilustración en tanto grafica de pared, y en lo volumétrico, en tanto escultura cerámica' (the idea of a three-dimensional book. That is to say, a 'book' that extends the construction of its pages into a three-dimensional space, materializing itself in the form of texts and images in a graphic novel, or of illustrations on a wall or taking on volume in

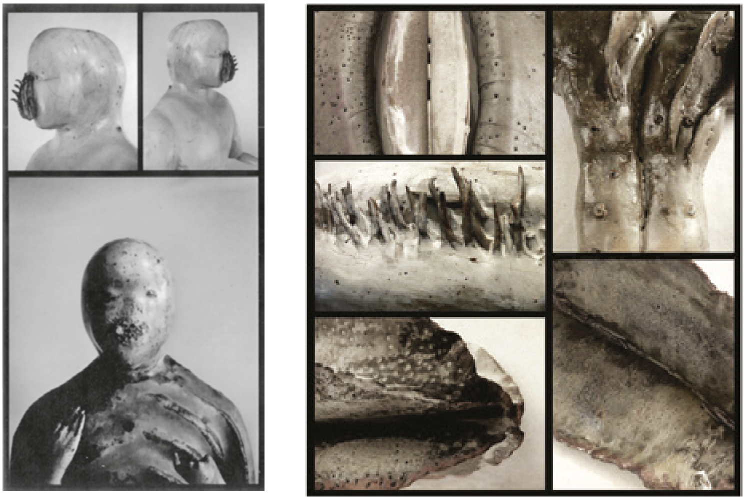


Fig. 6.9 Sculptures created by Bárbara Bravo and exhibited alongside prints of *Informe Tunguska* in 2009; photographs reproduced in *Informe Tunguska* (Alexis Figueroa and Claudio Romo)

the form of ceramic sculpture.[44] The reverse technique is also suggested in *Informe Tunguska* with the use of photographs of rocks and the limestone formations of caves; these are often used as background textures over which crudely drawn comic-style figures are superimposed, thus bringing (images of) the materials of sculpture into the comic medium itself.

Conclusion

Informe Tunguska's exploration of intermediality certainly demonstrates the agglutinating, cut-and-paste, collage quality of graphic fiction and its capacity to bind together different artistic forms – literature, photographs, sculpture – in projects that are almost always collaborative. This particular project was partly conceived as a bid for cultural legitimacy. The decision to insert the comic in the space of an art gallery, normally reserved for the artefacts of high culture, was particularly well received by those from the world of graphic fiction, according to Romo, who read it as a recognition of the comic as a branch of visual art.[45] *Informe Tunguska*'s intermediality also demonstrates graphic fiction's ambivalent relationship with the archive, a figure that has been used to reflect on the nature of the comic's particular combination of texts and images, as well as its imbrication with modern, urban experience as theorized by Benjamin.[46] As we have argued elsewhere, however, the figure of the archive does not sufficiently account for the active work of graphic fiction in adapting, translating and transforming its materials.[47] In the case of *Informe Tunguska*, we can perceive a clear move away from representationalism to intervention. This is first evident in its formal aesthetics: in the use of *fotografías intervenidas* ('modified' or 'manipulated' photographs), here rescaled and refunctioned, and in the obvious superimposition of different media within panels. It is also clear, however, in the intermedial thrust of the project as a whole, in which there is a marked emphasis, as in *Policía del Karma*, on a vocabulary of invasion, colonization, propagation: on what graphic fiction can *do* and how it might intervene in culture and society, rather than what it represents or reflects.

Like *Policía del Karma*, *Informe Tunguska* draws on models of growth, bifurcation, dispersion and circulation embedded in the natural world to describe the activity of literature and other forms of human culture. This use of dynamic forms proper to ecology – such as regeneration, symbiosis, fragility, positive and negative feedback loops, mutual dependence – creates a rich means of discussing cultural exchange and dissemination. It is one that moves beyond restrictive ideas such as influence, introducing elements of chance and contingency, or (more accurately) the effects of non-human actants on the destiny of those spores, rhizomes or viruses that transport cultural ideas beyond their place of enunciation or reception.

It also opens up a post-anthropocentric understanding of human culture that does not focus on how humans project forms onto nature that are derived from (specifically human) language, but on how human culture emerges from the forms of nature in the way Kohn describes. This becomes a powerful way of understanding human culture according to a model of distributed agency that transcends divisions between the human and the non-human. It reminds us, as Karen Barad suggests, that '"We" are not outside observers of the world. Nor are we simply located at particular places *in* the world; rather, we are part *of* the world in its ongoing intra-activity'.[48]

7

Intermediality and Graphic Novel as Performance

Graphic novels produced in Latin America are often acutely aware of their position within wider fields of intermedial connections. In many cases, this self-consciousness becomes part of their exploration of how posthuman subjectivity emerges from, or demands, new textual and reading practices in the context of new media technologies and contemporary forms of media convergence. In the Introduction, we explored how comic books and graphic novels have emerged as an important object of study in the disciplinary shift in literary and visual culture studies from, in the words of Horsman, 'a study of works as self-contained texts' to 'a (self-aware) attentiveness to their roles in various transmedial networks'.[1] Because of their constitutive intramediality (the tension between word and image that is one of the prominent, albeit not defining, characteristics of the medium) as well as the cultural tendency of high-profile comic books – especially those from Japan and the US – to become vehicles for what Henry Jenkins describes as 'transmedia narratives',[2] graphic novels are often used to think through questions of intermediality. The work of Brazilian academic, comic book writer and multimedia artist Edgar Franco gives a prominent role to the connections between posthuman subjectivity and the intermedial potential of the graphic novel form. Since 2004, Franco has been developing a science fiction universe across a number of media platforms. These include a serialized comic entitled *Artelectos & pós-humanos*; 'HQtrônicas' or comics produced specifically for a digital platform; several albums, EPs, single tracks and live performances by the science fiction-themed dark ambient electro band Posthuman Tantra; and the graphic novel *BioCyberDrama Saga*, illustrated by Mozart Couto and published in 2013. Under the name 'Aurora pós-humana' (Posthuman Dawn), this complex, ongoing and open-ended assemblage brings together images, words and sounds that move across different media and exemplifies how what we might traditionally conceive of as subjectivity or selfhood emerges as an epiphenomenon of connections within a network of human and non-human elements. We retain the term 'subjectivity', with all its humanist baggage connoting clear distinctions between subject and object, precisely to mark a point of difference with humanist notions of the subject. Our term 'posthuman subjectivity' is intended to refer to a way of being in the world that emerges from the inter- and intra-action of human and non-human forces.

The narrative dimension of the transmedia 'Aurora pós-humana' universe imagines a future around 900 years from now in which most of today's scientific and technological possibilities have become a reality, producing a radical rupture in social, cultural and religious values. In this world, conflict centres on the competition between different modes or practices of the posthuman, which have almost entirely eclipsed human existence as we know it today. The two main posthuman technocultures presented are the *tecnogenéticos*, biogenetic hybridizations of humans, animals and vegetables and the *extropianos*, abiological beings whose consciousness has been transferred to a computer chip, ensuring their immortality. While the *tecnogenéticos* and *extropianos* exist in strident contest with each other, a small group of *resistentes* (resistants) opposes both movements. They cling to fantasies of purity about the ways of life and modes of reproduction of their human ancestors. *BioCyberDrama Saga* tells the story of Antônio Euclides, the son of committed *resistentes* who is interested in exploring the various permutations of both extropian and technogenetic posthumanism and is in love with a *tecnogenética* girl called Orlane. The plot takes place against the backdrop of mounting tensions between the *tecnogenéticos* and *extropianos* that culminates in a series of terrorist attacks. When Antônio's mother is killed in the bombing of a humanist university and he discovers that he has a son by a previous *resistente* girlfriend, Antônio flees the city for the backlands of the Northeast. The final three chapters take place 30 years later; Antônio has become the leader of an increasingly powerful cult of *resistentes* based in Canudos but is beginning to lose faith in the struggle that has cost so many lives. It is clear that the search for human perfection ruling the different races of *BioCyberDrama Saga* has led only to their moral degradation, blinding them to the inhumanity of their destruction of each other. The narrative ends with a reassertion of human values founded on affective bonds, family loyalty and the tolerance of religious and racial difference, but holds back from identifying these values with any single race.

The 'Aurora pós-humana' science fiction universe plays out many of the features of the posthumanist textualities explored by N. Katherine Hayles and outlined in the Introduction. Against the humanistic tendency to think of texts and identities as disembodied, Franco's work – like that of the critical posthumanists described by Hayles – insists on their materiality. Hayles argues that the materiality of what she calls variously a 'technotext' and an 'embodied text' derives from the 'interaction of its physical characteristics with its signifying strategies'.[3] In the 'Aurora pós-humana', the physical construction and engineering of the media that guide us into the fictional world become important factors in how the narrative ideas are shaped and how they engage in the formation of posthuman subjectivities. The effect is that the reader's attention is repeatedly drawn to the particular affordances of media platforms that are created by their specific forms of materiality. Furthermore, in contrast to the ideal of the unified text as an expression of a unified self that underpins humanistic traditions of textualist scholarship, the complex textuality of the 'Aurora pós-humana' is decentred and in a state of constant mutation. No one medium is presented as central in the unfolding of the narrative, just as no one narrative strand or temporality is dominant within the diegesis. Instead, the performances, ambient electronic soundscapes and graphic fiction emerge from one another to form a transmedia world possessing some of the qualities of what Hayles calls the 'Work as Assemblage' and describes as a textual counterpart to Deleuze and Guattari's metaphor for the endlessly productive transindividual flows of desire, the Body without Organs.[4] 'Rather than being bound into the straightjacket of a work possessing an immaterial essence that textual criticism strives to identify and stabilize,' Hayles explains, 'the WaA derives its energy from its ability to mutate and transform as it grows and shrinks, converges and disperses according to the desires of the loosely formed collectives that create it'.[5] Since the components of the work move across platforms and genres, 'the specificities of media are essential to understanding its morphing configurations'.[6] Notwithstanding the playful rhetoric of heroic individualism that often creeps into Franco's descriptions of his project – which belies its collaborative and 'distributed' nature – it is useful to think of the 'Aurora pós-humana' as an assemblage that brings print and digital media into a co-functioning relationship, interrogating the affordances of both in relation to the production of subjectivity.

This chapter will focus on two main intermedial encounters staged in Franco's work: the relationship between image and sound, particularly the landscapes constructed in *BioCyberDrama Saga* and the soundscapes produced by Franco's ambient electro band Posthuman Tantra; and the connection between the graphic novel and Franco's cybershamanic live performances. The intermedial engagements of Franco's 'Aurora pós-humana' foster a critical posthumanism that explores and performs new subjectivities arising from the technological extension, reinvention or transcendence of the human body. It also interrogates the impact of such advances on human ethics and values.

Sound and image

The electronic music performances and recordings associated with the 'Aurora pós-humana' world are presented as extensions of the posthuman subjectivities staged within the comics and the graphic novel. Franco's transmedia world explores the increased fluidity between sound and image facilitated by digital technologies. Since the advent of the digital in the late 1950s, as Eric Lyon explains, both sound and image 'can now be treated as pure information; the perceptual modalities differ, but, from the computer's perspective, it's all just ones and zeros'.[7] The abstraction of the digital has the effect of undermining the divisions between media which, according to the genealogies elaborated by Friedrich Kittler, were naturalized during the nineteenth century.[8] In contrast to this discourse Lyon traces, the relationships wrought between sound and image in the 'Aurora pós-humana' point not to the immateriality of the informational substratum, but to the materiality of digital media. The music produced by Franco under the name Posthuman Tantra develops the posthuman theme central to the graphic fiction, not only in the imagery it employs on album covers (see Fig. 7.1) and during live performances, but also in the deterritorializing soundscapes it produces. Franco claims that Posthuman Tantra 'pretende ser um casamento constante entre as criações visuais de Edgar Franco & o universo da música eletrônica' (is intended as a constant marriage between the visual creations of Edgar Franco and the universe of electronic music).[9] The points of connection between the comics and the music differ in their degree of explicitness. The 'HQtrônicas' include music that accompanies the unfolding of the action like a film soundtrack, contributing to the atmosphere of tension and sense of dread. However, the majority of Posthuman Tantra's output is less prescriptive in the connections it proposes between Franco's graphic fiction and the ambient tracks. The reader is encouraged to make plurivectorial connections, in a manner that parallels the non-linearity of the reading processes often encouraged by the complex alliance of words and images in graphic fiction, as Jason Dittmer has shown, drawing on the earlier insights of Thierry Groensteen.[10]

Franco's band references, and intervenes in, a long history of connections between electronic music and the science fiction genre. Science fiction film in particular has often taken advantage of experiments in electronic sound to evoke encounters with the alien and the unfamiliar. As Nick Collins, Margaret Schedel and Scott Wilson put it, 'other worlds' became '[a] natural fit for the otherworldly sounds of electronic music'.[11] If this is the case, it is also true that the relationship between science fiction narratives and electronic sound is highly ambiguous. On the one hand, the application of narrative to sound could be interpreted as a process that domesticates the estranging qualities of electronic sound by imposing an interpretative framework on it and therefore rendering it intelligible. On the other hand, the science fiction theme could be

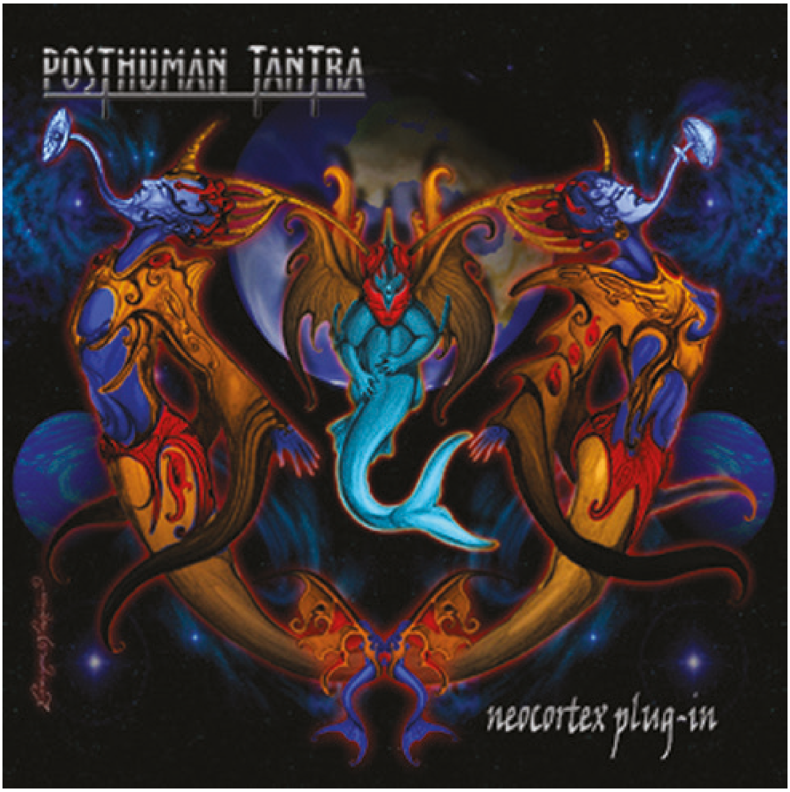


Fig. 7.1 Cover of *Posthuman Tantra*'s 2007 album *Neocortex Plug-In* (Edgar Franco)

argued to underscore and reinforce the challenge mounted by electronic music to the distinction between reproduced or recorded sound and sound that has been constructed through the accretion of sine waves.[12] The blurring of boundaries between reproduced and constructed sound mirrors the conceptual provocation of science fiction in its imaginative elaboration on existing societies, technologies and scientific theories. The effect of both is to produce what Darko Suvin describes as 'cognitive estrangement'.[13]

The electronic music of Posthuman Tantra echoes the emphasis placed in the graphic novel *BioCyberDrama Saga* on the material dimensions of subjectivity. While the narrative gives some space to the exploration of transhumanist themes of the uploading of human consciousness and the possibility of eternal life in a disembodied state of transcendence, the book's aesthetic clearly comes down on the side of a rather different posthumanist vision: one of hyperembodiment. Mozart Couto's ink drawings place a continued emphasis on the body, from the detailed musculature of the *tecnogenético* theorist Totem Rosen (see Fig. 7.2) to the central role in the narrative played by the pregnancy of Antônio's girlfriend Michelle. The high-tech future imagined by Franco and Couto is a world in which technologies physically traverse and extend the flesh rather than transport the mind beyond it, demonstrating a much greater affinity with *tecnogenético* culture than its *extropiano* rival (see Fig. 7.3). This vision is augmented in the illustrations Franco himself produced for the 'HQtrônicas' and the *Artelectos & Pós-humanos* magazines, heavily inspired by H. R. Giger's organic alien technology. Franco's choice of collaborator heightens the tension between the different posthumanist visions explored in the graphic novel. Couto's black-and-white line drawings are highly indebted to the work of the artists behind US superhero and fantasy comics, especially John Buscema and Hal Foster.[14] The partnership between Franco and Couto bears a resemblance to that of Alan Moore and Dave Gibbons in *Watchmen* as, in a similar manner, the latter's style was intended to evoke a nostalgia for the Golden Age of US comics. Couto's own art establishes a tension by invoking a tradition that celebrates the triumph of technology over nature and extols the heroic individual. This provides a stark contrast to Antônio's increasing doubts concerning the exceptionality of the humanist subject and its ability to harness the power of technology with the aim of perfecting the human race. The effect is to draw attention to the role of the medium and to the structural grammar of comics as a technology employed in the wider transmedia assemblage. The low-tech, classic quality of Couto's style, which relies simply on the skill of his pen drawings and is unencumbered by a flamboyant use of colour or complex *mise en page*, finds a parallel in the format of the comics magazine *Artelectos & pós-humanos*, which is printed on cheap paper for a very restricted circulation. For all the philosophical sophistication of *BioCyberDrama Saga*, its aesthetics produce a low-tech posthumanism that harks back both to the 'estética da fome' (aesthetics of hunger) of *cinêma novo* in the 1950s and 1960s and to the *poesia marginal* movement of the dictatorship years. The result is an emphasis on the material thickness of the printed elements of the 'Aurora pós-humana' that goes some distance towards counteracting the weight of the discursive production of meaning.

In *BioCyberDrama Saga*, at least, the discursive elements of world-construction threaten to overwhelm the images. Like many graphic novels of the science fiction genre, the narrative is supplemented by a presentation of the story world that lists character classes and roles. Unusually, the entries start with real-life bio-artists whose work has inspired Franco's own, including Stelarc, Orlan and Eduardo Kac, interspersed with Extropian philosophers and scientists such as Max More and Hans Moravec and the cyberpunk novelists William Gibson and J. G. Ballard. Franco openly acknowledges the artistic and academic sources from which he has constructed his 'poética de síntese' (poetics of synthesis).[15] All the characters in *BioCyberDrama Saga* are in fact given names that clearly indicate the narrative's embedding in the real world of transhumanist scientific, philosophical and artistic exploration, such as Orlane, Moravechio or Ed Kak, with Bodrilardo (Baudrillard) and (Donna) Haraway thrown in for good measure. The descriptions given of the *tecnogenéticos*, the *extropianos* and the *resistentes* together with their various subspecies (see Fig. 7.4) extend into a detailed account of the politics, social organization, use of energy resources and architecture developed by each race, as well as geological and demographic information on the world's continents and regions. The density of this information and its organization into encyclopedia-like entries recalls the vast library of game information created for the videogame *Mass Effect* (2007), the 'Codex', which elaborates on the fictional galaxy's different races, political alliances and technologies as well as its history and geographical characteristics. The sheer length and detail of *BioCyberDrama Saga*'s own encyclopedia – which far exceeds any explanatory function in relation to the graphic fiction that follows it – reveals the text as first and foremost a work of weighty philosophical speculation and divulgation in which narrative development is entirely subordinate to world design and both are intended to reflect on the current controversies that

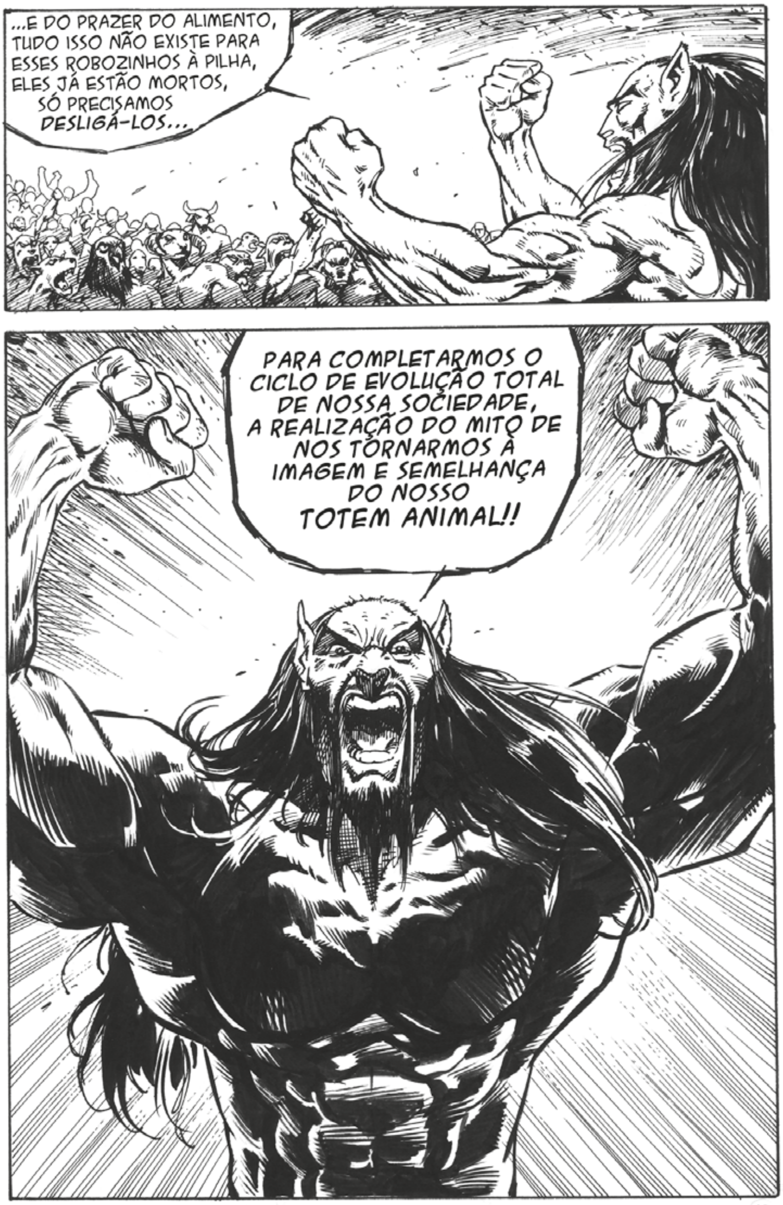

...E DO PRAZER DO ALIMENTO, TUDO ISSO NÃO EXISTE PARA ESSES ROBOZINHOS À PILHA, ELES JÁ ESTÃO MORTOS, SÓ PRECISAMOS DESLIGÁ-LOS...
PARA COMPLETARMOS O CICLO DE EVOLUÇÃO TOTAL DE NOSSA SOCIEDADE, A REALIZAÇÃO DO MITO DE NOS TORNARMOS À IMAGEM E SEMELHANÇA DO NOSSO TOTEM ANIMAL!!

Fig. 7.2 *Tecnogenético* theorist Totem Rosen in *BioCyberDrama Saga* (Edgar Franco and Mozart Couto)

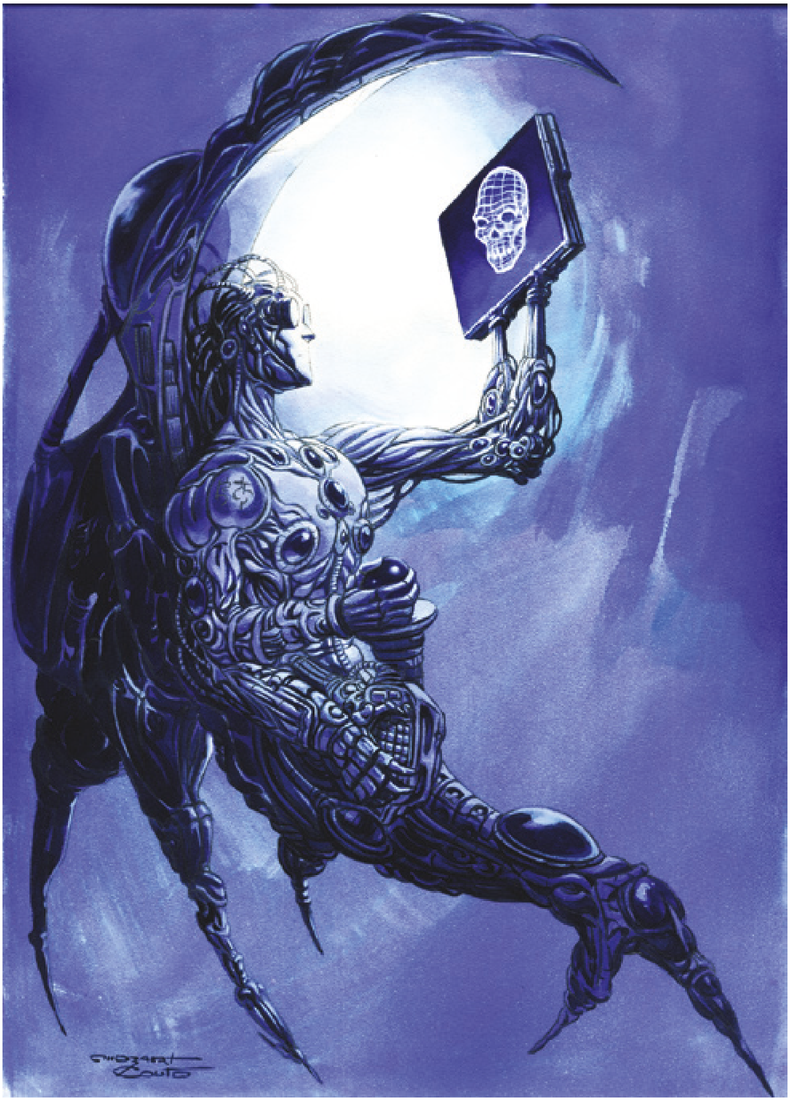


Fig. 7.3 Inside cover of *BioCyberDrama Saga* (Edgar Franco and Mozart Couto)

surround transhumanism and posthumanism in our own world. This priority is clearly evident in the composition of the graphic fiction, with its use of a classic panel-and-gutter layout and its high reliance on dialogue, in which relatively long interventions by characters, captured in conventional speech bubbles, slow down the action and create space for the precise exposition of philosophical beliefs.

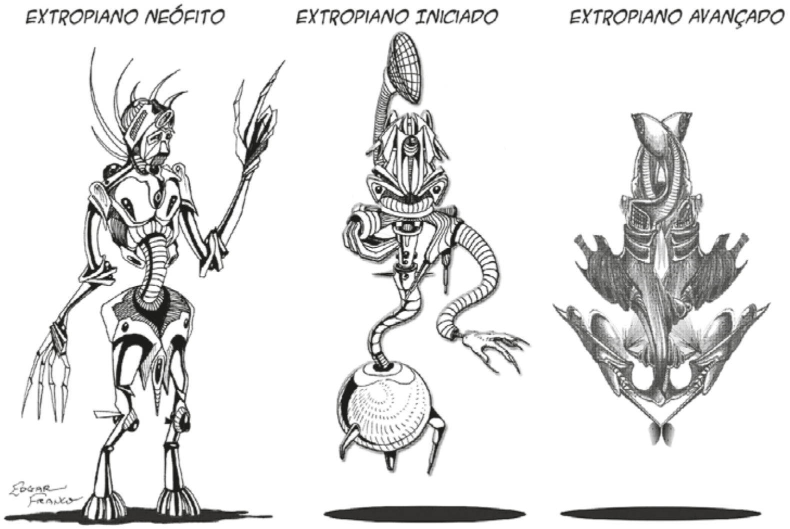


Fig. 7.4 Typology of *tecnogenéticos* in *BioCyberDrama Saga* (Edgar Franco and Mozart Couto)

The discourse-heavy and rather overdetermined nature of *BioCyberDrama Saga* as a graphic novel is more than balanced, however, by the performative and audio elements that make up the 'Aurora pós-humana' assemblage. These introduce a much greater experimentation along the boundaries between the human and the non-human, and consistently lead us to appreciate the material, embodied nature of artistic experience in a posthuman world. The tracks on Posthuman Tantra's first album, *Pissing Nanorobots*, emphasize the materiality of their sounds through techniques of distortion, creating a raw quality. The title track, for instance, creates an uneven texture of distorted high-pitched synthesized tones, swathed in a thick, misty layer of feedback, interwoven with irregular, industrial drums. Heavy use of reverberation technique creates the threatening sense of a wide-open space. These effects – which would in more conventional tracks subtly modify tone and texture – assume a position of prominence in the listening experience, as do unintended or unprogrammed feedback and distortion that register the particular material circumstances in which recordings took place. In this, the album takes to an extreme a tendency that Drew Hemment identifies as central to electronic music, which he defines as the 'productivity of the simulacra'.[16] Hemment also describes electronic music as a 'counter-history marked by accident, manipulation and reuse that detached itself from the telos of representational technologies'.[17] He starts this counter-history with Thomas Edison's phonograph (invented in 1877), which became the first machine able to both record and reproduce recorded sound. The phonograph works by capturing sound vibration waveforms, which it records as physical deviations of a spiral groove, engraved into the surface of a rotating cylinder or disc. To reproduce the sound, the surface of the cylinder or disc is rotated while a playback stylus traces the groove and its consequent vibrations recreate the recorded sound. Hemment argues that electronic music constitutes a use of the recording technologies inaugurated by the phonograph, which deviates radically from that which was originally foreseen by Edison himself. While Edison believed that the phonograph would be most productively put to use as a dictation machine – representing spoken testimonies such as wills with a faithfulness previously thought impossible – electronic musicians were more interested in the accidentally recorded sounds: the distorted feedback captured on the grooves of the recording discs and cylinders. These recordings 'preserve sound as a material trace – available to be reworked'.[18] Electronic music uses this material trace, the surface noise of recordings, as a 'point of departure for music-making'.[19]

Hemment goes on to identify this procedure with the Deleuzian account of simulation, which, according to Brian Massumi, breaks from the most common definition of the simulacrum as 'a copy of a copy whose relation to the model has become so attenuated that it can no longer properly be said to be a copy'.[20] The Deleuzian simulacrum is less a 'copy twice removed' (a definition that 'binds us to the world of representation and objective (re)production'); rather it 'undermines the very distinction between copy and model'.[21] The 'inner dynamism' of the simulacrum, its 'process of production', is completely different from its supposed model and 'its resemblance to it is merely a surface effect, an illusion'.[22] Ultimately, the direction or dynamism of this process is to 'turn against' its model and 'open up a space for the simulacrum's own mad proliferation'.[23] The 'counter-history' of electronic music identified by Hemment is characterized by a move away from 'documentary realism' in pursuit of the 'productivity of the simulacra'. This pursuit was facilitated by developments in electrical recording that converted sound to a set of electronic signals available for manipulation. Electronic musicians work by 'exploring the inherent potentialities of the sonic phylum in the same way that a sculptor works upon the grain of wood or the contours of stone'.[24]

This deliberate confusion between recording and reproduction, sound trace and feedback, enacts a folding-in of the original with the accidents and unintended effects of its (re)performance. This is done in such a way that complicates any simplistic model of intermediality or performance, according to which a narrative or idea might be directly translated from one medium to another. It is part of a broader series of interruptions to hierarchical orders of representation that take place across the ‘Aurora pós-humana’ and create a space for the development of a posthuman ontology. In *BioCyberDrama Saga*, the *tecnogenética* Orlane constructs a vision of the place of humans in the universe that differs radically from the extropian one, telling Antônio that their much-vaunted process of transbiomorphosis cuts humans off from a fundamental part of their existence, their ‘cosmic unconscious’. This is what binds them to the universe in a fractal relationship: ‘Somos partes que reproduzem o todo, somos esencialmente um retrato do universo e o próprio universo’ (we are parts that reproduce the whole, we are essentially an image of the universe and the universe itself). This fractal relationship disrupts distinctions between the part and the whole, inside and outside, original and reproduction.

Soundscapes and landscapes

A related strategy pursued across various elements of the ‘Aurora pós-humana’ is to blur the distinction between figure and ground that governs Western representational art, unsettling boundaries between human subject and landscape. These techniques become a primary concern in the music of Posthuman Tantra, whose soundscapes stage a suggestive intermedial encounter with the landscapes constructed in *BioCyberDrama Saga*. Interestingly, they are only rarely evident in the artwork of *BioCyberDrama Saga*, which remains resolutely realist in its use of detailed line drawings, classic perspective and shadowing. The narrative does reveal, however, certain moments at which subject and object, human and landscape, are folded together in ways that challenge the stability of these categories. The final third of the graphic novel shifts from an urban to a rural setting as Antônio sets up a cult of *resistentes* in Canudos, the site of the war that took place between the federal troops and the adherents of Antônio Conselheiro’s millenarian cult between November 1896 and October 1897 (see Fig. 7.5). The construction of the landscape of the Northeast by Franco and Couto echoes its treatment in Euclides da Cunha’s classic novel *Os Sertões* (1902), a parallel clearly indicated by the name of the protagonist in *BioCyberDrama Saga*, Antônio Euclides. In the graphic novel, Antônio turns his back on the competing posthuman options of the *tecnogenéticos* and *extropianos*. He travels to the Northeast to reaffirm his commitment to a conception of humanity as a unique race that is separate from technology and nature and to build a new community based on what he considers to be traditional and authentic values. The 'Luz Resistente' cult is driven by an essentialist understanding of the human, which is captured by the formal greeting used in the community: 'Que a essência humana seja louvada em todos nos!' (May the human essence be praised in us all!). However, rather than serving as the site of the confirmation of his essentialist understanding of the human, the rural landscape of the Northeast becomes a space in which this understanding is irrevocably shaken. The final three chapters recount Antônio's loss of faith in the tenets of his cult, culminating in a reunion with his former *tecnogenética* lover and the son he left behind more than 30 years earlier (see Fig. 7.6). The landscape becomes a space for the unravelling of the human in a way that echoes da Cunha's descriptions of the geography of the Northeast.[25] Da Cunha journeyed to the *sertão* hoping that what he would find there would reaffirm his positivist project of constructing an ideal subject of the nascent modern Republic of Brazil. He hoped to employ the typological categories of the so-called racial sciences to construct the inhabitants of the Northeast as further down the evolutionary ladder than the ideal national subjects of the urban centres of the South. Instead, what he encountered shook his faith in the ideology of progress and the racial sciences that undergird it. Da Cunha's descriptions of the landscape as irrational and disorganized reflect the failure of the conceptual categories that police the boundaries between the subject and object of scientific discourse. This confusion of subject and object is echoed in *BioCyberDrama Saga* by the choice of the protagonist's name, which conflates the writing subject of *Os Sertões* with its object. While for da Cunha the *sertão* is a space of the dissolution of the scientific discourses that support nineteenth-century humanism, in Franco's work it becomes a space for the revival of an enlightened form of humanism for a posthuman world, which reasserts human values of love and tolerance and does not exclude its non-human others.

The interplay between subjectivity and landscape in *BioCyberDrama Saga* is paralleled and given much fuller aesthetic development in Posthuman Tantra's ambient soundscapes. In an essay on electronic bossa nova fusion music in Brazil, Denilson Lopes describes ambient music in terms of a landscape. However, this is not a landscape that W. J. T. Mitchell would describe as the 'pseudohistorical myth' that 'enlists "Nature" in the legitimation of modernity', a conception that is epitomized by the picturesque landscape that places the observer in a protected and elevated position 'outside the frame, behind the binoculars, the camera, or the eyeball, in the dark refuge of the skull'.[26] Rather, it is a

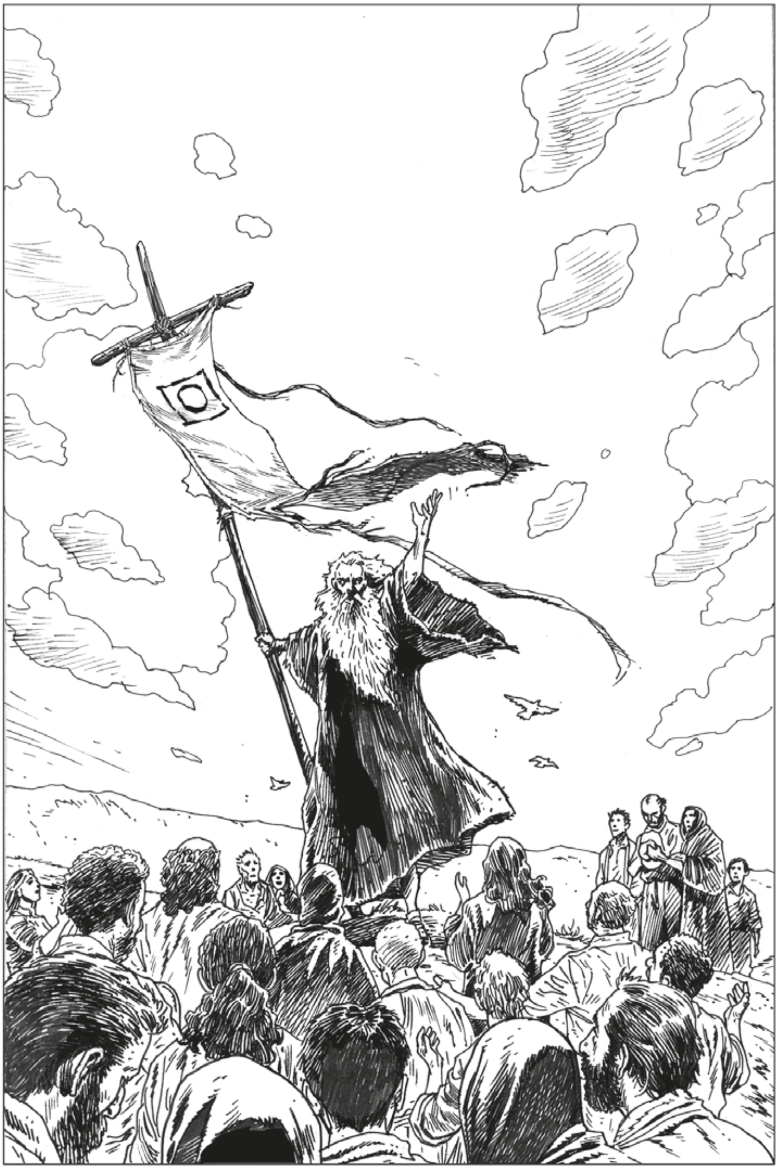


Fig. 7.5 Pilgrimage to the ‘Luz Resistente’ cult in *BioCyberDrama Saga* (Edgar Franco and Mozart Couto)

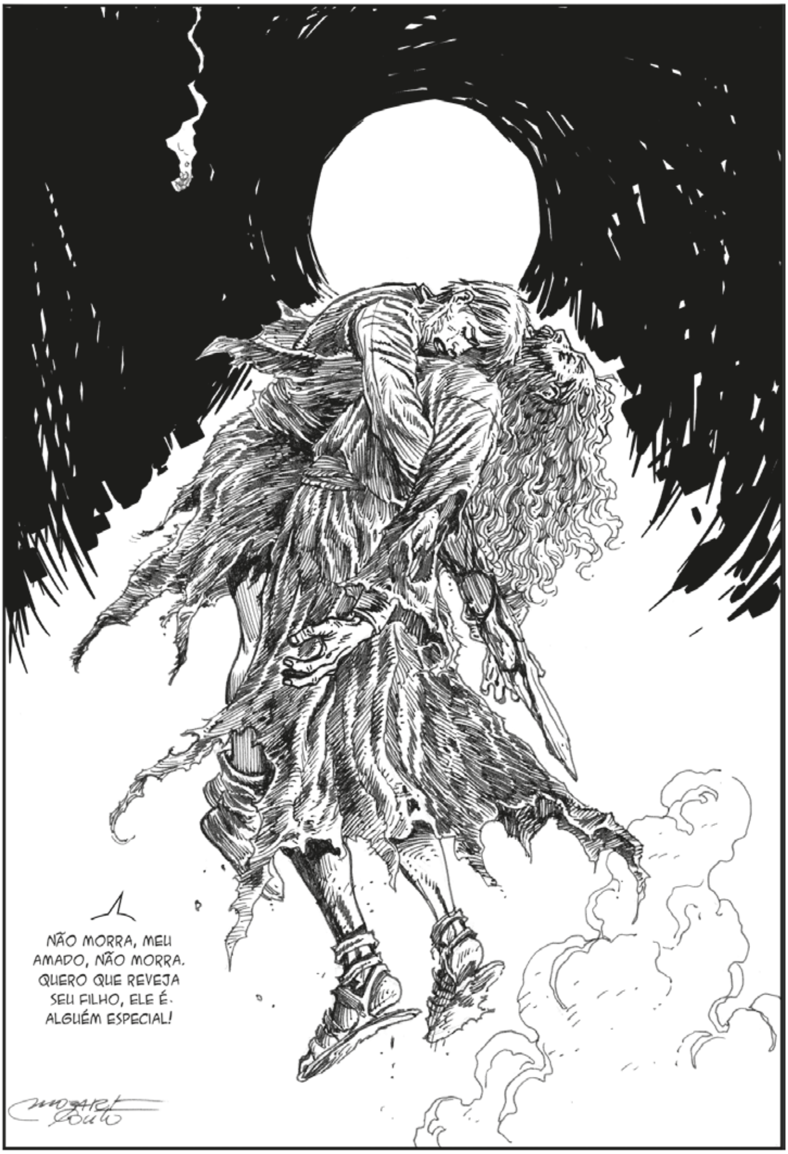

NÃO MORRA, MEU AMADO, NÃO MORRA. QUERO QUE REVEJA SEU FILHO, ELE É ALGUÉM ESPECIAL!

Fig. 7.6 Reunion between father and son in *BioCyberDrama Saga* (Edgar Franco and Mozart Couto)

topological landscape in which the viewer is immersed in – and forms a part of – a landscape in which the position of subject and object constantly reverse and mutate into one another.[27] Joanna Teresa Demers explains how ambient music undermines the distinction between foreground and background in recorded music and hence the easy distinction between the listening subject and the sound object. Whereas classical music recordings establish a very clear foreground, or 'area of central activity', ambient music 'uses a slew of methods to make it sound as if it lacks a foreground and easily melts into its surroundings'.[28] The creation of a clear foreground, according to Demers, is the audio equivalent of the establishment of a one-point perspective in that it 'encourages a perceptual experience in which the subject is at some remove, but not too far away, from the object, and can therefore listen dispassionately but attentively'.[29] By undermining the sense of a foreground, ambient music dismantles 'the division between the subject and the object by putting the contingencies of our own bodies – their limited ability to hear, their tendencies to intermingle thoughts with sounds – at the forefront of listening'.[30]

Lopes claims that the evocation of this type of landscape 'set[s] the scene for a new kind of subjectivity' and concludes his own study on a lyrical note: 'The landscape requires belonging, wreckage, no longer being, but rather dissolution. The landscape returns to that which is indefinite, to that which is nonhuman, to the enigma of surfaces'.[31] This connection between ambient music and topological landscapes is a particularly useful notion for approaching the dark ambient electro of Posthuman Tantra. The sixth track on the album *Neocortex Plug-in*, titled 'The Biocybershamans' Cosmic Vortex Cult', stages a merging of body with the landscape. The track begins and ends with the sound of a regular heartbeat that fades out and back into silence. The opening few seconds merge the sound of the continuing heartbeat with an exaggerated and stylized audioscape of a jungle, including the irregular chirping of birds, buzzing of insects and, most prominent among them, the hooting of an owl. Amid the cacophonous noise of the jungle, faint at first and hardly distinguishable from the surrounding texture, emerge individual synthesized sound blocks that last only a few seconds and abruptly stop. Around 16 seconds into the track, a voice adds a further layer to this increasingly complex texture of sound. The voice is a single, long and drawn-out strangled cry, half animal and half human, like a strange suffering, hybrid creature awakening in the jungle. Alongside the cry, another, this time more distinct, synthesized sound begins, languidly modulating its pitch up and down. Suddenly, another voice stands out and starts to intone variations of the track's title in a rasping voice reminiscent of the death growl favoured by lead vocalists in death metal bands. As the track develops, the audioscape of the jungle is gradually replaced by the noise of industrial, metallic-sounding drums that seem to reverberate in an echoing open space. The sounds of the drums, which never coalesce into a regular metre, are occasionally interspersed with an alarming roar in the same suffering voice as the earlier cry. In the final stages, another voice emerges, this time mediated by a vocoder synthesizer to give it a robotic, artificial effect.

The track evokes landscape in a number of ways. The jungle audioscape, drawing on bird and insect sounds, is created by means of a complex layering of competing and irregular rhythms and metres. The latter stages of the track seem to replace or merge this jungle space with a more constructed industrial space. This sense of space is largely achieved through the use of reverb on the drum sounds. As Collins, Schedel and Wilson point out, 'artificial reverberation aims to simulate the natural resonance of spaces'.[32] However, unlike the picturesque landscape, which allows the observer a privileged, external perspective, the landscape evoked in 'The Biocybershamans' Cosmic Vortex Cult' is immersive. The construction of immersive landscapes is often the principal effect of dark ambient as a genre. For instance, the music produced by French death ambient band Melek-Tha (with whom Franco has collaborated on a number of albums, including the *Kelemath Trilogy*, 2006) conjures up apocalyptic landscapes. Their 17-minute long 'Apokalypsia' combines a densely layered texture of electronic distortion and the sounds of unintelligible murmuring with the sounds of muffled, industrial drums like that of an army travelling through a vast, desolate territory. However, the coordinates of this territory are never clear and seem to morph and distort disconcertingly. The Posthuman Tantra track takes this uncertainty a stage further by merging the landscape with the body. The intermeshed sounds of the animals and the heartbeat merge the interior of the body with the exterior space of the jungle. What the listener is confronted with is not the recognizable topography of a jungle – a space governed by the fixed coordinates of Euclidean geometry – but a constantly morphing topological space in which inside and outside constantly reverse, disconcertingly, like the surface of a Möbius strip. The track stretches the body to be continuous with this morphing, topological landscape.

Text and performance

Posthuman Tantra's live performances form another key component of the 'Aurora pós-humana' assemblage, staging transmedial and reflexive encounters that consistently draw attention to – and produce – embodied practices of viewing, reading and listening. As we are informed in the encyclopedic preface to *BioCyberDrama Saga*, art in the 'Aurora pós-humana' may take a variety of forms, furthering the philosophical beliefs and technocultural practices of each race. Both the *extropianos* and the *tecnogenéticos* consider it to be the most important means of generating knowledge. Yet, while *extropiano* artists focus on the creation of new virtual reality worlds, simulated multiverses that can be entered from any point of the global telematic network, *tecnogenético* culture is dominated by performance artists, whose reflections on the theme of life and death aim to 'ressaltar a força da carne, a existência orgânica' (emphasize the power of flesh, organic existence). This is achieved through 'visceral' works that involve the use of body fluids and sacrifice, inspired by primitive human rituals, and that involve a high level of risk for those who participate in them.

Franco's clear preference for this kind of art is further evidence of his commitment to a materialist approach to posthumanism. In 2011, he reinvented himself as a character from his fictional universe, the 'Ciberpajé' (Cybershaman), a role he performs during his day-to-day life as a lecturer in Media Studies at the Universidade Federal de Goiás. The Posthuman Tantra performances – which have been held at various art festivals around the country – provide a stage on which to explore the connections between graphic fiction and the character of the Ciberpajé as well as creating a bridge between the graphic fiction and the electronic music components of the 'Aurora pós-humana'. In the most common configuration of Posthuman Tantra events, the Ciberpajé, clad in Goth platform boots and top hat, performs vocals in front of a projector displaying a series of images from the graphic novel. The music is provided by a range of digital and analogue instruments including computers, an Ozone MIDI controller, Korg synthesizers, a four-channel mixer, flutes, harmonica, didgeridoo and indigenous instruments such as rattles, whistles and a berimbau (the single-stringed percussion instrument often used in capoeira). The performances build on a long tradition that has explored connections between comics or graphic novels and live performance.[33] Alan Moore, for instance, carried out a number of site-specific performances involving readings, video screenings and dance that were subsequently turned into comic books such as *The Birth Caul* (1999) and *Snakes and Ladders* (2001), both produced in collaboration with Eddie Campbell. In her study of Moore's work, Annalisa Di Liddo argues that, rather than constituting an entirely separate dimension of his artistic practice, Moore's performances merely draw out a performativity that is inherent in his other work, in the way it self-reflexively performs and interrogates the process of narration itself.[34] In a similar way, Posthuman Tantra's performances complement a central element of the graphic fiction by rendering explicit and amplifying the appeal to the body carried out in the reading process of *BioCyberDrama Saga*.

The Posthuman Tantra performances raise the question of embodiment in digital culture by drawing the spectator's attention to the complex interconnections between the material and the virtual. Rosemary Klich and Edward Scheer argue that, due to its incorporation of both live and virtual elements, multimedia performance is 'in a unique position to explore and investigate the effect of extensive mediatisation on human sensory perception and subjectivity'.[35] In the case of Franco's performances, the incorporation of live and virtual elements is achieved by constructing the site of the performance as a hybrid between the virtual space of the science fiction world and the physical space of the theatre. The event titled 'Ciberpajelança', held at a performance art festival in the Universidade de Brasília in 2012, took place in a small classroom lit only by a video projection on one of the walls. As there was no separate space for spectators, the audience was encouraged to join the Ciberpajé in the centre of the room between the projector and the screen. A live recording of Franco was being projected, overlaid with digital images creating the impression of bionic tentacles emerging from his body. As Franco himself explains in an article co-written with Danielle Barros Fortuna, 'os efeitos computacionais em realidade aumentada dão um caráter cíbrido às performances' (the computational effects of augmented reality lend a 'cybrid' character to the performances).[36] As a living image, a comic book character come to life, the character of the Ciberpajé presents itself as a material/virtual extension of the 'Aurora pós-humana' fictional space. The fact that Franco is both viewer and viewed, both on the screen and in the room watching the screen, constructs a media space that blurs the hierarchical boundary between subject and object. By forcing the audience to share the Ciberpajé's position between the projector and the screen, he encourages them to think about the sensorial extensions of the body carried out by augmented reality technologies and the virtual materiality of postmodern subjectivity. In contrast to cyborg performances such as those of the Australian artist Stelarc – which establish feedback loops between bodies and robots or computer systems in ways that blur the boundaries between the two – Franco's performances place the material and the virtual alongside each other in a way that challenges the audience's conceptions about the separateness of bodies and media.[37] Klich and Scheer argue that this kind of emphasis on embodied perception is inherent to the poetics of multimedia performance.[38] Hayles' account of the role of new technologies and changes in embodiment provides a useful critical framework for the role of the body in Franco's posthumanist performance art. She makes a distinction between the discursively constructed body of Foucauldian theory and the 'inherently performative' and 'improvisational' acts of embodiment that mediate between discursive constructions of the body and specific social and spatial contexts.[39] Ongoing processes of embodiment – which can both reinforce and contest wider regimes of power – are constituted by what Hayles terms 'incorporating practices' and describes as 'an action which is encoded into bodily memory by repeated performances until it becomes habitual'.[40] Changes in these incorporating practices take place in line with new technologies that 'affect how people use their bodies and experience space and time'.[41] The Posthuman Tantra performances produce changes in incorporating practices in this way, exploiting the effect of experiential displacement and doubling that takes place as a result of the use of augmented reality technologies: the growing sense of being at once present, and not present, in a certain time and place. These performances – as well as the ambient soundscapes they produce – carry out a process of affective deterritorialization that plays on the dislocations of augmented reality. Pieter Vermeulen argues, in a broader context, that 'the posthuman can be plotted as a necessarily affective experience of the *demise* of the strictly codified, subjective feelings that are associated with traditional notions of human subjectivity'.[42] The unsettling effect of the Ciberpajé is to confront the audience with this demise.

The music of Posthuman Tantra that accompanies the performances also produces this posthuman hyperembodiment. In his discussion of the posthumanism of electronic music, Kodwo Eshun affirms that dance genres such as techno do not embrace a cyberpunk fantasy of disembodiment or the dematerialization of the digital, but rather 'the exact reverse […] a *hyperembodiment*, via the Technics SL 1200'.[43] The heavy use of bass in a range of electronic genres from dub to New York garage underscores the fact that the music is intended to be felt through vibrations in the body rather than just listened to. As Eshun explains, 'VR dematerializes you but Machine Music rematerializes you. In *Neuromancer* [the 1984 work by William Gibson often recognized as the inaugural and paradigmatic cyberpunk novel], Case jacks from his body into cyberspace. The house acolyte jacks into the House that is his/her body'.[44]

On the other hand, in her discussion of film soundtracks, Rebecca Leydon accounts for the symbiotic relationship between the science fiction genre and electronic music by referring to the music's awkward, dissonant relationship with embodiment. In constructing her argument, Leydon draws upon Denis Smalley's theory of the 'spectromorphological referral process' in which, in Leydon's explanation, 'perceived sounds are related back through a series of cognitive levels, from imagined sources to inferred gestures and motor activity to remembered proprioception and psychological states'.[45] Electronic music poses a challenge to this 'referral process' since 'electronic sources are necessarily concealed, remote, detached'.[46] Connecting these sounds to a cause engenders what Smalley terms 'gestural surrogacy', an imaginary extension or stretching of the body's gestures. Electronic music used in science fiction films of the 1950s, such as *Forbidden Planet* (1956), which blur boundaries between reproduced and constructed noise as well as between diegetic and extra-diegetic sound, jar with this process and so challenge the listener's concepts of the limits of embodiment. Posthuman Tantra carries out both of these strategies of embodiment. In the live performances, as with electronic dance music, the sounds are intended to be felt rather than simply listened to; furthermore, a number of the tracks induce the process of 'gestural surrogacy' Smalley describes. By using a heartbeat as a mode of percussion, alongside both the erratic calls of animals and metallic drums, 'The BioCyberShamans' Cosmic Vortex Cult' makes an explicit connection between the sounds and the listener's body. By fusing the heartbeat with both natural and technological sounds it reproduces in the listener a posthuman mutation of the body, a mutual becoming between the body and the non-human objects of the natural and technological world. The role of the music in the posthuman performances is to induce a 'becoming-other' in Deleuze's sense. In this, Franco's performances could usefully be compared to the role of performance in what artist and academic Shauna MacDonald describes as critical posthuman pedagogy. Performances of posthumanism (MacDonald mentions the work of Stelarc, Eduardo Kac and Guillermo Gómez-Peña) 'allow audiences to engage in questions of science and technology *differently*'. They do so by both confronting audiences with the 'conditions of constitution' of subjectivity in a social world mediated by digital technologies as well as producing a space in which to 'creatively remake these conditions' and 'enable new possibilities'.[47]

The performances are extensions of the processes through which the graphic novel functions by intervening in incorporating practices. If, as argued earlier, the audio and performance elements of the 'Aurora pós-humana' demonstrate a much clearer commitment to the embodied nature of reading, listening and interpretation, they also open up new ways of approaching graphic fiction that emphasize embodied practices. As outlined in the Introduction, the 'haptic turn' in comics scholarship has explored the ways in which the experience of reading graphic fiction is an embodied one. Karin Kukkonen, for example, argues for a connection between the layout of bodies on the page and engagement of the reader's body schema, which refers to neural and sensory processes that work together to register the location and movement of one's body and limbs in space. As readers of comics, we project the way we perceive the relationship between our bodies and the space around them onto the bodies depicted on the page, and 'The ways in which the panel layout arranges bodies prompts readers to perceive movement between panels and thereby engages the body schemata of readers, thus contributing to the embodied reading experience in comics'.[48] The reader uses his or her body schema to negotiate the 'compositional lines' on the page, the main vectors that organize the distribution of panels, images and words and produce the effect of movement, both of the characters within the diegesis and also of the reader's eye as it charts a course across the text.

The composition of the page can also complicate the reader's habituated body schema. This technique is used in *BioCyberDrama Saga* to reinforce both the decentred, distributed quality of posthuman subjectivity and the embodied nature of (post)human experience. Antônio's exploration of the opposing posthumanist options of *extropiano* and *tecnogenético* movements becomes the main pretext for Franco's didactic explanations of posthumanist thought. The placement of his body on the page functions as a centre of gravity around which the various posthumanist corporeal extensions and dislocations circulate. His body grounds the reader's experience and guides their eye across and along the perpendicular compositional lines that bind the panels to the page design. At various points, however, this perpendicularity fractures, producing a sensory-perceptual response on the part of the reader that mirrors the turbulence and disaggregation experienced by the character. This process is evident in Fig. 7.7, a double-page spread that represents Antônio's shock at hearing the news of his girlfriend Michelle's pregnancy. *BioCyberDrama Saga* has recourse here to a collage technique commonly used in graphic fiction to create a topological space, folding together different points in time and space. In this example, the bodies are also interlaced with double helix ribbons, enfolding separate scenes of action and reaction into the microscopic space of genetic recombination and simultaneously evoking the much larger-scale extension of genealogies through history. Abrupt transitions between states of consciousness in graphic fiction are often evoked in this way through a disruption of our sense of balance. Figures pitch and roll or float free from the constraints of gravity, through the multiplication of perspectives, or the introduction of centrifugal forces that appear to make bodies and objects careen in an indiscriminate whirl around the page.

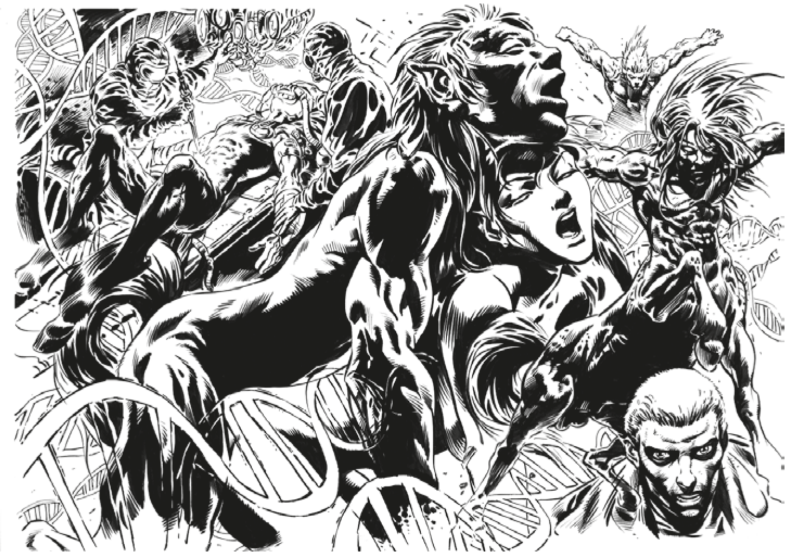


Fig. 7.7 Antônio's sensory disaggregation in *BioCyberDrama Saga* (Edgar Franco and Mozart Couto)

Interrupting the narrative flow, the collage frequently suggests a kind of splitting of consciousness. It is often used in graphic fiction to bring together a constellation of past events or fantasies that flash before a character's eyes, or some kind of out-of-body experience, before the story resumes. At the same time, the disjunctive effect of the collage on the reader is entirely owing to its use of bodily postures and movements to convey an inner experience. In the example below, as in many similar instances in graphic fiction, trauma, disorientation and terror are conveyed through the distortion of the reader's perception and proprioception, mirroring the character's emotional or physical transport from the everyday to the extraordinary. Extreme emotion and desire are conveyed in the stretching of limbs to their maximum extension, and an intertwining of bodies suggests a confusion of temporal and spatial boundaries. Mental, spiritual or other events of an inner nature are expressed through physical gesture and posture in a way that evokes a remembered or imaginary sensory response in the reader. *BioCyberDrama Saga*, like many works of graphic fiction, exploits these and a range of other techniques to produce in its readers a sense of subjectivity and agency that cannot be reduced to the limits of the human body, but is nevertheless always grounded in somatic experience.

Conclusion: Cybershamanism and Afrofuturism

As well as confronting the audience with a complex intermingling between the material and the virtual, the 'Ciberpajelança' performance also draws attention to its challenge to the tacit Eurocentrism of much posthumanist thought. Franco conceptualizes the performance as a point of intersection between high-tech cybercultural and indigenous shamanic imaginaries. He argues that his concept of cybershamanism unites 'aspectos da cultura ancestral nativa dos tribos brasileiros, sobretudo suas percepções transcendentes através da incorporação de totens míticos animais e vegetais nos rituais de cura e energização' (aspects of the ancestral culture of tribes native to Brazil, and above all their transcendental perception through the incorporation of mythical animal and vegetable totems in their healing and energy rituals) with 'novas perspectivas pós-humanas abertas pela criação e incorporação de mundos digitais, cosmogonias computacionais possibilitadas pelo amplo universo das imagens numéricas e da hipermídia' (new posthuman perspectives opened up by the creation and incorporation of digital worlds, computational cosmogonies made possible by the vast universe of digital images and hypermedia).[49]

Franco's cybershamanic posthumanism contains a critical gesture that is similar to that of Afrofuturism. Just as Afrofuturist narrative and music contest the exclusion of African American culture from futuristic imaginaries, Franco points to parallels between the distributed agency of network culture and the animism that is central to indigenous thought. Although the term Afrofuturism was coined by Mark Dery in his examination of the role of black America in the science fiction genre, Eshun uses it to explore what he describes as Black Atlantic Futurist music. Eshun challenges the popular association of black music with authenticity and roots, through its role in the development of blues and jazz music, and draws out the role of black musicians who played pioneering roles in the 'futuristic' genres of electronic music. Emphasizing the roles of Sun Ra, the Detroit techno DJs, and Miles Davis during his electronic phase of the 1980s, Eshun contests the foundational position accorded in popular histories of electronic music to Kraftwerk. This is the band which 'epitomize[s] the white soul of the synthesizer, die Seele der Synthesizer, the ultra whiteness of an automatic, sequenced future'.[50] The audiovisual assemblage of *BioCyberDrama Saga* and the music of Posthuman Tantra contributes in a similar manner to a decentring of posthuman imaginaries by emphasizing their locatedness beyond European and North American centres of theory.

Like many of the graphic novelists explored in this book, Franco consistently seeks to enhance the performative qualities of his chosen medium, in order to convert passive reading into interactive engagement and to explore the embodied nature of reading and spectatorship. Cristián Montes Lynch does this by drawing explicitly on a videogame aesthetic within *E-Dem*, and Jorge Baradit supplements *Policía del Karma* with a range of other media such as podcasts and an internet recruitment site. Franco, however, brings *BioCyberDrama Saga* into an intermedial relationship with electronic music and performance art in a bid to transcend the comparatively static and more apparently stable form of the graphic novel. Such intermedial engagements set into relief the limitations and affordances of each medium. In the case of *BioCyberDrama Saga*, the classic comic book format employed – together with its embedding within an unusually extensive and didactic encyclopedia, giving a comprehensive account of the narrative world design – does not go as far as the audio and performance elements of 'Aurora pós-humana' in constructing radically new forms of posthuman subjectivity. However, as we have seen, taking an embodied approach to analysing *BioCyberDrama Saga* of the kind advocated by Kukkonen (among others) allows us to appreciate the specific ways in which graphic fiction may contribute to an understanding of the continued role of materiality and embodiment in all of the many possible posthuman futures that confront us.

Conclusion

While the graphic novels explored in this book abound in posthuman scenarios made possible by advances in artificial intelligence, virtual reality, bionics, genetic engineering and cryonics, they remain deeply suspicious of the co-option of these technologies for the pursuit of immortality and a transcendence of the materiality of human existence. Such uses of technology are likely to be associated in these texts with authoritarian practices of mind control, intensive surveillance, political repression and discrimination of various kinds. Indeed, in some of the graphic novels studied here, technology is primarily construed as a threat to humanity. These texts would fit more comfortably into the 'anti-humanist' camp, as defined by Rosi Braidotti, than a fully posthumanist one: their opposition to humanism does not move forwards to trace 'a different discursive framework' or to look 'more affirmatively towards new alternatives'.[1] The political imperatives that shape *La burbuja de Bertold*, *Planeta Extra* or *Dengue,* for example – a denunciation of the vast social and geopolitical inequalities and the environmental disasters that are only deepened by the kind of hubristic and exploitative development that fuels contemporary technocapitalism – relegate to a role of lesser importance the task of 'elaborating alternative ways of conceptualizing the human subject' which characterizes posthuman thought for Braidotti.[2]

Other texts studied here do, however, confront the challenge of tracing new ways to conceive of human subjectivity and agency that do not cast nature or technology as humanity's 'other'. They create universes in which humans are neither unique nor morally superior, and in which our destinies are thoroughly entwined with those non-humans – animals, machines, crops, oceans, energy sources, forests – that we have sought to dominate and exploit for our own advancement. They find ways to move beyond the binaristic, exclusionary logic that has informed the discourses and practices of modernity. This entails a thorough rejection of representationalism in its separation of the world into words and things. This is particularly evident in *Informe Tunguska*, which brings nature and culture together in relationships of symbiosis and similarity, using patterns and models from the natural world to explain the development and dissemination of human language and culture. Many of these graphic novels, including *1899: cuando los tiempos chocan* and *E-Dem*, call for a new posthuman ethics based on an understanding of the co-evolution of humans and technologies and the complex assemblages that bind them together. The 'becoming topological' (see Chapter Five) of time, space and culture demands new approaches to account for the complexities of power in the contemporary city and in global digital society more broadly, some of which are suggested in *O Beijo Adolescente*.

As Ollivier Dyens states, in these increasingly intricate ecosystems, 'The body has become entangled in a multitude of systems, fragmented into an infinite number of realities, easily plasticized into untold number of shapes and forms, dissolved into its constituting parts and fragments'.[3] The affordances, as well as the dangers, that result from such assemblages are powerfully brought into focus in a number of graphic novels from Latin America. While they often explore distributed forms of agency and the role of the digital and the virtual in the construction of posthuman 'subjectivities', they do not abandon the body as an obsolete relic of the past, soon to be replaced by new forms of consciousness that transcend human mortality and physical imperfections. Instead, they consistently emphasize embodiment and materiality, drawing attention to what is occluded by the apparently dematerialized nature of information and cyberculture. Jan Baetens and Hugo Frey suggest that 'the overwhelming presence of the protagonists' bodies' in the graphic novel signals one of many instances of its convergence with contemporary thought, specifically here 'the rediscovery of the body in cultural theory'.[4] The analyses presented in this study have given much evidence of this convergence, and delved deeper to ask what it is about the form and materiality of the graphic novel that makes it so uniquely qualified to illuminate questions of embodiment and textuality in posthumanism.

In some texts, such as *Angela Della Morte*, *E-Dem* and *Policía del Karma*, posthuman embodiment is worked through via the hyperbolic treatment of gendered bodies. As discussed in the relevant chapters, gender politics in these graphic novels is marked by a certain opacity and a resistance to theorization from an ideological perspective. The bodies they depict are not (simply or primarily) subjected to Foucauldian disciplinary discourses or the site of the kind of iterative and citational performances described by Judith Butler. Karen Barad's posthumanist notion of performativity – while acknowledging the significance of Foucault and Butler for her work – attempts to move beyond them to theorize in a much fuller way the relationship between the discursive and the material in a posthuman context. To avoid reinscribing matter, and particularly human bodies, as 'a passive product of discursive practices',[5] she emphasizes the active role of materiality in materialization, and calls for 'a robust theory of the materialization of bodies' that would take account of the intra-activity of non-human as well as human forms of agency.[6] *Angela Della Morte*, *E-Dem* and *Policía del Karma* push us in a similar way beyond the anthropocentric limits of the work of Foucault and Butler. They dramatize the intra-actions of human and non-human agencies and demonstrate how the specific materiality of human bodies shapes the ways in which they may be taken up by, and resist, discursive formations. In this respect, these graphic novels share a critical commitment with a number of recent theorists seeking to bring the insights of queer theory and affect theory to bear on posthumanism. Mel Y. Chen, for example, explores the construction of animacy hierarchies in biopolitical regimes. The relentless mapping of distinctions between what is animate and inanimate (beyond human and animal) produces slippages between these categories. A full examination of the concept of animacy reveals its slipperiness and carries out an effect of queering the dominant distinctions between life and death and the production of gendered and racial identities. 'Queering,' Chen claims, 'is immanent to animate transgressions, violating proper intimacies (including between humans and non-human things).'[7]

Claire Colebrook has warned that the assertion of a flat 'dehierarchized' ontology through the erasure of the human from its elevated perspective is doomed to 'ultrahumanism' since 'when "man" is negated or removed what is left is the human all too human tendency to see the world as one giant anthropomorphic self-organizing living body'.[8] Posthumanism is certainly vulnerable to criticisms concerning its anthropomorphizing gestures, as well as its covert universalism, which ultimately flattens difference in the manner denounced by Juanita Sundberg (see the Introduction). The treatment of posthuman bodies in the graphic novels we have studied here may well, at times, fall into the trap of anthropomorphization, although this is effectively turned on its head in *Informe Tunguska* (see Chapter Six) and in the animist leanings of the work of Edgar Clement (see Chapters Two and Three). Moreover, these works cannot easily be charged with universalism, remaining acutely aware of human difference even as they explore couplings and comminglings between the human and non-human.

The manifest commitment of Latin American graphic fiction to materialist and embodied concepts of the posthuman is unsurprising in the context of the continent's historical and contemporary experience of socio-economic inequality and its continued relegation to the periphery of global power. Sherryl Vint reminds us in her study of the 'bodies of tomorrow' that:

> The ability to construct the body as passé is a position only available to those privileged to think of their (white, male, straight, non-working-class) bodies as the norm. This option does not exist for those who still need to rely on the work of their bodies to produce the means of survival, for those who lack access to the technologies that can erase the effects of illness, and for those whose lives continue to be structured by racist, sexist, homophobic, and other body-based discourses of discrimination.[9]

The alacrity with which some posthuman thinkers have done away with the body – regarding it as a relic of the past in a new digital age – reveals the continued legacy of Cartesian dualism, which insists on associating the self with the mind.[10] But it also exposes the ethical void at the heart of the liberal humanist project, which finds its most perfect expression in transhumanist disembodiment.[11] As Vint points out, 'Disembodied consciousnesses lack a connection to material reality, and material reality is the space of ethics'.[12]

The refusal of disembodiment that characterizes these graphic novels is consistent with a number of theoretical engagements with posthumanism both within and beyond Latin America that have warned of the dangers of fully turning our backs on humanism. Mabel Moraña argues that posthumanism should serve as a critical tool to examine the complicities of humanism and colonialism in the region and rework humanistic discourses from within. In this, she follows Neil Badmington's argument that the aim of critical posthumanism should not be to 'fashion "scriptural tombs" for humanism' but rather 'take the form of a critical practice that occurs inside humanism, consisting not of the wake but of the working through of humanist discourse'.[13] Simply to move beyond humanism would be to risk re-instituting the racial and gendered codifications that policed the term in the first place. As Zakiyyah Iman Jackson puts it in her critique of the disavowal of race in much posthumanist thought, 'What and crucially whose conception of humanity are we moving beyond?'[14] *Las playas del otro mundo* and *Operación Bolívar* both articulate posthuman visions in the heart of the humanist culture of the colonial era. In this respect, the texts construct a perspective that coincides with theorists who have criticized posthuman theory for caricaturing humanism as a homogeneously Cartesian enterprise. In her study of what she calls the 'anatomical humanism' of the nineteenth century, Kay Anderson argues that 'humanity's unique capacity for intelligence was no ethereal myth handed down by classical, Christian and Cartesian narratives of reason and soul'.[15] Rather, it was a 'technical and discursive achievement' that relied on the practices of colonial racial science (and in particular craniometry) in an endlessly frustrated attempt to reinforce hierarchies among and between living beings by recourse to material differences in anatomy.[16] Although questions of race are not often explicitly thematized in the texts discussed here, their commitment to an embodied posthumanism and their engagement with the modes of exclusion produced by humanism align them with Anderson's ideal of a critical posthumanism that should be 'as lithe and flexible' as humanism itself.[17]

In the Latin American context, it is not always easy to read these graphic novels as political projects. If, as Elana Gomel claims, 'Posthumanism is not an identity or an ideology but a willingness to abandon both',[18] then the ethical interests of posthuman texts will not be founded on identity politics. This marks a point of divergence from the kind of politics that has been so prominent in Latin America in recent decades, and so powerful in its opposition to the hegemonic, universalizing categories that marginalize and suppress difference. Nor will these texts subscribe to any coherent ideology, distancing themselves from the 'isms' – Marxism, feminism, post-colonialism and so on – that have so thoroughly shaped political commitment in Latin American art and cultural criticism for many decades. Indeed, posthumanism has provoked criticism from Marxist critics for reinforcing the conditions of oppression of the capitalist system. Jennifer Cotter et al. argue that if humanism functioned as a key component of the ideological infrastructure of industrial capitalism by fostering a 'more unified notion of social relations to suture class contradictions' then posthumanism is an ideological agent of post-industrial capitalism.[19] The decentred subjectivities described by critics such as Braidotti are the counterparts to an increasingly centreless and flexible capitalist system. The potential articulation of posthumanism with contemporary capitalism is directly addressed in *O Beijo Adolescente*. The series plays on an ambiguity concerning whether its teenage protagonists carry out a heroic resistance to the 'adult' capitalist world of work or embody a solution to the conundrum of what constitutes work in a digital economy. In other words, it is unclear whether the teenagers are arch anti-capitalists or the embodiment of a flexible, decentred digital capitalism.

Posthumanism remains a particularly ambivalent discursive tool in the service of an emancipatory politics. The contradictory politics of a cyborg world – ushering in greater societal control, but also opening up to new ontologies and a new politics that is not based on essentialist identities – is succinctly outlined by Badmington:

> From one perspective, a cyborg world is about the final imposition of a grid of control on the planet, about the final abstraction embodied in a Star Wars apocalypse waged in the name of defence, about the final appropriation of women's bodies in a masculinist orgy of war [. . .]. From another perspective, a cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints. *The political struggle is to see from both perspectives at once because each reveals both dominations and possibilities unimaginable from the other vantage point.*[20]

The graphic novels explored in this book often adopt this dual perspective. They bear witness to the terrible loss of autonomy that might result from authoritarian uses of biotechnology, but gesture to the new expressions, experiences and ethical practices that might arise from enhanced or altered forms of embodiment, or from recouplings of nature and culture, bodies and machines or the material and the virtual. The ambiguous narrative modes of *Policía del Karma* and *O Beijo Adolescente* pose considerable challenges to dominant models of political resistance and demand new critical approaches that move beyond the simple designation of technologies as 'good' or 'harmful'. Posthuman perspectives can certainly offer a cogent way to explore the moral and social complexities of a post-ideological, neoliberal society, but their power is often more descriptive than normative and perhaps more easily harnessed to a broadly ethical agenda than a specifically political one.

Graphic novels from Latin America make a clear contribution to the task of decolonizing both culture and theory, however. A crucial element in the new posthuman ontologies explored in many of these texts is the performance of a 'reenchantment of the world' in which cybernetic technologies are related to the kind of human/non-human metamorphoses and exchanges imagined in indigenous (usually Mesoamerican) cosmovisions. In *Las playas del otro mundo*, *Operación Bolívar* and *Los* *perros salvajes*, these practices – ostensibly rejected by modernity as primitive and irrational – offer insights into a contemporary world of new media technologies and new forms of imperial violence. The role of indigenous practices in these texts is often strongly associated with a broader aim to decolonize thought and to question European narratives of modernity and progress. The unexpected convergences enacted in *Las playas del otro mundo, Operación Bolívar* and *Los perros salvajes* between religion, magic and technology, alongside those of *BioCyberDrama Saga* and the 'Aurora pós-humana', cast those relationships as ones of co-evolution and symbiotic development rather than antagonism, even in 'modern' Europe. This rhetorical move resonates with Latour's critique of a modernity that has gone to disastrous lengths to suppress animism, magic, the primitive and the irrational in a bid to establish an illusory rupture with the past and with anything that might hamper an embrace of science and progress (see Chapter Two). It also becomes part of these texts' rewriting and resituating of cybernetic tropes and posthumanist debates from within the Latin American context.

The important critique in the Latin American graphic novel of European discourses and practices of modernity does not, however, lead to a pseudo-Romantic nostalgia for the pre-modern. Indeed, the nostalgia and history that Baetens and Frey find to be the 'common theme' across graphic novels today[21] is almost entirely absent in the texts we have explored here. Their thesis holds reasonably well for current production in Europe and North America, where historical and autobiographical genres have dominated the rise of the graphic novel in the twenty-first century. However, it does not account for the flourishing of cyborg fictions in Latin America in that same period. Indeed, Baetens and Frey suggest that 'a real casualty' of the trend towards history and nostalgia 'has been the science fiction genre', and that the few science fiction narratives still being produced are becoming subsumed under 'heritage thematics' and steampunk nostalgia.[22]

Baetens and Frey's exclusion of Latin American material is hardly unusual among the analyses and theorizations of the graphic novel currently being published in Europe and Anglophone America. It is perhaps inevitable given the limited availability of translations into English of the major texts. But it does somewhat weaken their hypothesis that the rise in nostalgia and the decrease in science fiction's popularity may be explained as a consequence of 'times of less confidence and social anxiety [...] where there is a preference for glorifying past times, looking backwards in art and culture to find a sense of security and grounding'.[23] Argentina, Chile, Brazil and Mexico – the principal countries whose graphic novels we have explored here – are hardly strangers to the kind of social and economic crisis cited by Baetens and Frey. Yet even their steampunk creations such as *1899: cuando los tiempos chocan* and *Policía del Karma* cannot credibly be read as nostalgic, producing instead an excoriating critique of political repression and the environmental destruction wreaked by modern capitalist development. Rather than nostalgic, we might describe the dominant modes of Latin American graphic fiction as critical and reflexive. Their frequent recourse to the science fiction genre befits their interest in exploring posthuman subjectivities while setting into relief the gross socio-economic inequality that characterizes the region. This choice of genre also affords many opportunities to challenge the hegemonic narratives of modernity as well as humanist universalism and anthropocentrism.

If the graphic novel in Latin America has become a privileged medium for the expression of posthuman subjectivities, this is partly because the specific modes of visuality and representation proper to graphic fiction lend themselves to an explicit depiction of how information systems function and interact in the material world. In his seminal work on comics, Scott McCloud asserts that 'By de-emphasizing the appearance of the physical world in favor of the idea of form, the cartoon places itself in the world of concepts'.[24] If this accounts for some forms of cartoon simplification, however, it is entirely insufficient as a description of the contemporary graphic novel, which is often complex and sophisticated in its visual design and clearly prioritizes embodied experience. By contrast with the literary text, the visual element of graphic fiction demands that it define and make visible the connections it imagines between systems. The virtual world and the webs of cyberspace in which humans are caught cannot remain invisible, but must be made manifest. We see this in the depiction of game worlds in *O Beijo Adolescente* or the transmigration of souls in *Angela Della Morte*. This visibilizing function is sharpened in science fiction, which often renders literal (or visible) certain metaphors relating to contemporary subjectivity and social relations. Thus the circulation of ideas may be represented as the spread of a virus or our prosthetic use of technology as a literal coupling between human and robot. As Joanna Russ suggests, 'Mundane, realistic fiction often carries its meaning *behind* the action, *underneath* the action, underneath the *ostensible* action. Science fiction cancels this process by making what is usually a literary metaphor into a literal identity'.[25] These processes of literalization and visibilization are particularly evident in *Policía del Karma*, in which even psychic communication and spiritual emanations acquire a material density. As Baradit and Cáceres explain in an epilogue to *Policía del Karma*, 'en este mundo PDK las energías incluso espirituales son cuestiones administrables, mensurables y utilizables' (in the PDK world even spiritual energies may be managed, measured and utilized).

The materializing effects of graphic fiction are compounded by a widespread use of erotic, violent or hyperbolic images of the body in the medium. These images reference the embodied nature of perception and affect and experiment with sensorimotor forms of cognition on the part of the reader. They are not just meant to be 'viewed' or 'read' but to trigger remembered responses of pain or pleasure or to invoke different forms of embodied experience in a way that engages the reader on an affective level. Such experiences typically include physical disorientation, euphoria, feeling alone in the vastness of the universe or sensing a deep bond with other beings or one's environment, torture or confinement, sensory deprivation, vertigo, the intoxicating or somniferous effect of ingesting different chemical substances, endorphin-induced elation or exhaustion. This may also account for the frequent representation in graphic fiction of out-of-body experiences, hallucinations, fantasies, the supernatural and drug-taking, in order to defamiliarize our embodied experience and to challenge more conventional notions of a hierarchical relationship between mind and body. The images of graphic fiction do not simply 'stand in' for reality or mediate between us and that reality. They often produce in us the same effects, triggering the same sensory responses and extending our experience of embodiment while, at the same time, challenging ways in which we normally orient ourselves within our environment. While many theories of graphic fiction have focused on the medium's dynamic interplay between the visual and the verbal, what has often been omitted is an account of how the visual spills over into the visceral, as unexpected angles, discontinuous zoom-outs and collage splash pages wrench us from a neutral sense of balance, proportion and spatial relations. The demands placed on the reader of the graphic novel – kept in tension with its strong identificatory effects – make it a privileged medium for an engagement with ethics in a posthuman world, in which it is imperative that we learn to negotiate our shared existence with non-humans and to participate conscientiously in modes of embodiment that are not (and have never been) uniquely human.

For this reason, graphic novels lend themselves particularly well to the exploration of critical approaches that have emerged from theories of embodied cognition in relation to practices of reading, writing, drawing, viewing and listening, many of which we have explored in the analyses presented here. These approaches (such as those developed by Karin Kukkonen, Ian Hague and others cited in the Introduction)[26] are closely associated with theories of the haptic, but often supplement these with recent research by psychologists, philosophers and cognitive scientists into the sensory and perceptual processes at work in reading and spectatorship. They have a particular value in theorizing graphic fiction, given the cognitive work that is clearly required of the reader in constructing meaning from discontinuous panels that – in many contemporary graphic novels – are not placed in a straightforwardly linear sequence. The application of cognitive embodiment theories to the reading experience opens up new dimensions of mimesis that are founded, not on a separation between representation and the represented, but on the processes of mirroring that are immanent to life and bind nature and culture together in a posthuman vision. If we have emphasized these critical perspectives over other approaches that have been developed in scholarship on graphic fiction and comics – such as semiotics and narratology – it is because we believe that they offer much greater insights into posthuman subjectivity and media affordances, the two principal concerns of the majority of the graphic novels studied in this book.

The emphasis on materiality evident in these graphic novels extends, as we have seen, to the reflexive presentation and manipulation of their own medium. From the citations of antiquated cut-and-paste comic book techniques in *1899: cuando los tiempos chocan* to the haptic, immersive dimensions of the large-format *O Beijo Adolescente*, these texts continually reflect on their materiality in a way that contests any dematerialized understanding of the literary text as independent from its media supports. More broadly, the frequent experimentation with intermediality, remediation and transmediality in Latin American graphic novels works to foreground their position within a complex, constantly shifting media ecology in a way that highlights the role of media technologies in shaping subjectivity. As Latour claims, 'Technologies bombard human beings with a ceaseless offer of previously unheard-of positions – engagements, suggestions, allowances, interdictions, habits, positions, alienations, prescriptions, calculations, memories',[27] and media technologies, including the book, are no exception.

A significant number of the graphic novels discussed here stage an encounter with different media, often as part of a wider, collaborative, cross-platform project. In doing so, they sometimes seek a cultural legitimacy for a medium that has often been associated with pulp fiction, caricature or children's literature; the effect is always, however, to draw attention to the particular ease with which graphic fiction may agglutinate, remediate or even replace other forms of art in performing specific social and cultural roles. If the joint exhibition of comic book images and ceramic sculptures within the spaces of the graphic novel and the art gallery in *Informe Tunguska* was intended as such a bid for legitimacy (see Chapter Six), it was also an experiment in extending graphic fiction to three dimensions. Similar experiments have been carried out at the point of intersection between graffiti and comic book art in Latin America. Alberto Serrano's 'Tito na Rua' project uses the streets of Rio de Janeiro as a platform for a narrative that was constructed with the familiar syntax of the comic book page and subsequently transposed into graphic novel form in *Zé Ninguém* (2015). In the context of post-Crisis Argentina, the evocation of portrait painting and popular theatre in *Planeta Extra* and *La burbuja de Bertold* supports the reassertion of a national-popular imaginary. The newspaper headlines and blog format of the second volume of *Los perros salvajes* perform the role of critical journalism in charting Mexico's slide into violence. The immersive effects of videogame aesthetics in *E-Dem* and *Operación Bolívar* prompt reflection on the performativity of violence and spectatorship. Meanwhile, *O Beijo Adolescente* connects spatial practices such as graffiti with virtual role-playing realms to reveal the complexity of socio-technological assemblages in contemporary urban culture. The repeated images of viral invasion, colonization and propagation in *Policía del Karma* create a particular role for graphic fiction as a kind of counterculture, and its multiplatform strategies point to the potential of graphic fiction to exemplify (and intervene in) the structural couplings that characterize cyberspace. In the 'Aurora pós-humana', the interplay between the *BioCyberDrama Saga* graphic novel and the audio and performance elements reinforces the decentred, distributed nature of posthuman subjectivity and agency. Simultaneously, it draws attention to the embodied processes at work, not just in listening to electronic music or participating in performance art, but also in reading graphic fiction.

In a number of cases, the recourse to intermediality constructs a genealogy for graphic fiction that reaches back to pre-colonial times. The clear parallels drawn in *Las playas del otro mundo*, *Operación Bolívar* and *Los perros salvajes* between contemporary graphic fiction and Mesoamerican codices and sculpture locate a position for comic book textuality within a long and celebrated history of signifying systems that combine texts and images in innovative ways. Graphic fiction's agglutinative, transmedial practices hold the potential to confound linear histories of the text. They bring together the ancient and the futuristic in a way that emphasizes continuity rather than rupture. Another example of the interest of contemporary graphic novels in constructing a sense of artistic continuity with the past would be André Diniz's *Morro da favela* (2011), which mimics the black-and-white woodcuts that illustrated *cordel* chapbooks, particularly popular in the 1920s and 1930s in northeastern Brazil.

While they often denounce the violence that characterizes Latin American history, whether in its pre-Columbian past, the colonial era or the contemporary period of aggressive neocolonial capitalism, these graphic novels are also engaged in a constant reflection on their own materiality, form and readership. Their incorporation of previous comic book styles and methods of production is less an instance of the 'retro culture' and nostalgia suggested by Baetens and Frey, and much more evidence of a self-reflexive positioning of the graphic novel. It is presented as a medium that is fully connected with visual culture and textuality in a (pre)-colonial past and, at the same time, constantly reinventing itself as a powerful site for social critique and artistic innovation in a posthuman era.

Notes

Introduction

1 Scott Jeffery argues that superhero comics are a 'posthuman body genre' in that the morphological changes undergone by the bodies of their protagonists in the process of change encode the wider 'social-technological changes that contributed to their production'. Scott Jeffery, 'Producing and Consuming the Posthuman Body in Superhero Narratives', *Nth Mind*, 23 January 2012, https://nthmind.wordpress.com/posthumanism-and-superheroes-notes-from-phd-land/producing-and-consuming-the-posthuman-body-in-superhero-narratives/. Accessed 1 March 2017.
2 For details of Moore's collaboration strategies, see Annalisa Di Liddo, *Alan Moore: Comics as Performance, Fiction as Scalpel* (Jackson: University Press of Mississippi, 2009), 27–35.
3 A national SF short story award established in 1984.
4 Noel Castree and Catherine Nash, 'Posthuman Geographies', *Social & Cultural Geography* 7, no. 4 (2006): 501.
5 Castree and Nash, 'Posthuman Geographies', 501.
6 N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999), 5.
7 Matthew Bush and Tania Gentic, 'Introduction: Mediatized Sensibilities in a Globalized Era', in *Technology, Literature, and Digital Culture in Latin America: Mediatized Sensibilities in a Globalized Era*, edited by Matthew Bush and Tania Gentic (New York: Routledge, 2016), 5. See Dipesh Chakrabarty, *Provincializing Europe: Postcolonial Thought and Historical Difference* (Princeton: Princeton University Press, 2008).
8 Paula Sibilia, *O homem pós-orgânico: Corpo, subjetividade e tecnologias digitais* (Rio de Janeiro: Relume Dumará, 2002); Spanish translation published as *El hombre postorgánico: Cuerpo, subjetividad y tecnologías digitales* (Buenos Aires: Fondo de Cultura Económica de Argentina, 2009).
9 Juanita Sundberg, 'Decolonizing Posthumanist Geographies', *Cultural Geographies* 21, no. 1 (2014): 33.
10 Sundberg, 'Decolonizing Posthumanist Geographies', 36.
11 Pieter Vermeulen, 'Posthuman Affect', *European Journal of English Studies* 18, no. 2 (2014): 121.
12 N. Katherine Hayles, *Writing Machines* (Cambridge, MA: MIT Press, 2002), 32.
13 N. Katherine Hayles, *My Mother Was a Computer: Digital Subjects and Literary Texts* (Chicago and London: University of Chicago Press, 2005), 106.
14 Hayles uses the term 'technotexts' to refer to literary works characterized by recursive feedback loops 'between its imaginative world and the material apparatus embodying that creation as a physical presence'. Hayles, *Writing Machines*, 25.
15 Charles Hatfield, *Alternative Comics: An Emerging Literature* (Jackson: University Press of Mississippi, 2005), xvi.
16 Shiga's reviewers have pointed out that his works seem to push constantly against the limitations of print or, as Laura Hudson puts it, 'seem to defy the paper they're printed on'. Laura Hudson, 'Astonishing Comics That "Save Your Game" When You Turn the Page', *Boing Boing*,

25 March 2015, http://boingboing.net/2015/03/25/jason-shiga-comics.html#. Accessed 1 March 2017.

17 Gregory Steirer, 'The State of Comics Scholarship: Comics Studies and Disciplinarity', *International Journal of Comic Art* 13, no. 2 (2011): 269, 271, 274.

18 Scott McCloud, *Understanding Comics: The Invisible Art* (New York: Harper Perennial, 1994). Later works by McCloud are less preoccupied with constructing typologies and more concerned with the materiality of graphic fiction media. See, for example, Scott McCloud, *Reinventing Comics: How Imagination and Technology Are Revolutionizing an Art Form* (New York: HarperCollins, 2000), which explores the mutations that the form is undergoing in the realm of digital culture. For an overview of French traditions of comics scholarship, see Thierry Groensteen, 'The Current State of French Comics Theory', *Scandinavian Journal of Comic Art* 1, no. 1 (2012): 112–22.

19 Philippe Marion, *Traces en cases: Travail graphique, figuration narrative et participation du lecteur* (Louvain-la-Neuve: Academia, Université Catholique de Louvain, 1993).

20 Karin Kukkonen, 'Space, Time and Causality in Graphic Narratives: An Embodied Approach', in *From Comic Strips to Graphic Novels: Contributions to the Theory and History of Graphic Narrative*, edited by Daniel Stein and Jan-Noël Thon (Berlin and Boston: Walter de Gruyter, 2015), 49–66. Kukkonen's approach will be discussed in more depth in Chapter 7.

21 Laura U. Marks, *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses* (Durham, NC: Duke University Press, 2000), 162.

22 Marks, *The Skin of the Film*, 131.

23 Martin Jay, 'Scopic Regimes of Modernity', in *Vision and Visuality*, edited by Hal Foster (Seattle: Bay Press, 1988), 4.

24 Marks, *The Skin of the Film*, 162.

25 Marks, *The Skin of the Film*, 162.

26 Although he draws this comparison with the 'haptic turn' in cinema studies, like other comics studies critics, Hague warns against the danger of a disciplinary colonization entailed in the wholesale importation of theoretical models from cinema studies. Ian Hague, *Comics and the Senses: A Multisensory Approach to Comics and Graphic Novels* (New York and London: Routledge, 2014), 7.

27 Hague argues that 'The physicality of comics, their embodiment, is a crucial element of what they are and what they can be; how they do work, and how they could work'. Hague, *Comics and the Senses*, 7.

28 N. Katherine Hayles, 'The Materiality of Informatics', *Issues in Integrative Studies* 10 (1992): 121–44.

29 Yasco Horsman, 'The Rise of Comic Studies', *The Oxford Art Journal* 38, no. 1 (2015): 149.

30 Horsman, 'The Rise of Comic Studies', 149; in a similar manner, Gabrielle Rippl and Lukas Etter argue that graphic narratives 'are the ideal test cases for a discussion of inter- and transmedial strategies of storytelling', due both to their 'remediation potential' (their historic relationship with other media as lenders and borrowers of narratives) and their intermediality, 'based on words and images that collaborate to relate stories'. Gabrielle Rippl and Lukas Etter, 'Intermediality, Transmediality, and Graphic Narrative', in *From Comic Strips to Graphic Novels: Contributions to the Theory and History of Graphic Narrative*, edited by Daniel Stein and Jan-Noël Thon (Berlin and Boston: Walter de Gruyter, 2015), 191.

31 Jason Dittmer and Alan Latham, 'The Rut and the Gutter: Space and Time in Graphic Narrative', *Cultural Geographies* 22, no. 3 (2015): 435.

32 Thierry Groensteen, *The System of Comics* (Jackson: University Press of Mississippi, 2007), 108.

33 Groensteen, *The System of Comics*, 10–11.

34 Jared Gardner, 'Film + Comics: A Multimodal Romance in the Age of Transmedial Convergence', in *Storyworlds Across Media: Toward a Media-Conscious Narratology*, edited by Marie-Laure Ryan and Jan-Noël Thon (Lincoln, NE; London: University of Nebraska Press, 2014), 194.

35 Gardner, 'Film + Comics', 196.

36 Gardner, 'Film + Comics', 208.

37 Karen Barad, 'Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter', *Signs: Journal of Women in Culture and Society* 28, no. 3 (2003): 808. Barad's article is often described as foundational to the intersection of philosophical thought interested in the agency of matter and the primacy of relationality known as New

Materialism. Her work provides a useful point of contact between the various strands of New Materialist thought and posthumanist thought that have emerged from the postmodern feminism of Judith Butler and Donna Haraway.

38 Barad, ‘Posthumanist Performativity’, 808.

39 Barad, ‘Posthumanist Performativity’, 812.

40 Barad, ‘Posthumanist Performativity’, 816.

41 Barad, ‘Posthumanist Performativity’, 821.

42 Barad, ‘Posthumanist Performativity’, 818.

43 Craig Epplin, *Late Book Culture in Argentina* (New York; London; New Delhi; Sydney: Bloomsbury, 2014), 4.

44 Epplin, *Late Book Culture in Argentina*, 4.

45 Epplin, *Late Book Culture in Argentina*, 4.

46 Epplin, *Late Book Culture in Argentina*, 64.

47 Following the critical success of graphic novels such as *Diomedes: Trilogia do Acidente*, Lourenço Mutarelli published a collection of his unfinished sketches, as a set of separate ‘sketchbooks’ (reproductions of his handwritten notebooks), housed in a box with no strict order, in a manner reminiscent of Ware’s *Building Stories*. See Lourenço Mutarelli, *Sketchbooks* (São Paulo: Carlos Cezar, 2012). Fábio Moon and Gabriel Bá, the Brazilian graphic novelists who have had the most success outside of Brazil, maintain a very strong social media presence, frequently giving their fans an insight into the joys and frustrations of the publication process. Like many recent publications, the Chilean graphic novel *Policía del Karma* (Jorge Baradit and Martín Cáceres, 2011) includes an epilogue that highlights alternative ideas that were later discarded, or contributed as a supplement by other graphic artists working in the field.

48 Ariel Dorfman and Armand Mattelart, *Para leer al pato Donald* (Mexico, D.F.: Siglo XXI, 1972), 12.

49 Dorfman and Mattelart, *Para leer al pato Donald*, 12.

50 Waldomiro Vergueiro, ‘A odisséia dos quadrinhos infantis brasileiros: Parte 2: O predomínio de Maurício de Sousa e a *Turma da Mônica*’, *Agaquê* 2, no. 2 (1999), http://www.eca.usp.br/nucleos/nphqeca/agaque/indiceagaque.htm. Accessed 1 March 2017.

51 Héctor D. Fernández L’Hoeste and Juan Poblete, ‘Introduction’, in *Redrawing the Nation: National Identity in Latin/O American Comics*, edited by Héctor D. Fernández l’Hoeste and Juan Poblete (New York: Palgrave Macmillan, 2009), 5.

52 Anne Rubenstein, *Bad Language, Naked Ladies, and Other Threats to the Nation: A Political History of Comic Books in Mexico* (Durham, NC: Duke University Press, 1998), 19.

53 One example – of many – would be the adaptation published in 2007 of Machado de Assis’s *O alienista* by Fábio Moon and Gabriel Bá.

54 For example, Marcello Quintanilha gives a strongly regional flavour to *Tungstênio* (2014), set in the city of Salvador in Bahia, Brazil.

55 Powerpaola’s real name is Paola Gaviria.

56 Néstor García Canclini, *Culturas híbridas: Estrategias para entrar y salir de la modernidad* (Mexico: Grijalbo, 1989), 314.

57 Jan Baetens and Hugo Frey, *The Graphic Novel: An Introduction* (Cambridge: Cambridge University Press, 2014), 19. Baetens and Frey heed Hatfield’s warning that the term can often be used to ‘hide the complexity and precariousness of comics publishing, obscuring the long form’s dependence on the serial’. Hatfield, *Alternative Comics: An Emerging Literature*, 122.

58 Waldomiro Vergueiro and Gêisa Fernandes D’Oliveira, ‘De discursos não competentes a saberes dominantes: Reflexões sobre as histórias em quadrinhos no cenário brasileiro’, *Revista Iberoamericana* 77, no. 234 (2011): 137.

59 European critics have also decried the use of the term as US-centric. Daniel Stein and Jan-Noël Thon, for example, prefer the term graphic narrative to include all traditions from manga to *bande dessinée* as well as fiction and non-fiction texts. Daniel Stein and Jan-Noël Thon, ‘Introduction: From Comic Strips to Graphic Novels’, in *From Comic Strips to Graphic Novels: Contributions to the Theory and History of Graphic Narrative*, edited by Daniel Stein and Jan-Noël Thon (Berlin and Boston: Walter de Gruyter, 2015), 5.

60 See, for example, Edgar Silveira Franco, *HQtrônicas: do suporte papel à rede Internet* (São Paulo: FAPESP/Annablume, 2004).

61 See the discussion of this issue in Chapter 6.

62 See, for example, essays published in Jörn Ahrens and Arno Meteling, eds, *Comics and the City: Urban Space in Print, Picture, and Sequence* (New York: Continuum, 2010), including Jörn Enns, 'The City as Archive in Jason Lutes's Berlin' (45–49) and André Suhr, 'Seeing the City through a Frame: Marc-Antoine Mathieu's Acquefacques-Comics' (231–46); also see Joanna Page, *Science Fiction in Argentina: Technologies of the Text in a Material Multiverse* (Ann Arbor: University of Michigan Press, 2016), 51–80.

63 Jörn Ahrens and Arno Meteling trace the ongoing symbiotic relationship between comics and urban imaginaries in the US to this point of origin in the newspaper trade, and particularly the rivalry between the competing New York newspapers, Adolph Ochs' *The New York Times* (1851), Joseph Pulitzer's *New York World* (1860) and William Randolph Hearst's *The New York Journal* (1895), all of which made use of illustrated supplements, including comic strips, to attract and maintain a readership. Jörn Ahrens and Arno Meteling, 'Introduction', in *Comics and the City*, edited by Ahrens and Meteling, 4.

64 Jorge Catalá Carrasco, Paulo Drinot and James Scorer, 'Introduction', in *Comics and Memory in Latin America*, edited by Jorge Catalá Carrasco, Paulo Drinot and James Scorer (Pittsburgh: University of Pittsburgh Press, 2016).

65 Catalá Carrasco, Drinot and Scorer, 'Introduction'.

66 Catalá Carrasco, Drinot and Scorer, 'Introduction'.

67 Catalá Carrasco, Drinot and Scorer, 'Introduction'.

68 Catalá Carrasco, Drinot and Scorer, 'Introduction'.

69 Scott Bukatman, *The Poetics of Slumberland: Animated Spirits and the Animating Spirit* (Berkeley: University of California Press, 2012), 36.

70 Bukatman, *The Poetics of Slumberland*, 36–7.

71 Ana Merino, *El cómic hispánico* (Madrid: Cátedra, 2003), 11.

72 James William Gibson, *A Reenchanted World: The Quest for a New Kinship with Nature* (New York: Metropolitan Books, 2009), 11.

73 Rebecca Onion, 'Reclaiming the Machine: An Introductory Look at Steampunk in Everyday Practice', *Neo-Victorian Studies* 1, no. 1 (Autumn 2008): 138.

74 Jenny Sundén, 'Corporeal Anachronisms: Notes on Affect, Relationality, and Power in Steampunk', *Somatechnics* 3, no. 2 (2013): 369.

Chapter 1

1 Neil Badmington, 'Theorizing Posthumanism', *Cultural Critique* 53, no. 1 (2003): 16.

2 Jean-François Lyotard, *The Inhuman: Reflections on Time*, translated by Geoffrey Bennington and Rachel Bowlby (Cambridge: Polity Press, 1991), 34.

3 See Hannah Arendt, *The Human Condition* (Chicago: University of Chicago Press, 1998); Edward W. Said, *Humanism and Democratic Criticism* (New York: Columbia University Press, 2004), among other works.

4 Silvia Kurlat Ares, 'Los futuros posindustriales de la historieta en la era del populismo: El caso argentino', *Iberoamericana* 15, no. 57 (2015): 135.

5 Daniel Dinello, *Technophobia! Science Fiction Visions of Posthuman Technology* (Austin: University of Texas Press, 2005), 275.

6 Dinello, *Technophobia!*, 275.

7 Dinello, *Technophobia!*, 273.

8 Neil Badmington, ed., *Posthumanism* (New York: Palgrave, 2000), 8.

9 Kurlat Ares' excellent reading of *Planeta Extra* and *La burbuja de Bertold* identifies a number of direct allusions to particular paintings in Ippóliti's illustrations. See 'Los futuros posindustriales', 137–8.

10 Anna Abella, 'Una historia futurista gana el primer premio de cómic de Planeta', *El Periódico de Catalunya*, 6 February 2009, 8.

11 Abella, 'Una historia futurista'.

12 Kurlat Ares, 'Los futuros posindustriales', 143.

13 Andrés Valenzuela, 'Es ciencia ficción llevada al grotesco de la Argentina', *Página/12*, 27 February 2009, http://www.pagina12.com.ar/diario/suplementos/espectaculos/2-12992-2009-02-27.html. Accessed 1 March 2017.

14 See http://www.lacarceldepapel.com/2009/02/05/avance-de-planeta-extra/. Accessed 1 March 2017.
15 Osvaldo Pellettieri, *El sainete y el grotesco criollo: del autor al actor* (Buenos Aires: Galerna, 2008), 8.
16 Rodolfo Kusch, *América profunda* (Buenos Aires: Biblos, 1999), 109.
17 Rodolfo Kusch, 'De la mala vida porteña', in *Obras completas*, vol. 1 (Rosario, Argentina: Editorial Fundación Ross, 2000), 426.
18 Walter Mignolo, 'Introduction: Immigrant Consciousness', in *Indigenous and Popular Thinking in América*, by Rodolfo Kusch, translated by Maria Lugones and Joshua M. Price (Durham, NC: Duke University Press, 2010), xxxi.
19 Kusch, *América profunda*, 91.
20 Kusch, *América profunda*, 93.
21 Kusch, *América profunda*, 116.
22 Rosi Braidotti, *The Posthuman* (Cambridge: Polity Press, 2013), 37.
23 J. Andrew Brown, 'Humanismo "cyborg": el letrado posthumano en América Latina', translated by Ignacio M. Sánchez Prado, *Revista de Crítica Literaria Latinoamericana* 34, no. 68 (2008): 24, 25.
24 Brown, 'Humanismo "cyborg"', 26.
25 Braidotti, *The Posthuman*, 107.
26 Lyotard, *The Inhuman*, 3.
27 Lyotard, *The Inhuman*, 4.
28 Lyotard, *The Inhuman*, 15.
29 Lyotard, *The Inhuman*, 12.
30 Lyotard, *The Inhuman*, 23.
31 Lyotard, *The Inhuman*, 16.
32 Lyotard, *The Inhuman*, 18–19.
33 Lyotard, *The Inhuman*, 18.
34 Lyotard, *The Inhuman*, 18, 20.
35 Richard Coyne, *Technoromanticism: Digital Narrative, Holism, and the Romance of the Real* (Cambridge, MA: MIT Press, 1999), 10–11.
36 N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999), 2.
37 Paula Sibilia, *El hombre postorgánico: Cuerpo, subjetividad y tecnologías digitales* (Buenos Aires: Fondo de Cultura Económica de Argentina, 2009), 91.
38 Sibilia, *El hombre postorgánico*, 91.
39 Hayles, *How We Became Posthuman*, 136.
40 The translation given here is from the English translation of Descartes' work: see René Descartes, *Discourse on Method and Meditations* (New York: Dover, 2003), 23.
41 R. W. Connell, *Masculinities*, 2nd edn (Cambridge: Polity, 2005), 59–60.
42 Hayles, *How We Became Posthuman*, 283.
43 Hayles, *How We Became Posthuman*, 13.
44 Hayles, *How We Became Posthuman*, 4–5.
45 Stefan Herbrechter, *Posthumanism: A Critical Analysis* (London and New York, 2013), 3.
46 Herbrechter, *Posthumanism*, 9.

Chapter 2

1 Bruno Latour, *We Have Never Been Modern* (Cambridge, MA: Harvard University Press, 1993).
2 Max Weber, *The Vocation Lectures*, edited by David Owen and Tracey B. Strong, translated by Rodney Livingstone (Indianapolis: Hackett Publishing, 2004), 12–13; original emphasis.
3 Joshua Landy and Michael T. Saler, eds, 'Introduction: The Varieties of Modern Enchantment', in *The Re-Enchantment of the World: Secular Magic in a Rational Age* (Stanford: Stanford University Press, 2009), 1–2.
4 Morris Berman, *The Reenchantment of the World* (Ithaca: Cornell University Press, 1981), 118–26.

5 Ioan P. Couliano, *Eros and Magic in the Renaissance*, translated by Margaret Cook (Chicago and London: University of Chicago Press, 1987), 104.

6 Latour, *We Have Never Been Modern*, 66.

7 David F. Noble, *The Religion of Technology: The Divinity of Man and the Spirit of Invention* (London: Penguin, 1999), 5.

8 Noble, *The Religion of Technology*, 62, 66.

9 Noble, *The Religion of Technology*, 22, 48.

10 James William Gibson, *A Reenchanted World: The Quest for a New Kinship with Nature* (New York: Metropolitan Books, 2009), 11.

11 Berman, *The Reenchantment of the World*, 100.

12 Berman, *The Reenchantment of the World*, 126.

13 Karl Marx and Friedrich Engels, *The Communist Manifesto*, translated by Samuel Moore (London and New York: Penguin Books, 2002), 225.

14 Gibson, *A Reenchanted World*, 12.

15 Erik Davis, *Techgnosis: Myth, Magic, and Mysticism in the Age of Information* (Berkeley: North Atlantic Books, 2015), xviii.

16 Davis, *Techgnosis*, 3.

17 Latour, *We Have Never Been Modern*, 69.

18 At the time of writing, the first section of *E-Dem* was available to view online at https://cristianmonteslynch.wordpress.com/comic/. Accessed 1 March 2017.

19 See http://www.archivochile.com/Dictadura_militar/doc_jm_gob_pino8/DMdocjm0005.pdf. Accessed 1 March 2017.

20 Michael Jindra, 'Video Game Worlds', *Society* 44, no. 4 (1 May 2007): 72.

21 Noble, *The Religion of Technology*, 12.

22 Noble, *The Religion of Technology*, 43–8.

23 Davis, *Techgnosis*, 365.

24 Latour, *We Have Never Been Modern*, 68–9.

25 Weber, *The Vocation Lectures*, 13.

26 Johannes Fabian, *Time and the Other: How Anthropology Makes Its Object* (New York: Columbia University Press, 2002), 32.

27 Juanita Sundberg, 'Decolonizing Posthumanist Geographies', *Cultural Geographies* 21, no. 1 (2014): 33. See the discussion in the Introduction.

28 Descola's more exclusive use of the term 'animism' would not apply to Mesoamerican culture, which he analyses as an example of 'analogism' (see the discussion later in this chapter). We use the term 'animism' here in the broader sense commonly given to it as denoting the transmigration of souls and the animation of the non-human natural world, to describe the dynamic by which Xaxán's spirit passes into the obsidian disc. This also accords with the more expansive definition of animism advanced by Marshall Sahlins, for whom totemism and analogism (opposed by Descola to animism) are really 'different organizations of the same animic principles'. 'On the Ontological Scheme of *Beyond Nature and Culture*', *HAU: Journal of Ethnographic Theory* 4, no. 1 (2014): 282. The applicability of Descola's analogic scheme in the Mesoamerican context has, indeed, been challenged by a number of scholars; see Roberto Martínez González and Carlos Barona, 'La noción de persona en Mesoamérica: un diálogo de perspectivas', *Anales de Antropología* 49, no. 2 (2015): 46, n45. We are grateful to Charles Pigott for his advice on this subject.

29 Edward King, 'Prosthetic Memory and Networked Temporalities in *Morro Da Favela* by André Diniz', in *Comics and Memory in Latin America*, edited by Jorge Catalá Carrasco, Paulo Drinot and James Scorer (Pittsburgh: University of Pittsburgh Press, 2016).

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32 Georges Baudot, *Pervivencia del mundo azteca en el México virreinal* (Mexico DF: UNAM, 2004), 359.

33 Couliano, *Eros and Magic in the Renaissance*, xvii.

34 Anselm Franke and Bruno Latour, 'Angels Without Wings: A Conversation between Bruno Latour and Anselm Franke', in *Animism*, edited by Anselm Franke, vol. 1 (Berlin: Sternberg Press, 2010), 92.

35 Couliano, *Eros and Magic in the Renaissance*, xii.

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38 Anselm Franke, 'Much Trouble in the Transportation of Souls, or: The Sudden Disorganization of Boundaries', in *Animism*, edited by Anselm Franke, vol. 1 (Berlin: Sternberg Press, 2010), 17.

39 Franke, 'Much Trouble in the Transportation of Souls', 14.

40 Franke, 'Much Trouble in the Transportation of Souls', 13.

41 Franke, 'Much Trouble in the Transportation of Souls', 17.

42 Harry Garuba, 'On Animism, Modernity/Colonialism, and the African Order of Knowledge: Provisional Reflections', *E-Flux*, no. 36 (July 2012), http://www.e-flux.com/journal/on-animism-modernitycolonialism-and-the-african-order-of-knowledge-provisional-reflections/. Accessed 1 March 2017.

43 Emphasis in original.

44 Héctor Fernández L'Hoeste, 'On the Mexican State's War on Drug Violence: Transgression in the Representation and Circulation of *Los perros salvajes*', in *Transgression 2.0: Media, Culture, and the Politics of a Digital Age*, edited by Ted Gournelos and David J. Gunkel (New York: Continuum, 2011), 258, 272.

45 Dani Cavallaro, *Science Fiction and the Work of William Gibson* (London: Athlone Press, 2000), 54.

46 Cavallaro, *Science Fiction and the Work of William Gibson*, 58.

47 Fernández L'Hoeste, 'On the Mexican State's War on Drug Violence', 264.

48 Dawn Ades, *Art in Latin America: The Modern Era, 1820–1980* (New Haven: Yale University Press, 1989), 201.

49 Among many other possible references, Clement's representation of these parallels also echoes José Clemente Orozco's mural project *The Epic of American Civilization* (1932–4), which traces continuities between ancient and modern forms of human sacrifice.

50 James Dow, *The Shaman's Touch: Otomí Indian Symbolic Healing* (Salt Lake City: University of Utah Press, 1986), 62.

51 Manuel Gamio, *Forjando Patria (pro Nacionalismo)* (Mexico: Porrúa, 1992), 96.

52 Barbara Braun, *Pre-Columbian Art and the Post-Columbian World: Ancient American Sources of Modern Art* (New York: Harry N. Abrams, 1993), 216; Linda Bank Downs, *Diego Rivera: The Detroit Industry Murals* (New York: W.W. Norton, 1999), 140.

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54 Rehak, 'Playing at Being', 107.

55 Phillip Penix-Tadsen, *Cultural Code: Video Games and Latin America* (Cambridge, MA; London: MIT Press, 2016), 34.

56 Penix-Tadsen, *Cultural Code*, 33.

57 Mark J. P. Wolf, Bernard Perron and Martti Lahti, eds, 'As We Become Machines: Corporealized Pleasures in Video Games', in *The Video Game Theory Reader* (New York; London: Routledge, 2003), 158.

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59 See, for example, George M. Foster, 'Nagualism in Mexico and Guatemala', *Acta Americana* 2, no. 1–2 (1944): 1–2.

60 Philippe Descola, *Beyond Nature and Culture* (Chicago: University of Chicago Press, 2013), 214.

61 Philippe Descola, 'Modes of Being and Forms of Predication', *HAU: Journal of Ethnographic Theory* 4, no. 1 (2014): 276.

62 Descola, 'Modes of Being and Forms of Predication', 276.

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64 Neal Curtis, 'The Inhuman', *Theory, Culture & Society* 23, no. 2–3 (1 May 2006): 434.

65 Bruce D. Campbell, 'Social Critique and the Politics of Patrimonio Cultural in Edgar Clement's *Los perros salvajes*', *Iberoamericana* 15, no. 57 (2015): 148, 154.

66 See http://www.interzone.produccionesbalazo.com. Accessed 1 March 2017.

67 Davis, *Techgnosis*, 365.

68 Jane Bennett, *The Enchantment of Modern Life: Attachments, Crossings, and Ethics* (Princeton: Princeton University Press, 2001), 4.

69 Bennett, *The Enchantment of Modern Life*, 17–32, 91–110, 111–30.

70 Bennett, *The Enchantment of Modern Life*, 131.

71 Scott McCloud describes the combinations between words and images in Mexican codices as a forerunner of the syntax of comic books. Scott McCloud, *Understanding Comics: The Invisible Art* (New York: Harper Perennial, 1994), 10–11. The connections established in Clement's work between codices and the graphic novel form are discussed further in Chapter 3.

Chapter 3

1 Mexican artists, including Ricardo Peláez and Rick Camacho, drew explicitly on European and North American artists such as Moebius and Robert Crumb, and artists from across Latin America contributed to the magazine, including the Argentine Carlos Trillo.

2 In *Materiales para resistir la realidad*, a documentary about the history of *Gallito Comics* directed by Fernando Castañeda (2013), del Real describes Mexico in the 1990s as 'un país cuyas premisas fundamentales iban transformando rápidamente; cuando el saqueo estaba en su esplendor' (a country whose founding premises were rapidly undergoing transformation; when the pillaging was in full flow). Here del Real is referring to the neoliberal economic policies enforced in Mexico by the International Monetary Fund following the debt crisis of 1983.

3 *Operación Bolívar* passed through several publication formats following its serialization in *Gallito Comics*. In 1995 it was released in two parts by Editorial Completa before being published complete for the first time in 'formato Europeo' (following the conventions of the French *bande dessinée*) by Ediciones Cástor in 1999. Caligrama Editores published a slightly expanded version in 'formato de bolsillo' (pocketbook format) in 2006. The edition referenced here is the second edition published by Caligrama in 2008; it includes a prologue by Víctor del Real, the editor of *Gallito Comics*, in which he explains that the narrative was always intended to be published as a 'novela gráfica'.

4 Although a short version of this prologue appears in the 2008 Caligrama edition, the quotation here comes from the full text published by Clément on his blog. Víctor del Real, 'Regresar de noche, caminando, a Nezayork', 2010, http://edgarclement.blogspot.com.br/2010/06/como-ya-algunos-sabran-para-diciembre.html. Accessed 1 March 2017.

5 Dolores Tierney, 'Transnational Political Horror in *Cronos* (1993), *El espinazo del diablo* (2001), and *El laberinto del fauno* (2006)', in *The Transnational Fantasies of Guillermo Del Toro*, edited by Ann Davies, Deborah Shaw and Dolores Tierney (New York: Palgrave Macmillan, 2014), 165.

6 John Kraniauskas, '*Cronos* and the Political Economy of Vampirism: Notes on a Historical Constellation', in *Cannibalism and the Colonial World*, edited by Francis Barker, Peter Hulme and Margaret Iversen (Cambridge; New York: Cambridge University Press, 1998), 149.

7 Kraniauskas, '*Cronos* and the Political Economy of Vampirism', 156.

8 For a useful overview of these discourses, see Lois Parkinson Zamora and Monika Kaup, eds, *Baroque New Worlds: Representation, Transculturation, Counterconquest* (Durham, NC: Duke University Press, 2010).

9 Monika Kaup, *Neobaroque in the Americas: Alternative Modernities in Literature, Visual Art, and Film* (Charlottesville and London: University of Virginia Press, 2012), 2; see also Gilles Deleuze, *The Fold: Leibniz and the Baroque*, translated by Tom Conley (London: Continuum, 2006).

10 Kaup, *Neobaroque in the Americas*, 4.

11 Concetta Mariella Lina Bondi, 'Shaping an Identity: Cultural Hybridity in Mexican Baroque Architecture', *Design Principles and Practices: An International Journal* 5, no. 5 (2011): 450–1.

12 Irlemar Chiampi, *Barroco y modernidad* (México: Fondo de Cultura Económica, 2000), 18.

13 Angela Ndalianis, *Neo-Baroque Aesthetics and Contemporary Entertainment* (Cambridge, MA: MIT Press, 2004), 2–5.

14 Anna Munster, *Materializing New Media: Embodiment in Information Aesthetics* (Hanover, NH: Dartmouth College Press, 2006), 4–5.

15 Munster, *Materializing New Media*, 5.

16 Munster, *Materializing New Media*, 4.

17 Munster explores how, in opposition to the Cartesian divide between body and soul, Leibniz's focus was on 'how matters, souls or beings differentiated themselves by degree within what he saw as a serially connected, continuously folding universe'. Munster, *Materializing New Media*, 39.

18 Eric Kluitenberg, 'On the Archaeology of Imaginary Media', in *Media Archaeology: Approaches, Applications, and Implications*, edited by Erkki Huhtamo and Jussi Parikka (Berkeley: University of California Press, 2011), 51.

19 Kluitenberg, 'On the Archaeology of Imaginary Media', 67.

20 Siegfried Zielinski, *Deep Time of the Media: Toward an Archaeology of Hearing and Seeing by Technical Means* (Cambridge, MA; London: MIT Press, 2008), 10.

21 Zielinski, *Deep Time of the Media*, 258.

22 Héctor Fernández L'Hoeste, 'De ángeles, narcos y libre comercio', *Cenízas* 2 (2007): 17.

23 Fernández L'Hoeste, 'De ángeles, narcos y libre comercio', 17.

24 Fernández L'Hoeste, 'De ángeles, narcos y libre comercio', 15.

25 Brian McHale, *Constructing Postmodernism* (London; New York: Routledge, 1992), 202.

26 McHale, *Constructing Postmodernism*, 203.

27 McHale, *Constructing Postmodernism*, 200.

28 The text also makes a number of knowing nods to the narratives described by McHale. For instance, the fact that Román is convinced that an angel they captured is an alien echoes McHale's argument that the 'angel function' in contemporary culture has been taken over by the extraterrestrials and cyborgs of science fiction, in works such as William T. Vollmann's *You Bright and Risen Angels* (1987) and *Gravity's Rainbow* (1973) by Thomas Pynchon. See McHale, *Constructing Postmodernism*, 202.

29 Régis Debray, *Transmitting Culture* (New York: Columbia University Press, 2004), 31.

30 Debray, *Transmitting Culture*, 38.

31 David Brading, '"Psychomachia Indiana": Angels, Devils and Holy Images in New Spain', in *Angels, Demons and the New World*, edited by Fernando Cervantes and Andrew Redden (Cambridge: Cambridge University Press, 2013), 252.

32 Fernando Cervantes, 'How to See Angels: The Legacy of Early Mendicant Spirituality', in *Angels, Demons and the New World*, edited by Fernando Cervantes and Andrew Redden (Cambridge: Cambridge University Press, 2013), 78.

33 Cervantes, 'How to See Angels', 78, 95.

34 Michel Serres, *Angels, a Modern Myth*, translated by Francis Cowper (Paris: Flammarion, 1995), 60.

35 Cervantes, 'How to See Angels', 78.

36 Slavoj Žižek, *The Plague of Fantasies* (London and New York: Verso, 1997), 131.

37 'There the products of the human brain appear as autonomous figures endowed with a life of their own, which enter into relations both with each other and with the human race. So it is in the world of commodities with the products of men's hands. I call this the fetishism which attaches to products of labour as soon as they are produced as commodities.' Karl Marx, *Capital: A Critique of Political Economy*, translated by Ben Fowkes, vol. 1 (London: Penguin, 1990), 165.

38 In connecting the codices to the Mexican baroque aesthetic, Clement is echoing Alejo Carpentier's 1964 essay 'Problematica de la actual novela latinoamericana', in which he cites structural parallels between pre-Columbian statues, codices and contemporary novels to argue that art in Latin America has always been baroque.

39 Walter Mignolo, *The Darker Side of the Renaissance: Literacy, Territoriality, and Colonization* (Ann Arbor: University of Michigan Press, 1995).

40 Cited in Lois Parkinson Zamora, *The Inordinate Eye: New World Baroque and Latin American Fiction* (Chicago: University of Chicago Press, 2006), 71.

41 Zamora, *The Inordinate Eye*, 71.

42 J. H. Parry, 'Juan de Tovar and the History of the Indians', *Proceedings of the American Philosophical Society* 121 (1977): 316.

43 Martin Jay, 'Scopic Regimes of Modernity', in *Vision and Visuality*, edited by Hal Foster (Seattle: Bay Press, 1988), 4.

44 Jay, 'Scopic Regimes of Modernity', 16.

45 Helen Hills, 'The Baroque: The Grit in the Oyster of Art History', in *Rethinking the Baroque*, edited by Helen Hills (Surrey; Burlington, VT: Ashgate, 2011), 30.

46 See Scott McCloud, *Understanding Comics: The Invisible Art* (New York: Harper Perennial, 1994).

47 Zamora, *The Inordinate Eye*, 65.

48 Claire Farago, 'Reframing the Baroque: On Idolatry and the Threshold of Humanity', in *Rethinking the Baroque*, edited by Helen Hills (Surrey; Burlington, VT: Ashgate, 2011), 105.

49 Parry, 'Juan de Tovar and the History of the Indians', 318.

50 Zamora, *The Inordinate Eye*, 13.

51 Shirin Shenassa, 'The Lack of Materiality in Latin American Media Theory', in *Latin American Literature and Mass Media*, edited by Edmundo Paz Soldán and Debra A. Castillo (New York: Garland, 2001), 254.

52 Joseph Campana and Scott Maisano, 'Introduction: Renaissance Posthumanism', in *Renaissance Posthumanism*, edited by Joseph Campana and Scott Maisano (New York: Fordham University Press, 2016), 2.

53 Campana and Maisano, 'Introduction: Renaissance Posthumanism', 3.

54 Elizabeth Hill Boone, 'Introduction: Writing and Recording Knowledge', in *Writing without Words: Alternative Literacies in Mesoamerica and the Andes*, edited by Elizabeth Hill Boone and Walter Mignolo (Durham, NC: Duke University Press, 1994), 6.

55 Geoffrey Kantaris, 'Between Dolls, Vampires, and Cyborgs: Recursive Bodies in Mexican Urban Cinema' (Modern Languages Society, University of Cambridge, 1998), http://www.latin-american.cam.ac.uk/culture/vampires/. Accessed 1 March 2017.

Chapter 4

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2 Rebecca Onion, 'Reclaiming the Machine: An Introductory Look at Steampunk in Everyday Practice', *Neo-Victorian Studies* 1, no. 1 (Autumn 2008): 138–9.

3 Jorge Baradit, Francisco Ortega and Mike Wilson, eds, *CHIL3: Relación del Reyno 1495–2010* (Santiago: Ediciones B, 2010).

4 Ortega re-released the novel as an e-book in 2013, with alterations, under the title *El verbo Kaifman*.

5 In this way, *1899* joins a number of recent graphic novels that self-consciously position themselves along a clear line of continuity that extends from earlier forms of comic book publishing. See the discussion of this point in the Introduction.

6 The SS Great Eastern, which makes an appearance in *1899*, was badly damaged by an explosion on her maiden voyage in 1858.

7 Forlini, 'Technology and Morality', 72.

8 Forlini, 'Technology and Morality', 81.

9 Forlini, 'Technology and Morality', 74–80.

10 Forlini, 'Technology and Morality', 73.

11 Carlos Basso, 'El escritor Francisco Ortega y su telúrica relación con Concepción', *Diario W5*, 12 September 2011, http://archive.is/CsHc1/. Accessed 1 March 2017.

12 Forlini, 'Technology and Morality', 81, 73–74.

13 The ship is given the name 'Leviatán', the name that belongs to Chile's real-life Centre for Marine Mammals Research and to its vessels.

14 Bruno Latour, 'Morality and Technology: The End of the Means', translated by Couze Venn, *Theory, Culture & Society* 19, no. 5–6 (2002): 252, 255.

15 Latour, 'Morality and Technology', 255; original emphasis.

16 Lucas D. Introna, 'Ethics and the Speaking of Things', *Theory, Culture & Society* 26, no. 4 (2009): 30.

17 Introna, 'Ethics and the Speaking of Things', 31.

18 Introna, 'Ethics and the Speaking of Things', 38.

19 Introna, 'Ethics and the Speaking of Things', 39.

20 Introna, 'Ethics and the Speaking of Things', 31.

21 Mike Perschon, 'Steam Wars', *Neo-Victorian Studies* 3, no. 1 (2010): 130.

22 Andrew Ross, *Strange Weather: Culture, Science, and Technology in the Age of Limits* (London: Verso, 1991), 145.

23 Nicola Nixon, 'Cyberpunk: Preparing the Ground for Revolution or Keeping the Boys Satisfied?', in *Cybersexualities: A Reader on Feminist Theory, Cyborgs, and Cyberspace*, edited by Jenny Wolmark (Edinburgh: Edinburgh University Press, 1999), 204.

24 See Dani Cavallaro, *Cyberpunk and Cyberculture: Science Fiction and the Work of William Gibson* (London; New Brunswick, NJ: Athlone Press, 2000), 121.

25 Samantha Holland, 'Descartes Goes to Hollywood: Mind, Body and Gender in Contemporary Cyborg Cinema', in *Cyberspace/Cyberbodies/Cyberpunk: Cultures of Technological Embodiment*, edited by Mike Featherstone and Roger Burrows (London; Thousand Oaks, CA: Sage, 1995), 166.

26 N. Katherine Hayles, 'The Life Cycle of Cyborgs: Writing the Posthuman', in *Cybersexualities: A Reader on Feminist Theory, Cyborgs, and Cyberspace*, edited by Jenny Wolmark (Edinburgh: Edinburgh University Press, 1999), 167.

27 Thomas Foster, 'Meat Puppets or Robopaths? Cyberpunk and the Question of Embodiment', in *Cybersexualities: A Reader on Feminist Theory, Cyborgs, and Cyberspace*, edited by Jenny Wolmark (Edinburgh: Edinburgh University Press, 1999), 209.

28 The project went by the name 'Cybersyn' in English.

29 Eden Medina, *Revolucionarios cibernéticos: tecnología y política en el Chile de Salvador Allende*, translated by José Miguel Neira F., Kindle (Santiago: LOM, 2013), loc. 3224–31.

30 Jorge Baradit, *Synco*, Kindle (Santiago: Ediciones B, 2013), loc. 976.

31 Medina, *Revolucionarios cibernéticos*, loc. 2231, 3331.

32 Medina, *Revolucionarios cibernéticos*, loc. 5555.

33 Medina, *Revolucionarios cibernéticos*, loc. 4774.

34 Baradit, *Synco*, loc. 357.

35 Medina, *Revolucionarios cibernéticos*, loc. 1361.

36 Medina, *Revolucionarios cibernéticos*, loc. 1069.

37 Medina, *Revolucionarios cibernéticos*, loc. 1293.

38 Hans-Georg Moeller, *Luhmann Explained: From Souls to Systems* (Chicago and La Salle, IL: Open Court, 2006), ix.

39 Moeller, *Luhmann Explained*, x.

40 Moeller, *Luhmann Explained*, 5.

41 Moeller, *Luhmann Explained*, 20–1.

42 Moeller, *Luhmann Explained*, 21.

43 Alberto Rojas, '*Policía del Karma*: un nuevo viaje al universo literario de Jorge Baradit', *Emol: Espectáculos*, 16 November 2011, http://www.emol.com/noticias/magazine/2011/11/15/512888/policia-del-karma-un-nuevo-viaje-al-universo-literario-de-jorge-baradit.html. Accessed 1 March 2017.

44 http://www.etymonline.com. Accessed 1 March 2017.

45 http://cronicapdk.blogspot.co.uk. Accessed 1 March 2017.

46 http://www.policiadelkarma.cl. Accessed 1 March 2017.

47 This fictional speculation is explored in Jorge Baradit, *Historia secreta de Chile* (Santiago: Sudamericana, 2015).

48 N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999), 48; cited in Forlini, 'Technology and Morality', 73.

49 George Lakoff and Mark Johnson, *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought* (New York: Basic Books, 1999), 22.

Chapter 5

1 For an analysis of Barreiro's urban comics, see Joanna Page, *Science Fiction in Argentina: Technologies of the Text in a Material Multiverse* (Ann Arbor: University of Michigan Press, 2016), 51–80.

2 An essay-manifesto written collectively by the MPL organization explains that the protests were driven by a desire to overturn the top-down and profit-oriented organization of public transport in the city. In this system, 'a população é excluída da organização de sua própria

experiência cotidiana da metrópole [. . .] o qual restringe a mobilidade ao ir e vir do trabalho e coloca as catracas em todos os caminhos da cidade' (the population is excluded from the organization of its own everyday experience of the metropolis [. . .] which restricts the mobility of commuters and places turnstiles on every path in the city). Movimento Passe Livre – São Paulo, 'Não começou em Salvador, não vai terminar em São Paulo', in *Cidades rebeldes: Passe Livre e as manifestações que tomaram as ruas do Brasil* (São Paulo: Boitempo, 2013), 13–14.

3 Leslie Chaves and Patricia Fachin, 'A política brasileira com as vísceras expostas. Entrevista especial com Moysés Pinto Neto', *Instituto Humanitas Unisinos On-Line*, 15 December 2015, http://ihu.unisinos.br/entrevistas/550163-a-politica-brasileira-com-as-visceras-expostas-entrevista-especial-com-moyses-pinto-neto. Accessed 1 March 2017.

4 Pedro Erber, 'The Politics of Strolling', *Latin American Perspectives*, 5 May 2016, 2.

5 Erber, 'The Politics of Strolling', 7.

6 Maurizio Lazzarato, 'Immaterial Labor', in *Radical Thought in Italy: A Potential Politics*, edited by Paolo Virno and Michael Hardt, translated by Paul Colilli and Ed Emory (Minneapolis, MN: University of Minnesota Press, 1996), 133.

7 Rafael Coutinho, *O Beijo Adolescente: Primeira temporada* (São Paulo: Cachalote, 2011).

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9 Celia Lury, 'Brand as Assemblage', *Journal of Cultural Economy* 2, no. 1–2 (2009): 67.

10 Lury, 'Brand as Assemblage', 74.

11 For example, the members of the British pop band Sugababes, which formed in 1998, changed repeatedly until none of the original members was left. Since the name, branding and intellectual property of the band belonged to the record label, the three original members decided to reform under a new name in 2012.

12 Thomas LaMarre, 'An Introduction to Otaku Movement', *EnterText* 4, no. 1 (2011): 168.

13 Shields is referring to a metaphor used by anthropologist Edmund Leach in the 1960s to convey the idea that what is significant in topological understandings of space are not distances and shapes so much as what holds them together or connects them. Rob Shields, *Spatial Questions: Cultural Topologies and Social Spatialisation* (London: Sage, 2013), 9. The metaphor is echoed by the image of a crumpled handkerchief in Michel Serres' application of topological thought to understandings of time. Time according to this conception is not the linear, forward-moving time of progress but is multidirectional, bifurcating and connecting seemingly disparate points into adjacency. Michel Serres and Bruno Latour, *Conversations on Science, Culture, and Time*, translated by Roxanne Lapidus (Ann Arbor: University of Michigan Press, 1995), 60–1. The term 'time-space compression' is used in David Harvey, *The Condition of Postmodernity* (Oxford: Blackwell, 1990).

14 John Law and Annemarie Mol, 'Situating Technoscience: An Inquiry into Spatialities', *Environment and Planning D: Society and Space* 19, no. 5 (2001): 619.

15 Ivana Bentes, 'Não vai ter shopping', *VG Notícias*, 14 January 2014, http://www.vgnoticias.com.br/opiniao/nao-vai-ter-shopping/21934. Accessed 1 March 2017.

16 Teresa P. R. Caldeira, 'Imprinting and Moving around: New Visibilities and Configurations of Public Space in São Paulo', *Public Culture* 24, no. 2 (2012): 388.

17 We use here Michel de Certeau's distinction between spatial 'strategies' that organize space in line with dominant regimes of power and the 'tactics' that resist them. Michel de Certeau, *The Practice of Everyday Life*, translated by Steven Rendall (Berkeley: University of California Press, 1984), 102.

18 Certeau, *The Practice of Everyday Life*, 92.

19 Certeau, *The Practice of Everyday Life*, 93.

20 Benjamin H. Bratton, 'iPhone City', *Architectural Design* 79, no. 4 (2009): 93.

21 Bratton, 'iPhone City', 94.

22 Bratton, 'iPhone City', 94.

23 Bratton, 'iPhone City', 94.

24 Bratton, 'iPhone City', 93.

25 Mark Graham, Matthew Zook and Andrew Boulton, 'Augmented Reality in Urban Places: Contested Content and the Duplicity of Code', *Transactions of the Institute of British Geographers* 38, no. 3 (2013): 464.

26 Graham, Zook and Boulton, 'Augmented Reality in Urban Places', 465.

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30 Here, Dittmer is drawing on the work of Colin McFarlane on social movements and ‘translocal assemblages’, which will be discussed later in this chapter. Jason Dittmer, ‘Narrating Urban Assemblages—Chris Ware and Building Stories’, *Social & Cultural Geography* 15, no. 5 (2014): 484.
31 Dittmer, ‘Narrating Urban Assemblages’, 477.
32 Ian Hague, *Comics and the Senses: A Multisensory Approach to Comics and Graphic Novels* (New York and London: Routledge, 2014), 40.
33 Hague, *Comics and the Senses*, 41–2.
34 Hague, *Comics and the Senses*, 50.
35 Scott McCloud, *Understanding Comics: The Invisible Art* (New York: Harper Perennial, 1994).
36 Valérie Cools, ‘The Phenomenology of Contemporary Mainstream Manga’, *Image & Narrative* 12, no. 1 (2011): 80.
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38 Hague, *Comics and the Senses*, 51.
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40 Hague, *Comics and the Senses*, 52.
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42 Lury, Parisi and Terranova, ‘Introduction’, 5.
43 Lury, Parisi and Terranova, ‘Introduction’, 5.

Chapter 6

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LATIN AMERICA IS EXPERIENCING A BOOM IN GRAPHIC NOVELS that are highly innovative in their conceptual play and their reworking of the medium. Inventive artwork and sophisticated scripts have combined to satisfy the demand of a growing readership, both at home and abroad. *Posthumanism and the Graphic Novel in Latin America,* which is the first book-length study of the topic, argues that the graphic novel is emerging in Latin America as a uniquely powerful force to explore the nature of twenty-first century subjectivity. The authors place particular emphasis on the ways in which humans are bound to their non-human environment, and these ideas are productively drawn out in relation to posthuman thought and experience. The book draws together a range of recent graphic novels from Argentina, Brazil, Chile, Mexico and Uruguay, many of which experiment with questions of transmediality, the representation of urban space, modes of perception and cognition, and a new form of ethics for a posthuman world.

EDWARD KING is Lecturer in Portuguese at the University of Bristol and the author of *Science Fiction and Digital Technologies in Argentine and Brazilian Culture* (2013) and *Virtual Orientalism in Brazilian Culture* (2015).

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