The Garden of Entangled Paths

Landscape phenomena at the Albany Bulb wasteland

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Over several decades, urban wastelands arose as a topic of substantial interest to the spatial design fields. This focus is partially a consequence of increased supply, as globalised manufacturing led to the proliferation of de-industrialised and de-urbanised sites in developed economies. From an environmental viewpoint, the 'closure' of the global map (Bann, 1983) and shifting perceptions of nature attributed wildness value to sites formerly disregarded as badlands (Rink and Herbst, 2012). The appeal of wastelands also reflects the recognition that many of the sanctioned public realms in suburbanised cities make inadequate contributions to city life (Sennett, 1993, 1996). In this context, unsanctioned examples of successfully appropriated wastelands appear to suggest alternative conceptions for re-engaging with public space.

Kevin Lynch (1990) defines wastelands as sites that retain innate potentiality but are 'presumed valueless' and 'held unused without accounted cost' (p 172). Similar to Martin Heidegger's (1977) concept of 'standing reserve', the words *unused* and *potential* in Lynch's definition capture the divergence between the present and the future in urban wastelands. This illuminates the transience of wastelands, which inhabit what JB Jackson (1980) describes as an 'interval of neglect' (p 102). While the duration of this interval is

Figure 1: Gravel path between overgrown railway tracks, Nature Park Schöneberger Südgelände, Berlin-Tempelhof, Germany, 2014. (Photo: Author)

contingent on the complex interaction of many factors, the potentiality of wastelands is most acutely vulnerable to being extinguished by redevelopment. For this reason, Peter Connolly (1996) argues that a potent role for design is to assist in 'neutralizing threats' to a wasteland's existence.

In his discussion of *terrain vague*, Ignasi de Solà-Morales Rubió (1995) provides clues as to how design may best fulfil this neutralising role without freezing wastelands in time or acting as an instrument of control. Morales (1996) calls for a new conception of 'landscaping' to perpetuate wastelands as free open spaces 'filled with alternative, individual non-structured activities, and connections' (p 14). While Morales does not elaborate on mechanisms for achieving this, the concept of 'weak design' suggests tactical approaches that seek to remain sensitive to the subtle material and cultural nuances of wastelands (see de Certeau, 1984). Nature Park Schöneberger Südgelände in Berlin by Planland/ÖkoCon is an example of weak design. Towards the objective of maintaining the overgrown character of a derelict railway switchyard, the park magnifies existing elements and experiences that convey novel interactions with residual infrastructure (figure 1).

Although Südgelände is a distinguished example of weak design, the spatial design fields are more likely to contribute to the demise of the potential of wastelands. As the prototypical project for repurposed post-industrial wastelands, Landscape Park Duisburg-Nord in Germany's Ruhrgebiet exhibits elements of both weak and strong design. The design by Latz and Partner retains, adapts, cuts and grafts the infrastructure of a decommissioned steel mill to facilitate novel circulations, activities and gardens. Although the park is compelling as a romantic ruin, the degree of control implicit in the compartmentalised programmes and robust boundary wall institutionalise the original wasteland qualities that the designers sought to retain. The High Line promenade in Manhattan by Field Operations takes this process a step further. Reverence for the wasteland qualities of the derelict elevated railway motivated efforts to save it from demolition: the constructed design seeks to retain the existing waste-scape character. Yet those efforts unwittingly contributed to the eradication of that waste-scape because, in facilitating the circulation and programming expected of an urban space, the designers had to eliminate the time-layered vegetal patina. Substituting an urban wildness with its simulation, the result expunges the melancholic nuances of the existing state (see Bowring, 2009).

The fraught relationship between design and wastelands results from the core mandate of design to create the utility that distinguishes it from artistry (see Vartan, 2013). Moreover, an underperforming site is vulnerable to general social sensitivity about decline and narrow economic definitions of appropriate use (Birrell, 1990). For this reason, designers have tended to focus on existing and potential uses for wastelands and to introduce the apparatus required to support those programmes (Kullmann, 2015). Consequently, the landscape phenomena inherent in wasteland sites have generally been secondary to programmatic concerns. Most often, landscape characteristics are consumed superficially through the romanticised depictions of overgrown decay that are now pervasive in design discourse (see Herron, 2012). The picturesque aesthetic framework that underpins these representations has been extensively critiqued for cultivating associations between vision and power (Evans, 1995; Sennett, 1993) and perpetuating passive and scenographic conceptions of landscape (Corner, 1999; Czerniak, 1998, 2001; Herrington, 2006).

Research objectives: reading the ground

This paper redresses the tendency in design discourse to engage with wastelands programmatically and pictorially, while overlooking the contribution that the corporeal landscape makes to a visitor's experience. This objective is achieved through undertaking a phenomenological[1] interpretation of landscape characteristics at the Albany Bulb wasteland site, located in the San Francisco Bay Area, United States of America.

Most discussion of the Albany Bulb has been directed towards the culture and politics of otherness, the ethnography of the occupiers' stories and, in particular, veneration of the numerous artworks and other structures on the site (see Moffat, 2015). While important, the object-bias of focusing primarily on cultural artefacts and individual narratives overlooks features of the underlying landscape that are equally significant to the emergence and current experience of the Bulb. This paper argues that the popularity of the Albany Bulb as an exotic destination is substantially contingent on the disorienting aspects of these specific landscape-based phenomena. The objective in expressing these phenomena is twofold: (1) to decode a deeper understanding of the general appeal of the Albany Bulb in its present undesigned state; and (2) to consider the transferability of these features from the Bulb to other sites situated in differing contexts using the agency of design.

Case study site: cultivating the Albany Bulb

Many islands and peninsulas in San Francisco Bay were originally distant landmasses drawn in from across the ocean on the subducting Pacific Plate (see McPhee, 1993). Consequently, Alcatraz, Angel Island, Tiburon, Marin Headlands, and landlocked Albany Hill all exhibit discordant foreign geological profiles (figure 2). Within this context, the 30-hectare Albany Bulb is distinctive. As a former landfill site, the Bulb does not fit with the tectonic and hydrological processes that shaped the rest of the Bay. However, the Bulb is also localised in the sense that it is the accumulation of construction and garden detritus from the East Bay. The resultant undifferentiated subsurface has barely begun the process of leaching, sifting, and sorting that will eventually stratify it over a geological timeframe. While this characteristic is common to newly formed ground, the Albany Bulb has a finer grain than most reclaimed sites because of the relatively small and haphazardly located units of deposition. As a

Figure 2: Albany Bulb in the context of San Francisco Bay. (Image: Author's own)

consequence, typical subsurface profiles are a complex patchwork of garden waste, rock, brick, concrete, asphalt, rebar, wire, metal, plastic, timber, rubber, clay, and slag (CRWQCB, 1982).

Although amassed in small increments, the overall outline of the Bulb was guided by a 1970s city master plan for an archipelago comprising numerous artificial islets (Rimov, 1969). Of this vision, only a single formation was created, which remained connected to the eastern shore of San Francisco Bay (figure 3). While technically a peninsula, the heavily bulbous form distinguishes the Albany Bulb from more orthodox peninsulas that tend to narrow towards the outermost point. In such instances, peninsulas typically exhibit declining biodiversity along their length, as the long, narrow form progressively limits the interconnectivity of ecological networks (Forman, 1995, p 108). The peninsula-effect is reversed at the Albany Bulb, as general diversity increases with distance from the main shoreline. In this regard, the morphology of the narrow neck operates more as a transitional link, with the main Bulb functioning culturally and naturally like an island. For this reason, the German term for peninsula – *halbinsel* (half-island) – is a more fitting description.

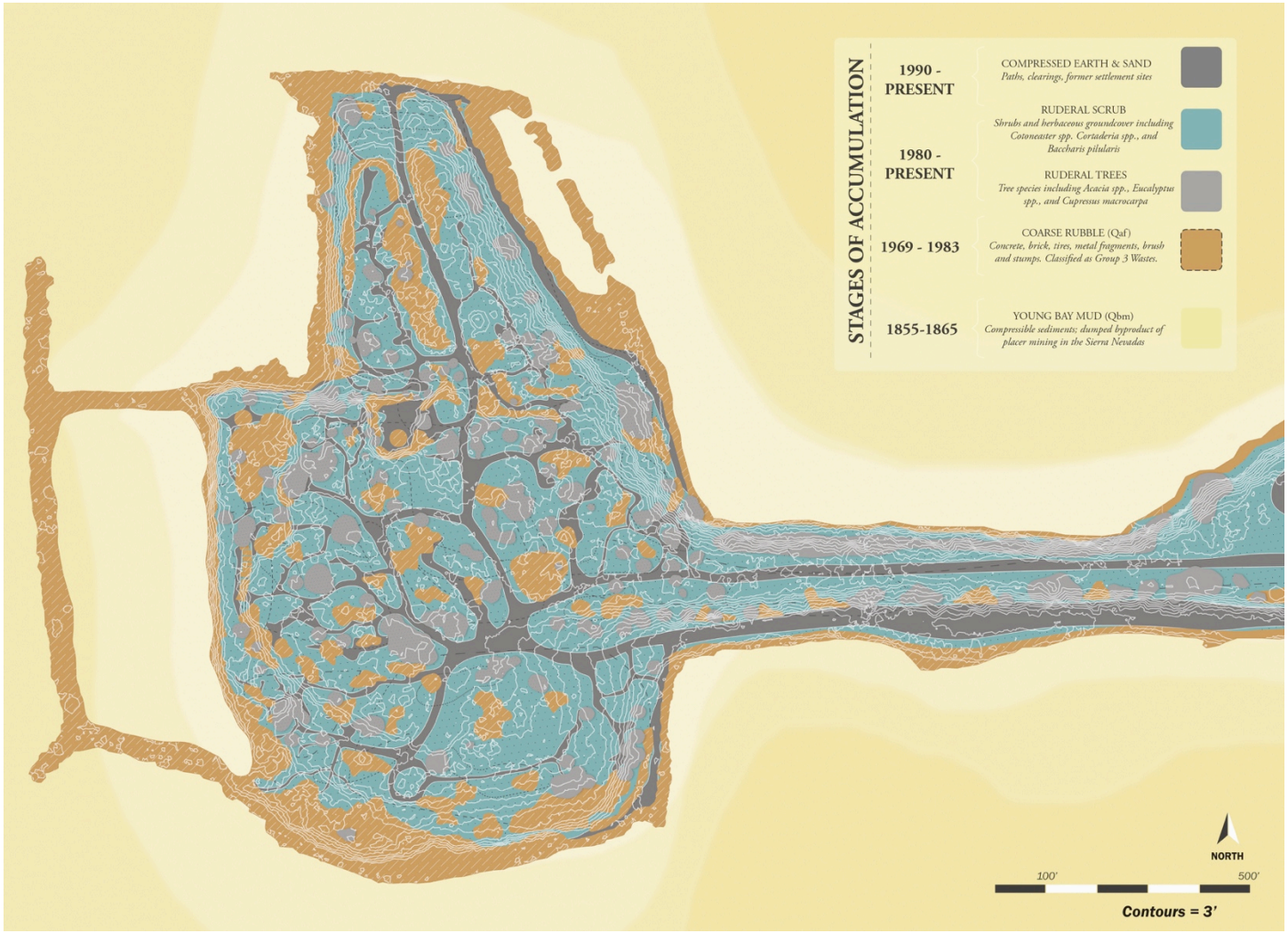

Figure 3: Landscape accumulation map of the Albany Bulb. (Image: Lauren Bergenholtz. Reproduced with permission)

Influenced by both the half-island morphology and the intricacy of the underlying fill, the history of the Albany Bulb since the 1980s is ecologically and culturally complex. In 1984, following 25 years of Bay-filling, these activities ended, enforced by a court decision that reflected a shift in community opinion. At that time, the Bulb was left as an incomplete industrial earthwork. From this point of maximum ground making and shaping, the site succumbed to environmental degradation related to its toxic substratum. Methane venting caused the ground to burn in numerous locations, while erosion exposed concrete, rebar, and other slow-degrading construction materials from just beneath the surface. Uneven subsidence further deformed the Bulb from a smoothly graded landform to an uneven topography riddled with holes.

Figure 4: The castle ruins at the western edge of the Albany Bulb, with San Francisco, the Golden Gate and Marin Headlands visible across San Francisco Bay, 2013. (Photo: Author's own.)

Despite this contamination, flora and fauna gradually colonised the site. The urban garden waste that had since been re-exposed carried biotic stowaways in the form of seeds and bulbs of both exotic and endemic flora. Over time, this seedbank evolved into a haphazard weed ecology comprising both familiar garden plants and wild species. Nurtured by the mild foggy microclimate, heath of acacia, fennel and broom formed the canvas for stands of date palms and Eucalyptus, interspersed with blackberry thickets, and occasional plum trees and grapevines (author's survey, 2013). By the early 1990s the process of ecological succession achieved a vegetal height and density sufficient to protect humans from the elements and, importantly, from view (Google Earth history, July 1993).

Concurrently, human colonisation of the Bulb gathered pace as itinerant people built progressively more elaborate and firmly embedded camps. The isolated offshore location and transitional nature of the narrow neck that leads out to the main Bulb particularly appealed to those who saw their place as lying outside of normative society.

By the mid 1990s, inhabitation had rapidly grown to a dispersed community of approximately 50 campsites hidden among the heath and interconnected by a web of narrow paths that became second nature to the locals who trod them but remained disorienting to outsiders. A barter economy was established, as was a small free-to-all library. A home-grown art scene flourished, with numerous sculptures created from the flotsam and jetsam that littered the area. Two Bulb residents fabricated an unpermitted waterfront castle that faced-off

against the mainstream world of San Francisco across the Bay (figure 4). Another resident constructed an unseaworthy vessel that was shipwrecked on the shore before it could be launched (McCabe and Rozen, 2003).

In 1999, following municipal concerns about illegal construction, lack of sanitation, threats to safety, substance abuse and the implicit exclusion of the general public, the entire clandestine encampment was forcibly removed. Emerging from tidelands over a compressed timespan of 40 years, new land was created, naturalised, colonised, cultured (insofar as it supported the emergence of a place-specific society) and vacated. In the time since the enforced decampment, the Albany Bulb has endured as a noble ruin of its 10-year history as a heterotopia,[2] with residuals such as abandoned structures, deteriorating artworks and complex path networks (figure 5). This untamed circumstance of slow decline resulted from a combination of reticent legal custodianship due to unsafe conditions on the Bulb, the deadlocked ambitions of opposing vested interest groups, and community activism to save the Bulb from being rationalised into open sports fields, parking lots and boat-launching facilities.

The evolution of the Albany Bulb contrasts with the transition of the neighbouring Berkeley landfill site to a park. Roughly synchronous to the Albany landfill, the Berkeley landfill also accommodated some homeless camping, scrap-sculptural installations, and a nascent non-profit revegetation initiative. Nonetheless, the ground conditions of the two fill sites differ substantively; whereas the Albany landfill contains construction and garden waste, the Berkeley landfill primarily comprises household refuse. For this reason, the Berkeley landfill was sealed with a clay cap in 1991. Over this tabula rasa, a master plan directed grass seeding, an informal circulation system and some residual thickets in deference to the initial revegetation

Figure 5: Sculpture made from found objects situated in the north-western area of the Albany Bulb, 2012. (Photo: Author's own.)

efforts. While the open space that resulted (later named César Chávez Park) shares a similar sensation of topographic expansiveness with Richard Haag's design for Gasworks Park in Seattle, the act of capping severed the 'interval of neglect' that characterises the evolution of the Albany Bulb.

Since its inclusion in the state park system in 2005, the Albany Bulb has loosely functioned as an undesigned public space suited to passive recreation. In this capacity, the Bulb has become popular among residents of the adjacent East Bay cities, both in terms of its existence value in the psyches of those who rarely use it but cherish its presence, and as a hidden world for discovery and retreat by those who do make the journey. This allure can be partially explained by the Bulb's role as an adventure island that indulges the exploration fantasies of all age groups. Moreover, the existence of wildness in an urban context – even when founded on artificial or toxic foundations – has romantic appeal to many urban-dwellers who may at times feel constrained by the routines and regulations of the city (see Berleant, 1998).

Interpretation: three phenomena

While residual structures and decaying scrap-sculptures represent the tangible face of the Albany Bulb, more nuanced landscape phenomena[3] ground both the Bulb's heterotopic past and its present explorative allure. Here, these phenomena are distilled into three fundamental motifs and explored following the phenomenological approach that David Seamon (2000) defines as *radical empiricism*. This approach seeks to comprehend the fullness and complexity of a phenomenon through grounded, direct, first-hand involvement and experience. The change in perception this method facilitates potentially liberates the landscape from reductive predetermination into familiar types (see Spiegelberg, 1982). I undertook the first-hand experience mandated by this approach over the six years from 2008 to 2013 (inclusive), and corroborate it across other media, comprising aerial imagery, photography, and literature.

Phenomenon 1: entangled paths

The Albany Bulb consists of three circulation systems: (1) a gravel road along the neck and around the plateau area of the main Bulb; (2) an intermittent path around segments of the shoreline; and (3) an intricate web of narrow desire-line paths in the interior. This section focuses on the web of narrow paths that constitute the most distinctive feature of the Bulb's circulation. The characteristics inherent in this complex network are explored in contrast to an enduring legibility model and the circuit that is the common system in many orthodox urban parks and gardens.

Paths are integral to the consumption, production, and representation of space. From an ecological perspective, paths enable physical matter and genetic material to move efficiently, while concurrently protecting the surrounding environment from the random movements of fauna (Forman, 1995). Even in the absence of clear physical routes, both animals and people have been demonstrated to construct and follow cognitive paths that comprise complex interactions of vision, proprioception, and memory. In an urban context, paths enable a city to be legible and orienting. As originally articulated by Lynch (1960, p 96), these 'habitual or potential lines of movement' are the most potent mechanism for ordering the whole city. Lynch concludes that paths should have specific qualities, including topographic gradients and signage that discern one direction from the other, clear destinations, a visual hierarchy of scaling, incremental markings to indicate position, and physical or visual connection to surrounding elements and landmarks. Moreover, to avoid disorientation, the geometry of paths should ideally be straight, or contain a few 90-degree turns so that path users keep a general sense of orientation. For Lynch, these design criteria should collectively illuminate the overall cognitive image of a given circulation structure.

While Lynch's six-decade-old, but still widely influential, path-based legibility model specifically addresses the meta-structure of cities, it has come to be equally applicable to the internal structures of public spaces. Driven by expectations of economic accountability and programmatic activation, parks and gardens increasingly mirror their urban contexts as settings for activities and events (Kullmann, 2015). Consequently, the design layouts of contemporary urban parks, gardens and plazas typically follow a scaled-down urban legibility template. Places that fail to conform risk being relegated to the sideshow spectacle of the maze or marginalised as poorly conceived *angstraum*.[4]

The dense entanglement of minor paths in the interior of the Albany Bulb does not follow the legibility template, while also avoiding the more humorous or negative connotations of mazes and marginalised spaces. Originally forged through the thick vegetation by the Bulb's first fossicking colonisers, the path-trails solidified as others followed (figure 6). Consequently, the trails are literal embodiments of the act of exploration, inscribed without the clarity and foresight of planned design. In contrast to Lynch's path legibility rubric, the paths that result have no hierarchy, are riddled with complex changes of direction, are not tied to a progressional logic of landmarks or vistas, are often bereft of significant destinations and frequently either fade

out or bounce back from impassable landforms. Moreover, the open-ended explorative trails of the Bulb do not fulfil Lynch's (1960) assertion that the image that paths create 'must be good enough to get home' (p 9). A path that takes a person home assumes an extant domicile to which to return; it omits those who are searching for a new home, as many of the path-makers at the Albany Bulb were doing.

Paths that return home create circuits. Robert Harbison's (1977) observation that the circuitous path 'gratifies homing rather than adventuring instincts' (p 18) is historically illustrated at Stourhead, England, where the inner circuit around the lake choreographs views and revelations before rhetorically returning the walker safely home. The circuit also endures as a feature in many contemporary parks. Here, the circuit has the advantages of being finite and readily quantifiable, as well as automatically delivering the walker back to their point of origin without requiring them to make any of the cognitive decisions about when to turn around, as they must typically do on non-circular paths. In theory, the walker can suspend their faculties of orientation and proprioception and hand their physical journey over to the path, which in turn frees up cognitive space for thinking or daydreaming.

The disadvantage of the circuit path is that in general it is not truly explorative. Circuits encapsulate finite worlds, whereas open-ended paths extend the walker into potentially unknown territories. The unknown route can occur even in a contained area, as exemplified by the entanglement of paths at the Albany Bulb that weave and fold in a complex way over each other to create the impression of unlimited permutations. Unlike a circuit path, a walker on an open-ended path must continually reaffirm to themselves how far they are prepared to venture before turning back. At the Bulb, this point of cognitive

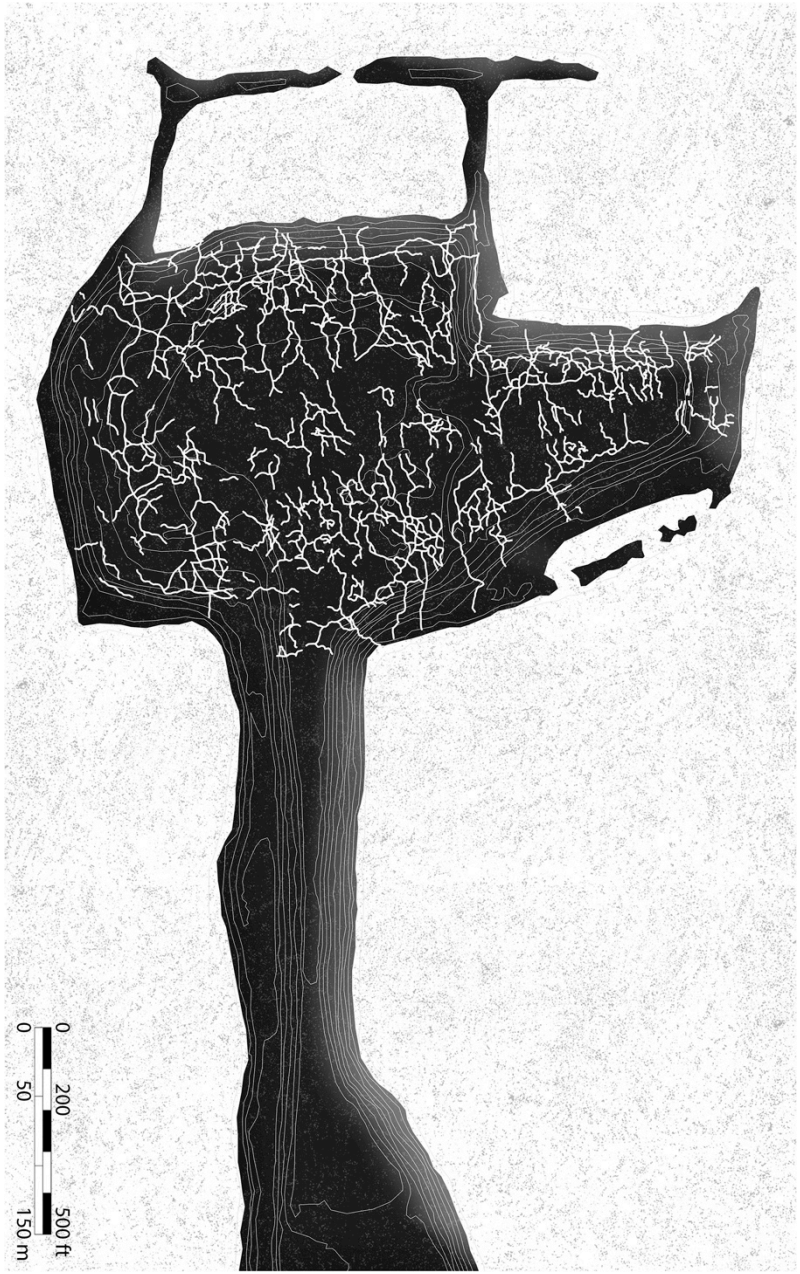

Figure 6: Map of the Albany Bulb showing the network of narrow trail-paths. (Fieldwork and cartography: Author's own.)

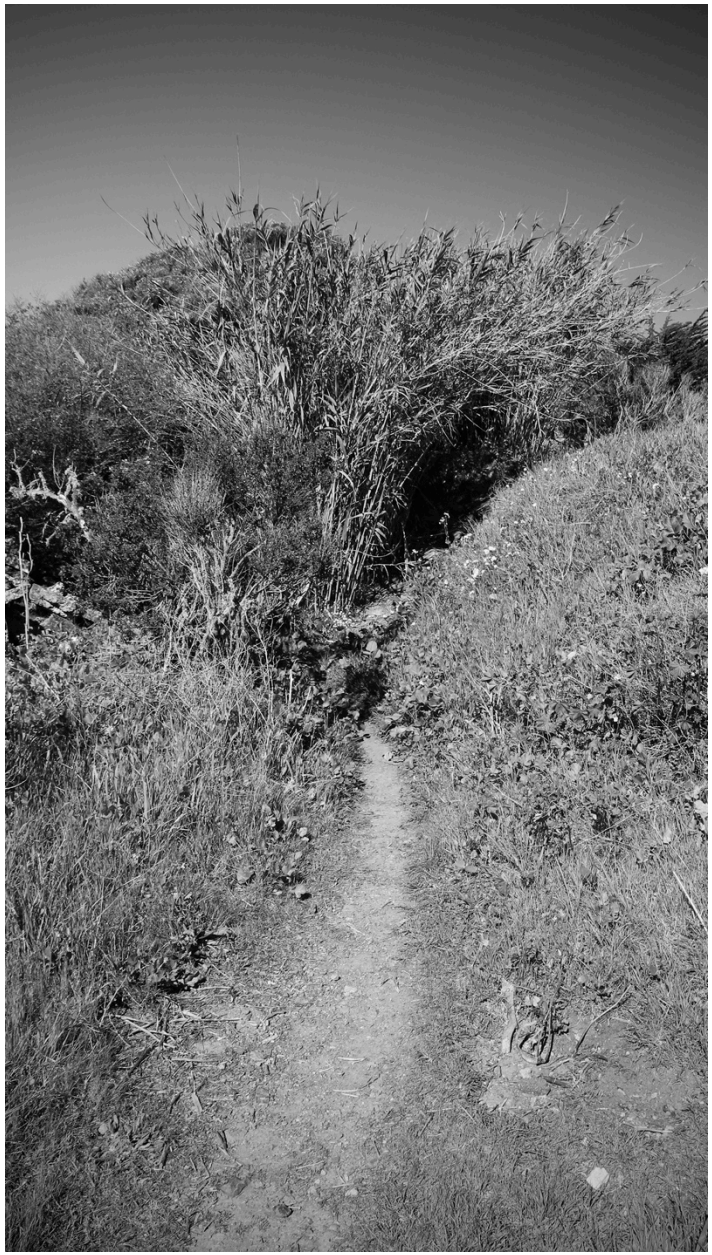

Figure 7: Trail diminishing in width situated in the western area of the Albany Bulb, 2013. (Photo: Author's own.)

inflection is tangibly rendered in the landscape; *diminishing paths* are created when more people start a journey down a path than those who complete it (figure 7). As vegetation encroaches and the way narrows, more and more walkers harbour doubts and decide to turn back, effectively compounding the narrowness in a feedback loop. A path's mandate is to lead somewhere, and so for a walker to decide that a path goes nowhere and to retreat is to undermine its fundamental purpose. This situation generally invokes unease, because in our spatial cognition we are beholden to the authority of the path – and the signage that often accompanies it – and prefer to hand over responsibility to that authority.

Conversely, overcoming negative risk/reward assessments and continuing along a diminishing path in the face of these doubts can lead to unanticipated revelations. The Albany Bulb path network is full of such instances, whereby the narrowing of a path may be interpreted as a filter that edits out those who are not yet ready to make a particular discovery. Those who are ready – perhaps on the second or third visit – are often privy to significant disclosures that include discovering the concrete castle, the tent library, or a ragged precipice. Conversely, many similar paths are just as likely to lead to rubbish piles, bush toilets or dead ends as they are to find revelatory vistas. The navigational outcomes are therefore unpredictably variable and contrast with the automation of the circuit path. When compounded with the difficult terrain and obfuscated lines-of-sight that challenge bodily alignment, the conditions for detached mind-from-body thinking that are associated with the level loop path are absent. Rather, as the artists Arakawa and Madeline Gins (1979, 1997) explore extensively, the experience of movement in the physical world becomes integral to the walker's thought-path.

This concept of integration between thinking and physical environment (as opposed to Modern mind–body dualism) is a two-way experience; that is, the symbiotic thought-path relationship is shaped not only by the topography of the path but also by the trajectories of cognition. In this regard, Jacques Derrida (1986) suggests that the language of thought can also be compared to the pioneering 'clearing of a path' (p 195). Moreover, because language shifts, the path moves

too (contradicting Zeno's paradox of the immobility of a path). Like the people, thoughts and language that move along them, the paths at the Bulb may also be interpreted as being constantly on the move. The paths are physically mobile, in the sense that they are constantly deformed by the interaction between human bodies, ground and vegetation—and also semantically mobile in deference to the feedback loop between thoughts and actions.

Phenomenon 2: deformed ground

Topographically, the Albany Bulb exhibits three primary landscapes: (1) the narrow-elevated neck that provides access between the main Bulb and the mainland; (2) the shoreline comprising intertidal concrete rip-rap backed by low cliffs; and (3) the interior plateau comprising undulating terrain with occasional outcroppings of concrete and rebar. This section focuses on the interior plateau, where deformity is explored for its capacity to test orientation and cultivate useful wear in the landscape.

Over the four decades since landfilling activity ended, uneven subsidence has deformed the plateau from a smoothly graded surface to an amorphous topography riddled with depressions. The porous nature of the uncompacted substratum supported this deformation, permitting rainfall to percolate directly down without running off and merging with the rivulets and streams that are typical of the Bay Area. In these more common landscapes, the converging structure of waterlines imbues the terrain with innate legibility and orientation, so that through its linearity and flow a river acts as a natural 'catching' feature when approached from side-on, and as navigational thread when followed alongside. From a navigational point of view, tracking a linear waterway is similar to following a clear path in that it is simple to establish and maintain direction. Just as the circuit path 'gratifies homing instincts' and allows a walker to cognitively switch off and take leave of their senses, a dendritic water system gratifies convergence and resolution by taking multiple start points in the headwaters and concluding with a single, authoritative river. This concept has practical application in wilderness areas where standard survival training instructs lost walkers to follow water downhill to maximise their chances of finding a settlement (see Alloway, 2000).

In landscapes with structures that are not formed by water, orientation and wayfinding are more complicated. The absorbent substrata associated with limestone, sand, volcanic and landfill terrain tend to create complex surface topographies that are difficult to comprehend and follow. This condition is demonstrated on the main plateau of the Bulb, where the deformed topography of knolls and depressions presents a particular challenge to navigation. Here, a walk downhill will terminate prematurely in a hollow landform from which all exits are counter-intuitively back uphill. The hollow, concaved landforms manipulate a walker's sense of space by substituting the distant real horizon with a nearer artificial horizon that is constituted by the edge between the rim of the hollow and the sky (see Gibson, 1986). This creates a more internalising world that heightens the sense of the sky when visible, but also accentuates the nearness of details in the immediate context.

While engrossed in the physicality of negotiating the uneven ground and mentally mapping the complex topography of the Bulb, a person is predisposed towards losing track of their location within the larger context. When a walker pauses to look up from their preoccupation with the complex features of the ground, they are likely to discover a disjunction between their assumed progress and actual spatial location. This gap that they experience before re-orientating to landmarks within the larger landscape, as Arakawa and Gins (1996) describe it, is a state of being 'more body and less person' (p 34). Being 'more body' refers to the heightened state of the non-visual senses – touch, in particular. In the rough environment that results from deformed ground, touch is oriented downwards towards physical surfaces, which in turn transfer resistance back to the sensing body. For Richard Sennett (1998, p 19), this friction between the body and materiality of rough terrain fosters creative expression. Following Sennett, roughness may therefore be interpreted as underpinning the

voracious degree of creativity that has occurred at the Albany Bulb in the form of artworks, sculptures, constructions, poetry, and stories.

A caveat, however, is associated with touch, in that physical contact does impact on the environment onto which it is directed. Accordingly, in the management of wilderness areas, direct touch has generally been devalued as a negative consequence of careless tourism. In the place of touch, looking has typically been considered a more unobtrusive sense for interacting with an environment, even though vision has been extensively associated with impassiveness, distancing, and asymmetric power (see Evans, 1995; Foucault, 1979). While the practical and ecological rationale for limiting physical interaction and encouraging distanced looking in highly visited wilderness reserves is well established, the Albany Bulb is fundamentally different; with landfill underpinnings, the Bulb does not have a 'pure' or 'natural' state to actively preserve or restore.

Freed of this negative association, the effects of touch can be interpreted as having positive impacts in the sense that wear and deformation of the landscape shape culturally useful spaces over time. For example, at the Bulb the process of wear holds back the heath thicket and makes meeting spaces legible. Wear also deforms the ground under the pressure of human feet, eroding paths down into the ground through use to reconfirm their route over time. On paths that encounter slopes, the pressure of toes pushed into steep ground creates footholds (Templer, 1992). In several places at the Bulb, this process of wear has over time evolved into useful steps, unconsciously creating what Guy Rothery (1912) termed 'modified land stairs' (figure 8).

Figure 8: Steps worn into a hillside by feet on the north-eastern edge of the Albany Bulb, 2012. (Photo: Author's own.)

Phenomenon 3: urban thicket

In contrast to typical public spaces that are cleared and open, the Albany Bulb is distinctive for the dense heath vegetation that covers the interior of the site (figure 9). Much of the thicket is interspersed with clearings originally created for campsites and other cultural uses and is incised by the network of very narrow trail-paths described in relation to the first phenomenon. This section discusses the

disorienting nature of thickets and explores mechanisms for moving and navigating through them.

As inherited from medieval traditions, the closed, dark, repetitive space of the thicket is synonymous with the deviation of becoming lost. In contrast to the clear sightlines and visual landmarks of the open landscape, the vegetal entanglements of the thicket fragment views and confuse potential routes. Gaston Bachelard (1964) observes the sense of immensity that results, noting that even though this bodily impression often openly contradicts geographical reality, it does not take long 'to experience the always rather anxious impression of going deeper and deeper into a limitless world' (p 185). Yi-Fu Tuan (1977) concurs that even if small, the thicket gives the appearance of being limitless to the person who is lost within it. The heath-thicket of the Albany Bulb follows this impression of Cartesian space-defying expansiveness. Covering seven hectares, the thicket zone is roughly equivalent in area to Dolores Park in nearby San Francisco. However, when immersed on the ground, the thicket appears far larger than the visibly open and defined expanse of Dolores Park.

Tuan questions the nature of what it means to be lost and feel completely disoriented in a dense and apparently limitless thicket. Although space is still organised in relation to the body so that regions remain to the left, right, front, and back, these bodily orientations appear arbitrary without external points of reference as an anchor. From this state, it takes only the faintest of recognisable landmarks to set the orienting faculties back in motion, which Tuan (1977) illustrates

Figure 9: Immersive thicket in the inland area of the Albany Bulb, 2013. (Photo: Author's own.)

as 'a flickering light appear[ing] behind a distant clump of trees' (p 36). At the Bulb, Tuan's forest campfire motif is substituted with occasional clearings within the thicket and glimpses of landmarks, San Francisco Bay and the Berkeley Hills. With the partial orientation that is then temporarily established, a walker may continue to be lost in the sense that they do not know exactly where they are, but spatial-bodily relations such as left and right resume their meaning.

That the walker re-establishes temporary orientations on seeing a flickering light or fragmentary distant view implies a self-referential and vector-based form of navigation that is contingent on distant goals. However, conceiving of navigation in this Kantian (1929) manner – in which the world is oriented and comprehended in relation to the sides of the body – perpetuates the conception of the space in between the walker and their goal as inert and without qualities or differences. Rather, following Heidegger (1962), the body-based axial directions are not projected onto a neutral and directionless Cartesian space. Instead, the environment is innately conferred with qualitative clues to orientation that operate in communication with the body's

referenced sense of direction. The resultant orientation emerges from an amalgamation of the body and the finely textured features of its proximate landscape. For Gilles Deleuze and Felix Guattari (1987), this body-based and landscape-oriented relationship is manifest most acutely in motion so that a walker negotiates the apparent limitlessness of immersive space through the continual discovery and rediscovery of an appropriate direction. This tactical and immediate form of navigation orients the walker in many little ways within a general disorientation.

When a walker is immersed in a thicket with everything close at hand, space loses its visual construction. Under these circumstances, the eye assumes a more tactile role to cope with the constant variation of landmarks and linkages (Deleuze and Guattari, 1987). Close vision becomes body-based in the sense that when judging distances and textures, its purpose is not to visually control or indulge a scene, but to guide the immediacies of movement. In this regard, the eye becomes more *responsive* to its environment and less *predictive* in the manner of distant vision that gives advance warning as future events enter a person's event-horizon. This responsiveness is a key experiential feature of the Bulb; when moving around the thicket using close vision to tune in to the texture of the immediate landscape, a walker is likely to be more present in the here-and-now, and less likely to be preoccupied with calculating future strategies or reviewing past decisions. To move about in this reactive and temporally untethered manner is potentially a cathartic experience for the individual walker.

Discussion: the designer as gardener

The three landscape phenomena of entangled paths, deformed ground and urban thickets underpin the distinctive experiences of the Albany Bulb. While these phenomena emerged from the convergence of unique biophysical site conditions, they also result from complex interactions with cultural factors. The most instrumental of these is the lack of a master plan[5] to direct the evolution of the Bulb over the 25 years since filling activity ended. In the absence of an overarching vision (such as the one applied to the neighbouring Berkeley landfill), humans have interacted tactically and immersively with the phenomena of the Bulb. This organic process leaves the Bulb as an incomplete and open-ended project, which in many respects resembles the ongoing process of cultivating a garden (see Johnsen, 2004).

To be sure, an ultimate vision is typical of most gardens, whether premeditated on paper as for the great Baroque gardens or subconsciously conceptualised in the mind's eye of a homemaker working on their residential garden. However, even where a master plan does exist, gardens tend to thwart it. They do so, first, because of the ambiguity between unconscious 'nature' and its garden-based representation, whereby the garden is the product of creative embellishment and yet is diluted by its construction out of the very same materiality as the world at large (Girot, 1999; Hunt, 2002). Moreover, garden master plans are undermined by the assumptive role of conscious human intervention and control, with the expectation that a garden will be the end result of human work, even though the forces of growth continuously undo that work (St-Denis, 2007). As Harbison (1977) notes, a gardener 'takes what is there and begins to bend it to his will, but it is always getting beyond him' (p 4). Harbison implies that gardens can never truly fulfil a creative master vision 'because they are literal worlds in which artifice strains against senseless growth' (ibid).

In contrast to Harbison's interpretation of gardens as thwarting creative vision, another view is that the evasive verdancy of gardens is the essence or source of creativity. As the poet Edward Young (1759) wrote in the eighteenth century, 'an original may be said to be of a vegetable nature, it rises spontaneously from the vital route of genius; it grows, is not made' (p 7). At the Bulb, the cultural agents who interact with Young's vital genius are effectively gardeners who propagate, select, shape, trim and beat down the thicket, and excavate, collect, and rearrange the stony surface. Like a homeowner, each agent works to a vision that, even if unconscious, overlaps with

other visions to form a multi-authored patchwork master plan of ambitions, achievements, distractions and disappointments.

The emergent nature of this creative placemaking at the Bulb obscures clean distinctions between the creativity of the original residents and the visitors that followed. Merging this creator–user binary into a unified *gardener* role leaves the Bulb open to more active participation in generating many possible readings, and indeed opens up the possibility of visitors physically modifying the place themselves. Fitting within the terms of Umberto Eco's (1989) 'open work', such a relationship compels the observer–participant to choose their own 'points of view, connections, directions, and other possible forms that coexist' (pp 85–86). Open works are exemplified in those complex forms that undergo a continual metamorphosis from different angles. Although Eco refers to in-the-round sculpture, the immersive landscape phenomena that characterise the Bulb (entangled paths, deformed topography and dense thickets) also facilitate open metamorphosis.

External threats

While engrossed as gardeners, creator–users are less able to address the external forces that are certain to periodically intrude on the Bulb and other urban wastelands. The agency of design has a role in mediating and neutralising these existential threats (see Connolly, 1996). To achieve this without smothering a wasteland's openness by imposing systems of control, designers may also partially emulate the activities of gardeners. The designer as gardener can operate strategically within the wasteland, cultivating, amplifying, facilitating, grafting and obscuring existing features and phenomena. Simultaneously, the designer–gardener is capable of subverting planning conventions by creating a *perforated* master plan. Under this guise, the master plan appears to fulfil its obligation to order and 'complete' a site, but in actuality remains a loose scaffolding riven with holes for other gardeners to fill in as they go.

Both gardens and wastelands are heavily influenced by their edges, where maximum exchange and leakage occur in the urban setting (see Forman, 1995). Therefore, the vulnerable interface between the wasteland and its context represents a potent zone through which a designer–gardener may work to neutralise external threats. Although few sites are actual half-islands like the Albany Bulb, many urban wastelands effectively function as islands because of boundary conditions that insulate their interiors. For example, at an abandoned post-industrial site, the boundary may take the form of a partially derelict fence punctuated by breaches that facilitate covert access for inquisitive urban explorers.

Nevertheless, reinforcing the fragile perimeter conditions of a wasteland need not include imposing or repairing a physical barrier. To do so risks sealing a site off from openness and imposing controlled entry points. Instead, the designer–gardener can draw on the legacy of garden framing. Despite the etymological link between gardens and physical enclosure (Hunt, 2000; St-Denis, 2007), the frame is intrinsically more a layered threshold than an absolute barrier that segregates a quiet garden from noisy city life or that divides cultural representation from natural wildness. At its most effective, the frame is a semi-permeable membrane that filters the transition of energy and information, which in addition to physical access includes visual connectivity, sound, ecologies, and subcultures. By ensuring a semi-permeable edge, the designer can firmly delineate a wasteland from its urban context without completely incarcerating and suffocating the site.

Transferability and fabrication

The designer–gardener approach suggests a method for cultivating and delineating other urban wastelands. Although unlikely to replicate the distinctive qualities of the Bulb, other sites probably will contain alternative compositions of endemic landscape phenomena that are ripe for cultivation. Nevertheless, while wastelands are relatively common in post-industrial cities, designers usually work on sites that have been – or will be – cleared of nuanced phenomena in

preparation for, or during the process of, development. Therefore, the greater challenge is whether complex landscape phenomena such as those articulated at the Albany Bulb can be authentically fabricated on sites that exhibit few if any emergent phenomena.

When working in this context, the designer–gardener ideally begins by preparing the ground, from which all other phenomena will emerge. However, in contrast to the haphazard landfilling that shaped the Bulb, ground shaping placed under the purview of the designer becomes susceptible to stylisation to meet social assumptions of what constitutes acceptable landscape appearance. Moreover, the realities of compressed construction schedules and the expectation that new urban public spaces will be immediately and fully functional conflict with the time lag that is fundamental to emergent processes (see Barnett, 2013). OMA and Bruce Mao's winning 'Tree City' proposal for Downsview Park in Toronto illustrates these limitations. The scheme proposed a loose framework of many wandering paths and circular stands of trees, set over an agricultural-scaled enterprise of site grading, soil improvement and annual seeding of progressively more robust flora. Although the framework was suggestive of a compelling process-driven model for urban parks (Kullmann and Weller, 2000, cited in Czerniak, 2001), its vagueness was ultimately negated by orthodox processes of site grading that disintegrated the scheme into a mundane landscape park (see North, 2012).

Tree City falls within a longer legacy of contemporary landscape design, which is to inadvertently invoke the mundane or kitsch when attempting to manufacture complexity and openness. In some instances, however, this process is shown to be successfully

Figure 10: Fabricated complexity at the Site of Reversible Destiny, Yoro, Japan, 2008. (Photo: Author's own.)

accelerated by heavily articulating initial conditions where few or none existed formerly. The Site of Reversible Destiny in the Gifu prefecture of Japan is one such project, exuding sensory roughness and navigational complexity on a formerly grassed area of town parklands (figure 10).[6] In this instance, the artists Arakawa and Gins (1997) exploit the overtures of the project by ambiguously positioning it between the theme park, interactive sculpture, and garden. As a continuation of the artists' explorations into rewiring perceptual assumptions, the deformed topography acts as a kind of training ground for recalibrating visitors' proprioception and orientation. In an inversion of the Albany Bulb's convex half-island morphology, a semi-permeable frame is created around the site by concave topography that constrains outward view without impeding physical passage. While the passage of some time was required for Harbison's 'senseless growth' to take hold and distort the structure of the original construction, this interval was considerably shorter than the Bulb's multi-decade journey. Nonetheless, similarities between the spatial effects created by landscape phenomena at both sites suggest the

possibility of consciously fabricating immersive complexity in blank urban sites.

Conclusion: propagating complexity in public spaces

The Albany Bulb presents a unique set of emergent characteristics that underpin its allure as a place. In addition to the romantic appeal of the narrative associated with its brief heterotopic past, residual structures, artworks, urban wildness and offshore setting, the Bulb exhibits: (1) complex open-ended path networks of diminishing width that support mind–body interaction; (2) deformed ground at both the textual and topographic scales that challenge proprioception and navigation; and (3) dense immersive thickets that cultivate reactive, non-visual orientation. Together these phenomena create an open work that is accessible to interpretation and modification by visitors.

The popularity of the Albany Bulb demonstrates that greater complexity and ambiguity have a role in certain public spaces. To be sure, flat empty spaces such as sports fields and piazzas are well served in many urban situations. However, in many instances, designs optimised for legibility and effortless use perpetuate urban environments that have been criticised as 'flat, droning, and listless' (Carter, 1993, p 91) and 'dull [to the] sense of touch' (Sennett, 1998, p 20). To offset this rarefication of modern cities, Sennett calls for public spaces that initiate 'visceral resistance, commitment and expression' (ibid). Just as Arakawa and Gins' Site of Reversible Destiny may be interpreted as a mind–body training ground, urban spaces of resistance, commitment, and expression act as training grounds for negotiating the accelerating, disorienting and immersive qualities of contemporary urbanism (see Jameson, 1984; Virilio, 1997). While the Bulb's happenchance history of environmental processes and micro-decisions amply fulfils Sennett's challenge, most other potential sites within a city require active design intervention.

To create complex urban spaces, designers must think and act like gardeners. In contrast with the comprehensive transformation associated with the creation of most public spaces, each site grows unique, complex phenomena that are shaped by processes of cultural and vegetal emergence. For this process, the designer–gardener builds up the ground, establishes the scaffolding, delineates a semi-permeable frame, and plants the seeds for growth. Like all gardens, failure is a possible outcome; for every successful Albany Bulb, other public spaces created from emergent wastelands may well be less successful. That is, the heightened risk that is inherent in visiting complex spaces is also reflected in the uncertainty as to whether a partially uncontrolled process will result in a compelling place. Nevertheless, trading off predictability for possibility is precisely what many suburbanised cities require.

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Notes

[1] *Phenomenology* is defined here as the sensory experience of space and materiality, which is constructed from the first-person point of view and assumes an intimate relationship between person and world.

[2] *Heterotopia* is Michel Foucault's (1979) widely adopted term for 'other' spaces that lie outside normative society but continue to interact with and subvert the overriding systems of control.

[3] *Phenomena* are things or experiences as human beings experience them (Seamon, 2000).

[4] *Angstraum* translates from the German as 'worry space' or 'edgy space'.

[5] In landscape and garden design, the *master plan* is the pivotal document for organising a site and directing works over time. These dual spatial and temporal components distinguish the master plan from the architectural *site plan*.

[6] The Site of Reversible Destiny is located at 35°16'55"N, 136°33'1"E and can be circumnavigated with Google Street View.

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