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De/framed Visions

Reading two collections of gardens at the Xi'an International Horticultural Exposition

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Introduction: the transient garden

In landscape, we form meaning through placefulness; “‘place’ places man in that dimension which reveals the revealing meaning of being’.¹ Gardens imply a more accelerated and amplified rendition of this process, while the gardens that we personally *make* and *dwell* in further magnify this condition. The garden is in effect the most permanent communion we can make with a piece of the world, whether that patch is on traditional earth or elevated in an artificially constructed environment. Those who have been faced with moving from somewhere they have resided for a long time may confer that vacating the house is one issue, but leaving the associated garden is an altogether more fraught separation. The most fundamental biological fact that plants are rooted and sedentary—while we are not—is laid bare during this process.

Accordingly, John Brinkerhoff Jackson defines the landscape of place as ‘a space on the surface of the earth ... *with a degree of permanence*’.² Nonetheless, we are also remarkably adept and manufacturing meaning on the run. There are countless accounts of how travelers, explorers and refugees have rearranged their immediate surroundings to assemble meaning from the background void. Furthermore, this phenomenon is not restricted to those who move long distances by choice of profession or byproduct of circumstance, since modern urban dwellers also possess this capacity. As Ian Nairn notes, ‘people need to put down roots in a terribly



FIGURE 1. Xi'an International Horticultural Expo site layout with the University Gardens (1) and Master's Gardens (2) highlighted. For purposes of scale, the two exhibit areas are 1km apart. Dashed contour lines are at 1m intervals.

short time’, himself taking ‘about forty-eight hours’. Nairn concludes that movement paradoxically amplifies the sense of place, observing that ports—while being highly fluid—are nevertheless very well-defined places.³

The gardens in a garden show can be considered within this context. Such exhibits are not gardens with which the visitor grows and co-inhabits with its meaning, but rather passes through *en mass* in a matter of minutes. And not long after they are experienced, the gardens are either wholly deleted or at the very least downgraded to mere residual features in the landscape-park that typically inherits the site once the spectacle of the expo has concluded. Under these circumstances meaning is absorbed and place manufactured on the run. To apply a vegetal analogy, this is less a process of terrestrial rootedness than the ‘continuous-flow solution culture’ associated with hydroponics. This interplay between rootedness and mobility in the place making and meaning-construction of the individual in the garden prefigures a society-scale condition found within Modernity as a whole. That is, the tension between the rapidity of globalism and the romantic yearning to resist-and-return as Paul Ricoeur describes: ‘how to become modern and return to the sources, how to revive an old dormant civilization and take part in a universal civilization’.⁴ While visible in the landscape generally, the tension of this ‘paradox of place’ is manifest most acutely in the garden.⁵ The ‘sense’ or ‘spirit of place’ is both a manifestation of this paradox and an attempt to resist or realign it.⁶

In the midst of a fast-tracked industrial-to-consumption revolution, this tension is patently visible in the rapidly urbanizing cultural landscape of China. Framed by these dialectics of transience versus groundedness and tradition versus modernity, I focus in this essay on a particular example of a phenomenon that has persevered throughout the West’s Modernity and has found new vigor in China’s; that of the garden show or horticultural exposition. Both an expression of the yearning for otherness within the totalizing fabric of Modernity and a product of the very global reach of Modernity, international garden shows are increasingly commandeered into the mega-events that are

used to influence the fortunes of cities. Typically, in the vein of the World’s Fairs (e.g. Shanghai Expo 2010) and indeed Olympic Games (e.g. Beijing 2008), installments of the World Horticultural Exposition have fulfilled this transformative role, involving themed extravaganzas underpinned by massive quantities of construction far beyond that which is required for the simple promulgation of horticulture.

Positioned at the northeastern periphery of the ancient capital, the *2011 Xi’an International Horticultural Exposition* continues this bootstrapping city-building logic by leveraging the adjacent development of alluvial farmland and traditional villages into a regional financial centre. The site preparation for the Expo involved remodeling a clay quarry into a simulacrum of the ancient Guangyun Lake, which was once an important port on the Chan-Ba River. Reinterpreted as a constellation of lined lakes interconnected with weirs, the shorelines inform the necklace structure of the exhibits (figure 1). While most displays represented other provinces and countries, two areas moved beyond kitsch regional simulacra; the first being the collection of gardens by selected ‘Masters’ of landscape architecture, and the second a collection of University gardens by invited international academic teams.

To investigate the state-of-the-art of current garden expo design, I explore these two collections of gardens with several objectives: (1) to position the gardens in relation to contemporary landscape architecture design paradigms; (2) to examine the role of the frame in the contained context of the expo garden with the implicit hypothesis that these tactics have agency in the wider contemporary metropolis; (3) to understand why one set of gardens appeared to function as intended within the Expo, while the other appeared to be dysfunctional; and (4) to create a record of Expo Gardens themselves, since despite pretences of being ‘permanent’ installations, it is highly unlikely that any of the gardens will survive physically or semiotically intact beyond the short extravagance of the Expo event.

In the first part of the essay I describe, interpret, and theoretically and poetically position several exhibits from both the Masters and

University collections. In the second part of the essay, I explore the issue of framing that so vividly distinguishes the Masters' from the University Gardens. I develop the argument that dissolving the frame—while relevant in contemporary landscape praxis—does not necessarily translate into the context of individual gardens; rather it is the boundary between the Expo and the city that is the most potent threshold. Extending this argument to the city itself, I conclude the essay with discussion regarding the fate of the horticultural expo and its devolution into the urban fabric.

In terms of methodology, I draw on my involvement with the Expo from several perspectives; participation in the design workshop for the University Gardens; observations on site during the construction process; and my experiences at the opened Expo as a member of the public.⁷ In regards the latter, when on site I was sensitive to Bernard St-Denis's critique of the tendency for contemporary garden scholarship to place semantic interpretation over 'the gratification of spending time in a garden'.⁸ To be sure, whereas St-Denis was undoubtedly referring primarily to established gardens, the transient nature of the Horticultural Expo gardens tested this challenge to its practical limits. I made repeat visits to the gardens and loitered insofar as was practical, but never attained a contemplative communion with any one garden. However, the impracticality of experiencing 'time in a garden' in the Expo context was offset by the heightened experience of the 'first encounter-reality' of the perception that results from the initial visit to each garden. Far from being superficial, first impressions are a potent mechanism in our ongoing formation of a sense of place. They are also rarely isolated as purely experiential events; as Donald Appleyard notes, 'prior indirect information supplied through social contacts or media are also influential'.⁹ Like over-the-horizon radar that allows us to cognitively image un-experienced places, these preconceptions are legitimate component of the construction of an environmental image.¹⁰

In addition to my own experiences—keenly honed but biased as a gardenophile and designer of gardens—I also observed the behavioral tendencies of Chinese visitors in each garden. When visiting other

more thematic representative gardens of local provinces, it was clear that on the whole the Chinese knew how to act in each garden, and seemed to be far more in tune with the living cultural narrative of garden history than Westerners in equivalent situations in the West, who as Robert Riley intimated, have lost connectivity with and hence knowledge of what to do in a garden.¹¹ That said, although the gardens in question are located in China, an apparent deficiency of this essay may appear as a lack of attention to traditional Chinese garden landscape themes and narratives. This is perhaps partially a consequence of my limited command of this material, but most importantly it is a product of the Expo being very much a condition of modern China. Indeed, the modern history of the botanic garden / horticultural expo in China is transplanted from the West rather than emerging from Daoism or Confucianism.¹² That Westerners designed all but one of the Masters Gardens and the majority of University Gardens, but that virtually all Expo visitors were domestic in origin, illuminates this complex condition.

Collection 1: 'introverted' Masters Gardens

The Masters' Gardens comprise commissioned designs from nine prominent designers.¹³ In raw form, the 10 000 sq ft plots allocated to each designer are typically flat in profile and trapezoidal in plan, buffered by thick stands of bamboo with controlled access on two sides. These manufactured site circumstances present a strong case for utilizing the timeless phenomenology of the walled garden as an otherworld decisively withdrawn from the surrounding landscape. Accordingly, many of the Master's gardens employed thematics associated with the labyrinth and the grotto; of hiding and revealing, of voyeurism, exotica, minutiae, and narrative (figure 2). In the descriptions that follow, I roughly corral the nine Masters' Gardens into three categories: (1) labyrinths, (2) rooms, and (3) representative gardens. Using this draft rubric, I explore three Masters Gardens in detail, three at a more cursory level, and the remaining three in passing. My choices in this regard certainly reflect a hierarchy of my experiential and theoretical impressions of particular gardens.

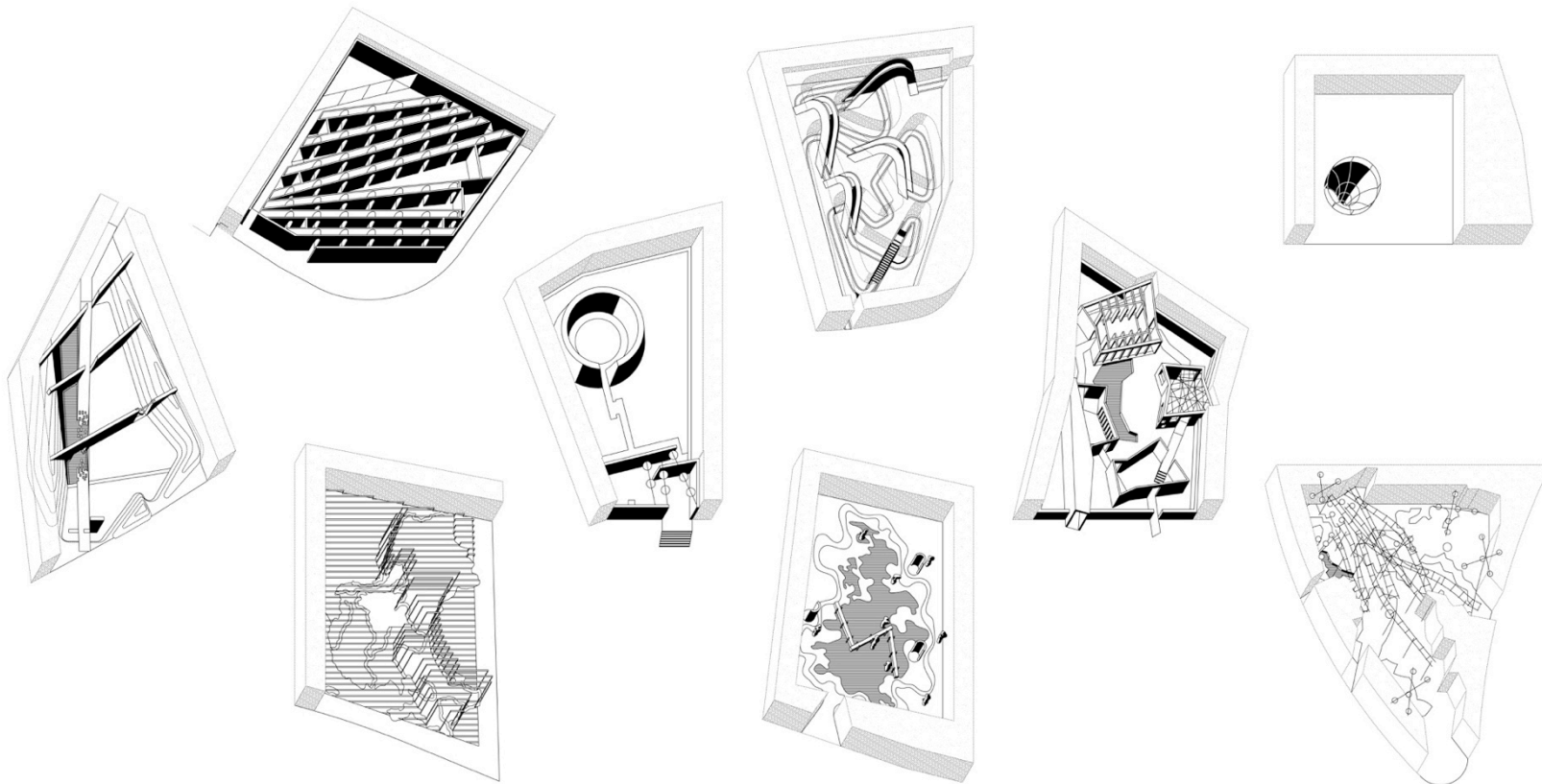


FIGURE 2. Axonometric diagrams of Master's Gardens. Top row left to right: (a) Maze Garden by Martha Schwartz and Partners; (b) Garden of Bridges by West 8; (c) Big Dig by Topotek 1. Second row: (d) Passages by Terragram; (e) Botanist's Garden by Gross.Max; (f) Quadrangle Garden by Atelier DYJG. Third row: (g) Landscape Garden by Mosbach Paysagistes; (h) Mud Garden by SLA; (i) Labyrinth and the Mountain by EMBT. Diagrams to same scale.

(1) Labyrinthine. Of the labyrinthine-type gardens, the *Maze Garden* by Martha Schwartz Partners is the most overtly fabricated (figure 3). Comprising a set of high walls incised transversely by equally spaced arched passages, the garden presents itself as an open labyrinth. In this regard the sensation of moving amongst the array of walls and apertures is reminiscent of Eisenman's Holocaust Memorial design, where the object is perhaps to test Walter Benjamin's edict that we must have approached and left a place by all four cardinal directions to truly know it.¹⁴ But this effect is quickly subverted; firstly, the grove

of willow trees that supplies a canopy over the garden is forever offered but seemingly never substantiated as the trees themselves remain evasively encapsulated within chambers between wall sets. Secondly, the alignments of the garden walls perform a cunning rotation which serves to subtly disorient the visitor and provide niches for actuating the third effect: self-reflection. At the entrance to the labyrinth, a freestanding wall is clad on one side with dark mirrors. Like a magician showing the audience an empty hat before drawing out a rabbit, these mirrors purport to be as they appear, a harmless arena for mass self-vanity.

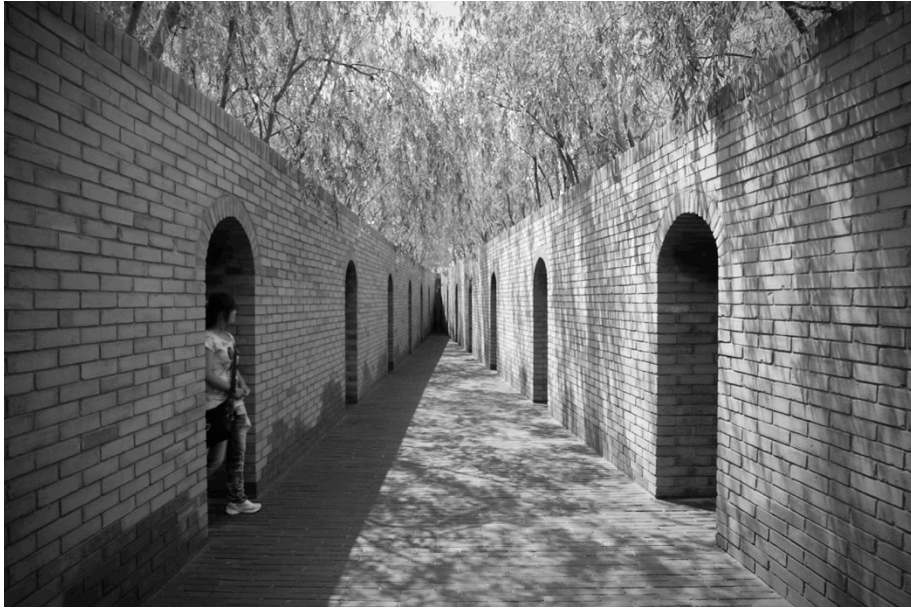


FIGURE 3. Inside a tapering courtyard in the 'Maze Garden' by Martha Schwartz .

Moving into the walled matrix, we are habituated to more dark mirrors at the end of each elongated space. Further still, as the geometry rotates and tapers, mirrored chambers are increasingly encountered, some small, some large. One threshold further discloses a penultimate roofed cavern. Here, a grove of willows is finally revealed, albeit through deeply hued glass which serves to obfuscate the demarcation between the real and the represented. But this is not the final revelation, which is delivered as one follows the cavern around to the exit. From this privileged position of hindsight, we are placed behind the looking glass and discover that the mirrors throughout the garden are one-way glass. At the largest interfaces—attracted like moths to a lamp—entire groups of people gaze innocently at their reflections. In the smallest chambers, young couples make use of their mistakenly private niches and engage in intimate embraces, unaware of the public viewing gallery beyond the glass. As unwitting participants in a social experiment, visitors have been lured into carefully orchestrated traps using human vanity as bait.



FIGURE 4. Overview across bamboo thicket of the 'Garden of Bridges' by West 8.

In this context, the disorienting walled maze and hall of mirrors trade light-heartedly in the excitement that we derive from 'getting lost, of finding a way back, and ultimately a way out or to a goal'.¹⁵ However, mazes operate through turning pleasure seamlessly into confusion¹⁶ so beneath this playfulness lays a disturbing metaphor in the infernal prospect of there being no goal or exit. Within this context, the open labyrinth model upon which the Maze Garden is based reflects an increasingly complex contemporary life-path where we expect a maze to harbor choices, divergences, and dead ends. In contrast—as if tracking a fatalistic passage through life—labyrinths were historically manifested more as a single route spiraling inward to a central goal and then back outward to reconnect with the point of origin.

The *Garden of Bridges* by West 8 takes this motif of the single path and entangles it as a Gordian Knot (figure 4). In the place of walls, the garden uses the same bamboo employed in the frame to inundate the site. Into this dense forest is incised a single narrow trail, which continually twists and turns back, affording occasional glimpses of

other people elsewhere on the same path. In instances where the path loops over itself, implanted bright red arching bridges enable grade-separated passage.

When immersed in the bamboo everything is close at hand and body-based; as Robert Harbison observes, we allow plants to confine us in ways that would be unpalatable in stone.¹⁷ Gaston Bachelard conveyed the sense of immensity that the forest imparts, noting that this bodily impression openly contradicts geographical reality.¹⁸ Similarly, Yi-Fu Tuan concurs that even if small, the forest gives the appearance of being limitless when we are lost within it.¹⁹ At just 10 000 sq ft, The Garden of Bridges is saturated with this effect, with the notable digression of occasional respite in the form of the bridges. As we climb up and emerge above the canopy with a clear overview, vision takes over as we strive to take our bearings by reasserting general orientation amongst the landmarks of the Expo site before descending back down into the thicket. The deceit is that the bridges represent false 'pyramids of reason' within the labyrinthine forest, since the path below is always obscured, meaning that the overview is useful neither for reconciling one's journey thus far, nor reconnoitering the future route. We can see our companion at the top of another red bridge but cannot tell whether to head forwards or backwards to get to them. Instead, we rely on a combination of dead-reckoning recall (that lowly navigation technique used as a last resort) and faith in the universal consistency of Cartesian space; earlier, we walked ahead of our accomplice, so therefore, they *cannot* be in front of us now. On a single path, to avoid getting lost no matter how geometrically complex, we need only to keep a record of where we came from in differentiation to where we are headed—a tough ask when the empirical world of entangled bamboo and bridges says otherwise.

Where the *Garden of Bridges* fills the frame to generate the effect of the thicket, the *Big Dig* garden by Topotek 1 uses the opposite tactic of a frame opened on one side (in the manner of an early Renaissance garden) and an empty field to present the surface of the garden plot in its entirety to passers-by (figure 5).



FIGURE 5. View into the 'bottomless' hole in the 'Big Dig' garden by Topotek 1.

The essence of the concept is hidden in plain sight—below ground. A parabolic hole at the centre of the site is calibrated so that the bottom is never revealed; the void becomes in effect vertiginous and infinite. The illusion of tunneling through the mantle toward the other side of the world is manifested instead as a collaged soundscape, so that sounds of other cities and landscapes emanate from the depths. The effect invokes Buckminster Fuller's observation of changes in perceptions of spatial relations as a result of the aerial warfare of WWII, on which he noted that 'the world has been surprising itself by coming in its own back doors and down its own chimneys from every unlooked-for direction'.²⁰ This act of tunneling takes perceptions that originate from afar and incises them into the composition of local space, producing as Brian Massumi notes, 'a fusional tension between the close at hand and the far removed'. In the ultimate local-global exchange, 'as the distant cuts in, the local folds out'.²¹

The garden is reminiscent of Bernard Lassus's 1970s bottomless *Well* design concepts, which proposed a deep vertical shaft into which

stones could be thrown to infinity. These speculations explored the psychological space of depth; not in terms of the abyss that reveals the feared absence of foundations,²² but rather, as a refuge for the imagination in a world without uncharted spaces for the mind. As Lassus notes, with the complete mapping of the surface of the earth in the age of exploration erased the terrestrial or horizontal frontier. A replacement frontier came in the conquest of the ‘immeasurable verticals’, culminating in the first moon landing. As a counterbalance to these giddy heights, Lassus invests poetically in a depth beneath the surface that we tread on, also ‘immeasurable, vertical and obscure’.²³ Stephen Bann interprets this to mean that garden design should involve the ‘poetic creation of depths’. Whether indirectly invoked or actually constructed, Bann sees a landscape of depths as the creative balance to ‘an increasingly strong preoccupation with the vertical dimension’.²⁴ It is as filling the holes left by archaeology will re-balance the cosmically distant with the terrestrially deep, stabilizing landscape’s regular field of operations, the surface itself.

Topotek’s scheme trades not in poetic depth as a counterbalance as per Lassus but rather in didactic depth. For Lassus ‘dropped pebbles travel forever’,²⁵ thus fabricating the illusion of the *terra incognita* that the world lost when it ‘closed the map’.²⁶ For Topotek’s Rein-Cano on the other hand, the pebble metaphorically returns, with compound interest, from the other side of the noisy and full world. Indeed, as Bann notes ‘the last white patches have vanished from the map of the world’ because ‘China has finally lost its monstrous otherness and become a Mecca for tourists’.²⁷ Fittingly located in China, the Big Dig is like the last tiny residue pinhole of this filled up map. But it is a false holdout, since—like an intrepid climber who scales a Swiss mountain only to discover a restaurant perched on the summit—others are already present, having taken a convenient shortcut. Unlike Lassus, in this hole there is no depth, only more surface, since every hole has a lining; ‘the hole lining *is* the hole’.²⁸



FIGURE 6. Levitating rock in the ‘Passages Garden’ by Terragram

Indeed, if we ignore the inconvenient balustrading around the hole and focus on the surface, the parabolic fall-away becomes a Pierce’s Puzzle, which confounds what is the hole and what is not. Are we—like the caged fox that decides it is free while the rest of the world is incarcerated—actually already in the hole without realizing it?²⁹

(2) Rooms. The room-type gardens fall into two sub-categories: cloister-like rooms operating as islands within the garden, and open-plan rooms spanning the width of the garden. *Passages Garden* by Terragram falls into the latter category, using the wall as a spatial calibration device (figure 6). A stone path that leads into the garden cuts through several walls at oblique angles before disintegrating down into a body of water. Ahead, a low aperture in a bright orange wall allows glimpses of the paving stones re-integrating from the water to reform the path. Water seeps from a fissure that runs the length of the battered back retaining wall, refreshing the pond, and heightening the sensation of being in a situation that is in tension and flux. With the impassable aperture preventing egress to the recomposed path, visitors strike out across an expanse of white river stones peppered

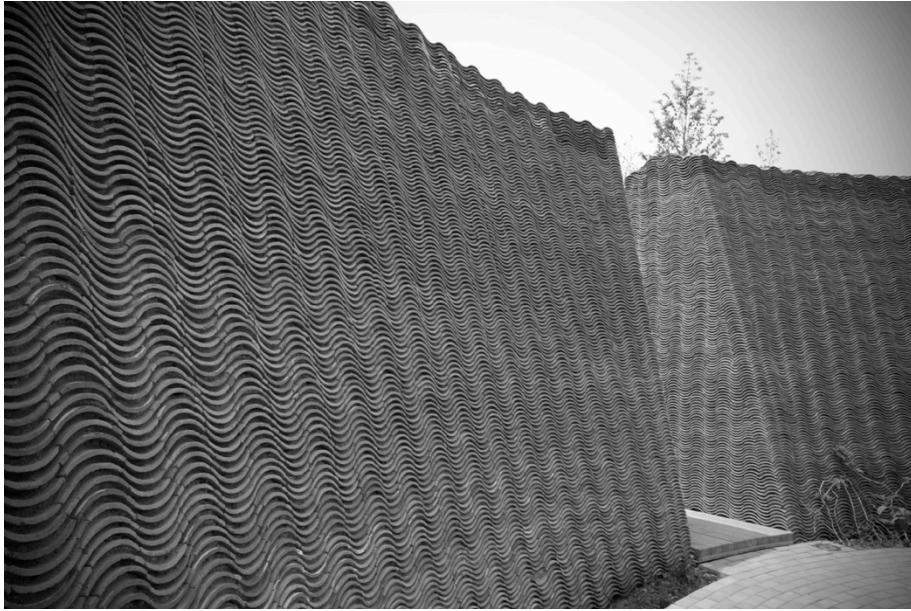


FIGURE 7. Detail of battered circular enclosure in the 'Botanist's Garden' by Gross.Max.

with diminutive pine trees. Here, at an opening in the other end of the orange wall, a single smooth rock levitates precariously at eye level, the gravity field of its copious weight appearing to deflect the overhead beam. In Chinese garden tradition, stones hold a special meaning and allure; like a talisman, this rock the place to which visitors are drawn, to paw at the marbled surface, realign it around its pivot, and to contemplate its meaning.

The circular cloister at the heart the *Botanist's Garden* by Gross.Max operates as a retreat deep within the garden (figure 7). Constructed from tightly stacked roof tiles, the wall forming a *Hortus Contemplationis* is battered at an angle reminiscent of the ancient city walls encasing Xi'an. This geometry, combined with the bulk of the wall neutralizes the cacophony of the Expo. The garden planting seems innocuous at first, but in time a second layer of delicate exotic botanica comes in to focus. Whereas elsewhere in the Expo, monocultures of floral displays are measured in hectares, within this



FIGURE 8. Underneath bamboo scaffolding in the 'Labyrinth and the Mountain' garden by EMBT.

botanical heterotopia, species are indulged one specimen at a time. Of a similar scale, the *Quadrangle Garden* by Atelier DYJG employs the repetition of four rooms that have been deflected from rectangles. However, unlike the Botanist's Garden cloister, which by virtue of the mass of the wall is oriented wholly internally and vertically, complex apertures in the walls of the quadrangle rooms provide for a kaleidoscope of fragmentary glimpses of scenes in the surrounding garden.

(3) Representational. Of the three gardens that overtly represented other landscapes, two embodied more mythical landscape types while the other embodied a nation-state. On the latter, whereas many of the non-architected exhibits at the Expo attempted to represent a particular province, the *Landscape Garden* by Mosbach Paysagistes gathered all of China into its representational net. Actualizing this improbable operation of time-space compression necessitated the deployment of a map on the ground plane—a technique that abstracts representation away from simulacra and towards signification.

Conversely, essentially attempting to predate any cultural constructs of semiotics, the *Mud Garden* by SLA draws on the representation of the primordial sludge from which life emerged. Implying a more complex syntax of translation and representation, *The Labyrinth in the Mountain* garden by EMBT utilizes elaborate bamboo fabrications above the garden to trace a landscape narrative (figure 8). Each overhead trajectory presents a cue for complex scenic choreographies in which several scenes converge, entwine, and wander apart. A constellation of bird cages suspended like lanterns house paper canaries, possibly metaphoric bellwethers for the fortunes of a site, that was after all, was once a mine site.

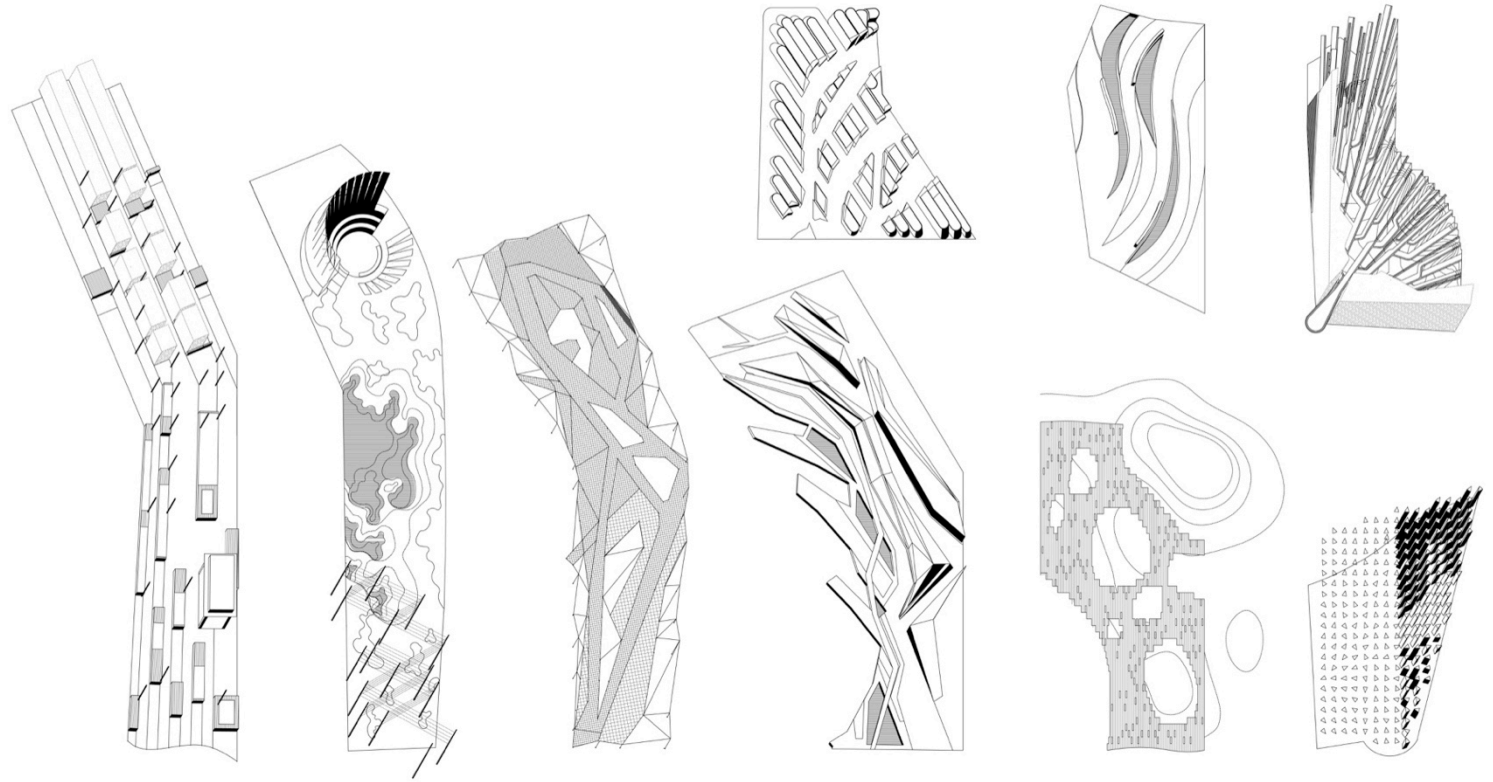


FIGURE 9. Axonometric diagrams of all University Gardens. Bottom row left to right: (a) Scent Garden by University of Toronto; (b) Sky Garden by University of Southern California; (c) Net Garden by University of Beijing; (d) Thickened Waterfront by Architectural Association; (e) Eco-Plane by Columbia University; (f) Eco-Time by Feng Chia University. Top row: (g) Pampa Traces by Universidad Torcuato de Tella; (h) Wind Poem by University of Hong Kong (i) Garden of the Forking Paths by UC Berkeley.

Collection 2: 'interfaced' University Gardens

Situated 1 km away as the crow flies, but considerably further around the lakeshore on foot, the University Gardens comprised projects by nine design schools.³⁰ Whereas the garden plots allotted to each Master's Garden were relatively level and orthogonal with a thick bamboo buffer, the University Garden sites exhibited a quite different set of conditions. Set on the banks of one of the Expo's artificial lakes, half of the garden sites occupy direct water frontage, while those further up-slope benefit from the enhanced overview that

comes with elevation. With a greater divergence of lot sizes ranging between 7 500 and 13 000 sq ft, the typically elongated and irregular form of the sites increased the perimeter-to-area ratio of each garden when compared to the more symmetrical Masters' Garden plots. Furthermore, unlike the Masters' Gardens, no bamboo buffer was predetermined, so that the individual garden plots were by default directly adjacent and entirely open to neighboring allotments and the surrounding landscape, further amplifying the effect of interface



FIGURE 10. Aromatic Pavilion in the 'Scent Garden' by University of Toronto.

rather than the introversion associated with the Masters' sites (figure 9). In the descriptions that follow, I roughly corral the nine University Gardens into four categories: (1) sensory, (2) labyrinthine, (3) representation, and (4) process. As per the Master's gardens, I use this draft rubric to explore two University Gardens in detail, two at a more cursory level, and the remaining five in passing.

(1) Sensory. Three gardens effectively elevate the non-visual senses, so famously repressed as unreliable and deviant under the rationalist hegemony of the all-conquering eye of modernity. Employing a multifaceted indulgence of the olfactory senses, the *Scent Garden* by the University of Toronto is the most legible example (figure 10). A grove of conifers provides the base-scent, amongst which a survey grid of perforated poles use wind-generated turbines to dispense accent aromas.



FIGURE 11. View from within mist-making infrastructure across to solarium reflectors in the 'Sky Garden' by University of Southern California.

Finally, a crystal pavilion displays bottled fragrances in the round, acting as a kind of scent-bank for posterity. The *Sky Garden* by the University of Southern California aims to amplify the sense of touch; not in terms of the haptics of rough and smooth texture, but as a membrane through which the interoceptive senses ascertain temperature (figure 11). The garden generates extreme microclimates with two mechanical contraptions; at one end a half sphere of adjustable reflective plates creates a solarium effect, while at the other, a complex three-dimensional matrix of overhead wires houses an array of mist emitters forming an artificial cloud. By destabilizing the very ground that we move on, *The Net* garden by Peking University amplifies the internal feedback mechanism which tracks the relative position of parts of the body (proprioception) to the top of the sensory hierarchy (figure 12). A field of multi-canted planes clad in flexible expanded mesh of various gauges destabilizes movement, forcing the



FIGURE 12. Mesh surface throughout the 'Net Garden' by Peking University.

visitor to recalibrate the habits of bodily calibration and orientation. Despite massively over-engineered safety balustrades that were installed against the designer's wishes, the garden invokes Shusaku Arakawa and Madeline Gins' early fractalized Perceptual Landing Sites, where 'forcing the body off balance forces it to show itself for whom or what it is'.³¹ To experience moving over this alien scape requires an investment of effort; as Phillip Ball notes, 'journeys in fractal land are arduous', they are 'noisy and unpredictable'.³² For Arakawa and Gins, through the act of negotiating the many inclines and declines of the fractalized surface, the perceiver '...switches off automatic and onto alert; she realizes that she must, from now on, anticipate the consequences of her every move'.³³

Over this 'difficult ground',³⁴ visitors become so preoccupied with the immediacies of proprioceptive action that they neglect to maintain *sight* of the larger picture, leaving themselves vulnerable to disorientation. When moving in such a tactical manner, the distant goal-oriented nature of vision is used less for direction-finding, although the eyes still have a role to play, albeit in a revised capacity.³⁵

Close vision is body-based in the sense that when it judges distances and textures, it does so not to control or indulge a scene, but to guide the immediacies of movement. Evaluating bodily potential to move between or make contact with a succession of objects, vision effectively becomes a haptic sense; much in the way that bats use their ears to see, the eyes are no longer a device for seeing, but for feeling.

In this mode of operation, distant landmarks and sightlines go unnoticed, leaving navigational duties to the habitual nature of proprioception, which is only able to keep the body oriented in the short term. Like the gyroscopes used to track dead-reckoning vectors in ships and airplanes, the error compounded from registering many body-referenced direction changes provides an unreliable account of one's passage. Indeed, when the visitor steps off *The Net* and back onto dry land, there is a moment of re-acclimatizing sea legs where we discover that we cannot readily reconcile our point of entry with our exit. Soon—as we look up from our feet and recalibrate distant vision—we re-establish orientation, but while the disjunction lasts, we are, in the words of Arakawa and Gins, 'more body and less person'.³⁶

(2) Labyrinthine. As the only labyrinthine exhibit amongst the University Gardens, the *Garden of the Forking Paths* by U.C. Berkeley plays on the notion of choice without lucid outcomes (figure 13). Framed on two sides by a bamboo frame, the garden is entered through a single aperture at the highest corner of the site. Having crossed this threshold, a critical scene confronts the visitor: the path bifurcates repeatedly, so that one way becomes many, fanning out over the convex landform that runs down to the lake. At eye height, small trees partially obfuscate the view ahead, making the relative value of each fork unclear. Either side of the path, two flush steel channels are fed with water upwelling from a single source; each time the path bifurcates, the water runnels are also split in concert. At each fork, the visitor must make a choice and then again and again. Further, as the way becomes clearer, paths begin to topographically separate on the vertical axis. Some runnels also separate from



FIGURE 13. Entry point into the 'Garden of the Forking Paths' by the University of California, Berkeley.

pathways, holding level as the path falls away with the lie of the land. One path becomes thirty—some resolving seamlessly at the lake level, others requiring steps to make the transition. At the far corner of the garden, a bonsai tree balances on an elevated but unreachable plane that meets eye level as one descends the adjacent steps.

In the collective Chinese imagination, rivers flow from west to east, but the Chan-Ba River, upon whose floodplain the garden is situated, flows in reverse—from east to west (the Chan-Ba feeds into the Wei, where it resumes a normalized eastern course to the Huang / Yellow River). Referencing this site-specific hydrological myth, the garden concept reverses the automated tendency of water to converge, establishing in its place a system of divergent flows of both people and hydrology. Read metaphorically, the bifurcating flows question a worldview in which history converges to form a meta-narrative. Within this familiar order, the tributaries of history, like water, progress downstream converging inextricably towards a single cogent outcome; 'we say that time flows', notes Bernard Cache, 'but we also

place ourselves in landscape where ... we are already funneling it into a gullet'.³⁷ Inverting this pattern creates multiplicity rather than resolution; the notion of parallel worlds or stories rather than singular histories. It implies a type of labyrinth with a single entrance and many exits, where each egress is slightly different, invoking perhaps the Borgesian short story in which the Garden of Forking Paths becomes to be understood as 'an enormous riddle, or parable, ...a growing, dizzying net of divergent and parallel times'.³⁸ But unlike the matrix labyrinth (Maze Garden) and the single-path labyrinth (Garden of Bridges), the forking labyrinth is never clearly resolved with a critical revelation (e.g. behind the looking glass) or a return to the beginning. In the case of the Garden of the Forking Paths, being delivered down to the lake edge is evasive but is reward enough.

(3) Representational. Unlike the Masters' Gardens, which focused on the representation of mythical landscapes and nation-states, the two representationally oriented University Gardens attempted the translation of the designers' home 'range' into hilltop garden plots.



FIGURE 14. Hill top location of the 'Pampa Traces' garden by Universidad Torcuato de Tella.

In the most extreme example, the *Pampa Traces* garden by Universidad Torcuato de Tella seeks to literally translate an iconic Argentinean landscape to the other side of the world (figure 14). The *Wind Poem* garden by University of Hong Kong takes a contrasting approach, viewing the garden as an opposite foil to the restless 24hr lifecycle of their city; the world's densest.

(4) Processual. By seeking to embody and amplify dynamic ecological processes, this category included the most polemic garden proposals of the university collection. With waterfront locations, two of the gardens make use of the potentially dynamic interstitial edge of the lake. Seeking scaffoldings for secessional ecologies, the *Eco-Plane* garden by Columbia University uses a sliding deck while the *Thickened Waterfront* garden by the Architectural Association employs an enfolded landform of miniature ecotones and peninsulas. *Eco-Time* garden by Feng Chia University takes a more cybernetic approach wiring up green columns that are designed to dematerialize under the future cloak of verdancy (figure 15). To be sure, while processual



FIGURE 15. Amongst the green columns in the 'Eco-Time' garden by Feng Chia University.

concepts are integral to landscape design theory and praxis, it is difficult terrain in a garden expo, given the short window for 'ecological emergence' and the singular *nature* of most visitations; just as geological time is invisible to us in the landscape, so too emergent time is invisible to the Expo visitor.

Discussion: frames

When explicitly interpreted by a designer or commentator, individual garden references become explained. But without such guidance, what do the general public make of these cryptic projects that are so different from the other transparent thematics on offer at the Expo? In this context, is it, as Jane Gillette postulates, 'very difficult for the garden designer to express complex ideas using only the garden', and even more 'difficult for an audience to 'read' them'?³⁹ In this regard, I observe two meta-approaches within the gardens under discussion. Regarding the first, many of the gardens in focus can be defined as theme gardens under Marc Treib's definition of a theme as 'perceptually apparent idea' that has been applied 'to fashion the

garden's form'. Treib concedes that an 'obvious concept' does not necessarily imply significance but does nevertheless carry a certain 'underlying assertion of validity'.⁴⁰ For example, the labyrinthine-type gardens traded in the stability of a universally accepted theme with which to ground this semiotic transferal between designer and audience. Once the visitor accepts the terms-of-reference that typically come attached to a labyrinth, they appear more open to accepting the garden as a 'game-board' and indulging in its idiosyncrasies. Meaning is constructed in a closed/open exchange; while the designer establishes a scaffolding of meaning, the audience seeks to unwittingly deconstruct this edifice by flooding the garden like water or like ants, investigating every interstitial nook for holes and gaps and in the process evolving the dynamic significance of the garden. Here, in answer to Gillette, complex ideas *are* expressed through the garden, but most importantly they are also received.

The great risk associated with themes is their potential for wearing out through overuse, and indeed the labyrinth—although handled with inventive dexterity by those designers who employed it at the Expo—treads this fine line between novelty and cliché. The second meta-approach encompasses garden designs that do not fall so readily under an obviously identifiable concept. To appropriate Treib's usage of the term, I identify these approaches under the rubric of 'zeitgeist'⁴¹; they seek to substitute stable but potentially exhausted garden themes with inventions that attempt to capture the essence of a contemporary cultural preoccupation. The 'processual' type gardens that I identified as characterizing several University Gardens—and to a lesser extent some of the 'representational' gardens—fall under this umbrella. Each attempted to build significance around fluid concepts of ecology and process, ideas which are by no means new, but are yet to establish agreed safety lines of communication between author and audience. The result was that zeitgeist gardens had no fallback position and tended to rely on their own self-referential narrative. In these instances, semiotic transferal—whether intended or fabricated—was demonstrably absent on the ground, and the limitations of the garden as a conveyor of complex syntax was exposed.

Perhaps for this reason, 'processual' type gardens were highly unvisited, especially in the context of the wildly popular 'labyrinthine' and 'room' type gardens. However, an even stronger force divided the communicability of different gardens than their reliance on normative themes or manufactured artifice; this had less to do with the contents than with the container—or frame—that holds it together. In general terms, 'framing' and separated the masters and university gardens along mostly partisan lines, with the former employing it and the latter dissolving it. As will be discussed, disbanding the physical enforcement between the garden and the landscape remains fraught terrain for a garden exhibition; to quote Robert Smithson, 'if art is art, it [still] must have limits'.⁴² Although to be sure, it does prefigure a more encompassing impulse to de-frame garden expo sites (and botanic gardens) from their symbiotic cities.

Traditionally, the idea of the garden depends on the frame to separate out a representation brought forth from the background of the continuity of the world. Hedges, fences, walls and even ha-has constitute familiar components of the landscape architect's palette for physically framing a garden. Numerous scholars have asserted the integral nature of this primary representational mechanism. Bernard St-Denis observes that the origins of 'garden' can be traced to 'fence' as 'the inaugural act and demarcation device'.⁴³ Peter Marcuse notes that the etymology of the garden is 'an enclosed space', and that in many languages garden and wall are closely related.⁴⁴ In this regard, Donata & Christoph Valentien connect garden to the High German *garto* meaning 'something that is fenced in'.⁴⁵ Aben & de Wit observe the tautological nature of the 'enclosed garden' given that etymologically both words essentially mean the same.⁴⁶ Indeed, the frame is so intertwined with the idea of the garden that it forms what John Dixon Hunt terms the 'criterion of enclosure'.⁴⁷

In the Western context, the garden frame has been transformed from the full enclosure and vertical orientation of the Islamic garden (oasis) and medieval cloister garden (clearing), to the partial opening and controlled external visual vistas of the renaissance garden, to the dissolution of the wall in deference to the expansive horizontal frame

of the baroque garden. The picturesque garden represented the most radical subversion of the frame, seamlessly implanting an articulated simulacrum of a landscape into the midst of that same landscape, although as Hunt notes, even picturesque gardens were ‘circumscribed simply by the limits of [their] own sophisticated art’.⁴⁸ In the twentieth century, the modern garden broke down walls between the domestic interior, and eschewed representational meaning for pure function and comfort, but also concomitantly built walls between the new privacy of the garden as domestic living space and the external public realm. The postmodern garden has had a more catatonic relationship with the frame, utilizing it or not, contingent on the efficacy of the cultural/corporate denatured landscape that formed the basis of its representational scope.

In the Chinese context, the domestic courtyard tradition of the Confucian garden (as the locus of the family unit in a definitive context within society) is defined to a degree by the architectural framework.⁴⁹ The Daoist garden is imbued with a more complex and absorptive boundary given the ‘non-dualist cosmology’ of this tradition. Situated within the unity of the vast order of the cosmos, the Daoist garden draws borrowed views of all persuasions—natural or cultural—into its representational net.⁵⁰ The frame that results can be understood as stretched and contorted in complex and representationally illusive ways, but definable nonetheless since these borrowed scenes do ultimately relate to definable locations in the garden itself.

Across all of these historical typologies, the frame (whether physical or implied) alleviates the garden’s representational ambiguity, whereby the artifice of the garden unavoidably uses the same materials as the world that it attempts to represent. By defining unequivocally what is in and what is out, the garden frame bolsters differentiation between landscape that in some form both precedes and succeeds the designer;⁵¹ and between unconscious nature and its representation that is the product of creative embellishment and yet uses the very same materiality as the landscape beyond.⁵² However, the garden frame is potentially a more sophisticated threshold than a binary boundary struggling to demarcate representation from wildness. Far

from being a barrier in the manner of a city-scale impediment such as a freeway, the garden wall acts as a membrane that filters combinations of physical movement, visual connectivity, oral information, and even olfactory experience. It is this membrane that enables the relational inflection that has characterized most gardens throughout the ages; to gather up the external physical or social landscape while simultaneously maintaining a degree of separation from this surrounding territory.⁵³ In this regard it is helpful to think of the garden frame not as a porous wall—although in a material sense that may be true—but as a ‘net’ that Kenneth Helphand described as ensnaring elements of the landscape for interpretation and display in the garden.⁵⁴

Despite these potential nuances, the two collections of Expo gardens typically operated at polar opposite ends of the framing scale. With the exceptions of the Landscape Garden (which was de-framed along the two sides of public access), and the Big Dig (which like a renaissance garden was opened on one side), clearly visible and physically impenetrable frames of masonry or bamboo enclosed the other Masters’ Gardens. Like medieval cloister gardens framed off from a feared nature, in these situations, the frame was articulated so strongly to enforce representation; from the background noise of the Expo ‘landscape’ setting, but also from other Masters gardens. Given that all the Masters Gardens were designed in isolation individually in remote locations, they function essentially as stand-alone garden-machines, necessitating the frame to insulate from contamination by neighboring exhibits.

Most University Gardens, on the other hand, did not utilize a tangible (i.e. visual or physical) demarcation. Ironically, despite being de-cloaked, the result was to make the projects invisible to many Expo visitors, who could simply not ‘see’ them as gardens, such was their unwitting camouflage ‘in plain sight’ within the noisy arena of the Expo site. While the extroverted nature of the sloping waterfront and hilltop site conditions account for some of the design impulse to de-frame, amplifying the effect of *interface* rather than the *introversion*, it was also a by-product of the integrative design workshop

methodology where site boundary negotiations between participating universities were encouraged and facilitated. The design brief document challenged the university design teams to move beyond ‘language, image, character, or subjectivity characterized by the romantic, expressionistic, picturesque, or vernacular’ substituting in its place a methodology of “process, ... collective engagement (and) translative definitions’.⁵⁵

‘The result of these ‘collective and translative’ operations was to place emphasis on mitigating the edge conditions between gardens. In this regard, a media analogy is appropriate: whereas the traditional Chinese garden has been described as slow, like film, where the effects are constructed via a sequence of sympathetic scenes,⁵⁶ the horticultural Expo was more analogous to a live television feed. Likening television to the structure of the late capitalist city, Michael Sorkin noted that ‘television’s main event is the cut between broadcast bits’ with the ‘the design of television all about erasing differences amongst the bits’ so that the broadcast makes sense.⁵⁷ According to Sorkin, the project of the designer in the contemporary city is to fuse components so that they become more understandable and palatable. The university gardens can be read in these terms, attempting to smooth out the jumps, both between individual garden exhibits and the overall web of the Expo site.

The university gardens can also be understood as representative of the contemporary denatured world. As Bernard Cache observes, in this context the frame is ‘no longer an autonomous and predetermined form that imposes itself’ rather its ‘articulation is mobile and equilibrium results from the play of tensions that run through the system as a whole’.⁵⁸ The garden becomes an active field in which its interior, edges, and exterior are engaged in a feedback loop. By comparison—in theory at least—the enclosed Masters gardens can be viewed as perpetuating an anachronistic template of the garden as ‘other’, differentiated from its context as an implanted unit (such as the contemplative gardens that Saskia and de Wit propose as refuges from the acceleration and disorientation of the contemporary metropolis⁵⁹). In practice, this strategy remained more successful in

the Expo context, if, for the very least, at a psychological level of piquing curiosity and drawing people in. Without a frame, this controlled incremental experience was substituted in the University Gardens with total visual overview. When a garden can be surveyed in its entirety, visitors were more likely to consume it from afar than to indulge in its experiential qualities.⁶⁰

Also implicit in the collective negotiated design process and the dynamic edge between the centre and external periphery of the garden was that gardens operate somehow as testbeds for operations at the landscape scale—in the same way as the pavilion is typically revered within architecture as an incubator for more expansive architectural praxis. However, the relationship of the garden to the landscape is far more dialectical than its architectural equivalent, and what goes in the garden is not necessarily an experiment for subsequent deployment in the landscape.⁶¹ The garden is more of a counterbalance than a small fragment of landscape; the two interact of course, but from a garden, a landscape does not necessarily grow. There are certainly exceptions to this rule—such as ‘seed dispersal’ concepts that were popular in the 1980’s where the garden was engineered to disseminate its genetic produce on the wind—but the point is that in these examples the garden is sacrificed to its expansion or duplication into the landscape.

Nevertheless, while not prefiguring landscape-scale operations, gardens have a more encompassing role as potent cultural litmus papers; as Bernard Lassus notes, ‘gardens have almost always foretold in advance the relationships between ... society and nature’.⁶² In this regard, gardens are more persuasive as reflectors—either of self or society—than empirical experiments that generate results applicable to the world at large. This efficacy of the garden differentiates it from the landscape on the whole, although when we start to consider the consciously designed landscape (i.e. the work of landscape architects) as opposed to the general cultural landscape, the issue becomes more obfuscated. My interpretation of James Corner’s characterization of the real limits to landscape architectural practice in the world illuminates this convergence. Given that landscape architecture

influences only a very small percentage of outdoor construction projects, with other aesthetically unconscious operations undertaking the lion's share, Corner positions landscape design as a primarily 'metaphorical and ideological' rather than solely demonstrative or performative praxis; one that uses its cultural currency to edify and illuminate an ecological message—to provide a foundation on which to reflect, rather than attempt to physically cure the world within its own diminutive footprint.⁶³ This is, I would argue, is also descriptive of the role of the garden. Therefore, while a garden doesn't necessarily equate to the landscape, the two genres increasingly converge and overlap in contemporary theory and praxis.

At a conceptual level, the university gardens pertinently navigated the convergent muddy territory between gardens as reflectors and gardens as demonstrative landscapes. The move to de-frame is the key mechanism in engaging this terrain, although the one threshold that the design teams had no control over restrains its effectiveness: *the fence around the Expo site itself*. In this regard, the perimeter boundary is physical but also social; while the frame may enable representation by physically separating nature from the continuum of the world, division is also imposed through less tangible but equally powerful social forces.⁶⁴ Indeed, to conflate the picturesque as an example, the ultimate frame was formed less from ha-ha's or the limits of representation, than along lines of society and class. Beyond entrance gates and perimeter fences, garden shows are historically typically also be framed within these societal terms.⁶⁵ Whereas William Kent may have 'leaped the fence, and saw that all nature was a garden',⁶⁶ to jump or destroy the wall of a horticultural expo is to typically find the periphery of a city, complete with its own implied social delineations. It is in this context that the dissolution of the physical and psychological frame of the institutionalized expo itself—rather than the frames of the individual gardens within—that is the more potent force in contemporary landscape and urbanism.

Conclusions: cities of earthly delights

The garden expo in its most classic rendition can be understood as embassy or shopfront for the botanical garden, exalting floral spectacles at the onset of spring; displaying flowers for their aesthetic and horticultural delight rather than botanical merit. But now that the botanical garden increasingly also fulfils this spectacle on site, what is the distinction exactly? To be sure, the orthodox professional distinction between botany and horticulture is clear; the pure science of botany examines all plants within the structure of life, irrespective of whether they are considered to be useful or aesthetically pleasing, while the applied science of horticulture is oriented towards the actual propagation and composition of plants relevant to the vegetal values of society. However, when one compares the Xi'an Expo for example with the new botanical garden in Shanghai, it is difficult to decipher the difference between it and a horticultural exposition. Designed as part of the Shanghai World Expo, this incarnation is an uncanny prequel to the Xi'an Horticultural Expo; it is saturated with themed gardens that privilege representation over taxonomy and occupies a similar post-mining and post-agricultural site in a peri-urban setting undergoing rapid urbanization.⁶⁷

It is true that post WWII, botanical gardens have become more oriented toward incubating local ecology in the place of the *hortus catalogi* of individual specimens that prevailed in the age of discovery. As John Prest noted, the decline of the classic 18th century taxonomic botanic garden was as much about its limitless popularity as the onset of the ecological and conservation concerns that characterize the post war focus of botanic gardens; no longer containable within the *hortus conclusus*, eventually the whole kingdom, cities included, essentially became the botanic garden.⁶⁸ But botanic gardens have also diverged—conservation retreated behind closed doors, into test tubes and remote sites, while the garden beds that were vacated were typically rejuvenated with parochial total-scene exhibits that are often more 'out-of-place' than the pan-global taxonomic displays that they replace.

Corner asks whether ‘the botanical garden as a significant cultural place [is] obsolete today, or at least outmoded in the face of modern science, technology, media and globalization?’⁶⁹ It is relevant to question whether the horticultural expo is also outmoded in the same manner. Has, should, or will the garden expo go the same way as the botanical garden or indeed the world’s fairs, which were also overtaken by shifts in culture, technology, and media? Just as world cities remolded themselves in the image of the world’s fair—albeit operating 24hrs all year round without entry tickets and without fences—contemporary parks increasingly approximate the spectacle of botanic gardens and horticultural expos. Returning a world’s fair to Paris or San Francisco today would be inconsequential since the city fabric absorbed the fair long ago into its DNA; so too the botanical garden / horticultural expo typologies that are increasingly assimilated into the everyday programming urban parks and promenades render their fenced off and institutionalized former renditions usurped.

The result is a hybrid Garden of Earthly Delights (*Hortus Ludi*) that transcends all these categories and becomes the city itself. This is perhaps a fulfillment of its destiny since the garden in its purest Western form harbors the memory of a (lost) city (*Paradise*). Since the Modern history of the botanic garden / horticultural expo in China is transplanted from the West rather than emergent from Daoism or Confucianism,⁷⁰ this narrative is perhaps applicable in the Far East as well. When Lassus asks whether the shrunken *world* has been ‘transformed into a Garden of Delights or a Garden of Eden’⁷¹, one can answer emphatically no, but certain world *cities* of accumulated capital aspire to this transformation. It is possibly an appropriate metaphor for Chinese urbanism, which struggles to place the garden outside of the courtyard; to imbue the city with a qualitative fabric beyond the ‘technical worldview of realism’. As Hui Zou argues, this kind of dominant Chinese urbanism fails to create a ‘fictional context for ecstatic cultural encounters’.⁷² The ‘homogenous urban landscapes’ that result from this lack of ‘poetic analogy’ effectively elevate the importance of the garden-in-the-city in modern China to fill this role. The challenge is returning the garden from the expo to the city—so that it can function as the litmus paper (or canary in the

mine) of the society—without simply being dissolved into a landscape of spectacle.

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Notes

¹ Martin Heidegger, *The Question of Being* (London: Vision Press Limited, 1956), p. 19.

² John Brinckerhoff Jackson, ‘The word itself’, in *Discovering the Vernacular Landscape* (New Haven: Yale University Press, 1984), p. 5. Emphasis mine.

³ Ian Nairn, *The American Landscape* (Random House: New York, 1965), p. 10.

⁴ Paul Ricoeur, *History and Truth* (Evanston: Northwestern University Press, 1961), p. 277.

⁵ Karl Kullmann, ‘Postmodern transformations to the paradox of place’, in *The Inaugural Australasian Landscape Architecture Design Workshop* (Brisbane: QUT Press, 1996), p. 34.

⁶ See, George Seddon, *Sense of Place* (Nedlands: University of Western Australia Press, 1972). Christian Norberg-Shulz, *Genius Loci* (New York: Rizzoli, 1979). Jackson, ‘The word itself’. Casey, Edward S. 1997. *The Fate of Place* (Berkeley: University of California Press).

⁷ The design workshop was convened and sponsored by the University of Southern California American Academy in China. Henceforth, I use ‘Expo’ to refer specifically to the Xi’an Horticultural Expo, and ‘expo’ to refer to horticultural expos in general.

⁸ Bernard St-Denis, ‘Just what is a garden?’, *Studies in the History of Gardens & Designed Landscapes*, vol. 27, no. 1, 2007, pp. 61–76.

⁹ Donald Appleyard, 'Understanding professional media: issues, theory, and a research agenda', in Irwin Altman and Joachim F. Wohlwill, eds, *Human Behavior and Environment* (New York: Plenum Press, 1977), p. 58.

¹⁰ For example, Kevin Lynch's urban imaging methodology has been critiqued for omitting the influence that media etc. exerts in extending imaging beyond the confines of the immediate visual and proprioceptive senses. See Mark Gottdiener and Alexandros Lagopoulos, 'Introduction', in Gottdiener and Lagopoulos, eds, *The City and the Sign* (New York: Columbia University Press, 1986).

¹¹ Robert B. Riley, 'From sacred grove to Disney World: the search for garden meaning', *Landscape Journal*, vol. 7, no. 2, 1988, pp. 136–147.

¹² He Shanan, 'Foreword', in Donata Valentien and Christoph Valentien, eds, *Shanghai: Neuer Botanischer Garten / New Botanic Garden* (Berlin: Jovis, 2008).

¹³ Adriaan Geuze of West 8; Benedetta Tagliabue of EMBT; Catherine Mosbach of Mosbach Paysagistes; Eelco Hooftman of Gross;Max, Martin Rein-Cano of Topotek 1; Stig L. Andersson of SLA; Martha Schwartz of MSP; Wang Xiangrong of Atelier DYJG; and Vladimir Sitta of Terragram.

¹⁴ Walter Benjamin, *Moscow Diary* (Cambridge MA: Harvard University Press, c1986), p25.

¹⁵ Martin Gardner, 'Labyrinthian way', *The New York Times Book Review*, July 27, 1975, p. 10.

¹⁶ Penelope Reed Doob, *The Idea of the Labyrinth* (Ithaca: Cornell University Press, 1990), p. 79.

¹⁷ Robert Harbison, *Eccentric Spaces* (New York: Knopf, 1977), p. 6.

¹⁸ Gaston Bachelard, *The Poetics of Space* (Boston: Beacon Press, 1964), p. 185.

¹⁹ Yi-Fu Tuan, *Space and Place* (Minneapolis: University of Minnesota Press, 1977), p. 56.

²⁰ Buckminster Fuller, 'Fluid geography', in *The Buckminster Fuller Reader* (London: Jonathan Cape, 1970), p. 143.

²¹ Brian Massumi, 'Sensing the virtual, building the insensible', *Architectural Design Profile*, vol. 133, 1998, pp. 16–24.

²² Gary Shapiro, *Earthwards* (Berkeley: University of California Press, 1995), p. 91.

²³ In Stephen Bann, introduction and translation, 'The landscape approach of Bernard Lassus', *Journal of Garden History*, vol. 3, no. 2, 1983, pp. 79–107. Bernard Lassus. *The Landscape Approach* (Philadelphia: University of Pennsylvania Press, 1998).

²⁴ Stephen Bann, 'From Captain Cook to Neil Armstrong: colonial exploration and the structure of landscape,' in, Simon Pugh, ed., *Reading Landscape* (Manchester & New York: Manchester University Press, 1990), p225.

²⁵ Riley, 'From sacred grove to Disney World', pp. 136–147.

²⁶ In declaring the "closure of the map," Hakim Bey observes that the last patch of 'untaken' Earth was claimed by a nation-state in 1899, making the 20th century the first without *terra incognita*. Hakim Bey, *The Temporary Autonomous Zone* (Brooklyn NY: Autonomedia, 1985), p. 100.

²⁷ Bann, 'The landscape approach of Bernard Lassus'. Lassus. *The Landscape Approach*.

²⁸ Roberto Casati & Achille C. Varzi, *Holes and Other Superficialities* (Cambridge MA: MIT Press, 1994), p. 25.

²⁹ *Ibid*, pp. 172–173.

³⁰ Conceived as a design workshop entitled "Creative Nature" by the University of Southern California American Academy in China, participating universities comprised: Peking University; University of Hong Kong; Feng Chia University; Columbia University; University of Toronto; University of California, Berkeley; the Architectural Association; and Universidad Torcuato de Tella.

³¹ Shusaku Arakawa and Madeline Gins, *Architecture: Sites of Reversible Destiny* (London: Academy Editions, 1994), p. 18.

³² Phillip Ball, *The Self-Made Tapestry* (Cambridge UK: Oxford University Press, 1999), p. 158.

³³ Shusaku Arakawa and Madeline Gins, 'The tentative constructed plan as intervening device', *Architecture and Urbanism*, December, 1991, pp. 48–57.

³⁴ Sun Tzu, *The Art of War* (New York: SoHo Press, c2011).

³⁵ Massumi, 'Sensing the virtual, building the insensible', pp. 16–24.

³⁶ Shusaku Arakawa and Madeline Gins, 'Gifu – critical resemblance house and elliptical field', *Architectural Design Profile*, vol. 121, 1996, pp. 27–34.

³⁷ Bernard Cache, *Earth Moves* (Cambridge MA: MIT Press, 1995), p. 40.

³⁸ Jorge Luis Borges, 'The garden of forking paths', in *Ficciones* (New York: Grove Press, 1962, translated from the Spanish 1956).

³⁹ Jane Gillette, 'Can gardens mean?', *Landscape Journal*, vol. 24, no. 1, 2005, pp. 85–97. See also John Dixon Hunt. *The Afterlife of Gardens* (London: Reaktion Books, 2004).

⁴⁰ Marc Treib, 'Must landscapes mean?: approaches to significance in recent landscape architecture', *Landscape Journal*, vol. 14, no. 2, 1995, pp. 46–62.

⁴¹ *Ibid*.

⁴² Robert Smithson, 'A sedimentation of the mind', in Nancy Holt, ed., *The Writings of Robert Smithson* (New York: New York University Press, 1979), p. 90.

⁴³ Bernard St-Denis, 'Just what is a garden?', pp. 61–76.

⁴⁴ Peter Marcuse, 'Walls of fear and walls of support', in Nan Ellin, ed., *Architecture of Fear* (New York: Princeton Architectural Press, 1997), p. 103.

⁴⁵ Donata Valentien and Christoph Valentien, 'The Chenshan Botanic Garden in Shanghai', in Donata Valentien and Christoph Valentien, eds, *Shanghai: Neuer Botanischer Garten / New Botanic Garden* (Berlin: Jovis, 2008), p. 39.

⁴⁶ Rob Aben and Saskia de Wit, *The Enclosed Garden* (Rotterdam: 010 Publishers, 1999), p. 10.

⁴⁷ John Dixon Hunt, *Greater Perfections* (University of Pennsylvania Press, 2000), p. 23.

⁴⁸ Hunt, *Greater Perfections*, pp. 20/24.

⁴⁹ Bianca Maria Rinaldi, *The Chinese Garden* (Basel: Birkhäuser), 2011, p. 14.

⁵⁰ Stanislaus Fung, 'Here and there in Yuan Ye', *Studies in the History of Gardens & Designed Landscapes*, vol. 19, no.1, 1999, pp. 36–45.

⁵¹ See, Christophe Giro, 'Towards a general theory of landscape', in, *Topos*, no. 28, 1999, p33.

⁵² St-Denis, 'Just what is a garden?'. St-Denis references John Dixon Hunt, *The Picturesque Garden in Europe* (London: Thames and Hudson, 2002), pp. 87–89.

⁵³ Aben and de Wit, *The Enclosed Garden*, p. 10. John Dixon Hunt, 'Introduction: the immediate garden and the larger landscape', *Studies in the History of Gardens and Designed Landscapes*, vol. 19, no. 1, 1999, pp. 3–6.

⁵⁴ Kenneth Helphand, [untitled], in Mark Francis and Randolph T. Hester Jr., eds, *The Meaning of Gardens* (Cambridge MA: MIT Press, 1990), p. 104.

⁵⁵ *Xi'an World University Park* (University of Southern California American Academy in China, unpublished design brief, 2009).

⁵⁶ Rinaldi, *The Chinese Garden*, p. 12.

⁵⁷ Michael Sorkin, 'Introduction: variations on a theme park', in Michael Sorkin, ed., *Variations on a Theme Park* (New York: Hill and Wang, 1992), p. xii.

⁵⁸ Cache, *Earth Moves*, p. 109.

⁵⁹ See Aben and de Wit, *The Enclosed Garden*.

⁶⁰ This is particularly true of the University Gardens that sought to amplify the 'other' senses; the question is whether the visual was restricted enough to allow the repressed senses to blossom.

⁶¹ Randolph T. Hester Jr., 'Garden as metaphor for landscape architecture', in Mark Francis and Hester, eds, *Meanings of the Garden* (Davis CA: Center for Design Research, 1987).

⁶² In Bann, 'The Landscape approach of Bernard Lassus'.

⁶³ James Corner, 'Ecology and landscape as agents of creativity', in George F. Thompson and Frederick R. Steiner, eds, *Ecological Design and Planning* (New York: Wiley, 1997), p. 82. Also referencing James Corner, 'Landscape as question', *Landscape Journal*, vol. 11, no. 2, 1992, p. 164.

⁶⁴ Following J.B. Jackson's articulation of landscape as always culturally determined, Richard Ingersoll argued that landscape is framed more by the mind than physical obstacles. Richard Ingersoll, 'Landscapegoat', in *Architecture of Fear*, p. 254.

⁶⁵ In the case of the Xi'an Expo, the organizing agency granted free entry to all Xi'an residents; an egalitarian decree to be sure, if indeed those of lower socio-economic status could afford to take the leisure time off from the typical seven day working week.

⁶⁶ Horace Walpole, *History of the Modern Taste in Gardening* (New York: Ursus Press, c1995), p. 43. As referenced in John Dixon Hunt and Peter Willis, *The Genius of The Place* (Cambridge MA: MIT Press, 1988), p. 91 and p. 313.

⁶⁷ See Valentien and Valentien, *Shanghai: Neuer Botanischer Garten / New Botanic Garden*.

⁶⁸ John Prest, *The Garden of Eden* (New Haven & London: Yale University Press, 1981), p. 92.

⁶⁹ James Corner, 'Botanical urbanism: a new project for the botanical garden at the University of Puerto Rico', *Studies in the History of Gardens & Designed Landscapes*, vol. 25, no. 2, 2005, pp. 123–143.

⁷⁰ Shanan, 'Foreword'.

⁷¹ Lassus asked whether our world has become the garden that modernity promised: "As the world has grown smaller, losing the immeasurable dimension of its landscapes which have submitted to the measurement of machines, techniques and apparatuses, it should have been transformed into a Garden of Delights or a Garden of Eden. But has it been?" In Bann, 'The Landscape approach of Bernard Lassus'.

⁷² Hui Zou, 'Deep and distant ethics: the fictional approach in Chinese gardens and urbanism', in *Reconciling Poetics and Ethics in Architecture* (McGill University School of Architecture, 2007), <http://www.arch.mcgill.ca/theory/conference/papers/>.