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James Corner

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Representation and landscape: drawing and making in the landscape medium

JAMES CORNER

I. Introduction

A central characteristic of the often ambiguous term 'landscape' is that it is first a schema, a representation, a way of seeing the external world, and, based on one's point of view, such schemata vary significantly. Geographers and painters see the land in different ways, as do developers and environmentalists.¹ If asked to draw the landscape, each party would no doubt produce a wholesome variety of graphic models and representations, reflecting their own peculiar mode of (re)cognition. Drawings might range from a cartographer's map, to an ecologist's transect, to an artist's perspective rendering. A poet might prefer words and tropes to visual images when describing a landscape. Collectively, each of these texts would 'draw out' of an existing landscape a particular description, or *analytique*, as seen through a specific conceptual lens, and would subsequently alter or transform the meaning of that landscape. Landscapes are thus the inevitable result of cultural interpretation and the accumulation of representational sediments over time; they are thereby made distinct from 'wildernesses' as they are constructed, or layered.²

From a landscape architectural point of view, a major aspect of landscape is that it is not only a phenomenon of analysis, but is more significantly something to be *made*, or designed. The landscape architect is very much interested in physically manipulating the land to reflect and express human ideas about Nature and dwelling therein. After all, landscape architecture is not simply an ameliorative or restorative practice, but is more precisely a figurative and representational art, providing culture with a sense of existential orientation through the construction of a built symbolic environment. Like any text, landscape architecture is conceptual, schematizing Nature and humankind's place within it, but at the same time it differs from other landscape representations in that it operates through and within the medium of landscape itself. In other words, the actual lived landscape is the medium of both construal and construction; the representation is not only encoded in various related textual media, such as literature or painting, but is more significantly embodied in the constructed landscape. As such, landscape architectural drawing – a textual medium which is secondary to the actual landscape – can never be simply and alone a case of reflection and analysis; it is more fundamentally an eidetic and *generative*

1 – See Donald Meinig (ed.), *The Interpretation of Ordinary Landscapes* (Oxford University Press, 1979). See especially the essays by Meinig, 'The Beholding Eye', pp. 33–48; 'Reading the Landscape: An appreciation of W. G. Hoskins and J. B. Jackson', pp. 195–244; and Pierce Lewis, 'Axioms for Reading the Landscape', pp. 11–32.

2 – *Ibid.*, pp. 33–48, 195–244. See also Denis Cosgrove and Stephen Daniels, (eds), *The Iconography of Landscape* (Cambridge University Press, 1988), pp. 1–10; Denis Cosgrove, *Social Formation and the Symbolic Landscape* (London, 1984), pp. 13–38; and Max Oelschlaeger, *The Idea of Wilderness: from prehistory to the age of ecology* (New Haven: Yale University Press, 1991).

3 – By ‘eidetic’ I mean that which pertains to the visual formation of ideas, or to the reciprocity between image and idea. That drawing is fundamentally about making images suggests that it might actually *generate* and transform ideas for the percipient rather than simply representing them.

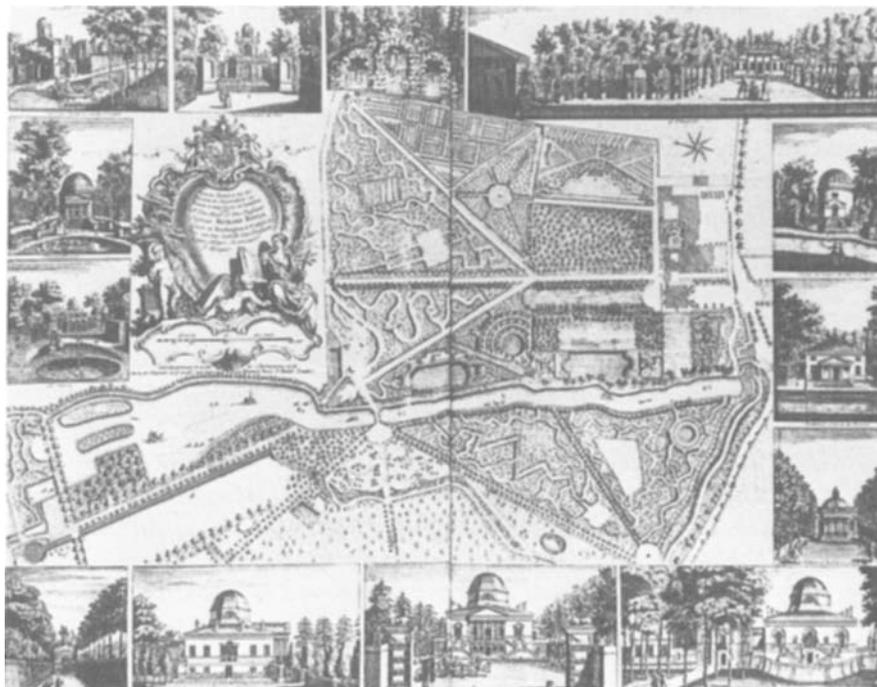
4 – See Robin Evans, ‘Translations from Drawing to Building’, *AA Files 12* (London: Architectural Association, 1986), pp. 3–18.

5 – See Maurice Merleau-Ponty, *The Primacy of Perception* (Evanston: Northwestern University Press, 1964), esp. chs 2 and 5.

activity, one where the drawing acts as a producing agent or ideational catalyst.³

The relationship of drawing to the production of built landscapes remains, however, obscure. Indeed, this obscurity is made all the more difficult to understand when one stops to reflect on just *why* drawings have become so extensive and prevalent in the making of landscapes: do not drawings seem particularly abstract phenomena when compared with the phenomena of landscape? (See figure 1.) This peculiarity is made all the more apparent when one compares drawing in landscape architectural production with other modes of artistic endeavor, such as painting or sculpture. It is not insignificant that many painters and sculptors often admit to not knowing where they are going with their work when they first begin. Instead, the work ‘unfolds’ as the artist is personally engaged with the medium and the possibilities that emerge from the work. Invariably, the fine artist’s most focused attention is on the making, the touching and holding of the same worked artefact that will become the final piece.⁴ During the time of engagement there occurs a spontaneity of feeling and expression arising both from a reactive response to the medium and from an imaginative source deep within. Here, the body and the imaginal are joined, inextricably involved with one another in a concentrated and creative, yet unselfconscious, unity. The making is itself a dialogue, a perceptive conversation between the medium and the imagination that cannot be intellectualized or thought of external to experience.⁵ The ancient Greeks knew this; an important connotation of *poiesis*, meaning to create or to make, is that only through the sentient perception of tactile and creative activity – the actual *work* of making – can discovery and revelation occur, the longed-for ‘moment’ of disclosure. As Heidegger has recognized, the hidden ‘truth’ of things,

Figure 1. Engraved plan and views of Chiswick, Middlesex, by J. Rocque, 1736. British Library. The figure is taken from John Dixon Hunt, *William Kent, Landscape Garden Designer* (London: Zwemmer, 1987). Landscape architectural engravings are inevitably bound into the production and reception of landscapes. They can affect the meaning of a given landscape depending upon when they were produced (before, during, or after construction); the convention of their presentation (plan, section, perspective); and their mode of expression (vibrant, quiet, dynamic, ethereal, pictorial, etc.). In essence, the engraving remains an integral part of the landscape architectural project, often making visible what is invisible and encoding a cultural screen, or lens, for interpretation.



their essence or *aletheia*, is something brought forth through human agency.⁶

The difficulty in landscape architecture, however, is that the actual work of building and construction is usually done by people other than the landscape architect. The instrumentality of modern construction procedures leaves little room for emotive or tactile involvement. Unlike the painter, the musician, the sculptor, or the traditional gardener, the landscape architect rarely has the opportunity to significantly touch and mould the landscape medium as it plays out in response to intervention. Although landscapists ultimately make places out of plants, earth, water, stone, and light, they are caught at a peculiar distance from these same elements, working instead with a completely different medium, an intermediary and translatory medium that we call drawing. Creative access to the actual landscape is therefore remote and indirect, masked by a two-dimensional screen.

This problem of distance and indirectness is further complicated by the apparent disparity or incongruity between drawing and landscape. While the preliminary sketch bears an obvious and similar relationship to the work of painting and sculpture, a drawing, any drawing, is radically dissimilar from the medium that constitutes the lived landscape. The disparity between the phenomenon of drawing and that of the landscape means that there is often a discrepancy between what is represented and what gets built. It is significant – but not necessarily disadvantageous – that the nature and embodied meanings of drawings and landscapes belong to different worlds, as do their modes of experience.

Drawing in landscape architectural design is also different from the art of the landscape painter. In a brilliant essay called ‘Translations from Drawing to Building’, Robin Evans has described how architectural design drawing differs from other pictorial arts in that it is not done *after* the subject, but *prior* to it, that is, prior to building and construction.⁷ Landscape architectural drawing is not so much an outcome of reflection on a pre-existing reality, as it is *productive* of a reality that will later emerge. The built landscape must be determined in advance, and will exist after the drawing, not before it.

Therefore, as a preface to the argument that follows, it is possible to state that the difficulties of drawing, with respect to landscape architectural production, lie primarily in three characteristics: (1) the designer’s indirect and detached, or remote, access to the landscape medium; (2) the incongruity of drawing with respect to its subject – its abstractness with respect to actual landscape experience; and (3) the anterior, prevenient function of the drawing – its generative role. Paradoxically, it is these same three characteristics that make such drawing enigmatic, in both a negative and a positive sense. On the one hand, the drawing can be an impotent imposter, an impossible analog, dangerously reductive and misused; whereas, on the other hand, drawing holds the possibility of forming a field of revelation, prompting one to figure previously unforeseen landscapes of a richer and more meaningful dimension.

The following essay further pursues the relationships that drawing has to the production of built landscapes, especially as it pertains to the

6 – See Martin Heidegger, ‘The Origin of the Work of Art’, *Poetry, Language, Thought*, trans. and intro. by Albert Hofstadter (New York: Harper and Row, 1975), pp. 17–87.

7 – Evans, ‘Translations from Drawing to Building’, pp. 3–18.

apparent incongruity between the medium that is drawing and the medium that constitutes landscape. The first part of the discussion examines the medium of landscape and the second explores that of drawing. The remainder of the essay focuses upon the interface of drawing and landscape, highlighting the paradoxical and enigmatic aspects of drawing, and further explicating the mechanisms through which drawing best fulfills its role in the imaginative construing and constructing of built landscapes. After all, it is no small issue to suggest that the primary difficulty in achieving an artful and non-trivial landscape architecture lies within the limits of human imagination and speculative vision – the ability to ‘see’, to see differently, and to see how things might be otherwise.

II. The medium of landscape

The landscape is primarily a medium that is irreducibly rich in sensual and phenomenological terms. Traditionally, the landscape has provided a great experiential quarry from which a variety of ideas and metaphors have inspired artistic and cultural attitudes toward Nature since antiquity. As a medium of symbolic representation, the landscape and its constitutive elements – stones, plants, water, earth, and sky, when artfully composed – have provided humans with some of the most sacred and powerful places of embodied meaning. Nothing, and certainly not a picture, can replace or equal the direct and bodily experience of such places. In particular, there are three phenomena unique to the medium of landscape and the experience of the same that evade reproduction in other art forms and pose the greatest difficulty for landscape architectural drawing. These may be tentatively called landscape spatiality, landscape temporality and landscape materiality.

SPATIALITY IN LANDSCAPE

Unlike paintings or novels, there is very little opportunity to wander or turn away from the experience of landscape. Spatially, it is all-enveloping and surrounds us, flooded with light and atmosphere. Irreducible, the landscape controls our experience extensively: it permeates our memories and consciousness, and enframes our daily lives.

Not only does the landscape surround us, but it does so in a limitless way. Its scale is big. Scale refers to both size and measurement, but more directly it denotes the relative size of something, the relative extent or degree. When people normally speak of landscape scale, they are referring to its bigness, its enormity relative to themselves. The limitless immensity of the landscape is felt to be spacious, sweeping, vast, enveloping and engaging of the subject. Scale engages not because it is an object – something external – but rather because it is a phenomenon that penetrates our imaginary consciousness. Bachelard has written of this experience, distinguishing the ‘immediate immensity’ of the world, the apparent limitlessness of the great forests and oceans, from the ‘inner immensity’ of the human imagination, the inner space of the self, infinite and luminous. Bachelard has speculated that the vast world of external Nature invokes a primal response within the subject, calming the soul and distilling a paradoxical though comforting sense of ‘intimate

immensity' with the world. A dream-space of infinite magnitude opens wherein vast thought and imaginative extension are reciprocally engaged with the spatial corporeality of landscape.⁸ Landscape scale not only envelops the body but also the imagination and the spirit.

This all-enveloping nature of landscape space, its overriding bigness and sheer sense of scale, and its inevitable correspondence with the poetic imagination are peculiar to the landscape medium. The full plenitude of landscape spatial experience cannot be represented without alteration or reduction: it can neither be drawn, for it is not in essence pictorial, nor can it be quantified, without gross simplification, for it is not all-measurable.

Furthermore, landscape space is a highly situated phenomenon, literally bound into geographical places and topographies. The spatial interrelationships of the cultural and natural patterns that constitute a particular landscape mean that places are interwoven as a densely contextual and cumulative weave. Every place is unique and special, nested within a particular *topos*, or 'topography'. For the ancient Greeks, *topos* referred to a tangible place that immediately brought to mind a variety of associations. Places, like things, conjure up a wealth of images and ideas; we place topics and rhetorical arguments as much as we do topography and space. We always find ourselves inextricably caught up with and bound into places. Our knowledge and experience of space is therefore more ontological, or 'lived', than it is mathematical or Cartesian. Heidegger recognized the situatedness of space when he wrote:

Space is in essence that for which room has been made, that which is let into its bounds. That for which room is made is always granted and hence is joined, that is, gathered, by virtue of a location. . . . Accordingly, spaces receive their being from locations and not from 'space'.⁹

Locations 'gather' and interconnect phenomena; they 'admit and install' relationships to become 'places'. 'Space is not the setting (real or logical) in which things are arranged, but the means whereby the position of things become possible', wrote Merleau-Ponty, describing how space is the 'universal power' that enables things to be connected, and is fully dependent on the subject's ability to experience and move through it.¹⁰ As such, each of us 'spaces' the world around us. Through spacing we orient ourselves and construct our geographical being.¹¹

Spacing also implies a conceptual ability to 'think across' space. As Heidegger has shown, thinking can 'persist through' distance and time to any thing or place.¹² When one moves through landscape space, that person is going 'somewhere', he/she has a destination, and, in a phenomenological sense, part of the individual is already there, occupying, thinking, pervading.

The subject in the landscape is therefore a fully enveloped and integral part of spatial and phenomenological relations. The experience of landscape space is never simply and alone an aesthetic one but is more deeply experienced as a lived-upon topological field, a highly situated network of relationships and associations that is perhaps best represented as a geographical map of collagic dimensions (figure 2). The topo-

8 – Bachelard uses extracts from books by Baudelaire and Phillippe Diolo to further explicate the idea of 'intimate immensity'. Bachelard quotes from Diolo describing 'the magical operation that, in deep water, allows the diver to loosen the ordinary ties of time and space and make life resemble an obscure, inner poem. . . . Neither in the desert nor on the bottom of the sea does one's spirit remain sealed and indivisible'. Imaginative extension and all-surrounding limitlessness are poetic qualities of landscape which enable us to dream. In the dark forest we may enter the closed and veiled forests of ourselves. In the open desert our own spirit may also be sensed as unbounded and infinite. See Gaston Bachelard, *The Poetics of Space* (Boston: Beacon Press, 1974), pp. 183–210.

9 – Martin Heidegger, 'Building, Dwelling, Thinking', *Poetry, Language, Thought*, trans. and intro. by Alfred Hofstadter (New York: Harper and Row, 1975), p. 154.

10 – See Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. by Colin Smith (London: Routledge and Kegan Paul, 1986), p. 243.

11 – The notion of landscape spatiality being akin to a layered map of locations, or as situated places perceived through 'spacing', can be related to Kevin Lynch's work in his book *The Image of the City*. The thesis of the book is that we know our built environment as a complex structure of nameable locations, as named loci of phenomena. Lynch's layers of analysis – 'path, node, landmark, district, edge' – are collectively understood by ordinary citizens who mentally overlay them as a cognitive map – 'something is over there in relation to this'. Lynch's notion that a densely stratified landscape fabric, of enormous perceptual complexity, can actually be understood and translated into a spoken, written or drawn 'map', by most of its inhabitants, is in concurrence with Heidegger's insights into spatiality: the fact that space is situated, connected, spaced, named, and, most importantly, 'thought through'. Kevin Lynch, *The Image of the City* (MIT Press, 1964). In relation to the concept of spacing see Jacques Derrida, 'Point de Folie – Maintenant l'Architecture', in *AA Files 12* (London: Architectural Association, 1986).

12 – Heidegger, 'Building, Dwelling, Thinking', p. 156.



Figure 2. *Geography Pages*, Emmett Gowin, 1974, Reproduced with permission, courtesy of Emmett Gowin and Pace/McGill, New York. The experience of landscape space is never simply and only an aesthetic one, but is more deeply experienced as a lived-within topological field, or as a highly situated network of relationships and associations that is perhaps best represented as a geographical map of collagic dimensions.

ontological experience of landscape space obviously challenges the spatial instrumentality of Cartesian geometry and algebraic measurement that is so prevalent in most contemporary representations of space. The Cartesian co-ordinates that constitute purely technical projection drawing neither originate nor end in earthly space – they are not situated in place but float in an abstract frame of analytic–mathematic relations.

TEMPORALITY IN LANDSCAPE

Meaning, as embodied in landscape, is also experienced temporally. There is a duration of experience, a serialistic and unfolding flow of before and afters. Just as a landscape cannot spatially be reduced to a single point of view, it cannot be frozen as a single moment in time. The geography of a place becomes known to us through an accumulation of fragments, detours and incidents that sediment meaning, ‘adding up’ over time. Where, when, and how one experiences a landscape precipitates any meaning that is derived from it.

Moreover, as Merleau-Ponty has identified, there are no events without someone to which they happen. He has written:

Time is not a real process, not an actual succession that I am content to record. It arises from *my* relation to things . . . Let us not say that time is a ‘datum of consciousness;’ let us be more precise and say that consciousness deploys or constitutes time.¹³

13 – Merleau-Ponty, *Phenomenology of Perception*, p. 412.

The disclosure of meaning in a given landscape can only occur when the subject is present, moving through it, open to sensation and experience. This phenomenological observation not only means that one’s comprehension of landscape is bound to a particular time and conditions of experience, but also to a particular cultural view. Such are the periods that constitute history. We today ‘see’ Versailles differently from the 17th-century courtiers and festival-goers, for example.

Temporality in landscape experience is further complicated by the movement of the body itself, a phenomenon we call kinesthesia. When moving across landscape space there is not only a dynamic flow of perceptions derived from external sources, but there is also the muscular and nervous movement of the body itself through space and time.¹⁴ One may run, stroll, dance or ramble across, down or along a landscape, changing relational meanings through the pace and nature of bodily movement. This is further complicated by the fact that moving bodies in the landscape are often in a distracted state, the individual paying little, if any, concentrated attention to their immediate environment. We rarely pay such conscious and sensorial devotion to landscape space as we do to a painting or an object. Rather, as Walter Benjamin has recognized, the meaning derived from landscape and architectural space is received ‘by a collectivity in a state of distraction’, slowly appreciating its symbolic environment through ‘habitual appropriation’, or through everyday use and activity.¹⁵ The experience of landscape *takes time*, and results from an accumulation of often distracted events and everyday encounters.

14 – See J. J. Gibson, *The Ecological Approach to Visual Perception* (Boston: Houghton-Mifflin, 1979).

A third aspect of temporality in landscape distinguishes it from buildings and other spatial artforms: landscape is a living biome that is subject to flux and change by natural processes operating over time. The

15 – Walter Benjamin, *Illuminations*, ed. by Hannah Arendt (New York: Schocken Books, 1969), p. 239.

dynamic action of erosion, deposition and the effects of growth and weather continually transform the structure and pattern of the shifting landscape. The same landscape may be experienced in radically different ways when it is in flood, engulfed in fog, covered with snow, or burning with fire, meaning that the qualities of space, light, texture, and ambience are ever subject to change. Not only does this dynamism challenge the art and intentionality of landscape architectural meaning (because of the impermanence of a medium caught in flux), but it also makes it difficult, if not impossible, to represent and experience it externally, as through a drawing for example.

SUBSTANCE AND MATERIALITY IN LANDSCAPE

The landscape is further complicated because it is a concrete and substantial medium, composed of elemental matter. Matter is the raw, brutish stuff from which things are made. It is what constitutes material properties, making them perceptible to our senses. Materiality is the *quality* of being material and is best understood through the tactile and bodily perception of things, senses distinct from any form of secondary or objective deduction.

The tactile not only includes surface phenomena, such as roughness and smoothness, stickiness and silkiness, but also substantial phenomena such as density and viscosity, elasticity and plasticity, hardness and rigidity. Materials in the landscape radiate a host of sensory stimuli that are deeply registered by the sentient body: the aroma of material; the feeling of humidity or dampness; the intensity of light, dark, heat and cold. Different woods burn in different ways. They give off varying flame patterns – some crackle, some hiss, their embers may glow, sparkle, or smoke. As living trees, the same woods are known to us in significantly different ways. In the pine stand the wind whispers and whistles; in the gnarled oak forest it broods and wallows; in the aspen grove it rustles. Things and places become known to us because of what they impart to our senses through the very organization of their sensible aspects. The significance of anything encircles and permeates tangible matter.

Today's fascination with the visual image, the pictorial, makes it all the more important to recall how the greater part of landscape experience belongs to the sensorium of the tactile, the poetics of material and touch. A bogland for example can be quite monotonous or uninteresting visually, but it can be appreciated in a completely different way through bodily and tactile experience – the muttering squelch and lisp of water underfoot; the springy return of the spongy ground; the dampness of cold, grey, windless air; the peaceful *softness* of it all. Obviously, drawing is as limited here as it is in the realms of space and time. While a drawing can perhaps signify qualities, it cannot reproduce or represent the actual qualitative experience of materials which constitute the tactile landscape.

Thus, the phenomenological qualities of landscape space, time and material present unsurmountable difficulties for drawing and representation. First, the flatness and framing of the graphic presentation fails to capture the all-enveloping quality and sheer scale of landscape space. What is presented is a picture, a flat frontality approached from a distance as an object. Second, the drawing is autonomous, equally at

home in a gallery or book. It is not situated as are places and locations, and remains unaltered when estranged from the complexity of life-situations. Third, the drawing is static and immediate, meaning that it is quickly decoded as the eye scans the image from a totalizing and singular point of view. Landscape experience, meanwhile, is received in moments, glances, and accidental detours, kinesthetically unfolding through rambling and habitual encounters over time. Fourth, a drawing is made of its own materials – it has its own substance, and is therefore unable to reproduce and actualize the sensuous and tactile experience of the corporeal landscape, even though a drawing may oftentimes possess the power to make humans more cognizant of a landscape's attributes. Fifth, and perhaps most significantly, the drawing is experienced optically, with rapt and full attention being paid to the image, whereas landscape is so much more, experienced as much if not more through the body than the eye. The subject in the landscape is a fully enveloped and integral part of spatial, temporal and material relations, and nothing can reproduce the meaning that comes from this lived experience, no matter how accurate or skilful is the representation in other mediums.¹⁶

III. The medium of drawing: projection, notation, and representation

The phenomenology of landscape experience eludes drawing to such a point that one might feel the need to end the discussion at this point, perhaps doubting or at best wondering how drawings can relate to the landscape at all. Yet useful and imaginative relationships have evolved over the centuries (no matter how partial or indirect these may at first seem). Landscape and architectural drawing can be discussed as three quite distinct and separate types. We shall call them projection, notation, and representation.

PROJECTION

Projection has to do with *direct analogies* between drawing and construction, and includes the plan, the elevation, the section, the axonometric, and, in a lesser way, the perspective. In *Natural History*, Pliny the Elder offered one myth of the origin of drawing when he told of the story of Diboutades tracing the shadow of her departing lover on the wall.¹⁷ Robin Evans has beautifully compared David Allan's painting of Pliny's tale, entitled *The Origin of Painting*, of 1773, with the architect Frederick Schinkel's painting of the same title, done in 1830.¹⁸ In both, light rays project the shadow of a figure onto the flat wall and constitute a traced outline which may be called a 'projection'. A shape is projected through space to be captured on a flat picture plane. Evans has described how, in Allan's depiction, the projected drawing was the outcome of a single-point light source casting the shadow of the seated lover onto a refined interior wall, whereas in Schinkel's painting, a man better known as an architect than a painter, the drawing was the result of solar illumination (and therefore the result of parallel projection), casting the shadow of a figure onto an uncut stone (figure 3). For the architect, therefore, the projection drawing serves as a precedent to artifice, acting as a template

16 – See John Whiteman, 'Criticism, Representation and Experience in Contemporary Architecture', *Harvard Architecture Review* 4 (New York: Rizzoli, 1985), pp. 137–147.

17 – Robert Rosenblum, 'The Origin of Painting', *Art Bulletin* (Dec. 1957), pp. 279–290.

18 – Evans, 'Translations from Drawing to Building', pp. 6–7.

Figure 3. *The Origin of Painting*, K. F. Schinkel, 1830. Gouache, 26 × 29 cm. Wuppertal, Von-der-Heydt Museum. Figure taken from K. F. Schinkel, Helmut Borsch-Supan and Lucius Grisebach, eds. (Berlin: Verwaltung der Staatlichen Schlosser und Garten, 1981). Schinkel's painting shows the projection of a shadow onto uncut stone. The shadow trace then becomes a template for the cutting of the stone which represents the beginning of artifice, the 'construction' of civilization. The idea of projection is therefore bound into mimesis and unites both the symbolic and the instrumental representations.



of transfer from figure to cut-stone, or more precisely, from *idea* to built artifice.

The projection drawing is thus directly analogous to construction. One constructs a drawing as one does a building. Both are 'projects'. A drawing that surveys and measures an existing landscape is a literal projection of that topography onto the picture-plane. On the other hand, a drawing that proposes a new and as yet unrealized landscape acts as the mediator between the designer's vision, or ideational project, and the actual construction of that project on the site. The survey drawing is projected from the ground, whereas the construction drawing is projected onto the ground. Both types of drawing are demonstrative as they reveal otherwise hidden aspects of the building or landscape. A plan, or a map, for example, makes visible an aerial topography that is otherwise inaccessible.

For Vitruvius, the parts of a construction were arranged according to the 'ideas of disposition', which were constituted in three ways: *ichnographia*, the plan; *orthographia*, the elevation; and *scaenographia*, the sectional profile.¹⁹ These drawings embodied in themselves the 'ideas' necessary for architectural translation and construction. Thus, the plan drawing literally demonstrates the layout and organization on the ground, akin to the marking and pegging out of a foundation; the elevation drawing demonstrates the raising and construction of a vertical face, akin to scaffolding; the section or profile-cut demonstrates the details and relations between parts; and the sectional linear perspective allows for the optical correction of proportion and scale (figures 4 and

19 – Vitruvius Pollio, *On Architecture*, ed. from the Harleian manuscript 2767, and trans. by Frank Granger, 2 vols. (Cambridge: Harvard University Press, 1983), Vol. 1, Bk. 1, Ch. II, pp. 24–25. Also see Claudio Sgarbi, 'Speculation on de-sign and Finito,' *VIA 9: Representation* (New York: Rizzoli for the University of Pennsylvania, 1988), pp. 155–165.

5).²⁰ The Vitruvian 'ideas' were less graphic conventions than conceptual strategies analogous to the reality of execution. Another projection, which is more peculiar to landscape and gardens, is the planometric, probably first devised by the Ancient Egyptians and developed during Medieval times. Here, the vertical elements of a building or garden are 'laid down', as in elevation, over the plan. This 'double' projection embodies both the map-like topography of landscape terrain, as seen from above, and the frontal, or elevational, composition as seen by the standing subject, and it demonstrates to the gardener the layout and distribution of the various plant forms as well as the relationships between the parts (figure 6). Unlike buildings, which are raised volumetrically as floors, walls and roofs, the constructing of a landscape is

20 – See Kenneth Frampton, 'The Anthropology of Construction', *Casabella* (251:2, January 1986), pp. 26–30. Also see Marco Frascari, 'A New Angel/Angle in Architectural Research: The Idea of Demonstration', *Journal of Architectural Education*, 44/1 (November 1990), pp. 11–19.

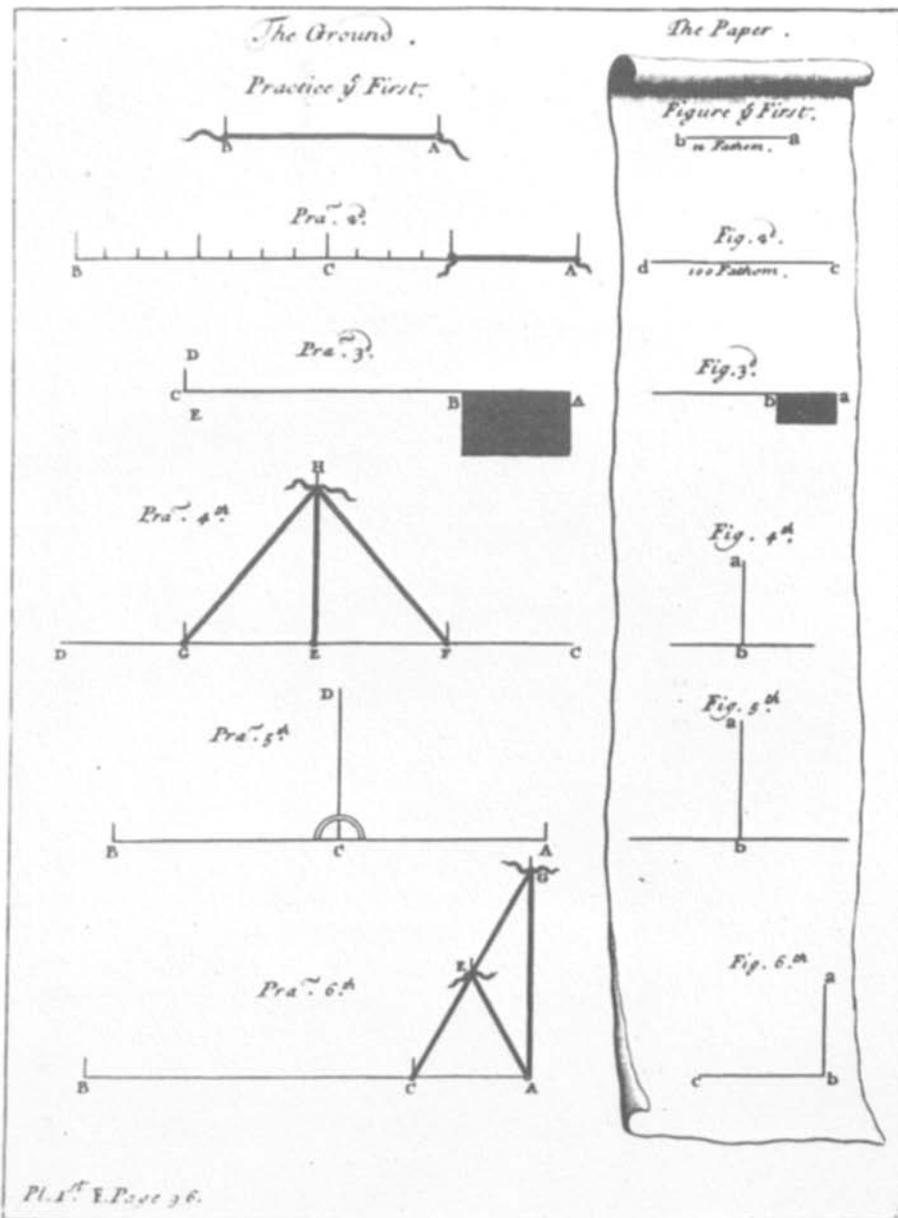


Figure 4. Illustration showing the translation of lines on paper to lines on the ground, by John James, from *The Theory and Practice of Gardening* (London, 1712).

Figure 5. Survey drawing, Tony Mazzeo, 1991. Pencil and ink on paper, 43.2 × 35.6 cm. This drawing resulted from a measured survey of a piece of ground using tapes, stakes, compasses, and leveling and sighting devices. The actual process of making the survey was then recorded in the making of the drawing. The construction of the plan and section drawing was made according to the procedures of the original survey, and included any errors, backtracking or incomplete trajectories.

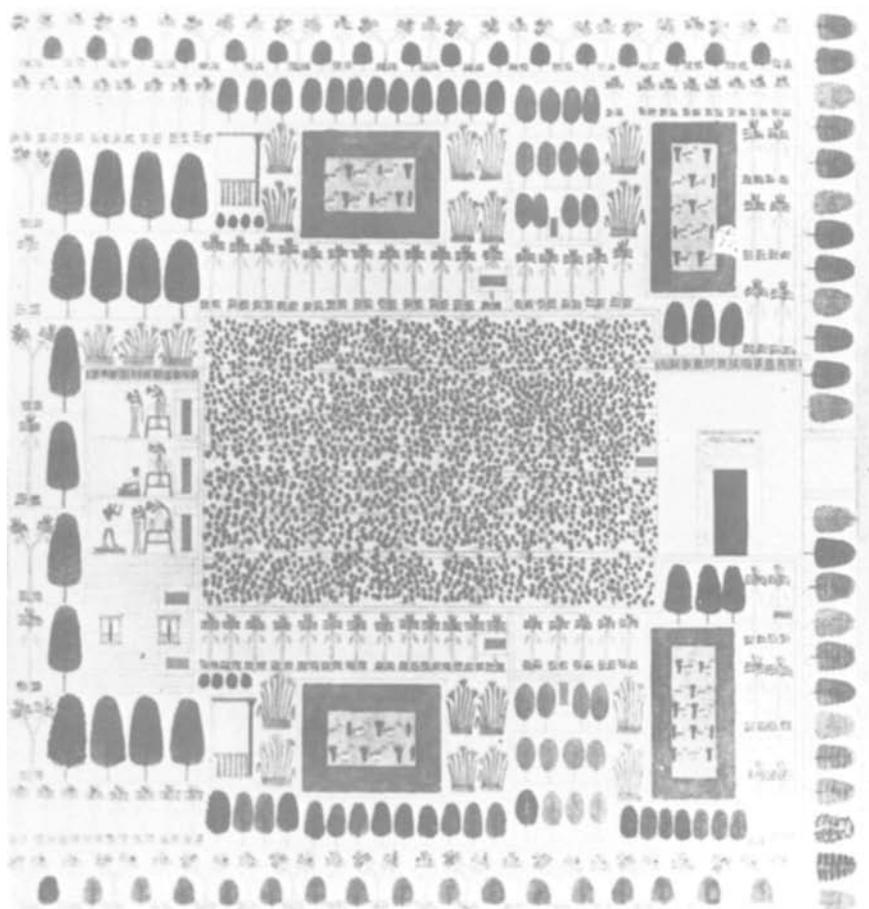
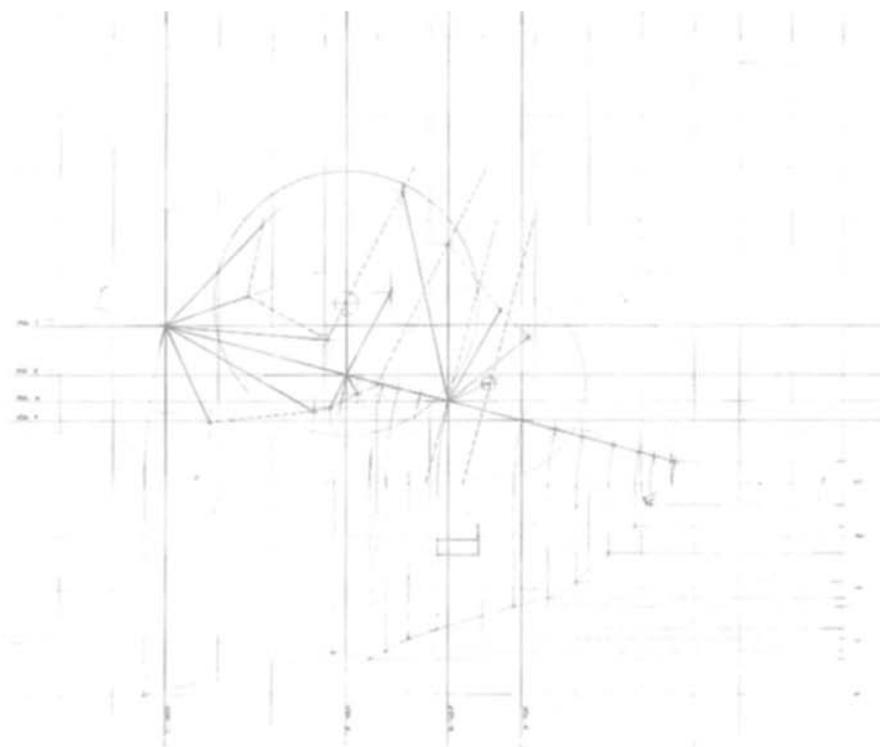


Figure 6. Planometric drawing of a garden, XVIIIth-dynasty Thebes. The figure is taken from Geoffrey and Susan Jellicoe, *The Landscape of Man*, 1975 (London: Thames and Hudson).

much akin to the workings of the planometric, emphasizing both the ground plane and the frontal identities simultaneously.

Danielle Barbaro, commenting on Vitruvius's *Treatise* in 1569, believed the projection geometries of plan, section and elevation to be superior to perspective, making a clear distinction between 'ideas' and 'expression on the paper.'²¹ Projective drawings are neither a picture nor a neutral set of information, rather they embody in themselves architectural ideas through co-similar and complementary projections which are ontologically conceived as being analogous to the symbolic intentions of the built work itself. This practical relationship has largely been forgotten today, displaced by a more instrumental and descriptive use of projective geometry. Alberto Perez-Gomez has described how, during most of the seventeenth century, architects could still distinguish between ontological drawing and illusionary drawing, i.e.: between 'practical' drawing and artificial perspective. Describing the degeneration of eidetic projective drawing into the functional and systematic methodology developed at the *Ecole Polytechnique* in Paris, Perez-Gomez has written:

The original architectural 'ideas' were transformed into universal projections that could then, and only then, be perceived as reductions of buildings, creating the illusion of drawing as a neutral tool that communicates unambiguous information like scientific prose.²²

In other words, the power of demonstrative drawing lies in the fact that it is *open* to interpretation, both prior to and after the built construct. Such drawing is an integral part of the whole artistic 'project', making visible what is hidden and prompting one to understand something at a higher level. One attribute of William Kent's *oeuvre* of drawings, for example, or of Bernard Tschumi's portfolio for the Parc de la Villette, is that the images significantly affect the way one sees and understands the landscape to which they refer. Never is drawing merely a mute and instrumental document. However, the purely procedural techniques of modern-day projection drawings tend to alienate both designer and builder from a synesthetic and hermeneutical mode of making and knowing. From the eighteenth-century pattern books of Batty Langley, replete with a menu of geometrical templates for garden layout and design, to the current-day wide acceptance of 'graphic standards' and glossaries of forms and 'types', projective drawing has degenerated into a prescriptive recipe for relatively harmless, but thoughtless and trivial production. The contemporary belief that drawings are either objective communicative devices (instrumental construction drawings) or illustrations (facile presentation drawings) significantly misunderstands the traditional symbolic and ontological basis of projection.²³

NOTATION

Some systems of standard projection belong to a family of drawing called notation. Notation systems seek to *identify* the parts of a schema, enabling them to be reproduced, enacted or performed. They include itinerary schedules, piano scores and dance notations. Measured plans, sections, elevations, and written specifications are also notational, as their main

21 – Daniele Barbaro, *La Pratica della Prospettiva* (Sala Bolognese, 1980), pp. 129–130. Referred to by Alberto Perez-Gomez, 'Architecture as Drawing', *Journal of Architectural Education*, 36/2 (1982), pp. 2–7.

22 – Alberto Perez-Gomez, 'Architecture as Drawing', p. 3. Also see Alberto Perez-Gomez, *Architecture and the Crisis of Modern Science* (MIT Press, 1988), esp. Ch. IV.

23 – Ibid. Also see Frascari, 'The Ideas of Demonstration', p. 12.

24 – Nelson Goodman, *Languages of Art* (Cambridge: Hackett Publishing, 1964), pp. 127–176.

25 – Edward R. Tufte, *Envisioning Information* (Cheshire, CN: Graphics Press, 1990), p. 114.

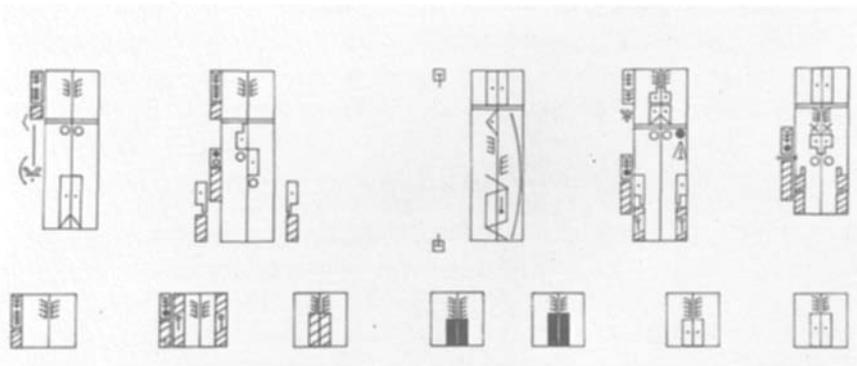
26 – See Ann Hutchinson Guest, *Dance Notation* (London, 1984). Also see Albrecht Kunst, *Dictionary of Kinetography Laban (Labanotation)* (Estover, Plymouth, England, 1979).

27 – See Lawrence Halprin, *RSVP Cycles* (New York: George Braziller, 1969).

purpose is to specify the essential properties of a particular work in order for it to be translated with minimum ambiguity. In *Languages of Art*, Nelson Goodman has written that notation schemes must employ a symbol system that is ‘syntactically differentiated within unambiguous and finite parameters’.²⁴ Notations are therefore strictly denotative constructs rather than connotative ones. Edward Tufte has remarked that ‘Design strategies for recording dance movements encompass many . . . display techniques: small multiples, close text-figure integration, parallel sequences, details and panorama, a polyphony of layering and separation, data compression into content-focused dimensions, and avoidance of redundancy’.²⁵ The unambiguous nature of the notation is an attempt to avoid connotative or subjective misinterpretation – even though the playing of a musical score, for example, is still open to interpretation by the musician. Obviously, the quest for strictly denotative objectivity remains a fundamental principle for notational work, but, at the same time, we cannot forget that interpretative semiosis remains an inevitable part of notational reading, even though the tolerance of variation may be small.

Notation systems in landscape architectural design are not only useful for their communicative and translatory status, but also because they enable one to consider the simultaneity of different layers of experience, including movement and time. Rudolf Laban, for example, developed a system of dance notation called *Labanotation*, which precisely choreographs the movement of the body through time and space, enabling dancers to enact a particular performance (figure 7).²⁶ It successfully challenges the view that complex motion is too difficult a subject-matter for notational articulation through a layered deployment of abstract symbols and encodings. The landscape architect Lawrence Halprin has also devised notational scores to design and co-ordinate fountain displays, as well as to consider the disposition and experience of elements along a particular route or sequence. Halprin also developed a method of ‘scoring’ that enabled group participation in decision making and planning. The complicated, but highly active, score itself becomes a performed piece as the creative process is graphically played out.²⁷ Apart from Halprin, however, notational developments specific to landscape architecture have been few and far between, and yet the analogous qualities of landscape to narrative, dance, theater, or film, suggest that notations would be a promising area of research. One might begin by

Figure 7. Detail of a labanotation. Taken from *Dictionary of Kinetography Laban (Labanotation)* by Albrecht Kunst (Plymouth: Estover, 1979). The dance score is read vertically with the right and left sides of the body represented on each side of the vertical timeline. The numerous marks and figures are the encodings for particular body parts and related dance gestures.



studying the theatrical scores developed by Moholy-Nagy or the film storyboards of Sergei Eisenstein, who effectively separated the various layers of cinematic experience in order to co-ordinate the movements of the camera with the playing of the soundtrack, the dimming and brightening of light, and the timing of editing and cutting. Eisenstein called the intersection of the various layers ‘correspondences’, explaining how the full meaning embodied in the film would be a result of their simultaneous correspondence – an overlay known as *montage*.²⁸ Bernard Tschumi adopted a similar strategy, layering spatial, temporal, and material phenomena into a notational sequence for a ‘cinematic path’ at the Parc de la Villette. The notation successfully plays down visual aspects of the experience while highlighting programmatic and spatial ones (figure 8).

28 – See Sergei Eisenstein, *Film Sense*, ed. by Jay Leyda (New York: Harcourt, Brace, Jovanovich, 1975), pp. 176–177.

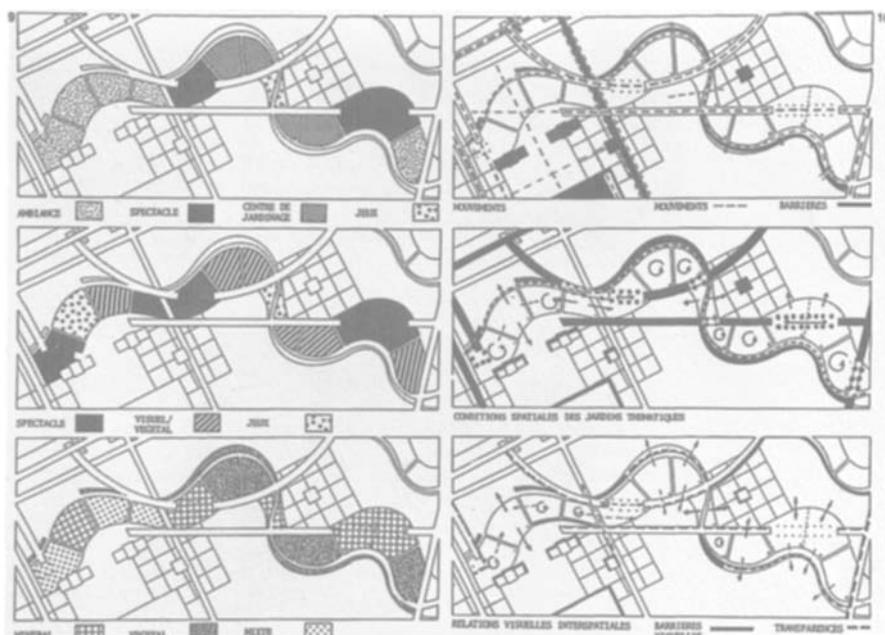


Figure 8. ‘Cinematic path notations’, Parc de la Villette, Paris, by Bernard Tschumi (New York, 1988). These drawings co-ordinate a plan delineation with a notational coding scheme, orchestrating a variety of experiences along the ‘cinematic path’ at the Parc de la Villette, Paris.

Such notations afford a coded matrix upon which to design narratives of time and space, enabling one to orchestrate the simultaneity of spatial, temporal and tactile experience. However, these syntactically complicated graphics remain limited because of the need for specialist reading to decode the complex score and understand it as experience. How many of us can actually hear the music when we read a piano score, or experience a movie sequence from looking at a storyboard? On the other hand, notations cannot, nor should they necessarily try to, portray or depict experience; their function is simply to identify the parts which constitute it (figure 9).

REPRESENTATION

Unlike projection and notation, representational drawings aim to *re-present* a given landscape or building, seeking to elicit the same experiential effects but in a different medium – to give the same effects

29 – See Arthur Danto, *The Transfiguration of the Commonplace* (Cambridge: Harvard University Press, 1981), Ch. 6. Also see Nelson Goodman, *Language of Art*.

again.²⁹ Pictorial perspective is therefore a representation in this sense as it depicts the depth and spatiality of a scene at eye-level from a certain vantage point. An accurate perspective structure, with carefully observed and applied chiaroscuro, texture and colour, will closely resemble and imitate a particular scene, as if drawn on a pane of glass positioned between the viewing subject and the landscape. Constable, for example, strove to capture in his painting the ‘truth’ of a scene, recording the landscape before his eyes with an almost scientific precision and discipline (figure 10). With equal if not more emphasis on chiaroscuro than perspective, Constable’s ‘naturalistic’ school of painting sought to make a canvas as perfect an imitation as possible, accurately recording a retinal, almost photographic, impression. Constable’s genius lay in his ability to surpass formulaic and technical approaches to painting, such as the ‘Claude-glass’ (a polished copper mirror which made a scene appear

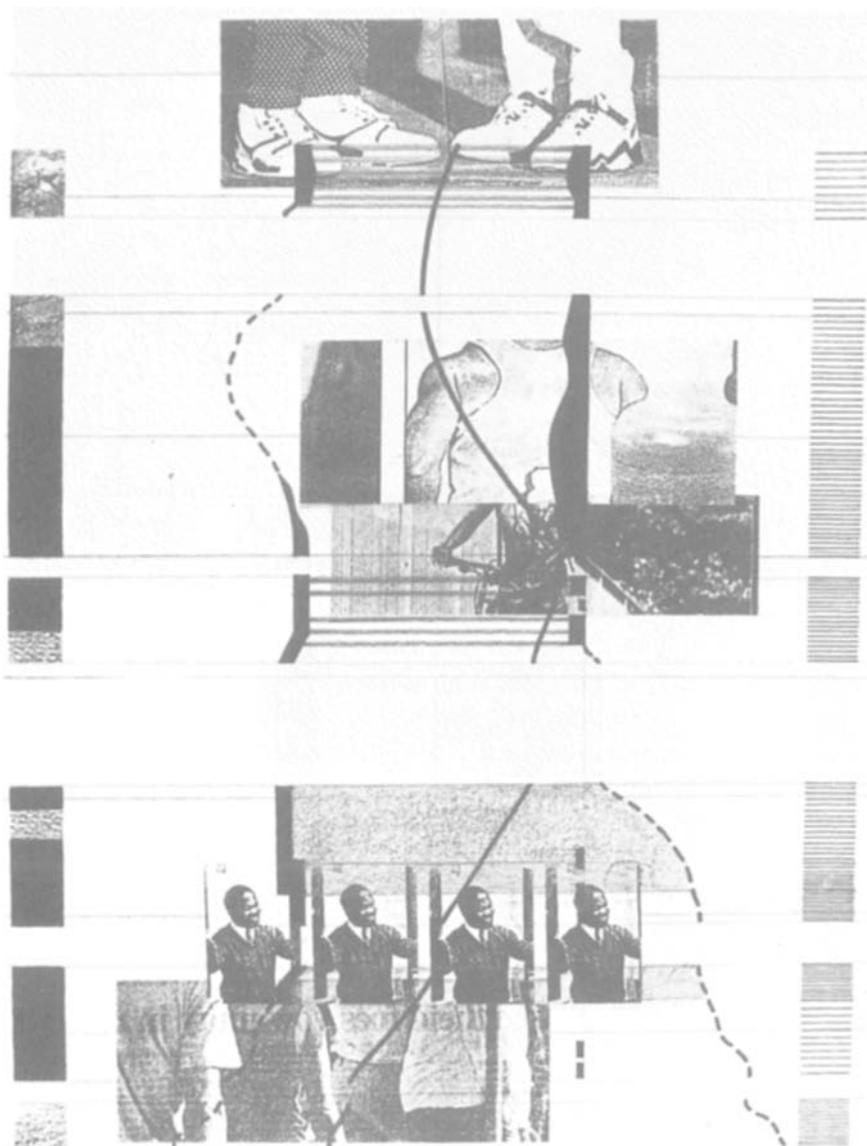


Figure 9. Movement/experience notation, Lori Cockerham, 1991. Pencil, ink, and copy-transfer on paper, 43.2 × 35.6 cm. This notational drawing was produced from a particular sequence of experience along a short walk. The photographic inlays of figures and actions are meant to convey a series of ‘happenings’ that occurred along the way. Events and action are always the most variable aspects of landscape experience, and yet they probably form the greater part of engagement and memory recollection.

more as it might in a canvas by Claude), and in his skill at transcending the rigidity of methodical schemata and technique, especially with regard to the innate attributes of oil paint on canvas. The lively one-to-one correspondence between scene and picture, unimpeded by cultural codes of vision, was the aspiration and success of Constable's 'art of truth'.³⁰

However, the realism of direct imitation poses problems for landscape architectural design. Let us not forget how landscape architectural drawings *precede* the subject-matter, unlike Constable's which were derived from a pre-existing subject. Therefore, to draw a 'scene' which is yet to be built is to reverse the direction of artistic production. Whereas a painter's picture is a representation of a scene as *perceived*, a landscape architectural picture is a representation of a scene *imagined*, and, in turn, the built landscape becomes a representation of that picture. Rosalind Krauss, in her essay on 'The Originality of the Avant-garde', has explained how the Picturesque paintings of Rosa, Lorrain, and Gilpin were conceived as pictorial 'copies' of nature, formulaic and therefore reproducible, which actually preceded how the 'original', the landscape,

30 – This is discussed by Norman Bryson in *Vision and Painting: The Logic of the Gaze* (New Haven: Yale University Press, 1988), pp. 43–44. Also see E. H. Gombrich, *Art and Illusion: A Study in the Psychology of Pictorial Representation* (Oxford: Phaidon, 1977), pp. 29–34, 320–330.



Figure 10. *Dedham Vale*, John Constable, 1828. Oil on canvas, 145 × 122 cm. National Galleries of Scotland, Edinburgh. Constable's search for the 'truth' of a scene, the retinal copy, was most developed through his astute observation of the 'chiaroscuro of nature' and its subsequent rendering with pigment so as make the paint and the canvas transparent to the actual scene.

31 – Rosalind Krauss, *The Originality of the Avant-Garde and Other Modernist Myths* (Cambridge: MIT Press, 1985), p. 166.

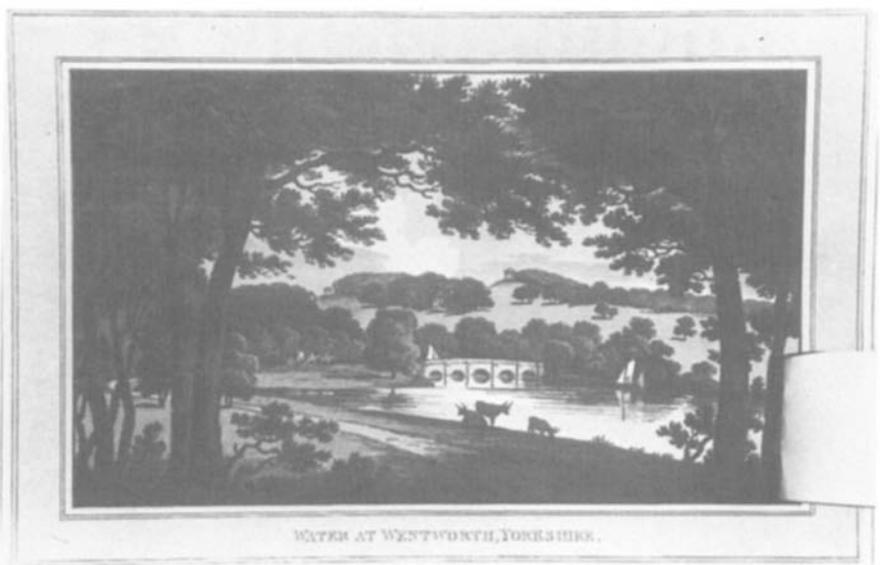
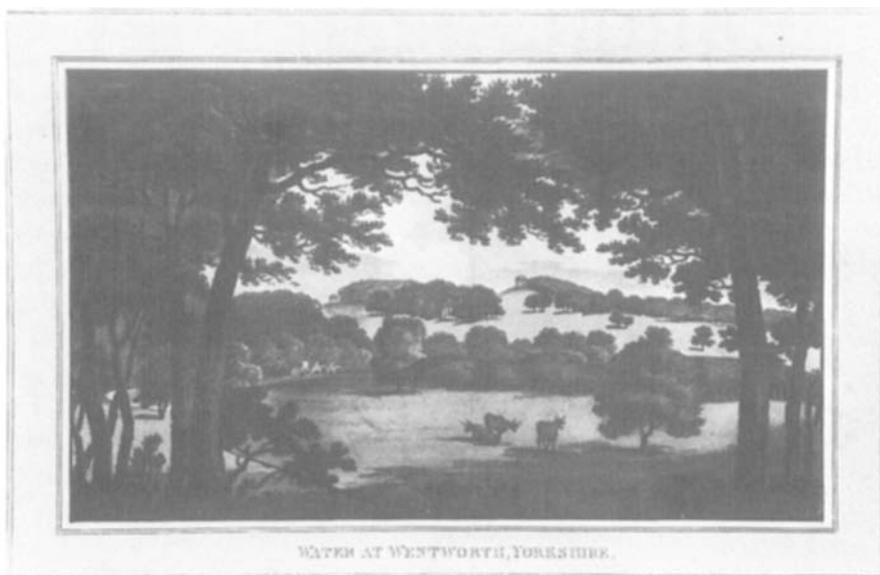
32 – See Dan Rose, 'The Brandywine: A Case Study of an Ecological Strategy', *Landscape Journal*, 7/2 (Univ. of Wisconsin Press, Fall 1988), pp. 128–133.

33 – The development of landscape as a scene to be 'completed' by the action of visitors was most evident in the landscape gardens by William Kent, especially at Rousham. See John Dixon Hunt, *William Kent, Landscape Garden Designer* (London: A. Zwemmer, 1987), pp. 29–40, 60–99.

34 – There are two problems with pictorial representation when making landscapes. The first is that the predominance of the picture plane remains an extremely remote aspect of landscape experience, emphasizing the visual over other modes of cognition. The second is that the drawn picture itself begins to accrue a certain value, inevitably ascending to the status of an aesthetic object, and subsequently playing all-too-comfortably into the hands of modern criticism and the consumptive demand of glossy magazines and galleries. See Whiteman, 'Criticism, Representation and Experience', pp. 137–147.

was subsequently seen and understood. Gilpin, for example, wrote extensively about how to look at a landscape scene and observe the 'effects' of foreground, distance, perspective and 'roughness'. In describing this, Krauss has written: 'the priorness and repetition of pictures [were] necessary to the singularity of the Picturesque,' and the understanding and meaning derived from a particular landscape was 'made possible only by a prior example' – a picture.³¹ Krauss is describing how pictures can affect the reception and understanding of a landscape, the basis of the Picturesque, but pictures can also work to affect the production and management of landscapes. Andrew Wyeth's paintings, for example, have helped the aristocracy of Chester and Delaware Counties, Pennsylvania, form a regional landscape aesthetic which they (indirectly) employ to control the design and management of their estates.³² Furthermore, pictures can also be used to literally transform a landscape physically. The *Red Books* of Humphry Repton, for example, show the beautification of a series of rural landscapes through the use of 'before and after' paintings of specific scenes. The logic of the picture plane determines the landscape composition, subtracting and adding earth, water, and vegetation to an existing 'inferior' view. Both the existing and proposed views are compared or overlaid so that one might understand the precise nature of the transformation (figures 11 and 12). Of course, many eighteenth-century landscapes were laid out as an arrangement and disposition of scenes. One might stroll through such a landscape catching glimpses and then fully composed views of scenes evocative of contemporary paintings. The moving bodies of the visitors themselves would often provide the action necessary to complement the scene, now backdrop.³³ The problem, however, with scenographic approaches to landscape architectural design is that they demand that the subject's primary mode of attention be visual and participatory. Vision is, of course, only one part of landscape experience; rarely is one's full attention devoted to the aesthetics of sight. Landscape perception is more fully the result of an accumulation of incident, impression and detour, more like a rambling and unpredictable sequence of events than a contrived picture-show. Reduced to a scene, the pictorial landscape is often conceived in a manner remote from both the laws of its own constituency (the effects of time and ecological flows of energy for example) and from the experiencing subject (aspects of distraction and the tactile for example). The danger of pictorial representation lies in the designer making 'pictures' as opposed to 'landscapes', scenes and visual compositions based upon the illusionary logic of the picture plane, rather than upon the sensual arrangement of landscape form, replete with a fullness of spatial, temporal and material qualities.³⁴

However, there are other types of representation which are perhaps better able to articulate a greater sense of experience than the singularity of perspectival pictures. These representations deploy graphic signs and symbols which are rich with *connotative* value, unlike the strictly denotative symbol systems used in notational drawing. Expression in representation works because of the way in which semantically rich symbols (marks, gestures, shapes, colours) can be related to metaphoric labels, figures that disclose an infinite network of associated meanings



Figures 11 and 12. Before and after views of the 'Water at Wentworth, Yorkshire', by Humphry Repton, 1802. Taken from *The Red Books of Humphry Repton* (London, 1976).

due to what Goodman has called their 'semantic density'.³⁵ The experience of inference and association in art is called *synthesis*, which means the splashing over of impressions from one sense mode to another. For example, Kandinsky illustrated how shape and color, purely visual phenomena, could be juxtaposed so as 'to weep', 'to shout' or to 'kill each other'. We speak of 'loud colors', 'bright sounds', or 'cold light'.³⁶ It is the signifying capacity of a semantically rich representation which speaks to us, as in Duchamp's powerful '*Genre Allegory (George Washington)*', wherein the iodine-soaked bandages pinned to a canvas with military stars ironically recall a rather disordered American flag and also silhouette the distinctive facial profile of Washington (figure 13). While such highly suggestive works are clearly visual, they are not images. That is, they do not directly resemble the optical image of things, the *imago*, or the retinal

35 – Nelson Goodman, *Languages of Art*, pp. 111.

36 – See Wassily Kandinsky, *The Spirit of Art* (New York: Dover, 1977). Also see E. H. Gombrich, *Art and Illusion*, Ch. XI. Gombrich also has described how figures, in addition to forms or colors, can be juxtaposed to create a new message. The 'ideogram' of water alongside an eye might signify 'to weep', a mouth and a dog might signify 'to bark', and so on. The correspondence between matter and idea forms the basis for meaning.

37 – See Robin Evans, 'In Front of Lines That Leave Nothing Behind', *AA Files 6* (London: Architectural Association, 1983), pp. 98–96.

specter, but rather they point to the *idea* which underlies things. In other words, the *cause* of a particular effect is shown. We may call this the archetypal essence of things: that which persists through any number of forms and appearances, and which remains ever open to new interpretations. Drawing of this sort is therefore re-presentational; that is, it does not simply represent a world already in existence, a quantity we already know, but rather it tries to re-present the world in ways previously unforeseen, thereby making the old appear new and the banal appear fresh. The fact that drawing in landscape architectural design precedes a built reality means that it might also have first to transform a society's vision about landscape, perhaps playing less on the picture and more on the phenomenological enigmas inherent in the landscape itself. To understand representation as (de)sign – as portent or harbinger – one must first learn to forget the scenic surface of the image and think behind it, beneath it, around it.³⁷

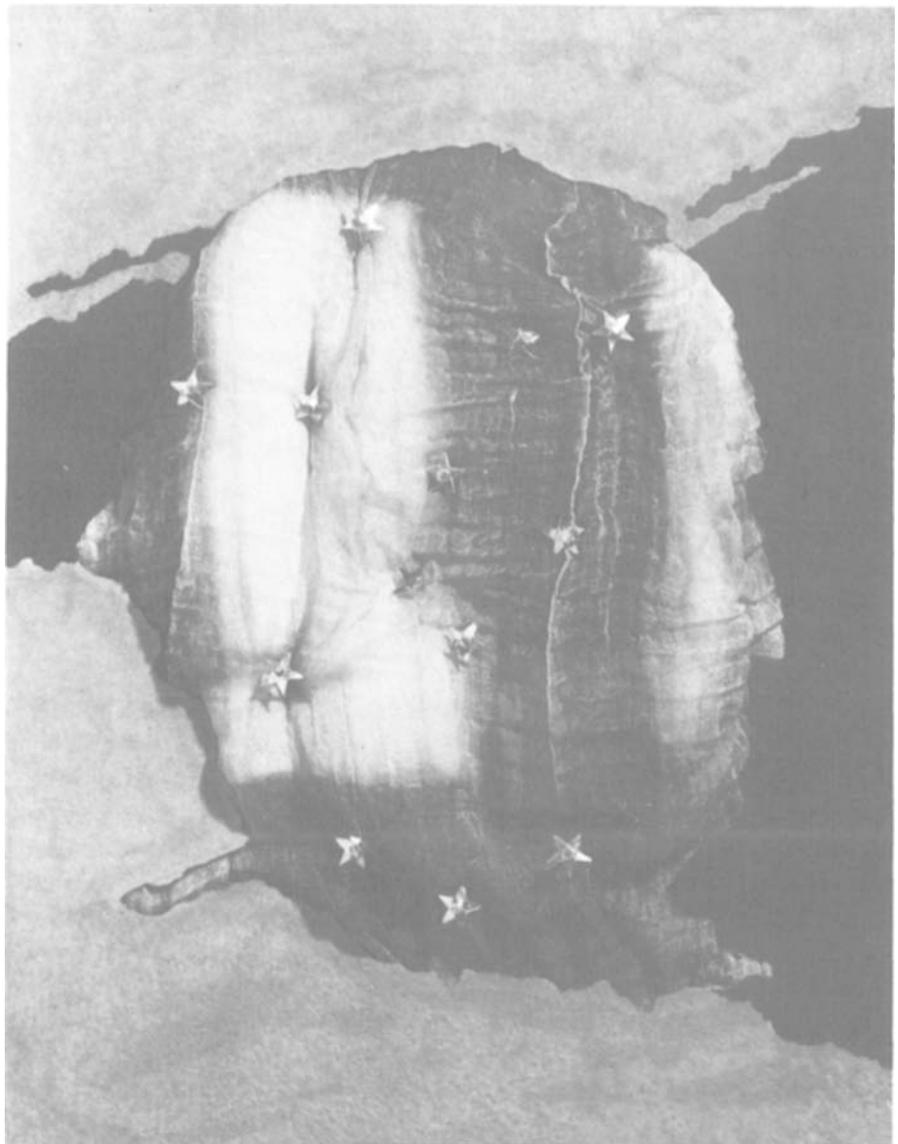


Figure 13. *Genre Allegory (George Washington)*, by Marcel Duchamp, 1943. Assemblage: cardboard, iodine, gauze, nails, gilt-metal stars, 53.2 × 40.5 cm. Musée National d'Art Moderne, Paris. Figure taken from Gloria Moure, *Marcel Duchamp* (New York: Rizzoli, 1988).

IV. The misuse of drawing

Projections, notations and representations are all, though in differing ways, indirect, abstract, incongruous and anterior in relation to the landscape medium. These qualities have led to two major misconceptions about the value and action of drawing in contemporary design.³⁸ The first misuse occurs when emphasis is placed on the drawing itself, as if the drawing is the artistic and prized artefact. In this camp, the seductive qualities of drawing promote a detached and personal preoccupation with it, whereupon the drawing is over-privileged as an artform unto itself. It is commonplace today to see autonomous and self-referential drawings as the bearers of effect and the focus of attention. Such works are eminently consumable, affording a visual feast for those with the appetite, while remaining ineffectual with regard to the actual production and experience of landscape. The wide availability of images and their mass dissemination has prompted John Whiteman to write:

First, in critical magazines, architecture becomes its own market, both producing and consuming its own images. Second, the ideology and impulses which then surround architectural drawing no longer aim toward the production of architectural experience, but instead lead to images that can only be picturesque in their hidden drive to be available for distribution.³⁹

The second misuse of drawing is a reaction against the former. This party is suspicious of any meaning a drawing may hold beyond that of the strictly instrumental. Consequently, the potential richness of drawing is suppressed through a reductive and overly technical practice. Here, the emphasis is on the mute language of objective, denotative systems (plans, sections, isometrics). An outcome of the eighteenth century, this scientific view of drawing is widely practiced today owing to the emphasis on rational methodology in the design professions and building trades.⁴⁰ Moreover, as Whiteman has argued, the instrumental use of drawing has continued to gain greater currency because of the effects of modern criticism, which, like drawing, usually has its greatest impact prior to construction, but relies on the drawing, rather than the built artefact, to make its judgements – judgements made not only by professional peers but also by clients and other interest groups which can influence precisely what gets built. As Whiteman has pointed out, the problem lies in the fact that modern criticism seeks objectivity and remains suspicious of alternative symbolic systems of interpretation.⁴¹ Subsequently:

We get scared of the artistic power of architecture and distrust our capacity to notate and represent artistic intentions to ourselves. We are made nervous by the possibility that a commitment in symbolic form might be rendered naive. So we turn aside from a way of architecture which can reshape things to make meanings immediate and present to us. Instead we run to ideas and conceptions which seem to have automatic justification for us.⁴²

Furthermore, Whiteman has observed that:

Under the influence of pure criticism we have confused the separate purposes of representation and notation, and have inculcated an aesthetic in

38 – This division is most clearly identified and explained by Robin Evans, 'Transitions from Drawing to Building', pp. 3–18.

39 – Whiteman, 'Criticism, Representation and Experience', p. 145.

40 – See Alberto Perez-Gomez, 'Drawing and Architecture', pp. 2–7.

41 – Criticism has ascended to a primary role in the production of art works since the enlightenment. Its aim is to reflect on the underlying assumptions and premises which constitute a work. In our modern age, there is a deep suspicion that everything must be questioned if it is to be substantiated. It is a skeptical position, but one most prevalent in our work today.

42 – Whiteman, 'Criticism, Representation and Experience', p. 143.

43 – Ibid., p. 144.

which simultaneity, immediacy and impact are the prized values. This involves a refutation of mimesis, and an attack on the notion of depth, by giving a rendering of the world in the flat.⁴³

While modern criticism may perhaps promote a more objective and unambiguous form of landscape and architectural depiction, other forms of criticism, such as Deconstruction for instance, or even contemporary art criticism, promote the other extreme of drawing described in the preceding paragraph, the mystical, ‘artistic’ drawing. The problem in both the instrumental and the ethereal drawing is that the drawing itself becomes the focus of attention for criticism. Furthermore, as the critical view also tends to place distance between the critic and the object, in this case the drawing, the distance from the actual landscape is effectively doubled. Not only does an illusory picture plane stand between critic and landscape, but so too does a screen of ‘critical’ schemata – a screen which is often just as sterile or obscure as the drawings to which it refers. Nothing could be more remote from the lived experience of landscape space. The motivations behind either form of drawing and criticism seem antithetical to the work of landscape architecture, inevitably constructing false ground for the justification of such work.⁴⁴ Both the mystical ‘artist’ and the pragmatic ‘technician’ effectively sever any authentic dialogue the drawing may have with built experience and the material world, significantly misunderstanding the function of drawing in landscape architectural production. The frequent discrepancies between what is represented and what gets built means that there is often a rift or translatory failure between drawing and building. In effect, the landscape medium becomes ‘contaminated’ by drawing; that is to say, the innate richness of the landscape itself is suppressed or suffocated by another medium which is either excessively privileged or significantly undervalued.

The source of this dichotomy lies in the fact that both the excessive and repressive uses of drawing are linked to drawing’s apparent incongruity, or indirectness, in relation to landscape architecture; one camp revels in drawing’s abstractness, while the other is repelled by the same level of abstraction.⁴⁵ On the one side are those who insist on an irreducible expressiveness, on the other are those insisting on an objective ‘realism’. As Robin Evans has observed:

The two options, one emphasizing the corporeal properties of things made, the other concentrating on the disembodied qualities in the drawing, are diametrically opposed: in the one corner, involvement, substantiality, tangibility, presence, immediacy, direct action; in the other, disengagement, obliqueness, abstraction, mediation, and action at a distance.⁴⁶

However, neither camp recognizes that landscape architectural drawing gains its potency precisely from its directness of application to landscape, on the one hand, *and* its disengaged, abstract qualities on the other. After all, it is just as erroneous to suggest that the designer’s free imagination is the source of inventive form as it is to discuss drawing as the sole generator of formal creation. Rather, both play off one another, as in an engaging and probing conversation. How else are the leaps and abridgements between ideas and their embodiment in form made?

44 – While it might be naive simply to ignore the pervasive effects of objective reasoning and modern criticism, this does not mean we must necessarily play into the hands of it. Through a practice of critical resistance one might hope to re-educate designers and critics in the refined perception of subjective and psychic responses when receiving drawings. Indeed, the poetic critic may well accomplish a real service to society by projecting a richness of association and potentiality previously repressed by the narrow confines of logocentric criticism. On the other hand, this is not a call for greater ethereality and mysticism, so prevalent in much of contemporary criticism. See George Steiner, *Real Presences* (University of Chicago Press, 1990).

45 – This observation is derived from Robin Evans, ‘Translation from Drawing to Building’, p. 5.

46 – Ibid., p. 5.

Drawing is an eidetic medium, and to use it simply as a means to an end, or as a means of self-indulgence in the name of 'artistic expression', is irresponsible with respect to the real work of landscape architecture. This suggests a difference between drawings used merely as tools of composition and communication, and drawings which act as vehicles of creativity.⁴⁷ The emphasis shifts from drawing as image to drawing as *work* or process, a creative act which is somehow analogous to the actual construing and constructing of built landscapes.⁴⁸

V. The metaphoricity of drawing

This essay began by describing drawing as a translatory medium which enabled the figuration of an imaginary *idea* into a visual/spatial corporeality embodied in the built fabric of the landscape. While the essay so far may have stressed the differences between the medium of drawing and the medium that constitutes the landscape, highlighting the limits of drawing in representing (and therefore designing for) landscape experience, there still remain properties of drawing that make it an extraordinarily powerful medium in relation to the production of landscapes. The dilemma of both the ethereal and instrumental drawing, so prevalent today can be resolved when drawing is understood as the *locus* of reconciliation between construal and construction, or between the symbolic and instrumental representations.⁴⁹ For example, the original Vitruvian 'ideas' as embodied in drawing suggest that drawings hold the possibility of being both projective, notational, and representational at the same time. Neither images nor pictures, such drawings are analogical demonstrations of both construal and construction. They are the architecture, embodying the symbolic intentions of the building and demonstrating its construction.

A more significant type of drawing in landscape architectural design might arise from a twofold use of the graphic medium: one is the speculative function, and the other is the demonstrative function. In the first, drawing is used as a vehicle of creativity, and in the second, drawing is used as a vehicle of realization. Both types of drawing work by analogy and occur alongside one another simultaneously.

As a vehicle of creativity, drawing is a highly imaginative and speculative activity, entailing both spontaneity and reflection. It first involves the making of marks and the 'seeing' of possibilities. Such work is both imaginal and theoretical, making images and recording spatial and tactile qualities through a process of association, akin to what was said earlier about Kandinsky and the power of synesthesia. For example, in the Chinese and Japanese technique of 'flung-ink' painting, originating as early as the fourteenth and fifteenth centuries, ink is first thrown onto the canvas in an energetically random manner to form a visual field. The painter then improvises through immediate response to the thrown image and begins to construct a landscape through the working of the brush (figures 14 and 15). Alexander Cozens developed a similar approach of responsive drawing during the eighteenth century in England. In such improvisational, rapid-response work, the graphic field is deeply inhabited by all the visceral and imaginative capacities of the artist striving to see, to draw out and to bring-into-being.

47 – The term 'drawing as a vehicle of creativity' is derived from Dalibor Veselý, 'Representation as a Vehicle of Creativity', *Scroope*, issue 2 (Cambridge University School of Architecture, 1990), pp. 13–17.

48 – See Frascari, 'The Ideas of Demonstration'. One constructs both theoretical schemata as too things and plans. Construal is theoretical whereas construction is instrumental. Thus, 'there is no construction without a construing, and no construing without a construction. . . . The construing of a cosmological order is constructed in a Renaissance villa', p. 18. Frascari uses the word chiasm to mean 'an exchange between the phenomenal body and the 'objective' body, between the perceiving and perceived' (quoted from Merleau-Ponty, *The Visible and the Invisible* [Evanston, Northwestern University Press, 1968], p. 215). Frascari's 'angel/angle' trope is used to illustrate this union. Drawings are therefore the site, or *locus*, of both construal and construction. 49 – Ibid., pp. 11–19. Also see Dalibor Veselý, 'Architecture and the Conflict of Representation', *AA Files 8* (London: Architectural Association, 1984), pp. 21–38.

Figure 14. *Water and Mountain*, Sesshū, 1490–1497. Ink on parchment paper, 70 × 34 cm. Osaka Museum of Art. Taken from *Complete Collection of Japanese Paintings*, Vol. 4: *Sesshū*, Nakamura Tanio and Shigeai Goto (Tokyo: Suedo Horiuchi, 1976). In rapid response to thrown ink upon a canvas, a landscape is quickly drawn out from the visual field. All the marks and traces of the search for the image remain, recording the processual work of construal.





Figure 15. *Water and Mountain*, Sesshū, 1495. Ink on paper, 147.9 × 32.7 cm. Tokyo National Museum. Taken from *Complete Collection of Japanese Paintings*, Vol. 4: Sesshū, Nakamura Tanio and Shigeai Goto (Tokyo: Sueo Horiuchi, 1976). Process, work, duration, accident, flux: while landscape is the subject, equally so are the painter's own spontaneity and involvement with the brush.

The flung-ink (although it could be any graphic medium, some much richer such as tempera or oil paints) begins the process by opening up a synesthetic 'field', a metaphorically suggestive realm that prompts an imaginative seeing. Leonardo da Vinci had once said that one first truly learns to see by allowing one's attention to become absorbed in streaks of dried spittle or the surface of an old stained wall until the imagination is able to distinguish an *alternative* world.⁵⁰ Seventeenth-century artists

50 – See A. Chastel, *Leonard da Vinci par lui-même* (Paris, 1952).

51 – See Jurgis Baltrusaitis, *Aberrations: An Essay in the Legend of Forms*, trans. by Richard Miller (MIT Press, 1989), pp. 60–105.

52 – For an account of the surrealist view toward the re-enchantment of the world, see André Breton, 'Artistic Genesis and the Perspective of Surrealism', *Painting and Surrealism* (New York: Harper and Row, 1972), pp. 50–362.

53 – See Vesceley, 'Drawing as Vehicle of Creativity', pp. 13–17.

Johann König and Antonio Carracci used the suggestive fields of veined marbles and agates as the bases for highly imaginative paintings of landscapes and other representations. Figures and images were literally drawn out and metamorphosed from the surfaces of stones and minerals.⁵¹ Similarly, the making of graphic and collage fields 'irritate' the mental faculties to such a degree that fountains of possibilities emerge before the percipient; one becomes so engaged with the wealth of images that new worlds are disclosed, as if in a dream or hallucination. Like the luminous collages of Schwitters or Ernst, these fields of interpretation make impressions on the receptive mind and, in turn, the imagination impresses itself into the field. Fresh images might be conjured up as one 'sees' things in new associations. As the Surrealists have already shown, the power of a psychically inhabited and synesthetic realm can re-enchant the ordinary and make the everyday world magical once again.⁵²

The tactics of appropriation, collage, abstraction, imaginative projection, and so on, are strategies used to prompt free association, providing liberatory mechanisms of construal. However, such work first requires that the drawing be theoretically and critically motivated by the maker. Collage, for example, is not a random and unfocused activity, but demands a highly disciplined and reflective mind. It is not simply a matter of 'anything goes'. Any creative transformation that results from human intellection will always entail special vocabularies, procedures and modes of demonstration, specific to a particular theorem and motive. The game is complex, elusive, unsystematic, and ever subject to modification. It is important to remember that these types of drawing are only strategies; their primary work is in critical response to something. They are neither automatic deviation screens, yielding up ideas of their own making, nor are they grounds of justification, falsely legitimizing the project simply because of their perceived magic. The function of abstraction in drawing is simply to discover new ground, to gain insight, not to obfuscate, nor to justify a project.

The difficulty in such drawing lies in distinguishing the culturally and architecturally relevant from the limits of personal fancy or those of more transient value. The percipient must be able to distinguish between weak, fanciful ideas and the more potent images and symbolic structures relevant to landscape architectural experience. Ideas such as archetype, deep structure, and the constancy of the primary or typical human condition, belie the fact that there are universally significant situations peculiar to the human condition.⁵³ Essentially, a significant 'seeing' is about re-cognition, and remains the outcome of productive and meaningful poetic activity. Drawing can best function in this capacity if two tenets are first upheld: first, drawings are eidetic phenomena which work through symbols and analogs, not through likeness of representation. This point is illustrated by Frascari, who equates graphic and constructed angles with 'angels'. In describing the journeys of the early Mediterranean sailors, Frascari has written:

The imagining of angels, guiding essences, was a way of finding the angles necessary to determine the direction for reaching land safely. In architecture this traditional chiasma of angels and angles is recorded, in an oblique way, by Vitruvius. In his explanation of the planning of the angles of cities,

Vitruvius cites as an example the Tower of Winds in Athens. This Hellenistic edifice incorporates both representations of the winds as figures of angels and as the angles of direction.⁵⁴

54 – See Frascari, 'The Ideas of Demonstration', p. 11.

Later, he concludes:

... the objects of architecture should not be given to public knowledge in a rigid, finished state, in their naked 'as suchness'. Rather, they should be presented as demonstrations in such a way that each angle should be dressed up as an angel.⁵⁵

55 – Ibid., p. 17.

For Frascari then, the instrumental and the symbolic (or the visible and the invisible), are united through analogies between the signifier and the signified. The degree of reciprocity between both the signifier and the signified thus forms a second tenet of drawing. John Whiteman has referred to this correspondence as a 'qualitative precision' between the symbols used in representation and the ideas they embody in built landscape form. He has written:

[An understanding of the term qualitative precision] means admitting that the logics of formal manipulation cannot be purely autonomous, that judgements in architectural design are guided not by the autonomous reasons of form alone but rather by a coupled sense of the physical and the symbolized, the visible and the invisible.⁵⁶

56 – Whiteman, 'Criticism, Representation and Experience', p. 147.

A more laconic and accurate form of drawing might best be realized by the individual with time and experience, as one can only properly understand the interrelationships between the symbolic and the material worlds more through sensible observation than by secondary constructs such as concepts and analytical matrices. However, the qualitative precision of angles and angels is not simply a case of observational clarity (which is something always susceptible to scientific prescription and duplication), but more properly derives from imaginative construal. The paradox inherent in the term 'qualitative precision' is that accuracy of observation belongs not to scientific certainty but to the realm of myth and poetry wherein things make sense and ring true without necessarily being explicit or accountable. It is in this way that symbols retain their open-endedness and are subject to ever richer association.

Speculation through drawing is, however, only part of drawings' full function with respect to landscape architectural production. A necessary complement lies in drawings' capacity to demonstrate intention and construction – the drawing as a vehicle of realization. This type of drawing goes beyond speculative fields (and the emergence of ideas), and instead it begins to demonstrate the project in practical terms. In describing the drawings of two contemporary architects, Carlo Scarpa and Mario Ridolfi, Frascari has written:

Scarpa works out his strata of architectural mediations on pieces of Bristol board with overlays of light pieces of tracing paper, using drafting and colored pencils, diluted inks and applying the painterly technique of *pentimenti*. Ridolfi utilizes layers of heavy tracing paper for his analogical thinking, employing a fountain pen, and editing the final drawing with a skilful use of scissors and transparent adhesive tape. Scarpa's and Ridolfi's drawings ... are visual descriptions of processes that are not visible. They are conceived not to be read by the public, but to carry out a demonstration

57 – Marco Frascari, *Monsters of Architecture* (Maryland: Rowman and Littlefield, 1991), p. 102.

58 – *Ibid.*, p. 104.

of intent. On the other hand, conventional working drawings are scientific tools for presenting a future reality within an appearance of continuous and uniform order; *they show a result, not the intent.*⁵⁷

The dynamic drawings of Scarpa and Ridolfi are ‘productive representations of an eidetic process’,⁵⁸ the result of analogically working the medium of drawing with the medium of building. Scarpa, for example, first scores his paper with a plan delineation of the particular site and its physical context. Layers are then added and subtracted orthographically, as if alternately building and partly demolishing foundations (figures 16 and 17). Scales are shifted and overlaid as parts and details are played alongside the construal of the whole. The drawings are made neither for construction nor presentation, but rather for the disciplined *work* of the architect. Both the symbolic and instrumental representations are found in these ideational drawings, enabling the ideas to be translated into built form. The representation of space is not separated from the space of representation, just as the function of representation is not separated from the representation of function.

A common aspect of both the speculative and demonstrative drawing is that they each act as vehicles for creativity, as intermediary catalysts that are used to *generate* a landscape architectural project. Never are they merely descriptive on the one hand, nor decorative and fetishistic on the other. Rather, they both belong to a kind of work called *deixis*. In describing *deixis*, Norman Bryson has explained how the term originally derives from *deikononei*, meaning ‘to show’, to make evident, and that, in linguistics, the term *deictic* is applied to utterances that supply information regarding the source of the utterance. Deictic tenses are always compounds of the present, the here and now, and stand in

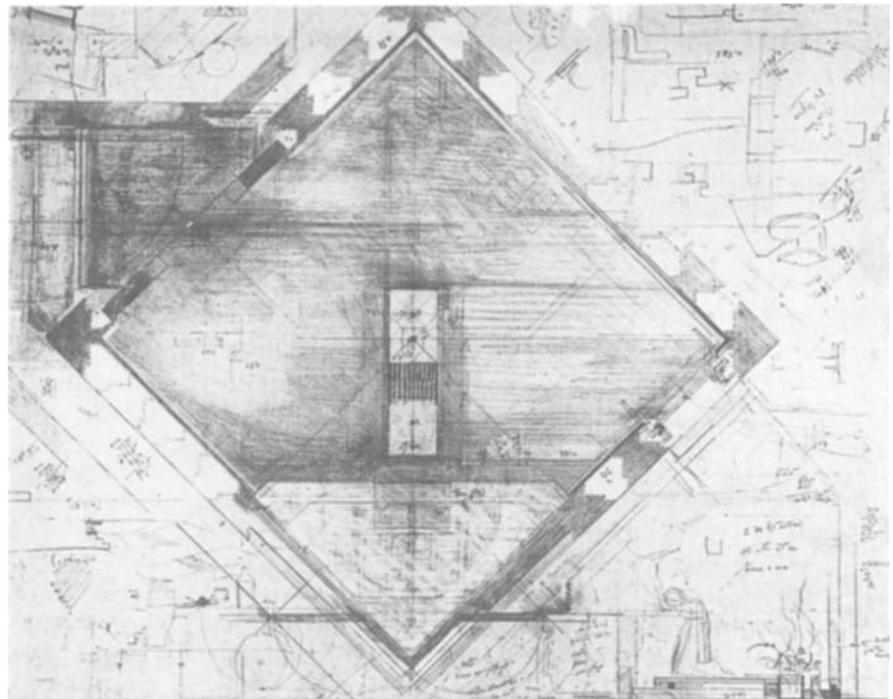


Figure 16. Plan of the Brion Chapel, Carlo Scarpa, 1969. Pencil and crayon on brownline copy, 49.8 × 56.4 cm. Figure taken from *Carlo Scarpa: The Complete Works*, Francesco Dal Co and Giuseppe Mazzariol (New York: Electra/Rizzoli, 1985). Scarpa's deeply overlain drawings are made neither for construction nor presentation, but rather for the disciplined *work* of the architect. Ideas are played out upon the page and remain as eidetic traces of process, development and intention.

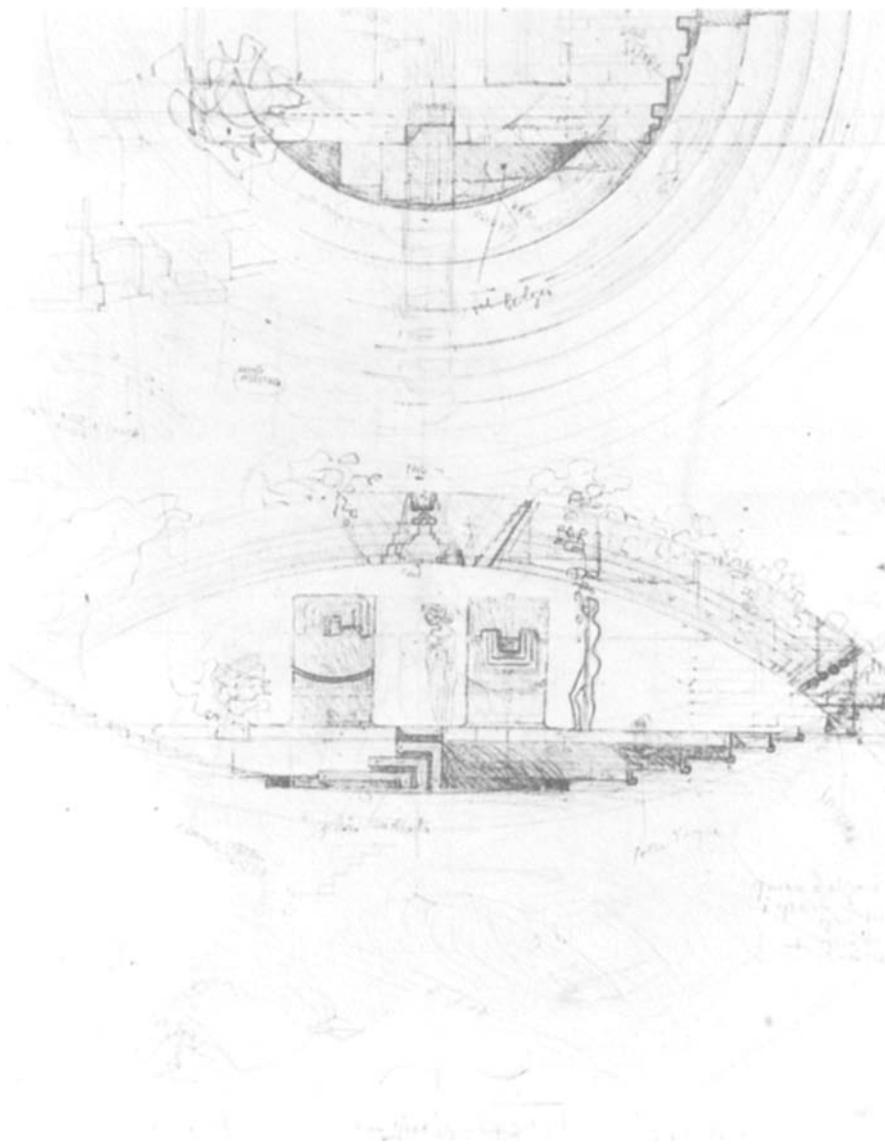


Figure 17. Plan and section of the 'arcosolium' at Brion, Carlo Scarpa, 1969. Pencil and crayon on brownline copy, 50 × 40 cm. Figure taken from *The Other City: Carlo Scarpa – The Architects Working Method As Shown By the Brion Cemetery in San Vito D'Altivole*, Peter Noever (ed.) (Berlin: Wilhelm Ernst and Sohn, 1989).

contrast to aoristic tenses which are past and imperfect, and belong characteristically to the historian, 'reciting the events of the past impersonally and without reference to his/her own position'.⁵⁹ In further describing deixis, Norman Bryson has written:

The wider class of deixis therefore includes all those particles and forms of speech where the utterance incorporates into itself information about its own spatial position relative to its content (here, there, near, far), and to its own relative temporality (yesterday, today, tomorrow, sooner, later, long ago). Deixis is utterance in carnal form and speaks back directly to the body of the speaker.⁶⁰

In relationship to painting, Bryson has elaborated on deixis by discussing the making of Chinese and Japanese flung-ink paintings. While landscape is clearly the focus of attention in these canvases, equally so is

59 – Bryson, *Vision and Painting*, p. 88.

60 – *Ibid.*, p. 88.

61 – Ibid., p. 92.

the spontaneous work of the brush in ‘real’, or processual, time. Bryson has written:

The work of production is constantly displayed in the wake of its traces; in this tradition the body of labor is on constant display, just as it is judged in terms which, in the West, would only apply to a *performing art*.⁶¹

The imaginal is both enacted and constructed in a radically temporal and dynamic sequence of painterly responses. The action of seeing and marking does not attempt to conceal its own evolvment, mistaken attempts and all. Instead, the paintings deictically play out and express their own construal, like a performance which maps out its own body. This is in contrast to ‘the image that suppresses deixis’, the image that ‘has no interest in its own genesis or past, except to bury it in a palimpsest in which only the final versions show through above an interminable

Figure 18. Step and terrace axonometric (detail), Anu Mathur, 1990. Ink, acrylic, gouache, and acetate on board, 18 × 26 cm. In the deictic drawing, the traces of process and ideation are recorded. The drawing functions both as a field of speculation and as a work of demonstration. The final image is not particularly privileged over all the marks that led to its formation.

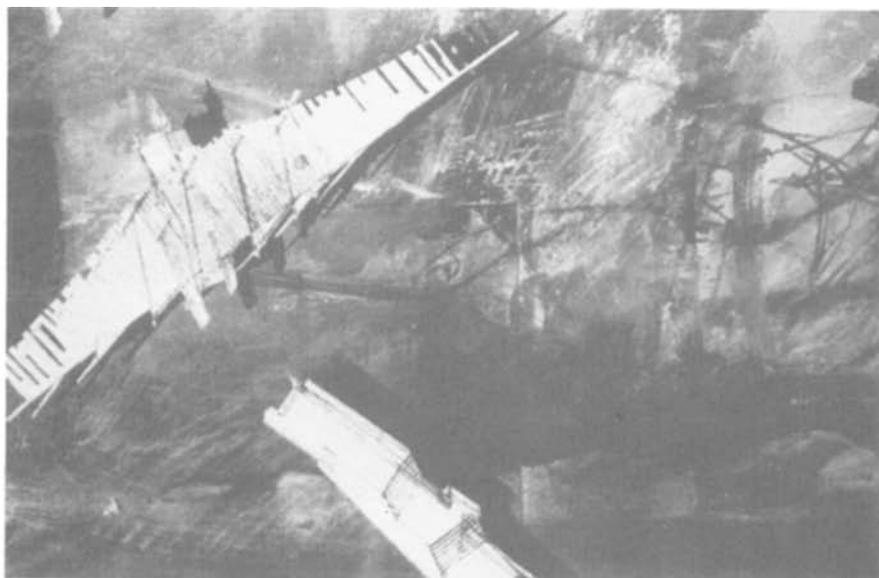
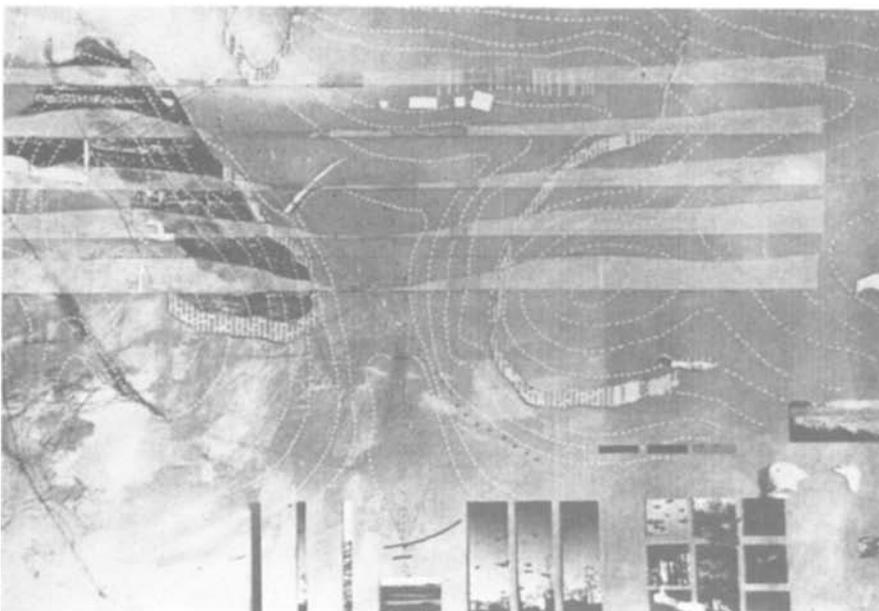


Figure 19. Topographical study, Anu Mathur, 1990. Assemblage: colour photographs, mylar, acetate, ink, acrylics, gouache, on board, 45 × 36 cm. The drawing overlays sectional profiles with contour surveys and other imagery over an impressionistic base. Together, both the collagic and the analytical representations serve to catalyze and ground the ideation of the project.



debris of revisions. . . [Here] the existence of the image in its own time, of duration, of practice, of the body, is negated by never referring the marks on canvas to their place in the vanished sequence of local aspirations.⁶² The deictic drawing, meanwhile, records and traces its own evolution, and refers back to an entire corpus of prior thoughts, ideas and associations. Deixis both marks and realizes the moment at which construal becomes construction (figure 18).

62 – Ibid., p. 92.

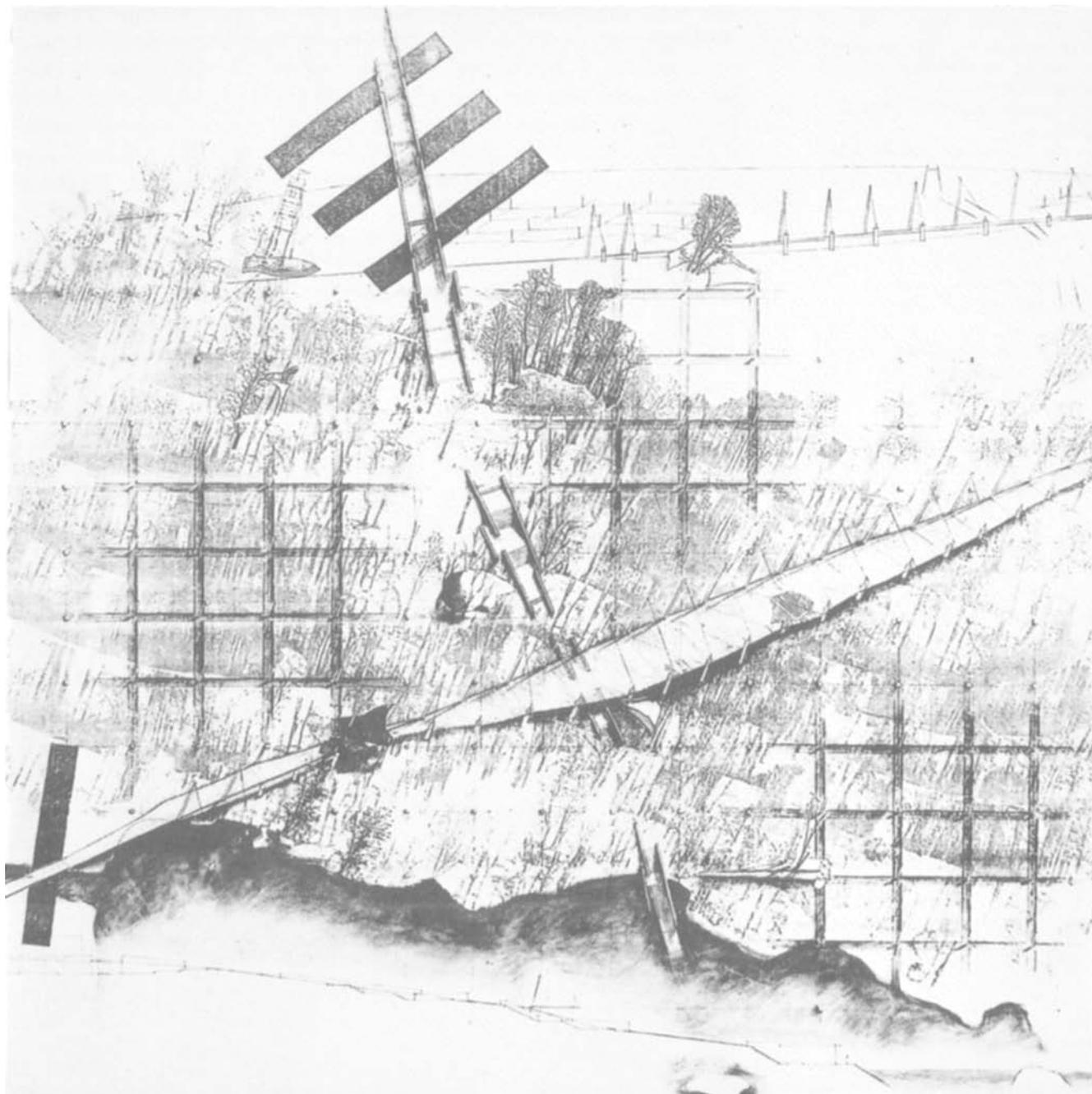


Figure 20. Planometric collage of an 'ecological garden', Anu Mathur, 1990. Pastels, inks, and copy-transfers on paper, 135 × 64 cm. While the predominant mode of presentation can be understood as a plan, hidden within the drawing are other views and images. The aim of the drawing is to try to embody as much of the symbolic ideas and intentions as it does the instrumental.

63 – While the preceding paragraphs have described drawings primarily in relationship to buildings, the same arguments still hold true for drawings *vis-à-vis* the design of landscapes, with minor modification. The landscape is a different phenomenon from building. It is experienced differently and the procedures for its construction are also different. Landscapes are also dynamic phenomena, living, growing, changing form, and eventually dying. Surely management plans and schedules seem integral parts of any landscape project, for example, demonstrating temporal as well as spatial intentions, and demonstrating practical techniques of stewardship.

64 – For more on analogical drawing see Dalibor Veselý, 'Drawing as a Vehicle of Creativity', pp. 13–17.

Notes on illustrations:

Figures 5, 9, 18, 19, 20, 21 and 22, are by graduate students of landscape architecture at the University of Pennsylvania, Graduate School of Fine Arts. They were developed in studios taught by James Corner.

Conclusion

Research into the development of projection, notation, and representation *vis-à-vis* the effective and artful construal, construction, and sustenance of built landscape form has still yet to occur in a vibrant and imaginative way.⁶³ This research might begin through an increased understanding of the mechanisms of analogy and metaphor in both speculative and demonstrative drawing. Analogical drawing looks for some form of interaction and dialogue between the symbolic realms of ideas and meaning and the structures of projection and embodiment. In this way, the drawing is an integral part of the landscape 'project', holding within its deictic traces the symbolic and instrumental intentions of the scheme. Such drawings might not only tell us what things might be, but also what they are *like*, suggesting, without necessarily prescribing, quite specific settings and topologies. Plans, sections, notation scores, scale shifts, light and texture studies, and so on, are drawn alongside the speculative play of the collagic field, actively plotting landscape relationships between idea and construction (figures 19, 20, 21 and 22). While the focus of attention shifts from normative modes of perception to a more liberating discovery of intertextuality between things, a precision of intent and demonstration thereof is still demanded. Analogical thinking is both intuitive and rational, and must play subjective sensibilities off and against systems of order and measure.⁶⁴



Figure 21. Development drawing for a 'weather garden', Chris Zlocki, 1991. Mylar, inks and copy-transfer on paper, 43.2 × 35.6 cm. Cut-outs, overlays, and shifts in scale help to 'situate' this project in both ideational and site-contextual terms.

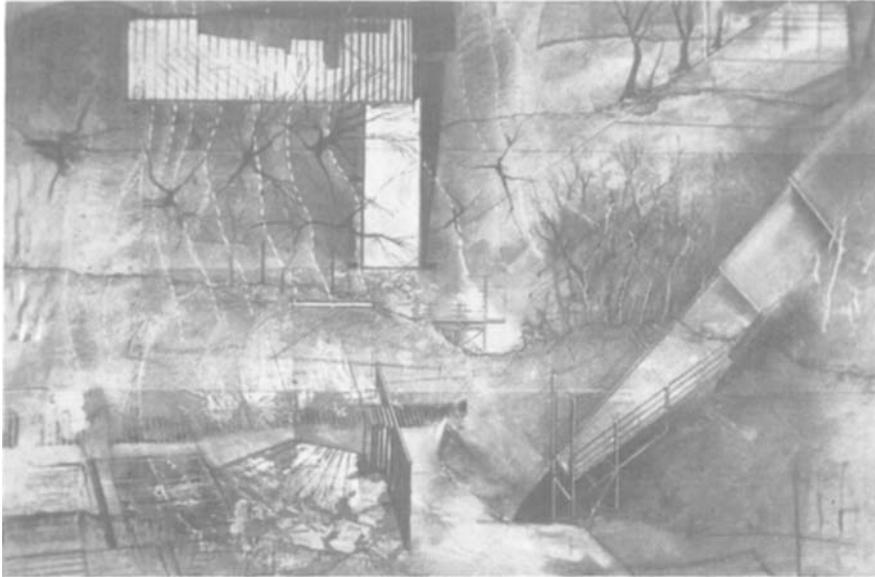


Figure 22. Stream-crossing, axonometric, Karolos Hanikian, 1991. Pastels, inks, acrylics, and pencil on mylar, 40 × 34 cm. This imaginary and demonstrative drawing is a collage of both poetic and measured speculations. The traces of process and labour remain inscribed on the page and describe intentions as much as the final result.

Metaphorical/analogical drawing is thus radically different from analytical drawing, which is more instrumental and calculative than it is poetic and imaginative. The generative free-play of metaphorical and deictic drawing, in dialogue with the discipline of notation and projection, is a critical and speculative practice that demonstrates the chiasm of a landscape's construal and construction. Rich with significance and interpretative ambiguity, landscape architectural drawing as a synesthetic and commutative medium might better afford a richer realization of ideas within the built environment. Such a drawing is less a finished 'work of art', and even less a tool for communicating instrumental ideas, than it is itself a catalytic locale of inventive subterfuges for the making of poetic landscapes. In essence, the drawing is a plot, necessarily strategic, map-like, and acted out.