## Body, eye and imagination:

A meditation on the dynamics of space in french and english gardening

# 58

**Yves Abrioux** Université Paris 3, France

## Abstract

This paper tests notions developed within Space Syntax, on the history of classical French gardens and English landscaped parks. It opens with a review of certain basic principles of Space Syntax, before revisiting the historiography of these gardens in a manner that stresses the mode of interaction between syntax and semantics. After observing an evolutionary process that tends to reduce semantics to syntax, the paper concludes by focusing on a particular kind of experience stimulated by landscaping. In so doing, it engages from a different perspective questions relating to the spatial construction of meaning that have been encountered in a particular programme of experimental work in architectural design.

#### Introduction

I come from outside the Space Syntax community. My interest in its theories was first aroused in the context of discussions with John Peponis and Kenneth Knoespel, relating to their post-graduate programme on the spatial construction of meaning at the Georgia Institute of Technology (cf. Peponis, Knoespel, Abrioux et al., 2002). Our on-going discussions have contributed to sharpening my approach to crucial questions in one of my own fields of investigation – the history of landscaping practices – by suggesting new ways of focusing on theoretical issues regarding the semantics of space. This paper, which is not driven by the kind of intimate involvement with the theory, practice or history of architecture which characterises most members of the Space Syntax community, attempts to keep both the historical and theoretical perspectives in view. I intend, rather, to suggest one possible activation of the problematic of Space Syntax in the sphere of transdisciplinary activity.

#### 1. The Economy of Space Syntax.

I shall begin by outlining my understanding of some of the principle tenets of Space Syntax, laying particular stress on a dissymmetry which the discipline significantly recognises as affecting two of its fundamental laws. After considering the rhetorical

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yabrioux@noos.fr

strategies which this dissymmetry engenders in the arguments of two of Space Syntax's principal proponents, I shall go on to comment briefly on the cognitive dimension of the doctrine.

Bill Hillier's notion of a social logic of space importantly separates out the lexical elements of the term "sociology", so as to stress the second of these – space as the intrinsic logical machine generating social patterns of settlement (the term "intrinsic" is used by Peponis, 2001; all subsequent references to Peponis are to this paper). Movement through space figures as the principal requirement in this conception. Closely tied to the theory of cellular automata, the generative logic of settlement formalises the facilitation of human interaccessibility in terms of the two basic spatial laws of centrality and compactness (Hillier 2001; my account borrows heavily from Hillier's paper). Together, these spatial principles correct purely stochastic patterns of cellular development, so as to generate law-like configurations corresponding to the "deformed wheel" patterns typical of settlement. The compactness law addresses the physical aspect of the pattern, while the centrality law determines its properly spatial dimension.

Space Syntax considers that two types of force drive the generative process, imposing on space their different requirements for potential movement. These forces are thus responsible for setting the "parameters" to which the logically-defined spatial system responds. More precisely, it is suggested that socio-cultural forces drive the "residential" process. Operating through the compactness law, they set the parameter of local interaccessibility and determine the "background" blocks of the general system. In contrast, micro-economic activity operating through the centrality law sets the global interaccessibility parameter controlling the development of "public space".

There is something avowedly misleading in this elegant system of correlated dualities. More specifically, the balance of power is shown by Hillier to lean emphatically in favour of the law of centrality. Generating both integration and segregation, the operation of the centrality law is itself dual and can consequently be considered as "reflecting in itself the fundamental duality" attributed above to socio-cultural and micro-economic processes.

True, this earlier duality may be preserved by suggesting that, while the microeconomic process "naturally occupies" that part of the duality of the law of centrality which generates the "essential" structure of settlement, the socio-cultural process just as naturally occupies the "obverse" side or the "interstices" of the global structure. However, the imbalance persists even here. Thus, whereas micro-economic forces are held to stimulate the system by "always maximising integration", sociocultural forces act as a break by always "imposing some restriction" on this process.

Space Syntax is devoted to exploring the generative logic of social space as a machine-like process producing and facilitating "natural co-presence" in its spaces. It is therefore not surprising that the originator of the discipline relegates what counts as a countervailing force of "restriction" into the "background" or the "interstices" of the system. True, Space Syntax does not reduce to the mere celebration of the virtues of an economically-driven theorem associating movement with integration. Nevertheless, its discourse characteristically sets the economic "side" above the social or the cultural. Only once, perhaps, in the paper by Hillier under consideration here, is this hierarchy fleetingly turned on its head, when socio-cultural forces are suggested to occupy the "obverse" – but nevertheless curiously inessential – side of the structure of settlement.

This numismatic paradox is perhaps symptomatic of the fundamentally economic nature of the logic deployed both by Space Syntax as a discipline and by the agents whose environment this determines. A deep but restricted notion of economy provides the link between the social and the logical strands of Space Syntax, while the "natural" social being it envisions is, in two distinct but related ways, homo economicus.

It is perhaps John Peponis who has most tellingly formulated what is implied by Bill Hillier's definition of the basic requirement for movement as (local or global) interaccessibility or natural co-presence. His opening remarks at the last Space Syntax symposium, in Atlanta, appear at one point to reduce the discipline to an essentially instrumental role. Observing that spatial layouts "do not determine whether people will interact, even less the content or relevance of their interaction", Peponis contends that the potentially socially generative effect of layout lies in its "sustain[ing] fields of co-presence and co-awareness as by products of movement".

One is almost tempted to judge that Peponis is here pushing movement into the interstices of what might appear to be the truly significant fields of co-presence and co-awareness. However, the general thrust of the Space Syntax approach is restored by the suggestion (repeated in the course of Peponis's argument) that the socio-cultural fields of encounter are the mere by-products of movement. Furthermore, between the two statements quoted above, it is explicitly claimed that spatial layouts play a "much stronger" role than that of determining the content or relevance – loosely speaking, the semantics – of actual human interactions. Layouts determine "whether people are available as resources to be noticed, observed, approached or addressed by other people". Syntax prevails over semantics.

The definition of people as potentially available "resources" situates Space Syntax within Heidegger's definition of modernity as deeply instrumental – that is to say, as the reduction of human activity to the exploitation of natural and human resources, equally constituted as stocks. However, the notion of economy implicit in Space Syntax allows this move to be made in purely a-historical terms.

In Peponis's approach to spatial "culture", this process is achieved by way of an essentially quantitative conception of meaningfulness. An important "background social resource", spatial culture is defined conjointly by spatial syntax, which dynamically distributes social "interface", and the loosely semantic fields of copresence and co-awareness. Spatial culture is characterised in terms that are inseparably economic and functionalistic – as a matter of how "intense" or "dissipated" fields and interfaces are, of how they become "invested" and of what "underlying purposes" they serve.

The figure of a "background resource" may perhaps best be taken as a cryptic reformulation of the marginal status of the notion of parameter evoked above. Parameters are, in a sense, simultaneously inside and outside any system whose logically-defined behaviour their quantitative values influence. The economic dimension of Space Syntax does not, however, stop in this zone of transition towards the logical.

According to Hillier's centrality law, increased integration within a system implies the creation of pockets of segregation. These thus constitute an integral feature of the system, rather than a phenomenon of resistance to it. Peponis's univalent theorem twinning movement and integration can only apply to certain of the zones generated within such a system. Certainly, the integration theorem will feed back into future moments of generation. However, correlated with the observation that movement is "the main means for expanding the social range available to the human body" (Peponis), the foregrounding of this univalent principle must primarily be understood in the context of the valuation placed on co-presence as "natural" (Hillier). It is symptomatic of the abstract functionalism of Space Syntax, whose stressing of integration is economic, in the twin restricted senses both of being intrinsically expansionist and of concerning the efficient use of resources. While Hillier's comments on "resistance" to integration or Peponis's observation (to which I shall return) on "power" and "control" as practices of "orientation, containment, reduction or elimination" bear out this contention, it is perhaps most forcefully illustrated the stress which recent work on the cognitive dimension of Space Syntax lays on integration as a measure of intelligibility in the context of wayfinding (Penn, 2001). However, if meaning is here re-written as "functional significance" and coherence regarded a promise of a reduction in cognitive load, the zone of stability thus formalised cannot hide the ever-present risk of chaos. Mental space is an "impossible figure" (Tversky, 2001).

### 2. Layout and Social Meaning in French- and English-style Gardens.

In the previous section, I sketched out a deconstructive reading of crucial articulations in the system of Space Syntax. Caricatures (including unknowing self-caricatures) to the contrary, the thrust of deconstructive reading is not to denounce paradoxes, figures of speech or sundry other instances of discursive discomfiture as logical weaknesses symptomatic of ideological bad faith. It must always be to pinpoint such phenomena as sites of a necessary displacement from a limited to a general notion of economy.

Therein lies the pleasure I took in identifying a numismatic paradox in Bill Hillier's exposition of the law of centrality. Likewise, the relish with which I latched on to Barbara Tversky's description of mental spaces as 'impossible figures' stems from the conviction that protests against figurative impossibility often constitute a recoil from a sense of unfathomable complexity. (My favourite example of this kind of understandable reaction is Poincarré's alarm in the face of certain topological figures that he had identified but labelled as 'monsters' and which had to wait several decades before computer-based modelling of dynamical systems began to clarify their complex logic; conversely, over half a century earlier, Geoffroy Saint-Hilaire had energetically followed up his intuition that abnormal formations had more to say about the dynamics of evolution than did statistically average phenotypes).

My ultimate ambition in this paper is to identify in the dynamics of space and movement in landscaping – more particularly, within the very different styles of design associated with seventeenth-century classical French gardens or eighteenthcentury English landscape parks – instances of a complexity which can no more be contained within the restricted economy of a logically-defined syntax than either the happy discursive accidents which I have just recalled or, indeed, the semantics of the literary works mobilised by John Peponis and Ken Knoespel in their experimental courses on the spatial construction of meaning. However, I can scarcely hope for the significance of such a proposition to emerge, if I do not first of all both

provide an overview of the manner in which an awareness of the principles of Space Syntax can sharpen more traditional approaches to garden or landscape and examine the difficulties awaiting any straightforward application of the discipline in this field. A number of historiographical observations will necessary to accomplish these two tasks.

Historians frequently illustrate the difference between French classical and English landscape gardens by appealing to a vision which no visitor will ever be able to ascertain on the ground – that afforded by a map or a plan. Maps are privileged instruments for demonstrating the stylistic contrast between the geometrical rectitude of French gardening and the serpentine lines of English landscaping. As such, they are held to confirm the well-entrenched ideological history which sees, in the evolution of garden design between the seventeenth and eighteenth centuries, the substitution of "natural" English freedom for the "artifice" of French gardens whose will to impose straight lines and simple geometrical forms on any terrain whatever was considered to illustrate the despotism of absolute monarchy (Figure 1).



Figure 1:In Stephen Switzer's Iconographia Rustica (1718; right), serpentine lines invade the rectilinear geometry of Le Nôtre (Versailles, 1662; left).

> A greater degree of sensitivity to embodied experience will not necessarily weaken this analysis. Taking into account both the history of map-making and the imagined effects of the topography of French gardens, more thoroughgoing strategies of illustration may thus employ period engravings showing a deep map-like perspective which emphasises the long straight lines of the alleys and canals (Figure 2). English gardens will more typically be illustrated by a period map proper, accompanied by a series of engravings and/or by more recent photographs (often taken by the author in person) showing significant garden features in close-up. Since such collections of images of distinct vistas viewed from ground level suggests actual displacement within a park, these contrasting modes of representation imply an opposition between a fully embodied English experience of the garden and the significantly less embodied one of the immobile French viewer.

Body, eye and imagination



Figure 2: Israël Sylvestre, perspective view of Vaux-le-Vicomte, 17th cent.

Such strategies of illustration readily reinforce the ideological reading of garden history. Whereas the suggestion that no overall view of an English garden can be achieved without a map reaffirms the idea that this style is best suited to individual experience, the association of the earlier, French style with ideas of privilege and a closed hierarchical social structure is underlined by the fact that the all-embracing grand vista demands a vantage-point which can most often be traced back to the royal or noble residence dominating the garden.

The more sophisticated investigations of French and English gardens tend to be at least implicitly structured by these contrasted species of embodied vision. Michel Baridon subtly relates gardening style to a complex of epistemological, rather than simply ideological concerns. Nevertheless, the iconographical strategy just described is confirmed in a recent collection of his essays on English gardens, which is able to make do with a single engraving of a perspective view of Le Nôtre's garden at Vaux-le-Vicomte as a foil for the set of maps and close-ups illustrating the English art of landscaping (Baridon, 2000).

Similarly, Stephen Bann (1990) describes Le Nôtre gardens as "minutely graded series of transitions" in which "culture accommodates to nature through a series of exact moves". This approach which implicitly stations the beholder at a privileged viewing position (within or next to the noble dwelling) from where the whole range of gently modulated transitions can be viewed. Any actual progression along the graded line would be overdetermined by the cognitive space of tabulated transitions defined by the "slow and systematic series" within which each displacement is inscribed. Conversely, the gardens of, say, Capability Brown are said to produce a sensation of inclusion that risks reversing into sudden exclusion).

French gardens actually provide a variety of vistas, which the typical perspectival overview cannot accommodate. Consequently, court ritual had to ensure that the subjection of movement to a hierarchical order of vision would also prevail in more extensive tours of the garden (see the Sun King's own instructions for guided tours of the royal gardens at Versailles, or the analysis of André Félibien's late seventeenth-century description of the same gardens in Marin, 1981). Recent neo-Marxist studies, which revoke the habit of setting English liberty against French tyranny, suggest that notions of painterly framing were employed to similar effect in this tradition (see Barrell, 198, with its consideration of elevated viewing positions in an English context, or Mitchell, 1994, where the topography of empire does not necessitate any such degree of elevation).

### 3. Discipline or management?

My brief and necessarily selective account of the historiography of French and English gardens will perhaps have resonated with my earlier summary of Peponis's concept of spatial culture, as concerning both the syntactic distribution of interfaces and the semantic qualities of fields of co-awareness or co-presence which this distribution sustains. A more precise consideration of potential correspondences is nevertheless in order.

The historiography indubitably suggests that the contrasting layouts of French and English gardens relate to a semantic difference in spatial culture – that is, to different organisations of fields of co-presence. However, the visible difference between the rectilinear style of the French garden and the serpentine lines of the English park is not properly syntactic in the terms of Space Syntax. It is phenomenological, rather than topological. Establishing a genuinely syntactic difference between two layouts would necessitate identifying, in the distribution of features associated with integration or segregation, significant rule-bound differences which would prevent the possibility of either distribution being transformed into the other by a process of continuous distortion. This is an eventuality which Space Syntax does not only contest empirically, by pointing to the universality of the distortedwheel model in the structuring of settlement, but whose very possibility it, by means of the law of centrality denies.

French and English gardens might indeed provide interesting material for case studies testing the universality of the centrality law in contexts where the influence of socio-cultural parameters appears to prevail. As a student of gardens, I find the prospect enticing. The point I want to stress here is nevertheless somewhat different. Viewed against the background of the formal laws formulated by Space Syntax to account for the generation of spatial patterns as a function of densities of movement, the approaches to garden history evoked above do not only appear as predominantly semantic. They are also deeply rooted in a notion of stasis, with movement being essentially restricted to transitions effected between the powerful moments of semantic awareness (or ideological misprision) provided by vistas, which are differently situated – and therefore variously organised – in each of the two historical styles under consideration here.

John Peponis suggests the existence of a conflict of forces between the generation of interfaces by laws associating space with movement, on the one hand, and the "orientation", "containment", "reduction" or "elimination" of semantic fields as the effect of "social power and control", on the other. The applicability of the latter idea to the French manner of gardening is immediately persuasive and has been repeatedly illustrated in the historiography. The classical French garden lays out terraces, sculptures, canals, basins, parterres, trees and bushes in a manner which has the effect of coercing the visitor into severely disciplined modes of moving through it, contemplating its vistas or participating in the minutely choreographed rituals of court life.

The semantic fields of the English landscape garden often appear more complex. They are typically regarded as freely giving themselves up to appreciation by an individual sensibility. However, the exercise of this faculty remains essentially rule-bound. Indeed, it demonstrates regularities which progressively rid themselves of clearly identifiable semantic content and increasingly adopt a purely formal air. This evolution can perhaps best be approached through the iconographical dimension of both French and English gardens.

The allegorical programmes of formal French gardens have been extensively studied, so that their systematic alignment of contemporary regal power with a body of classical mythology, materialised in the form of statues, fountains, etc., to produce a compound of myth and history, is now well established (Apostilodes, 1981, coins the portmanteau word "mythistory" to describe the result of this procedure). The most spectacular example of the phenomenon is undoubtedly the main east-west axis at Versailles, which not only incorporates two major fountains tied to the myth of Apollo but actually ensures that the setting sun will reflect off the grand canal on to the windows of the palace of the Sun King. However, a comparison between two sets of statuary designed for the grand basin at the lower end of the king's gardens at Marly will perhaps prove a more helpful introduction to the evolution which interests me here.

The basin at Marly served as a trough for watering horses. In 1702, a set of two sculptures was installed there. Designed to celebrate the renown of the king, these were representations of Mercury and Fame, both mounted on Pegasus and each accompanied by a suitable array of emblematic accessories. The sculptures were removed in 1719 and replaced in 1745 by two new works, popularly know as les chevaux de Marly. All four sculptures can today be contemplated side by side in the Louvre, which facilitates the perception of the striking difference between the two sets (Figure 3). Within less than half a century, allegorical representation has given way to a frankly expressionist treatment. Highlighting the conflict of forces between the human figures and the beasts they are striving to control, this evocation of the effort to dominate nature does not only clash with the "slow and systematic series" of transitions characteristic of French gardens. In its more abstractly associationist cast, it contrasts with the allegorical texture of the earlier sculptures.



Figure 3: Installed at Marly-le-Roi in 1702, the allegorical statue of Fame (left) was removed in 1719 and replaced in 1745 by one of a pair of horses stripped of emblematic trappings.

> The move from allegory or emblem to expression and association is considered by historians as a vital symptom of the move towards a more individualistic relationship with landscape features in the evolution of the eighteenth-century English garden. Barely a few years before the more expressionistic horses were installed at Marly, an anonymous visitor to Stowe described Home Park, a meadow "left for Variety within the Limits of the Garden", as a place reserved for "Horses of particular favour" – an arrangement justified by an appeal to the authority of Virgil: "and surely Creatures so Useful to Mankind may claim a Remembrance in the finest Designs, and certainly Virgil was of the same Opinion who has generously introduced them into the Elysian Fields as Useful Attendants of their once Mortal Masters."

> This account is quoted by Edward Harwood (1996), who indicates that the anonymous visitor's reasoning here takes the form of a syllogism: Virgil introduced horses into the Elysian Fields; certain horses are privileged by being allowed into Home Park; therefore Home Park is the Elysian Fields. However Harwood further

Body, eye and imagination

points out two awkward countervailing arguments. Not only was a different portion of the gardens at Stowe explicitly identified as the Elysian Fields. A contemporary engraving furthermore shows cattle in Home Park (Figure 4). If Harwood nevertheless finds the mythological reading attractive as an indication that the Elysian Fields "cast their Virgilian aura over the entire complex" at Stowe (Harwood), this can only be because, in addition to shared cultural references, it was possible to count on a shared rhetorical structure of association to overcome the factual difficulties and stimulate the required response.



Figure 4: Jacques Rigaud, "View of the Queen's Theatre from the rotunda [Stowe]", pen and wash drawing, c. 1733.

With or without the intervention of architectural objects to stimulate precise chains thought, the typically English way of defining semantic fields of co-awareness subtly coaxes the imagination of the visitor into specific modes of mental association. In the earlier part of the eighteenth century, the effect was typically to stimulate an identification with the imperial ambitions of the nation – more precisely, with the version of imperial politics promoted by the particular faction of the ruling élite associated with the owner of a garden (for a collection of case histories, see the ongoing series of studies published by the New Arcadian Journal). As the cult of ruins, or again the evolution of loco-descriptive poetry in early Romanticism both demonstrate, the control exercised over the viewer's imagination remained essentially unaffected in its general thrust when, with the inception of picturesque landscaping, the overtly emblematical bias, which had initially enabled a well-defined associative content, receded. One last episode in the horse and cattle series which I have been tracing from Marly to England will demonstrate that, beyond shared cultural and rhetorical competencies, this further required a community of interests.

Touring England in the early nineteenth century, the German prince Hermann von Pückler-Muskau deplored the fact that many English parks had become vast meadows dotted with clumps of trees and peopled exclusively by livestock and game. Himself a creator of landscape gardens, the prince launched into an attack on

such Brownian landscapes. Claiming an absence of human presence in the domains he visited, he evinced a satirical awareness of the punning nature of a significant portion of emblematical association, declaring that the gardens had been bewitched and John Bull transformed into one of the beasts whose name he bore (von Pückler-Muskau 1834).

Von Pückler-Muskau first visited England in 1814. The earliest guide book to Harewood House in Yorkshire, a domain graced by an extant park designed by Capability Brown in the 1780s, was published four years later. While he devotes considerable attention to the pleasure gardens to the north and west of the house, as well as to the panorama over an industrious landscape which may be admired from there, the author of the guide has little to say about the major piece of landscaping by Brown to the south and east, other than to wrongly ascribe to nature the art involved in transforming a rough hill into a sweet slope. Thus the guide says "with the poet": "------ Who can paint / Like nature? Can imagination boast, / Amid its gay creation, hues like these? / Or can it mix them with that matchless skill, / And lose them in each other, as appears / In every bud that blows?" (Jewell, 1819).

The mistaken attribution is not a simple error. The rhetorical force deployed here registers the apotheosis of a project explicitly formulated by the poet Alexander Pope towards the beginning of the eighteenth century, when he urged the necessity to make the classics speak "good English". Brown's "natural" style of gardening marks the moment when the assimilation of the classics into the texture of the English countryside is so complete that it has become possible to dispense with the merest hint of the kind of verbal, sculptural or architectural classical tag previously required to stimulate the process of association. If classical culture speaks such good English as to appear as subordinate to English nature, then the transfer of power from the classical to the modern empire can be deemed to have occurred.

The difference between the French and English manners of gardening thus reveals two distinct modes of pursuing a common end – that of exercising power through spatial layout. Whereas the French manifestly conjoins severely orchestrated movement with strictly semanticised layouts and iconographical programmes, the English apparently courts freedom of physical and intellectual movement. However, this overt liberty can equally be considered as a measure of the extent to which a more subtle management of cultural and cognitive competencies has learned to dispense with the overt disciplining of bodies and minds. In either case, the disposition of the garden functions as a species of spatial machine constraining movement in order to define vistas or framed views, each of which determines a specific mode (and often content) of interpretation.

This is not the place to demonstrate how the evolution sketched out here ties in with the process Michel Foucault describes as the emergence of bio-power (see, for example, Dreyfus and Rabinow, 1982, which includes interviews with Foucault). Suffice it to suggest that when, building on Foucault's analyses, Deleuze observes that the move from a logic of disciplining to the management of the most intimate virtualities and drives harboured by human subjects implies a switch from directives (mots d'ordre), addressed in a closed space to a limited number of individuals, to shared passwords (mot de passe) operating in an open environment (Deleuze 1990), he could be taken as describing the replacement of the rigid court etiquette governing behaviour within French gardens by the collaborative associationism thanks to which visitors to English landscape parks could, even with little overt stimulation, experience a shared sense of community, or even the concomitant development of a picturesque sensibility associated with emergent tourism, which taught how to constitute landscapes outwith a picture-frame or an 'improved' estate.

#### 4. Movement through or fluidification of space in the garden?

I have not only argued that English and French gardens alike are engineered in such a way as to correlate the experience of body and mind with effects of power. I have done this in a manner wholly sympathetic to the suggestion advanced within Space Syntax, that such phenomena concern primarily what is designated in this discipline as fields of co-presence and co-awareness. I have simultaneously described an evolution towards an ever more abstract formalisation, in which a loosening of explicit semantic content is concomitant with the disappearance of overt signs of power. This process will understandably be read as a reduction of semantics to syntax. However, rather than celebrating this switch as a possible link between local semantic effect and global syntactic structure, I have further suggesting that the lightening of disciplining powers be read as the institution of a more intimate method of control by the management of cognitive capacities and other human drives. It remains for me to explore further the implications of this line of reasoning.

I recalled at the outset of this paper that I had first encountered the problematics of Space Syntax in the context of the project initiated by John Peponis and Ken Knoespel at Georgia Tech and Athens Polytechnic University, involving the deployment of literary or artistic artefacts in the teaching of design. Theoretical accounts of this architectural design practice run up against a situation not dissimilar to the one I have just described in relation to garden history. In this case, the problem of the interaction between semantics and syntax centres on the relation between the more intuitive moment of design and the emergent spatial properties of designed objects. In discussions around this issue, I find myself fully sharing Peponis and Knoespel's reservations over the models proposed by the cognitive linguistics of Lakoff, Johnston, Turner and others to bridge the gap between syntax and meaning. However, I remain unconvinced by the suggestion that ideas derived from Nelson Goodman's concept of notation might prove helpful in explaining the Atlanta and Athens experiments in design. I am also reluctant to take on the further suggestion (Peponis,2001) that "shape grammars" might allow for a "clearer dialogue" between the "syntax" of space and the "languages" of design. As formulated, this risks replicating the reduction of semantics to syntax which I have just been challenging.

Remarkably, the intrinsically divergent quality of certain perceptual experiences engendered by French or English gardens suggests that experienced movement in these environments may at times require a different species of formalisation. These experiences do not only concern the transitional phases between framed moments but also occur within supposedly static vistas. Unfortunately, because the material I shall be invoking would necessitate detailed visual documentation in order to be truly convincing, my argument here will be speculative and somewhat sketchy.

A preliminary idea of what is involved is given by the requirement, formulated in the eighteenth century by William Shenstone, that in gardens the 'foot' should never travel to a building or other object 'by the same path, which the eye has travelled over before'. However, such forcing apart of two modes of embodiment can readily be used to manage the imagination, so that the required process of association is stimulated by the play between the perception and experience of distance. Where exactly should one imagine a temple first contemplated from a distance but which turns out to be much smaller than expected when approached by a necessarily roundabout route? Carefully landscaped teasers pre-constrain an answer which will characteristically involve converging geographical, historical, cultural, institutional, etc., dimensions.

The radical undecidability of the phenomenon I am concerned with here is perhaps more readily identifiable in the French style of gardening, where it plays against the supposedly all-seeing vantage-point of the sovereign gaze. When the visitor is in motion between officially sanctioned vistas, this may be so critically elided that the terrain – and, by association, the very ground of reason and power – becomes severely destabilised. There is thus a moment when, glimpsed from the foot of the grandiose Cent Marches leading to the orangery, the palace of Versailles appears to sink behind a flight of steps soaring into infinity, although they actually lead to the terrace on which the royal palace sits (Figure 5). If, alternatively, Le

Nôtre exploits his knowledge of parallaxes so as to spectacularly de-realise the axis of the canal which unexpectedly explodes into view halfway down the main axis leading from the house at Sceaux (Farhat, 2000), this functions as a paradoxical benchmark for the systematic visual distortion of the garden's rectilinear features by the curvature of the hillside, which from certain angles seems to free entire sections of the garden from their attachment to solid earth and engender a freely-floating set of internal variations (Figure 6).



58.15

Figure 5: Rising into infinite space, the One Hundred Steps at Versailles dwarf the royal palace on the right, to which in reality they lead.

Figure 6: The size and positioning of the round pond in the foreground are responsible for the optical illusion disguising the vertical drop down to the canal at Sceaux.

While phenomena comparable to Le Nôtre's minutely conceived play with optical illusions are harder to isolate in the already more fluidly associative experience of the English garden, the modulations of terrain which are perhaps ultimately all that Capability Brown retains of the art of landscaping provoke inflexions of perception and sensation which (as von Pückler-Muskau polemically sensed) may play havoc with associative control. In either case, the spatial dynamics goes against the grain of the official aesthetics or politics of landscaping. Engendered by a fluidification of spatial experience, it produces "impossible" figures which cannot be accounted for by the correlation of logically stabilised spatial relations with controlled cognitive processes. I furthermore suggest that an impulse to this type of complexity is a stake in the deployment of works of art within the experimental design protocols to which I have been indirectly responding throughout this paper.

Both the investigation of these protocols and the study of landscape would benefit from Deleuze's concept of the diagram. Derived from Foucault but subtly resistant to his notion of "arrangements" of power (dispositifs de pouvoir), Deleuzian diagrams embed these within a highly unstable dynamic characterised by infinitely many singularities (Deleuze, 1986). Without denying the desirability of a properly conceived functional syntax in the solution of physical and spatial design problems, I would argue that the model of space as an abstract machine requires a move towards the dualism of Deleuzian diagrammatics if it is not to enclose certain crucially inventive moments within an impoverished notion of spatial semantics as functional intelligibility.

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