

# Architectural Sensibilities: Observations on Perspective Space and Elastic Space

Michael Jasper

University of Canberra  
GPO Box 1159, Canberra ACT 2600, Australia; michael.jasper@canberra.edu.au

## Abstract

This paper initiates a formal and thematic examination of architectural sensibilities at work in mid-twentieth century and contemporary architecture. There are two propositions underlying the paper. The first, methodological proposition is that the different qualities and effects of perspective space versus elastic space as formulated by Giulio Carlo Argan offer a productive lens to the analysis. A second proposition is that certain works of architecture express institution characteristics and in turn underlying specific architectural temperaments. In order to test these propositions' operational and heuristic potential, the paper undertakes an overview examination of Rogers Stirk Harbour + Partners' Bordeaux Law Courts (1992-1998) and Le Corbusier's Palace of Justice Chandigarh (1951-1957). Compositional, figural, and formal conditions and organisational strategies are considered. The paper contributes to basic and applied research into architectural space concepts, adds to scholarship on the practice and history of architectural composition, and makes a modest contribution to secondary work on the two case study projects.

## 1. Introduction

In an essay published in 1955, Giulio Carlo Argan examines the architectural space concept and strategies of form distribution at work in Palladio [1]. Argan argues that Palladio has a way of viewing architectural form that is different from a classic viewpoint, the latter marked by a perspective space concept. Palladio's non-perspectival or elastic space concept has its origin, suggests Argan, in the military architecture of Sammicheli and Argan sets out to track features of that provenance, the main object of his essay. What is of interest today are the specific formal and conceptual qualities contained in Argan's categorisations of two space concepts and their ongoing potential for conceiving and interpreting works of architecture.

An indication of the potential in Argan's categorisations can be found in the shift he claims to locate in Palladio, the latter establishing 'a new viewpoint in architectural theory... [a new] relationship is established between building and environment, new because it is ... completely non-perspective.'<sup>i</sup> The building for Palladio, continues Argan, 'does not sum up or represent the space [as in classical theories], it exists within it, and the space, which is no longer thought of as structure [...] counts as pure phenomenal reality, as a sensed and shifting assemblage of effects of light and atmosphere.'<sup>ii</sup> This idea of space as a sensed and shifting assemblage is understood by Argan to apply to a building on its own as much as to a larger complex of open space and built form.

According to Argan, the perspective space of classical architecture achieves unity through abstract proportional associations, assuming an a priori geometric structure bounded and made tangible through the specific continuity of the wall plane. This is in contradistinction to non-perspective or elastic space, understood as a physically discontinuous realm whose unity is a posteriori and perceptual, relying on the body's movement and the ground plane rather than the wall.

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The latter is thus capable of infinite extension when used to explain new conditions made manifest according to Argan in the military architecture of Sammicheli.

The one way of seeing architectural form leads most readily to an ensemble of homogeneous relations, the other finds its manifestations in heterogeneous states. A perspective space concept for Argan leads to a system of parts in favour of a larger whole, with spatial units such as rooms as well as linking elements attached one to the other via perspective connections in a striated plan. Palladio's non-perspective idea of space propels spatial units to the surface in plan as well as in section and elevation with parts never coalescing into a whole. In this point of view, spatial units follow a logic of 'unrelatedness or absoluteness among singular forms,'<sup>iii</sup> continues Argan, finding one manifestation in Palladio's en suite plan disposition for example.

To enlarge Argan's categories, it can be claimed that a perspective space concept is aligned with an economy of sight and theories of composition, and an elastic space concept bracketed by theories of assemblage and an idea of sensation. This expansion of Argan's interpretive frame finds support and some resonance - at least as regards the first term - in Peter Eisenman's allusion to the 'dominance of vision and the visible in the form of perspective'<sup>iv</sup> in theories of architectural form making ever since the emergence of perspective space and up to today.[2] According to Eisenman this way of conceiving form that prioritises sight 'has become so sedimented in architecture that it is assumed to be a natural condition.'<sup>v</sup> The critical and operational sides of Eisenman's work on discipline specific concepts seeks to make evident the non-natural status of such conditions in part in order to propose or allow other conditions to emerge. This critical project is intended to contribute to opening the discipline to the generation of other kinds of formal order and space configurations. Following Eisenman, each of Argan's space concepts can be seen to highlight factors internal and external to the discipline. They can thus be interpreted as expressing a different architectural sensibility leading in turn to unique physical manifestations, ones with their own logical limits independent of representations of function, material, structure, or site. This independence extends to architecture's potential capacity according to Eisenman to display, to render, or to make corporeal factors external to architecture. Such external factors can include institution specific requirements or characteristics.

The examination of buildings according to different space concepts is thus part of a larger research endeavour into the discipline's latent and immanent conditions, one that has increasingly occupied architects and scholars. Eisenman's work in this area is of particular

relevance and provides a hinge to the theme of architecture's relation to external forces, including its ability to express institution-specific characteristics. Eisenman develops this position across a series of lectures and papers dating from at least the 1980s. His larger project among other ambitions seeks to establish conditions which might allow architecture to remain open to its future and its present via a critical and deeply informed engagement with its past. This is done in part with the aim of identifying, or establishing the conditions of possibility for, the new to continuously appear. 'Opening up the relationships,' writes Eisenman, is undertaken in such a manner so that the formal analysis of architecture's past is 'not only explanatory but also generative.'<sup>vi</sup>

Architectural conditions and composition devices categorised into formal aspects and conceptual aspects of *any* architecture according to Eisenman are interpreted as giving corporeality to things outside the discipline. On the one hand for Eisenman this engagement proposes to 'open up the existing rhetoric and tropes sedimented' in architecture's present.<sup>vii</sup> On the other hand it seeks to sketch out and identify aspects of a conceptual configuration that would move beyond the explanatory to the generative. Taken in a preliminary manner, architecture's relation to institutions (whether of government, the university, the church, the museum, the law) and their specific qualities - is one kind of exteriority. The potential to make corporeal - within disciplinary limits -, specific characteristics is part of that effort. A corollary impact would be to ask whether and under what conditions might architecture engage in the reconceptualization of an institution, accompanying an institution at moments of formation and subsequent transformation.

Argan's argument for differing concepts of space can be considered a part of this larger critical-theoretical project and I suggest provides a useful lens for the interpretation and - following Eisenman - generation of specific kinds of architectural form. Table 1 seeks to summarise the conceptual and formal aspects of the architectural sensibilities according to the two poles of perspective versus elastic space concepts and describe their distinguishing conceptual and formal characteristics.

Argan's pair of space concepts can contribute to examining how architectural form is conceived during the process of developing building responses to specific conditions and institutional requirements. When deployed alongside Eisenman's ambition to move from description to the production of other possible conditions, there are methodological implications. One implication is that a consideration from different viewpoints and plastic sensibilities may allow us to better comprehend formal operations and plastic-

Table 1: Ways of characterising architectural form according to Giulio Carlo Argan's two space concepts: Perspective Space and Elastic Space

FORMAL ASPECTS AND DEVICES	A design process of composition with a bias toward isolation and hierarchy	A strategy of assemblage with a preference for a practice of enfolding
	Rooms are distributed in a striated plan	Rooms are arranged in en suite patterns of interstitial space
	Spatial units are attached via perspective connections, generally plan based.	Spatial units are propelled to the surface in plan and elevation
	A system of parts in favour of a larger whole	Parts never coalesce into a whole, retaining their independence
	Logical relationships established with exterior conditions	Significance is largely internal according to a logic of absoluteness
	Form relationships exist a priori	Relationships among forms are settled a posteriori
	<b>PERSPECTIVE SPACE</b>	<b>ELASTIC SPACE</b>
CONCEPTUAL ASPECTS	Space is structured	Space sensed amid a shifting assemblage of light and atmosphere effects
	Space as geometric structure	Space as datum or grid
	Transitional conditions abound	Elements are confronted one to another with no transition
	Realised in the continuity of the wall plane at the horizon	Rendered as a ground of undulating levels
	Homogeneous configurations in a closed form	Heterogeneous dispositions in an open configuration
	Architectural form generated by a space concept	Singular spaces generated by architectural forms

spatial effects at work generally and those singular exigencies aligned with specific program types including institutional projects specifically. The impact on architecture's potential when critically deployed in the process of conceiving and developing a building is still to be tested. Trialling this difference between perspective space and elastic space as a lens for analysing aspects of the question of architecture and the institution thus serves as a secondary proposition of the present study.

## 2. Analysis

With the above propositions as background, I turn now to a descriptive analysis of a part of two buildings. Bordeaux Law Courts by Rogers Stirk Harbour + Partners (1992-1998), and Le Corbusier's Palace of Justice Chandigarh (1951-1957) are taken as case studies in this inaugural foray into the extension of Argan's categories

as analytical lens. A too-cursory analysis of these institutional projects will begin to test the above propositions. I do this by examining the projects according to the following questions:

1. Do the case study projects render different kinds of space and if so is one better revealed in the plan and the other the section, and by extension on the side of sight and composition versus sensation and assemblage? In other words, what differences in sensibility and effect – on form, on space, and their architectural expression - are revealed in the two projects?
2. Do the categories of perspective space versus elastic space contribute to understanding the capacity of architecture to render internal characteristics and external conditions of any architecture?

3. Within disciplinary limits, how might the interrogation from the point of view of space concepts contribute to the practice and theorisation of an architecture of justice and could such an analysis contribute to making corporeal specific institutional values during a project's conception, development, and realisation?
4. Can concrete observations, whether conceptual, historical, or methodological, be made about architecture's capacity to imagine or reconceptualise existing or future institutions and if so in what manner?

### 2.1. Bordeaux Law Courts

The Bordeaux Law Courts were won in an international competition in 1992 and the building opened in 1998. Rogers Stirk Harbour + Partners' website – the source of project documents and references - suggests that there were two parallel ambitions by the architect and their client that explicitly accompanied the development of the project.[3] The first ambition was to realise a building that would '... through a feeling of transparency and openness, create a positive perception of the accessibility of the French judicial system.' This perhaps led to the major move to reveal the court pods - to adopt the architect's term -, as free-standing elements visible from outside and inside the building. The second major organisational move was to make equally visible separate circulation routes for the public, administrators, judges, and magistrates. The office website describes this aim as one of 'liberating the courtrooms from the 'box'. A second preoccupation concerned environmental systems research. A passive energy strategy accompanied the whole design process according to published statements and illustrations. The operational and symbolic brief was thus paralleled by a technical brief involving investigations into passive energy according to the firm, who claim the building form reflects 'the environmental research that informed the whole design process.'

Building uses are disposed in three independent pieces: a bar of offices and judges' chambers, the seven courtroom pods, and a six-storey atrium or *salle des pas perdus*. An undulating roof surmounts the entire complex, itself penetrated by the upper light scoops of the courtrooms. The building is sited so that the offices run along a main avenue with courtrooms raised above a two-storey podium with parking located in a basement level. Bridges, elevated corridors, stairs and other circulation elements provide separate secure access for the judges, courtroom staff, and the public.

An initial review of the Bordeaux Law Courts according to Argan's two space concepts reveals a mixture of

perspective and elastic space sensibilities. There is an isolation of elements and their disposition in a composition with circulation elements binding the work in a homogeneous whole and thus on the side of a perspective sensibility. Form relationships seem to exist in an a priori state, perhaps a consequence of that mechanistic ideal which led project development. The plan produces what can also be described as geometrically structured and shallow space, one with little depth in any case. This might be attributed in Bordeaux to the absence of mass, mouldings, and deep shadow: everything is refined to thin surfaces punctuated by a grid of steel posts and vaulting members. The ambiguous shape of the flask-like court volumes on the other hand introduces a strong figural disruption into the building. This allows Bordeaux to be placed at the same time on the side of sensation and movement, displaying a consequent number of elastic or non-perspective space attributes. Such a reading allows one to claim that Bordeaux displays an 'art of distributive organisation' at the same time that it develops through the Piranesian acrobatics seen in section a civic event appropriate to a heterotopic order. This idea of the heterotopic adopts Colin St John Wilson's interpretation of another law court project, with traits well aligned with aspects of Argan's two space concepts [4].

The Bordeaux complex perhaps realises its full force when seen as a manifestation of that elastic or scenographic space that Argan proposes as a lens for understanding the specificity of Palladio's contribution. Animations of movement result at Bordeaux in part from the presence of linking elements (bridges, corridors, elevators, stairs) comparable to 'undulating levels,' the building above all 'a matter of accesses and refuges, possibilities of movement and manoeuvre' even in the absence of use.<sup>viii</sup> Different from Argan's reading of Palladio, animation and vibration in the Bordeaux Law Courts are achieved in a system of unrelatedness evident in a close examination of the section.

### 2.2. Palace of Justice Chandigarh

Planned, designed and built in the 1950s, the Palace of Justice by Le Corbusier is part of the capital complex in Chandigarh. The building contains the high court and eight other courtrooms, the former separated from the others by a four storey *salle des pas perdus* which provides entry and access through the building. Originally conceived to be one level above the main pedestrian esplanade around which all the major institutions front, the building as built is approached at grade between large reflecting pools from the esplanade. The public enters the courtrooms directly off the portico. Judges and other court officials follow a

straightforward circulation pattern from the back of each courtroom. There is an open terrace on the roof sheltered from the sun and rain by a massive overhanging roof. A library, offices, archives, restaurant, and sub level parking complete the operational brief [5].

From the earliest sketches, Le Corbusier conceived the building's shape as a single volume bound to and positioned in the large open space of the capital complex, with distant hills pulled into the composition. The roof supported by massive pillars dominates. At the same time, everything is brought to the surface and conceived frontally with deep shadows punctuating and giving presence to the building held together by largely blank walls on the two ends.

Peter Serenyi proposes this way of seeing the form problem and developing a response was influenced by Le Corbusier's visit to the Pinjore Gardens and Pavilion at the planning stages. The Pinjore Pavilion fulfils a similar formal role claims Serenyi to that occupied by the Palace of Justice.[6]<sup>x</sup> Norma Evenson argues for any formal analysis of the Palace of Justice to be done from within the larger capital complex setting and not solely as an architectural event [7]<sup>x</sup>.

Le Corbusier provides support to this thesis, writing that at Chandigarh 'the problem was no longer one of reasoning but of sensation...'<sup>xi</sup> The plan of the Palace of Justice might be interpreted as on the side of what Eisenman has characterised as a gridded or interstitial plan, and thus displaying aspects of an elastic space concept. [8]<sup>xii</sup> Certainly at Chandigarh there is a way of looking at the ground plane as a 'military' realm understood in the sense Argan gives it when considering Sammicheli's innovations. Le Corbusier supports this position, describing the challenge as a 'battle of space'.<sup>xiii</sup> The pedestrian esplanade is a series of undulating, highly animated conditions with priority given to ground manipulation. This is equally palpable when the building is placed amid the mosaic of the central capital plan.

There are also traces of perspective, composition-driven emphases on frontality and overall order. The building plan and elevation elements are tied to a homogenous whole as Evenson alludes to in her reference to Beaux Arts grand designs as always underlying one level of Le Corbusier's thinking. These aspects of a perspective space concept with its priority given to sight and a priori structured space are reinforced in the application of the Modulor to the dimensioning of the building, resulting in a textural unity (*l'Unité texturique*) according to Le Corbusier.<sup>xiv</sup> The plastic effects that might occur and their difference from other proportional systems should be examined to better qualify the impact.

The overall siting and building form can thus be read as both on the side of perspective and on the side of elastic

space concepts. This latter in relation to large site planning might more appropriately be qualified as scenographic in its qualities. It is almost a matt or field logic at work. The thought at work in the project, to taking a final aspect, could also be claimed to provoke transverse movements. This bias to the transverse can be seen in the *Oeuvre complète* where oblique and diagonal views are privileged by Le Corbusier and share those aspects of unrelatedness and enfolding that Argan identifies as distinguishing an elastic space temperament.

### 3. Concluding observations

The above too brief analysis begins to provide material for responding to the starting questions. To the first question about variations in sensibility and effect as rendered in the two case study projects, a consideration of the Bordeaux and Chandigarh law courts does reveal different ways of looking at architectural form and relatively different space concepts at work. Considering the specific spatial and figural lessons suggested from the above, the differences perhaps are dispositive. Chandigarh in the end is more certainly about volume and to a lesser degree the wall and the plan, Bordeaux the ambiguous figures of the courts, the ceiling and the section are perhaps the telling traits about the architect's sensibility. And if this were accepted, then Chandigarh might be claimed to function on the side of sight and perspective space and Bordeaux to operate on the side of sensation amid the messier qualities of elastic space.

And if these categorisations were adopted, then what might they tell us about the capacity or limitations of each approach vis à vis architecture's potential if any to render or give expression to institutional character? Further examination would produce a more elaborate response to this question at its most direct, that of giving institutional ambitions and values corporeality in a building.

Regarding ways of conceiving architectural space in question two, the projects not surprisingly are impure, displaying to different degrees characteristics of each of Argan's space concepts. An attempt to assign each building to one or another of the proposed conceptual and formal aspects illustrates this. As regards Bordeaux, while it does display perspective space biases, it also resists a reading of space as structure and thus could be placed on the side of elastic space. Chandigarh appears clearly on the side of an elastic or scenographic space concept accepting Le Corbusier's statement that the central problem was exactly one of creating sensation sufficient to occupy the expanse. More modestly, this way of viewing form can be found in the heterogeneities of the building's plan disposition. The application of the

Modular creates a textural unity and would support this reading at the scale of the building fabric. At the same time there is a sense in Chandigarh of an a priori sensibility and a larger whole full of ambiguous figures at the scale of the esplanade that future research should investigate.

The third question concerns the practice and theorisation of an architecture of justice and turns to aspects that are part of architecture's exteriority, suggesting that institutional values and symbolic qualities can be made physical in a work of architecture. Only tentative findings can be claimed as effects on subjects and the larger idea of justice and institutional identity are harder to respond to from a formalist reading. In the case of Bordeaux, the aim for transparency is literally manifested through the display of circulation routes and use of glass as the primary construction material. At the same time there is an effect of real distancing and separation of the public and law through the very mechanisms and machine-like systems employed that might counter this idea. Chandigarh in its boldness of gesture and extreme setting perhaps brings institutional values into the realm of architecture. When seen in the context of the capital complex, the Palace of Justice through its 'evocative strength... and massive plasticity of form,' according to Evenson, shifts it emphatically to the realm of sensation and thus strongly on the side of an elastic space concept.<sup>xv</sup>

The fourth question asks about architecture's capacity to imagine future or reconceptualise existing institutions. This ambition to more literally express or make corporeal institutions while participating in their formation has only indirectly been touched on. That said there is a trace of a response in Chandigarh's capacity to brandish a primordial power equal to the site and its role in the new capital city without at the same time constraining the institution's development. Bordeaux's ambiguities in a very different city and nation deserve a more in depth investigation to begin to address this question.

Table 2 provides an initial mapping of this mixed state, mapping the two projects against the qualities and characteristics of the two space concepts. Table 2 reveals Bordeaux and Chandigarh reveal sensibilities that cross perspective and elastic space concepts thus rendering both an overarching economy of sight and a logic of sensation.

A general consideration of the differences between specific versus absolute responses may also contribute to this discussion and provide a temporary conclusion. Bordeaux is a specific response to its site, perceived operational needs, and mechanical system requirements. Chandigarh is more absolute in its disposition. The idea of Chandigarh's primitive

monumentality against a mechanistic ideal in Bordeaux is certainly too simplistic to claim and introduces a new set of themes. Such themes do, however, start to suggest another approach to these questions and the opening propositions. One aim of the kinds of analysis undertaken at the level of disciplinarity deployed by Argan and promulgated by Eisenman is to turn architectural practice and theory toward its past in a critical and generative frame. Such analyses might result in a reengagement with pure geometries and unregulated heterogeneous harmonies to take only two examples of conditions and devices that the dominance of vision and a perspective space concept are claimed to resist. Perhaps this work to open the discipline would lead, among many possibilities, to something like an architecture of affect to point to a recent proposition by Eisenman. This might then contribute to opening up to forms conceived of with a bias to movement and sensation and architectural space as a shifting assemblage of light to recall Argan's moving tribute to Palladio. Such concerns and the questions behind them will provide materials for a future, longer exploration.

## References

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- [2] Peter Eisenman, *Diagram Diaries*, Thames & Hudson, London, UK, 1999.
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Table 2: Perspective Space and Elastic Space:  
Characteristic in the Bordeaux Law Courts and the Palace of Justice Chandigarh

FORMAL ASPECTS AND DEVICES	A design process of composition with a bias toward isolation and hierarchy	<input type="radio"/>	<input type="checkbox"/>	A strategy of assemblage with a preference for a practice of enfolding
	Rooms are distributed in a striated plan	<input type="radio"/>	<input type="checkbox"/> <input type="radio"/>	Rooms are arranged in en suite patterns of interstitial space
	Spatial units are attached via perspective connections, generally plan based.	<input type="radio"/>	<input type="checkbox"/>	Spatial units are propelled to the surface in plan and elevation
	A system of parts in favour of a larger whole	<input type="checkbox"/>	<input type="radio"/>	Parts never coalesce into a whole, retaining their independence
	Logical relationships established with exterior conditions	<input type="checkbox"/> <input type="radio"/>	<input type="checkbox"/> <input type="checkbox"/>	Significance is largely internal according to a logic of absoluteness
	Form relationships exist a priori	<input type="checkbox"/>	<input type="radio"/>	Relationships among forms are settled a posteriori
	<b>PERSPECTIVE SPACE (ECONOMY OF SIGHT)</b>			<b>ELASTIC SPACE (LOGIC OF SENSATION)</b>
CONCEPTUAL ASPECTS	Space is structured		<input type="checkbox"/> <input type="radio"/>	Space sensed amid a shifting assemblage of light and atmosphere effects
	Space as geometric structure	<input type="radio"/>	<input type="checkbox"/>	Space as datum or grid
	Transitional conditions abound	<input type="radio"/>	<input type="checkbox"/>	Elements are confronted one to another with no transition
	Realised in the continuity of the wall plane at the horizon	<input type="checkbox"/>	<input type="checkbox"/>	Rendered as a ground of undulating levels
	Homogeneous configurations in a closed form	<input type="radio"/>	<input type="checkbox"/>	Heterogeneous dispositions in an open configuration
	Architectural form generated by a space concept	<input type="checkbox"/>	<input type="radio"/>	Singular spaces generated by architectural forms

Key:  Bordeaux Law Courts  Palace of Justice Chandigarh

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  - ii Argan, Importance of Sammicheli, p. 174/387.
  - iii Argan, Importance of Sammicheli, p. 175/388 trans. modified.
  - iv Eisenman, *Diagram Diaries*, p. 39.
  - v Eisenman, *Diagram Diaries*, p. 39.
  - vi Eisenman, *Diagram Diaries*, p. 68.
  - vii Eisenman, *Diagram Diaries*, p. 172.
  - viii Argan, Importance of Sammicheli, p. 178/389.
  - ix Serenyi, Timeless but of Its Time, p. 110, fig. 38.
  - x Evenson, *Le Corbusier*, p. 101.
  - xi Le Corbusier, *Oeuvre complete*, vol. 5, p. 157.
  - xii Eisenman, The Futility of Objects, p. 71.
  - xiii Le Corbusier, *Oeuvre complète*, vol. 5, p. 157.
  - xiv Le Corbusier, *Oeuvre complete*, vol. 6, p. 62.
  - xv Evenson, *Le Corbusier*, p. 103.