Santiago Calatrava

Lyon Saint Exupéry
Railway Station
(formerly Satolas)

Lyon
France

1989-1994

Formal Strategies in Architecture
EVDA 621
Paper 4: Space
Courtney Clark
To conclude this Case Study and diagrammatic exploration of Calatrava’s Station in Lyon, the idea, production, and future potentials of space will be explored. Space can be of a perceptual experience, and is debated as strictly a physical construct. It is important through diagramming space to acknowledge the role of physical architectural and its potentials as well as ramifications of effecting a selected environment and its users. This regional rail node demonstrates its imposition on its site, however it is also important to understand and link space conceptually with the idea of perception as related to its users, and information exchange. Space thus becomes experiential, moving past a physical condition into one instilled in time, history, culture, and society. The creation of such a Landmark that this Station has arguably become and was also arguably chosen partially for this very reason as a winner in a design competition, this particular space contains a series of underlying meanings, justifications, or drivers that led to its overall production.

Information Exchange:

Abstract Diagram representing the tasks and their ordering in relation to the different transportation modes of arrival and departure at the site. The three points of entry or departure become related through the sequence or ordering of tasks (entering, obtaining a ticket, and travelling to the mode of transportation). As this building is centered around transportation modes that then take individuals or groups to another location, it reads as not a destination but of a space of transition. Even the two lines drawn that connect from the Airport to the Parking area are presumed or predicted based on future population growth: more from the surrounding area will likely drive and then simply move through the Course to get to the Airport, or use the short term parking and not pass through at all.
This physical space of transition is governed by movement and perception caused by changes in that environment. Thus understanding the interactions of these stimuli in relation to themselves physically is important to understanding another layer of space perception.

**Space Activation:**

This diagram looks at the dominant process within the physical interior space of the building and those processes or stimuli that dominate the activation of that area. Acknowledged in this diagram are natural, physical, and mental processes. All combine to produce a certain experiential layering of space. To demonstrate this layering this diagram was produced in the section of the building. As is shown, though human transportation dominates the platforms in a physical sense, the nearby passing trains (specifically the central fast-moving trains that do not stop at this station), dominate the experience of the space. This is done through its movement and sound. The effects to do not bridge up into the concourse as the space is separated by a concrete slab and glazing (in Section 1). The upper level space in Section 2 does become effected as the sound transfers up into this space.
Relative Exposure

Mapping Spatial Sensations through a sequential movement through the Structure:

Taken from a first person perspective, the following series demonstrates the sensation produced through visual experience within the architectural space. A sequential path begins outside, moves into the Concourse and ends on a lower platform. The lens or line of site expands and contracts based on the size of the space in relation to the person, and most of all access to views, light and overall elevation or height. Thus the lens as a whole demonstrates perceived openness, or qualitatively speaking, exposure. The architectural composition (size, proportion, material such as the Concourse glazing, expansive height and slim steel structure) produces greater overall exposure. The Concourse produces an open space due to its skeletal nature, which changes slightly moving through the upper walkway towards the platforms due to a relative reduction in ceiling height and glazing patterns in relation to the body. This expands again once movement occurs down to the platforms, being exposure again relative to the overall height of the building (the body in relation to the ceiling or roof), and exposure in relation to being in close proximity to moving trains. The trains produce a slimmer overall lens as they effectively cut off horizontal movement. Though the overall architectural space does not change, the perception changes due to location and both visual and physical cues restricting movement (raised platform creates an assumption of a non-accessible zone where the trains go, paired with a culturally accepted notion that this area or space is not safe to be on or is out of bounds, though technically, physically accessible when a train is not actually there). It is interesting to note that physical space defined by the train car does not produce less exposure; in fact this is reversed when the train leaves the Station, providing through speed and an open landscape access to broader views. Thus overall site lines is seen as just as important as overall height or size of a structure in measuring perceived exposure or openness of a space. This sensation likely varies from person to person as well depending on their individual preferences, a recognized limitation to this generalized diagram.

Comfort in relation to exposure can be both a negative and positive sensation. Here, for example, over-exposure could actually be unsettling in the large Concourse, however the relative change coming from outside isn’t a drastic perceptual difference (also aided through the glazing of the Concourse). This contrasts to the boarding of a train that has not yet left the platform. Here, a sudden or drastic change in exposure would be more likely to produce discomfort or claustrophobia until the body is able to re-adjust to the smaller physical boundaries produced by the train, this is aided by the site lines set from the train. The effect is altogether removed as it leaves the station, actually producing greater exposure through visual access of the broad landscape then before entering the Station.
Calatrava's Popularity and broader architectural style preference

The production of space is linked directly to socioeconomic conditions, and qualitative preferences. If a decrease in economic standing occurs, for example, future maintenance of the building will be effected. It is also likely that a global change in economic conditions will likely be reflected regionally. This logic can then be applied to this particular structure.

It is argued here that organisms define an overall perspective and physical definitions of space as related to production. As Delanda (2001) describes, through virtue of the internet I am personally researching a structure through which I have not been to. I have come to understand certain aspects of the structure and also have come to critique its visual appearance qualitatively in this regard is referring to individual development or impressions that compile into a species-wide generalization. As Delanda (2001) describes, though a species operates both temporally and geographically, it can be related to an emerging whole leading to what he terms "the architectural" (58). It is thus important to specify its speciation, an intensive process "through which the whole emerges" (58). When applied to this diagram of space production, it becomes evident that qualitative experience exists outside of a fixed boundary. It could be argued that these qualitative specifications define the heterogeneity of the individual that make up the generalized species - that portion of the species directly effected by this structure being increasingly broad due to the collapse of physical space by virtue of the hyper-physical or virtual.

To conclude on space, analysis from the individual perspective and physical definitions of space as related to production. As Delanda (2001) describes, "an organism is defined both by its spatial architecture, as well as by the different materials...which give relative time.

Natural Resource Availability

Economic standing

Housing expansion and location of Lyon

Population expansion or reduction

Choice of transportation type

Sociocultural Context Analysis: Mapping Significant Factors that lead to the Production of Space and use of this Station and the Future Implications for the Region

The product of space is linked directly to socioeconomic conditions, and qualitative preferences. If a decrease in economic standing occurs, for example, future maintenance of the building will be effected. It is also likely that a global change in economic conditions will likely be reflected regionally. This could alter popularity of certain styles with the emergence of new architectural forms, reducing the qualitative importance of the structure in comparison to when it was originally built. The Economic bubble is shown as expanding, along with Circulation, representing the shrinking of physical space through the innovation potentials of technology (circulation) and due to the expansion of space through a virtual reality (economic). Meanwhile, the qualitative bubble is an all encompassing aspect, informed through the linking of all other factors. Another words, the qualitative bubble is an all encompassing aspect, informed through the linking of all other factors.

Integrated Design Approach

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References


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