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Deconstructing Las Vegas: scientific frictions in Venturi, Scott Brown and Izenour

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ABSTRACT: Scientific attitudes towards knowledge have proliferated architecture and urbanism in the period since the Second World War as the growth of science and its standing in the community continues to grow. As a theoretical framework has developed linking science with architecture, the precise methodology and interpretive rigour of scientific research has provided a seductive model that urban theorists have used to interpret the cultural and social dimensions of urban form.

One of the most famous and original examples of a scientific methodology being applied to architecture is the canonical work of Venturi, Scott-Brown and Izenour entitled Learning From Las Vegas. This work provided a scientific framework for understanding popular culture, first demarcating it spatially within Las Vegas, dissecting it into clearly defined categories, establishing clear frameworks to the research and ultimately interpreting the results and presenting them graphically. The innovative scientific model employed in Learning from Las Vegas allowed, for the first time, architects and urbanists to examine information in rigorous and consistent “laboratory conditions” supplying a vast and well-organised body of interpretive data while at the same time removing hermetically the superfluous information. This allowed the city, as a cultural organism to be dissected and laid out systematically in the same way bodies are dissected in the quest for scientific knowledge.

Despite its seductive appeal, the logic of Venturi, Scott-Brown and Izenour’s analysis has never been questioned and its scientific rigour has not been tested. While a convenient means of representing architectural data, the framework used to examine Las Vegas is based on a number of internal inconsistencies which vastly undermine the scientific credibility of the experiment. By demarcating the city into clearly defined areas of research this model of thinking sought to contain and isolate the various dimensions of popular culture like a virus and prevent them from spreading or reproducing. While maintaining a superficial fascination with the “popular” the scientific procedure was analogous to a kind of quarantine that sought to identify popular culture, contain it, and limit its growth, ensuring, through the methodologies in place, that the heterogenous dimensions of the city were hermetically divided into isolated and homogenous categories like atoms in a scientific laboratory. Cultural theorists at the time of Learning from Las Vegas such as Michel Foucault were already warning of the inherent dangers of this model of scientific analysis for the humanities and the limitations it placed upon epistemological research.

Using a deconstructive model of analysis (which explores specifically the spaces between linguistic opposites) and drawing from parallel themes in critical theory, this paper will investigate the scientific methodology that underpins Learning from Las Vegas and demonstrate its abridged relationship to the broader social and cultural dimensions of built form. By dismantling the procedures and hypotheses of the experiment, the paper will demonstrate the limitations at work in the scientific data attained by Venturi, Scott-Brown and Izenour and some of the inconsistencies that exist in their theoretical conclusions, particularly in their attitude towards heterogeneity, ambiguity and complexity. Drawing upon the work of Foucault, the paper will demonstrate how Learning from Las Vegas, rather than containing a scientific record of popular culture, contains within it the scientific desire to contain it.

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INTRODUCTION
In Autumn 1968 Robert Venturi, Denise Scott Brown and Steven Izenour, as part of an elective offered at the Yale School of Art and Architecture, took a group of nine architectural students, two urban planning students and two graphic design students to record and document the architectural language of one of the world’s most complex visual environments. Given the title “Learning from Las Vegas, or Form Analysis as Design Research” the simple project to understand and graphically depict the commercial strip of Las Vegas has had far-reaching consequences on both the architectural and theoretical understanding of the built environment. The authors, in their introduction to the elective, announced their determination “through open-minded and non-judgemental investigation, to come to understand this [new urban] form and to begin to evolve techniques for its handling” (Venturi, Scott Brown, Izenour, 1972, p. xi). With this in mind, the group spent three weeks doing preliminary research in the library before setting out, spent four days in Los Angeles, ten days in Las Vegas collecting information and a further ten weeks analysing, interpreting and
The period was marked by the evolution of multi-disciplinary critical practices, the dynamic re-emergence of Marxism, the intellectual reappraisal of psychoanalysis and the emergence of structuralism. Amongst the vast array of ground-breaking and revolutionising works from the immediate period are Jacques Derrida’s *Of Grammatology* (Derrida, 1976 [1967]). Lacan’s *Ecrits*, and Louis Althusser’s *On Marx* which all provided radical and provocative models for reinterpreting and engaging with historical ideas; in Derrida through the “deconstruction” of language, in Althusser through the development of a radicalised, Marx-inspired economics and in Lacan through a semiotic reappraisal of Freudian psychoanalysis. These practices also marked a historical movement away from the broader functionalist themes of modernity reclaiming critical theory as fertile ground for architectural experimentation. Architectural theory, as a multi-disciplinary critical practice, is often located historically from this period, (see, for instance: Hays, 1998; Nebitt, 1996) emerging from George Baird’s architectural appropriation of Ferdinand de Saussure’s theory of linguistics (Baird, 1969) and Manfredo Tafuri’s polemical rereading of Marxist production and avant-garde architecture in the same year (published in English in 1976: See Tafuri, 1976). Both of these themes—semiotics and Marxism—are central to the methodological approach of Venturi, Scott Brown and Izenour, whose study focuses on the “signification” at work in Las Vegas and its proletarian links to popular culture.

These developments in critical theory in the 1960s, accompanied by the simultaneous emergence of multidisciplinary research into architecture, allowed architects and theorists (including Venturi, Scott Brown and Izenour) to draw from a previously untapped body of intellectual information and appropriate it to the complexities of the built environment. Key to this were movements in philosophy and linguistics which, through phenomenology and semiotics respectively, provided powerful interpretive models for understanding and creating architecture. Equally fields such as anthropology became prominent, linking the development of traditional cultures with modernity through an analysis of their built structure. The work of the French sociologist Claude Lévi-Strauss was the pre-eminent model of this form of research which used groups such as the Bororo tribe in South America to delineate a connection between primitive societies and broader principles in linguistic and social analysis (see: Levi-Strauss, 1968; Lévi-Strauss, 1972). The publication of Baird’s “L’Dimension Amoureuse in Architecture” (Baird, 1969) shaped the evolution of architectural theory by introducing Saussure’s *Theory of Signs*, which was central to the work of Levi-Strauss, into an architectural context. Providing a backdrop to the intellectual themes that would shape the Learning From Las Vegas project, Baird’s work established an analogical connection between architecture and language allowing the fields of linguistics and semiotics to be explored in an architectural context for the first time. Saussure had, in his posthumously published *Course in General Linguistics* (only translated into English in 1955), first interrogated the sign by establishing it as the primary unit of communication, dividing it into the signifier-signified duality and stressing the “arbitrary” nature of their relationship. Baird used the distinction between the sign and the signer to introduce into architectural theory a whole lexicon of analytical terms to further probe the relationship between architecture and signs. The debate over the relevance of this connection was played out in a number of important and revolutionary publications in the late 60s and throughout the 70s (See for instance: Jencks and Baird, 1969) as well as influential works by major European writers such as Umberto Eco (1976) and Roland Barthes (1968). Baird’s work allowed for an abstracted relationship between architecture and its encoded meanings which, when popularised by Charles Jencks through the association with Post Modernism (Jencks 1978; Jencks 1987) became intrinsic to architectural culture, particularly in America in the period from 1970 to the late 1980s. Venturi and Scott Brown became, however reluctantly, key figures in this architectural phenomenon.

As well as the fascination with signification, the late 1960s witnessed, in association with the tumultuous events in Paris in 1968, a resurgence in Marxism as intellectuals began to adopt an increasingly politicised role in broader culture. The Marxist project to dismantle bourgeois values and meant that themes of “populism” became, for the first time, grounds for architectural as well as cultural research. Prominent French intellectuals like Derrida, Henri Lefebvre and Gilles Deleuze began to dismantle the traditionally sacrosanct boundaries of conventional philosophy and move into broader areas of cultural analysis like art, literature and film at the same time promoting, as part of their intellectual systems, radical political agendas and programmes for social action. One of the key literary works from this period was Guy Debord’s influential manifesto from 1967, *The Society of the Spectacle* which argued that the modern period was characterised by a glut of visual information whereby representation had replaced reality as.
the primary mode through which life is experienced. This visualisation of culture, which is embodied in the extravagant spectacle of Las Vegas, also required the emergence of new visual means through which to record and document it, creating a further division between the act of experiencing spectacle (in itself representation) and then representing it. In this respect Learning From Las Vegas, undertaken just after the publication of Debord’s work, can be seen as the first genuine methodology attempting the representation of representation itself.

Amidst this complex climate of intellectual revision, Learning From Las Vegas remains a provocative document of the way that these new attitudes towards populism and the visualisation of culture could be assimilated into architectural discourse. Bold and daring in its aims and conclusions, the work assimilates the broader themes of intellectual culture in a not only literary manner but, more specifically, a highly visual one. Focussing on the otherwise untouched question of popular taste, the examination of Las Vegas was a radical departure from conventional attitudes towards populism and was subtitled by the authors, at the conclusion of the project as “The Great Proletarian Cultural Locomotive” indicating a political as well as social context for the work. The idea of an accumulated popular knowledge that could be mined from the built form of Las Vegas was undertaken in an archaeological manner, documenting not only its current form and organisation, but its diagrammatic evolution over time. Indeed, in the preface to the first edition the authors concede that “[t]here is still a wealth of architectural information to be culled from Las Vegas” (Venturi, Scott Brown, Izenour, 1972, p. xi). Positioning Las Vegas as the modern day Rome or Athens, the authors proceeded to interrogate its form to reveal and record this new source of architectural knowledge.

By establishing this clear, archaeological agenda, Learning From Las Vegas presents itself, from the outset, as a scientific document recording, in an objective manner, a scientific experiment—in search of answers, we shall experiment with different techniques” (Venturi, Scott Brown, Izenour, 1977, 76). The insistence of the authors on maintaining a “scientific” methodology is despite the works resonance with the important theoretical and cultural themes of the period and its affiliations with the broader intellectual trends of structuralism. Given this, the paper will look at the “method” embodied in Learning From Las Vegas and its relationship to scientific models of attaining and interpreting information. Focussing on the work of Michel Foucault into the relationship between science and knowledge it will demonstrate the way that the techniques used to decode and decipher the language of Las Vegas intersect with a long history of “epistemological” science that tries to order, contain and divide information into recognisable and objective categories. The techniques compiled for Learning From Las Vegas, while provocative, constitute a kind of visual taxonomy where information is assembled in isolated categories and contained by very clearly defined assumptions and criteria. The complexity of their relationships and the intangible spaces that reside between these categories are neglected as the city is divided surgically into typologies, programmes, surfaces and scales. This scientific record of popular taste, in this way, resembles a broader project to understand, demystify and contain popular culture thus assimilating it into a broader and highly politicised schema of knowledge. Through this process of division, categorisation and containment the complex heterogeneity of Las Vegas is dismantled and laid bare in the same manner that medieval surgeons dissected dead bodies to reveal their secrets. Within this is a strategy that underwrites architectural drawing, texts and language: the need to contain and assimilate.

1. LEARNING FROM LAS VEGAS: SCIENCE, KNOWLEDGE AND EPISTEMOLOGY IN THE VISUAL STRATEGIES OF VENTURI, SCOTT BROWN AND IZENOUR

The first drawing in Learning From Las Vegas is a map of the strip, rendered starkly in black and white showing a typical figure-ground plan of the strip in Las Vegas that became central to the project (Figure 1). This drawing, which becomes the genetic basis for all subsequent information in the work, establishes very clearly a graphic order that assembles information in a scientific manner into “objective” categories such as black and white, building or not. The drawing shows the outlines of buildings in black and a flat, featureless ground-plane in white with a graphic scale and north point providing the only other source of architectural information.

The drawing establishes an arbitrary boundary which delimits the area that is being studied by removing information from the surrounding area. Not marked or acknowledged, this limit is the first of a number of exclusionary tactics which enable the visual formula of Learning From Las Vegas to be managed. Subsequent diagrams see the information embodied in this drawing reconfigured into an array of different categories, demonstrating, in each case, through the use of black and white, an unambiguous and precise two-dimensional record of a complex visual landscape.
Forming the basis of the visual depiction of Las Vegas in the work, these drawings are the most succinct statement of the methodology that the authors develop in order to make sense of an otherwise random and incoherent spatial phenomenon. The drawings resemble a laboratory experiment where an organism is subjected to a range of different conditions in isolation and the comparisons are used as a means of further understanding its original form (Figure 2; Figure 3). In this complex architectural autopsy the city is strictly demarcated, laid open, dissected and ultimately dismembered as the information is isolated, through the diagram, from the surrounding states. Organised sequentially over a number of pages the various diagrams allow the city to be read through a series of scientific lenses which, without the clutter of the surrounding diagrams or other superfluous information begin to project a serialised picture of totality. Through the exclusion of intermediate states, and the exploration of very clearly defined polarities (building, not building; bitumen, not bitumen) the authors establish a procedure for documenting conditions in a graphic as well as objective manner and enable the data to then be interpreted.

**Figure 2 (top):** Buildings, Las Vegas Strip (Source: Venturi, Scott Brown, Izenour, 1977, 25).

**Figure 3 (bottom):** Asphalt, Las Vegas Strip (Source: Venturi, Scott Brown, Izenour, 1977, 24).

From the outset *Learning From Las Vegas* presents itself as a scientific document, establishing an experiment, developing a methodology to test it under different conditions and then using the data to establish a series of formulated conclusions. The notion of “learning” conspicuous in the title, is a key theme in the work and establishes its aspirations for scientific, as well as architectural legitimacy. The project was structured, from the outset in a scientific manner, involving meticulous preparation before the actual experiment was conducted. Named “Phase III” by the authors, the actual time spent in Las Vegas was undertaken as what they called “applied research” and, as in science, was the intermediate stage between developing a hypotheses and testing its validity. The framework for the experiment is documented in the section entitled “Studio Notes” where a systematic account is given by the authors of the hypotheses and the means through which it will be tested and recorded. Describing the work as a “technical studio” the authors establish their intention to “[evolve] new analytical tools for understanding new space and form, and graphic tools for representing them” (Venturi, Scott Brown, Izenour, 1977, p. 73). This archaeological method has resonances particularly with the work of Freud where, as documented in his now notorious case studies, patients are subjected to psycho-analysis in order to reveal concealed secrets buried in their subconscious. It is Freud’s method of diagnosis, proceeding scientifically through a series of stages and recording them as objective data in a deliberate medical procedure, that establishes the framework for the model of research that *Learning From Las Vegas* aspires to.

The publication of *Learning from Las Vegas* coincided with the emergence of an important and influential critique of scientific method which over the proceeding decades has transformed the intellectual landscape. Published in 1970, Michel Foucault’s *The Order of Things* (Foucault, 1971) was the first of a number of Foucault’s projects (see also Foucault, 1972; Foucault, 1998) into the power structures that underpin epistemology or what he calls “pseudoscientific analysis”. Foucault was interested in the way that information and knowledge are accumulated and the political processes which condition it. Of concern to Foucault was the way that information was ordered and organised through processes of categorisation, containment and scientific objectivity. His work is of interest in the analysis of *Learning From Las Vegas* as these themes of categorisation and division which structure the quest for scientific knowledge are also embodied in the methodology and documentation of the strip.

Foucault saw the history of knowledge since the Renaissance as related to a scientific obsession with containment and division where knowledge was ordered and structures divided into inflexible disciplines and accumulated within
very strict and regulated institutional frameworks. Foucault’s work documents what he terms “dividing practices” where individuals, information, knowledge and even activities are separated, categorised and policed beneath a complex network of power relations (Foucault, 2001). Venturi, Scott Brown and Izenour’s determination to visually depict the processes of popular culture in Las Vegas can be affiliated with this process of systematisation that incorporates disparity and complexity into manageable categories through well established scientific methodologies. Las Vegas becomes, for the authors, a kind of archaeology which, as a source of knowledge, can be exposed through scientific strategies of objective analysis. Popular culture, in order for it to be assimilated into a theoretical understanding of architecture, needs to be quantitive and the graphic processes of description allow it to then interact with other, already prolific models of research. The visual record of Las Vegas constitutes a kind of visual taxonomy, whereby elements which are in their nature continuous are organised in isolated incongruous categories so that, through division, their continuity is no longer visible. This can be seen as a medical procedure where information is isolated and contained to prevent it contaminating other organisms. Foucault articulates, in detail, this process of the scientific appropriation of knowledge in his widely contested three volume History of Sexuality (Foucault, 1998b; Foucault, 1990; Foucault 1992). Here Foucault begins with a radical polemic arguing that the emergence of a culture of “repression” towards sexuality was, at the same time, part of a broader movement which sought not to repress sexuality but document it, ascribe it a position and, through a range of methodological tactics, control its spread. Foucault used Freud’s process of psycho-analysis as one example where sexuality was assimilated into the scientific discourse through the processes of diagnosis and treatment. Through this procedure of scientific documentation a “discourse” develops around sexuality which, contrary to the “repressive” hypothesis, actually documents, describes and provides methods for controlling sexuality. This schema developed its own language, its own methodologies and its own disorders all of which existed within a scientific discourse that concealed them from view.

Foucault’s writing has been central to much work in architectural theory particularly in the 1990s as notions of heterogeneity and otherness have become increasingly important to critical discourse. In his influential work “Different Spaces” Foucault argued for his idea of heterotopia, as a model of a working utopia where spaces are ordered according to “difference” rather than sameness (Foucault, 1988a, 185). Las Vegas represents a primary model of this kind of phenomena where the typical strategies of organisation and classification are no longer meaningful due to the complexities and contradictions embodied in their spatial and political allocation. The project for Learning From Las Vegas can be understood within a similar framework of discourse to Foucault’s writing on sexuality, whereby scientific procedure attempts to establish, from the outset a mechanism for understanding and recording the manifestation of popular culture through techniques already familiar to scientific discourse. For Foucault, who was acutely aware of the dangers of this “pseudo-scientific” model of analysis, the act of developing a discourse and a visual graphic record from which objective results could be attained is, like the procedures through which sexuality was documented, part of a long historical tradition for recording and assembling information by reducing it to familiar categories of knowledge. In this respect, at least from the point of view of Foucault’s epistemology, this model of learning from Las Vegas is more associated with the act of documenting it, ascribing it a position and preventing it from escaping the procedures of discourse.

While synchronous with Foucault’s theorising on epistemology, Learning From Las Vegas was the follow up project to Robert Venturi’s earlier landmark work Complexity and Contradiction in Architecture where he first challenged the basis of modernism by demonstrating the importance of ornamentation and complexity in built forms, citing the Baroque as a key period for understanding architectural signification. Widely considered one of the most influential works of architectural theory of the Twentieth Century, the work established the position that Venturi, later in collaboration with Denise Scott Brown and Steven Izenour, would try to legitimise through their work in deciphering the architectural language of Las Vegas. In Complexity and Contradiction in Architecture, Venturi had argued that the kind of “articulation and clarity” that is a characteristic of the presentation of architecture (particularly modern architecture) through polarities such as inside and outside and open or closed is antithetical to a broader cultural kind of “articulation and clarity” that is a characteristic of the presentation of architecture (particularly modern architecture) through division, their continuity is no longer visible. This can be seen as a medical procedure where information is isolated and contained to prevent it contaminating other organisms. Foucault articulates, in detail, this process of the scientific appropriation of knowledge in his widely contested three volume History of Sexuality (Foucault, 1998b; Foucault, 1990; Foucault 1992). Here Foucault begins with a radical polemic arguing that the emergence of a culture of “repression” towards sexuality was, at the same time, part of a broader movement which sought not to repress sexuality but document it, ascribe it a position and, through a range of methodological tactics, control its spread. Foucault used Freud’s process of psycho-analysis as one example where sexuality was assimilated into the scientific discourse through the processes of diagnosis and treatment. Through this procedure of scientific documentation a “discourse” develops around sexuality which, contrary to the “repressive” hypothesis, actually documents, describes and provides methods for controlling sexuality. This schema developed its own language, its own methodologies and its own disorders all of which existed within a scientific discourse that concealed them from view.

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The work of Learning From Las Vegas is a clear extension of the fascination with complexity and contradiction that was articulated in Venturi’s earlier individual work. Chosen for its indecipherable logic and complexity as well as its widely held popular appeal, Las Vegas represented, for its authors, a rich cultural artefact of popular taste and complex visual dynamics that constituted the modern equivalent of Rome and Athens. Characteristic of an additive model of urban planning where “both-and” is valued over “either-or” the authors, in their initial hypothesis stress the importance of “inclusion” and “complexity” in attempting to understand and unravel a landscape such as Las Vegas (see: Venturi, Scott Brown, Izenour, 1977, 77). Referring to Bergson’s understanding of order as “disorder which we cannot see” the authors of Learning From Las Vegas argue that the emerging order of the strip is a complex order. […] [T]he order of the strip includes; it includes at all levels , from the mixture of seemingly incongruous land uses to the mixture of seemingly incongruous advertising media plus a system of neo-Organic or neo-Wrightian restaurant motifs in Walnut Formica. […] The moving body in the moving eye must work to pick out and interpret a variety of changing, juxtaposed poses, like the shifting configurations of a Victor Vasarely painting. (Venturi, Scott Brown, Izenour, 1977, 52-53.)
However, despite these aims and the broader intellectual themes that underpin the experiment, the methodology that is embodied in *Learning from Las Vegas* rather than “including” is based on a scientific model of exclusion and categorisation where the incongruities that are characteristic of the visual landscape are systematically dismantled. The “incongruous land uses” that the authors praise for their complexity find their representation in a series of independent drawings where land uses are depicted in isolation and their relationship to opposing land uses is neglected. Images such as the “ceremonial space” (Figure 4) render all other land in a sea of black revealing a pattern of sameness, rather than the incongruity which is the reality. The complexity of the urban environment, which is embodied in the sudden implosion in space of all of these incongruous factors simultaneously, is compromised by their isolation and independence from each other. The interchange between various typologies and their visual communication with each other is ignored through this model of visual stratification. This method of reduction renders the complex and fluid visual dynamic of Las Vegas as a series of mono-dimensional, mono-chromal images which, while imparting important information, are equally concerned with its exclusion.

![Figure 4: Ceremonial Space, Las Vegas Strip (Source: Venturi, Scott Brown, Izenour, 1977, 24).](image1)

One critical drawing where the vagaries of this method become clear is the drawing of "Nolli’s Las Vegas" (Figure 5). Nolli was an Eighteenth Century urbanist who produced an iconic drawing of Rome where the “private” and “public” spaces of the city are shown with the solid matter of buildings rendered in grey. The drawing, as Venturi, Scott Brown and Izenour observe reveals the spaces open in the city to a pedestrian. Venturi, Scott Brown and Izenour use Nolli as a precedent for their analysis of the strip demonstrating, in one drawing the break down between public and private and the solid matter of buildings which separates them. However in Rome the relationship between public and private was relatively simple and the primary experience of the city was a pedestrian one. In Las Vegas a much more complex situation occurs where cars and pedestrians equally experience the city and the zones available to them are ambiguous and not easily defined. Also the notion of “public” and “private” in Las Vegas is ambiguous as even the zones available to the public such as casinos are heavily privatised and regulated by a range of clandestine and often hidden mechanisms rendering space privatised while superficially retaining the characteristics, at least spatially, of public space. These kind of complexities embedded in the social structure of Las Vegas are omitted in the diagram of Nolli’s Las Vegas which can not negotiate the complex simultaneous contradictions that underpin the city. The dualities of “public” and “private” are contested in Las Vegas as all space retains, to some degree the characteristics of both poles.

![Figure 5: Nolli’s Las Vegas, Las Vegas Strip (Source: Venturi, Scott Brown, Izenour, 1977, 24).](image2)

The reductive processes that are embodied in the diagrammatic depiction of *Learning From Las Vegas* is a characteristic that enables the data to be accumulated independently of the kind of ambiguities that seek to undermine it. It is also a theme that the authors are acutely aware of, demonstrating an acute sensitivity towards the internal complexities of the visual landscape they are investigating and even at times, the inadequacies of their own method of recording it (see, for instance: Venturi, Scott Brown and Izenour, p. 19). One of the most provocative attempts to counteract this process of visual stratification is the drawing of illumination levels on the strip which, in a study of signification, is the overwhelming spectacle that underpins the landscape of Las Vegas. The French critic...
Jean Baudrillard, who is one of the most prominent authors to have written about Las Vegas and its relationship to American capitalism, saw the moment in the evening, when the buildings dissolve and are replaced by a labyrinth of neon signs as the primary architectural experience of Las Vegas, constituting neither day or night but a seductive and ephemeral in-between state. Baudrillard wrote:

When one sees Las Vegas at dusk rise whole from the desert in the radiance of advertising, and return to the desert when dawn breaks, one sees that advertising is not what brightens or decorates the walls; it is what effaces the walls, effaces the streets, the facades and all the architecture, effaces any support and any depth, and that this liquidation, this reabsorption of everything into the surface...that plunges us into this stupefied, hyperreal euphoria that we would not exchange for anything else, and that is the empty and inescapable form of seduction. (Baudrillard, 1988)

The impact of this constantly changing visual environment which flashes and dims and overpowers the certainty of static forms is probably the most complex and intrinsic dimension of its architectural signification and conditions its relationship to populism and complexity. Venturi, Scott Brown and Izenour, like Baudrillard see light as a key theme in mediating the relationship between space and its occupation, writing "[d]ifferences between the blazing outside and the cool, dark inside are poignant strong in Las Vegas; yet they are counter-crossed by the domesticated "outside" inside the patio and by the night-sky lighting of the casino lounges. Day is negated inside the casinos, and night is negated on the Strip. (Venturi, Scott Brown, Izenour, 1977, p. 77). However rather than recording this phenomenon in its entirety, Learning From Las Vegas provides a single, scientific drawing, without a timescale (see: Venturi, Scott Brown and Izenour, 1977, p. 27). The differences which characterise light and animate Las Vegas as an architectural phenomenon are not assimilated into its graphic reproduction.

This model of organising and collating information functions on the "either or" model of interpretation that Venturi had earlier criticised, establishing an attitude towards representation where space is either "ceremonial" or not, but never in between. These models of categorisation are conspicuous, from the levels of advertising to the dismantling of hotels into various programmatic elements that comprise them (figure 6). This model of categorisation is embodied, equally, in the final thesis of Learning From Las Vegas where the authors postulate famously a historical duality in architectural signification between the duck or decorated shed. Using this as a model to reinterpret architectural theory, the duality is an important model of division where buildings are assigned inflexible categories based on their physical form. Where these dualities, which are scientific and linguistic in nature are criticised in Complexity and Contradiction, they underscore the method if not the theory applied in Learning From Las Vegas and also undermine the conclusions attained.

CONCLUSION
The highly complex intellectual environment that facilitated the project for Learning From Las Vegas provides a provocative framework for reconsidering both its aims and its legacy. Providing an enduring model of documentation and interpretation, the work has had a profound effect on attitudes towards architectural knowledge between the period of its publication and the present day. In this sense Learning From Las Vegas can be seen as much more successful in documenting the broader global concerns of the intellectual culture of Europe and America than the inward scientific complexities of Las Vegas. Despite its scientific aspirations, the can be read not as a scientific document but as a historicised theoretical one, which reveals the critical appropriation of a number of important and revolutionising shifts in intellectual and popular culture of the period. When examined against the backdrop of the collective youth culture of the 1960s, the anti-establishment themes of popular music and the visual arts as well as the simultaneous resurgence of semiotics and Marxism, Learning From Las Vegas reveals presciently the
preoccupations of critical theory that were to dominate architectural culture for the following decades. Assimilating attitudes towards visualisation and populism that were prominent at the time, the work also embodies an important attitude towards epistemology, and science which, when framed against the “both-and” framework of its hypotheses, begins to reveal inner frictions. Despite describing the environment of Las Vegas as “inclusive”, Venturi, Scott Brown and Izenour’s model of documenting the strip is, at every level, exclusive and rests on the scientific and objective categorisation of information and its organisation within a visual taxonomy. When read as a scientific procedure, rather than a theoretical one, Learning From Las Vegas becomes itself ambiguous. The work as a result represents not only a provocative polemic on architectural signification but the complex and often problematic relationship that exists between scientific procedure and architectural discourse.

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