Fore and against: science, aesthetics and the visual complexities of figure-ground in urban analysis

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Abstract: As the pre-eminent diagram for the visual analysis and design of urban environments since the Renaissance, the figure-ground plan is an important graphic device, not only representing diagrammatically the relationship between buildings and their surroundings but, at the psychological level, the perceptual distinction between solid and void. This paper will look at the scientific categorisations implied in the figure-ground and its relationship to broader arguments in psychology and aesthetics. By looking at the models of urban analysis developed by Mario Gandelsonas in his work X-Urbanism (1999) the paper will demonstrate the confluence of aesthetic and psychological models of organisation and the affiliations established between scientific systems of categorisation and the analysis of urban form.

Conference theme: Effective tools: design, assessment, operation
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INTRODUCTION

In 1999 the American architect and theorist Mario Gandelsonas published a series of graphic investigations into "reading" and "writing" the urban landscape under the title X-Urbanism. Gandelsonas's project, spanning 20 years, was carried out from the start: to use the two-dimensional plan of the city as the basis for a psychological decoding of architectural space, revealing, through visual tactics of reduction and assimilation, the traces of a spatial "unconscious" that lie beneath the urban matrix of the city. Gandelsonas drew heavily from aesthetics and psychology in his attempt to map this unseen framework of desire and created a platform through which these two warring disciplines could be integrated in the pursuit of architectural knowledge. At the heart of his work was the "figure-ground" plan which traced contours between solid and void, object and context and, for Gandelsonas, the historical junction between architecture (figure) and urbanism (ground).

Representing one of the primary graphic models through which urban spaces and architecture are represented, the "figure-ground" plan is situated at an important and contested crossroads between art and science, theory and logic. Central to the evolution of aesthetic theory and the discourse of Twentieth Century art, the figure-ground is equally embedded in the evolution of modern psychology, central to a scientific understanding of human cognition and implicated in the invasive techniques of psychoanalysis. In both cases the figure-ground is the primary representation of visual complexity, divisive and objective at the same time as it is inclusive and idiosyncratic. The intangible (and illogical) space between figure and ground (the "contour") has created a fertile gathering place where the divergent disciplines of aesthetics and psychology have been assembled across the landscape of the Twentieth Century.

Two clear trajectories linked the figure-ground dyad with the broader cultural symptoms of the period. Firstly, it was in the direction of psychology, where empirical studies of perception and cognition attempted to explain the "deepening" observed in certain configurations of figure-ground. Psychologists were led to conclude that a space between the figure and ground was read by the eye that, confused by the whole, oscillated between a focus on figure and on ground. This led to a phenomenological attempt to link lived experience with visual sensation through an understanding of gestalt. The second, and opposing trajectory, was pursued in aesthetics and art, where a movement against the "figurative" saw a flattening of the picture plane and the spatial and visual ambiguities that were implied by that. The picture plane became the interface where the "artist" and "viewer" met: encoding psychological processes on one side, and decoding them through "interpretation" on the other. In each case psychology was posited as an active (rather than passive) force which conditioned the relationship between the viewer and the viewing plane. Both psychology and aesthetics interpreted this collision between subject-object as equivalent to the visual collision between figure and ground.

The figure-ground can be read as the primary visual evidence of what art critic Rosalind Krauss calls an "optical unconscious"—the manifestation of embedded psychological material which is revealed in the flattening and deepening of these two competing states. Artists, interested in Freud and the techniques of psychoanalysis, explored these cognitive effects throughout the 1930s, 40s and 50s, at the same time as scientists undertook strategic research into its visual effects and their relationship to the psyche. The way that these two trajectories intersect with the broader themes of urban analysis is inscribed in recent strategies to "read" the city by reducing it to a visual, two-dimensional text. While grounded in urban models of the 1960s—particularly those of Venturi, Scott-Brown and Izenour (1977), Aldo Rossi and Colin Rowe—the resurgence of these models of "reading" the city coincided with the evolution of structuralist models of aesthetic analysis, and a reappraisal of the psychology of Sigmund Freud, particularly through the linguistic re-readings of the French psychologist Jacques Lacan. In the 1960s Lacan had posited an "image screen" which lay between "reality" itself on one side and its "reception" (or interpretation) by the viewer. These ideas framed a scientific
approach to aesthetics, which drew not only from Lacan, but also from systems of ordering and tabulating data familiar to mathematics and science.

This paper will look at the way the urban plan, as a figurative map of the city, draws together the twin strategies of psychology (subject-object) and aesthetics (image-viewer) through the figure-ground plan. The plan constitutes, in a Lacanian sense, an "image screen" between the reality of the built environment and its psychological construction, constituting both an objective record, as well as a visual psychologiological device to be decoded. Theoretically bridging both aesthetics and psychology, the urban analysis of Mario Gandelsonas provides a platform where these scientific and artistic strategies are married in a creative dialogue with the city and its continual interpretation. The paper will look at two specific aesthetic trajectories in Gandelsonas's work and their relationship to psychological theories of figure-ground. Firstly, the paper will look at the relationship between figure and ground in cognitive research and aesthetics demonstrating a complex marriage between order and chaos. These dialectical components have been introduced into aesthetics through the "Kleinian" group, which uses figure-and ground as poles that divide and connect the competing and incompatible strategies of organisation and complexity. This "flattening" of the picture plane enables impulses to be read at the surface through the tracing of contours and their multiple trajectories. These strategies were explored creatively in the work of Jackson Pollock and its revered "flatness" in the criticism of Greenberg. Borrowing from the theoretical investigations of Rosalind Krauss, and the scientific theory of vision explored through cognitive psychology, the paper will show how Gandelsonas's analysis of the plan of Chicago interweaves these aesthetic and mathematical models of ordering, by using the spatial incongruities of the plan as moments where psychological impulses (desire) are buried or revealed. Secondly the paper will demonstrate the figure-ground as a decoding device within the context of Surrealism, and in particular Salvador Dali's "Paranoid-Critical Method". Dali's method introduced the scientific speculations of Freud into art through a deliberate "deepering" of the picture plane to accentuate (rather than collapse) the spatial phenomenon of the figure-ground. As an early reader of Lacan, Dali played on the notion of paranoia to create ambiguous and psychologically loaded images which revealed multiple constructed readings. The paper will show how these strategies are inscribed in Gandelsonas's project for Des Moines, which read visual ambiguities into the urban landscape of Des Moines, and the American city in general.

1. FIGURE-GROUND AND THE OPTICAL UNCONSCIOUS IN URBAN ANALYSIS

The observance of ambiguity and empirical anomalies in the human understanding of visual fields fuelled scientific analysis into cognition throughout the second-half of the Nineteenth Century until the Second World War. The linked terms of "figure" and "ground" became the convenient poles through which vision was understood: bracketed as an object and differentiated through optical contrast ("contours") from its contextual field. The importance of this visual dialectic to the emerging field of psychology fuelled scientific research into cognition and established the figure-ground as a visual and scientific model for analysing the human mind. Pioneered in the work of Edgar Rubin, the complexities of figure-ground analysis revealed the complex retinal exchange between opposing states. These complexities were made famous in Rubin's "vase" image (Figure 1), where two competing faces in the "ground" field create a vase in the "figure" field. The optical effect is uncanny, where figure and ground can no longer be appreciated in unison, but only in isolation, either as vase or faces, rather than both at the same time. A similar effect is achieved in the series of "pillars" or pediments carved from the spaces between interchanging human bodies (Figure 2). Like the vase image, the effect of "either/or" is achieved, despite the common "contours" that define the forms. The effect is also infinitely reversible.

Equally important in the evolution of a scientific theory of figure-ground were the visual experiments of Schumann who used configurations of parallel lines against a white backdrop to establish principles of spatial depth where the lines are projected forward (protruding in consciousness) while the white paper recedes into spatial obscurity. The escalation of research into these visual phenomena coincided with the formulation of techniques of urban planning and architectural theory, where the figure-ground was a powerful diagrammatic device that depicted, unambiguously, the spaces occupied and constructed between buildings within a city. While the use of the figure-ground plan dates at least as far back as Palladio in the 16th Century, the Second Half of the Twentieth Century saw it reinvigorated as a model of "critique" rather than mere representation. The first to use the figure-ground prominently as a discursive tactic of urban analysis was Colin Rowe (1978) who polemically inverted the figure-ground to show the city as a space between the buildings (the
ground-figure plan) rather than created by them. Rowe employed a process of collaging, theoretically configured to this inverted figure-ground to establish a confluence between urban spaces and the buildings which created them. In the same decade Venturi, Scott Brown and Izenour (1977) used a series of figure-ground diagrams to distil the complex visual landscape of Las Vegas into discursive categories such as bitumen/not bitumen and religious space/not religious space. The "either/or" nature of these figure-ground images was at odds with Venturi's "both-and" approach to architectural culture, but at the same time highlighted the peculiar "contours" where the complex social and environmental changes in the urban landscape of Las Vegas could be mapped.

What is inscribed in both of these strategies is the use of the figure-ground to rewrite the urban spaces of the city. The visual complexities of the figure-ground established a field of architectural research where opposites in complex urban landscapes could be visually incorporated rather than excluded. To understand the process through which the figure-ground plan was transformed from an "architectural plan" into a discursive "spatial text", the field of aesthetics becomes increasingly important. While figure-ground represent convenient polarities and the collapse of these fields, and the collapse of the "figurative" in art in general is prefigured in art theory through abstraction, and specifically through the American adventure of Abstract Expressionism, manifestly expressed in the drip paintings of Jackson Pollock. Pollock's work is significant in the visual strategies of art in two dimensions. Pollock painted horizontally across a flat canvas arrayed across the ground, claiming to paint, a metre above the surface, the nightmarish images of his childhood. Acknowledging the importance of Freud in this work, Pollock's work dismantled the visual "window" of figurative art by transforming it into a spatial and temporal field where the "process" was given visual hegemony over the "representation" of any scene or landscape. In the paintings of Pollock, marking a celebrated transition in the history of Twentieth Century art, the fields of figure and ground are merged into a single spatial field where the viewer, like the artist, are left to decode and decipher the hidden rhythms and subliminal trajectories that were buried in the process of applying paint.

The confluence of scientific theories of vision, and their creative expression, particularly through Abstract Expressionism, occurred most poignantly in the psychoanalytical investigations of Jacques Lacan. Lacan's essay "Of the Gaze", published in English in The Four Fundamental Concepts of Psychoanalysis (1973) located vision on one side of a psychologically constructed "image screen" which mediated its relationship with the "subject of representation" on the other (Figure 3). This psychological construction was mirrored with an optical one, locating light and picture as the two poles. While represented as a scientific abstraction, the metaphorical relationship to the image-laden field of aesthetics is explicit: easily interpreted as the connection between the artist/viewer (gaze), the figure (subject) and the picture (image screen). Gaze/image/subject can equally be read as the spatial embodiment of ground/contour/figure where the psychological ambiguities of cognition are located and problematised across the field of the image screen. What was implied in Lacan's schema was that vision was a psychologically constructed "reality" at odds with the concrete nature of things, and underpinned by a complex and nomadic unconscious field of desire and repression.

Given the readymade link with aesthetics, it is not surprising that the scientific (and hypothetical) reasoning of Lacan would be used as a model for both the creation, and critique of artistic processes. The most rigorous of these theoretical models for integrating psychology and vision comes from the American theorist Rosalind Krauss, and her 1994 work, The Optical Unconscious. Krauss argues that the collapsing of the figure-ground in the work of Pollock, not only marks a new visual paradigm in art, but equally marks the emergence of an "optical unconscious" where the vibrating effects of figure and ground create a spatial field of analysis (and an alternate history of modern art). Krauss draws from the psychological evolution of cognition in her analysis, charting its emergence against the proliferation of a vast array of artistic strategies that have exploited its knowledge. In the opening chapter of The Optical Unconscious Krauss argues that the history of art can be reduced to the following mathematical construction (Figure 4), organised along the structure of a Kleinian group:

![Figure 3: Lacan, Gaze/Image/Representation diagrams, (Source: Foster, 2004, 274).](image)

![Figure 4: Krauss, Kleinian Diagram (Source: Krauss, 1994, 20).](image)
What is important in Krauss’s structuring of aesthetics along these lines is not the visual categorisation of figure and ground, but its organisation within the logic of the “Kleinian Group” where constructed axes link opposing, mirrored and replicated poles. This figure is descended from mathematics and scientific models of organisation and, as Krauss acknowledges, was a favourite model of linguistic analysis, common in the work of anthropologists such as Claude Levi-Strauss and Algirdas Greimas (who termed it the “semiotic square”). It was also used in a broader cultural/ideological sense in the influential political theory of Frederic Jameson (1981). Acknowledging its intellectual appeal, Krauss writes:

The semiotic square, or the structuralists’ graph, is a way of picturing the whole of a cultural universe in the grip of two opposing choices, two incompatible possibilities. Cultural production is the creation of an imaginative space in which these two things can be related. The conflict will not go away. But it will be, as it were, suspended. Worked and reworked in the space, for example, of myth. (Krauss, 1994, 21)

For Krauss, the use of a Kleinian group provides a means of mediating complexity in aesthetics where the axes that connect “figure” and “ground” are equally poles that divide them along the relative scale of complexity. Krauss provides a similar dyad in her essay “Sculpture in the Expanded Field” where she identifies recent strategies in contemporary sculpture from the 70s as deliberate tendencies away from both architecture and nature (landscape) respectively. However Krauss’s model of figure/ground, while destabilising these fixed states of “either/or”, is more concerned with providing an organisational framework for introducing the themes of psychoanalysis into a broader theory of aesthetics which, borrowing directly from Jameson, demonstrates evidence of an “optical unconscious”. Krauss hinges her thesis on the successful rhyming of the figure/ground graph with Lacan’s own mapping of psychology (Figure 5) along contested poles of “ego and “other”, linked by the sliding axes of “unconscious” and “imagination”. The confluence of these two diagrams creates a visual plane of analysis effectively “sowing the psychoanalysitical subject over a [visual] field” (Krauss, 1994, 23).

This Lacanian construction, which draws from the concept of the “image screen” that divides “self” and “reality”, locates opposites through dynamic and volatile connections rather than static and stable ones. Krauss, uses these hypothetical, sliding axes of the unconscious to restate her own diagram, marked now by a diagonal “unconscious” link between the figure and ground (Figure 6). Krauss also collects other visual “states” under the titles of figure and ground, linking them in relationship to the body (belonging and absence) and visual tactics (synchrony and repetition). Deepening the connection between these symbiotic states of opposition and architectural analysis, the next evolution of this structural diagram locates “figure” and “ground” as states of “inside” and “outside” connected with the psychological states through which infants understand and create their own independent cognitive environment. In Beyond the Pleasure Principle Freud had argued that infants created imaginary or “unconscious” games to relieve the trauma of separation such as the “fort/da” game of loss and retrieval. This principle of creating a psychic apparatus to relieve the trauma of separation (or castration) was central to the formulation of Lacan’s “image-screen” which mediates between the objective “reality” and its subjective “interpretation”. A number of art theorists have connected this neurotic phenomenon with artistic processes and the construction of a psychological environment through which the infant manages and accelerates their independence in the world (Fer, 1995, 1998; Potts, 1998; Foster 1995, 2004).

These hypothetical systems of organising and curating aesthetic strategies are introduced into the broader field of urban analysis through the writing of Mario Gandelsonas’s, which draws from Krauss’s theory of the “diagonally” constructed optical unconscious and the pre-eminence of the figure/ground. Gandelsonas identifies the urban grid as the “neutral” backdrop to a landscape of constructed desire that can be decoded at the level of the figure/ground plan. Constituting a horizontal “image-screen”, the ground plane of the city is the flattened record of a collective accumulation of archaeological data which, when represented through its opposing states, reveals hidden landscapes of desire and the unconscious. The grid of the city is marked with scars of “unconscious” intrusion that work against the ordering systems of the urban landscape and create interstitial contours of complexity and contradiction. Where Krauss uses her constructed logic of the figure-ground to posit an alternate history of art, Gandelsonas constructs his own discursive reading of the figure/ground to create an alternate model of analysing and interpreting the city: through layering in

Figure 5 (left): Lacan, Psychic Diagram (Source: Krauss, 1994, 22).
Figure 6 (right): Krauss, Kleinian Diagram (Source: Krauss, 1994, 74).
drawings. Analogous to the "drip" layering of Pollock, the meticulous overlays of Gandelsonas dismantle the city as object and establish its evolution in a temporal sense, through the opposing states of "architecture" (figure) and "urbanism" (ground). Gandelsonas writes that the drawings that constitute X-Urbanism were developed [...] as a critique of the traditional role of drawings as representations of the city as a physical fact: they were proposed as a site where the articulation of two different practices, of two different 'discursive surfaces'—architecture and the city—took place. (Gandelsonas, 1999, 1)

Gandelsonas argues that the paradigms of European (historical) and American (modern) urbanism created a "circuit of desire" across the Atlantic, where each side fantasized the tactics of the other (Gandelsonas, 1999, 12). This is a tension between the "ideal plan" of the architectural utopia and the overwriting mystique of the constructed historical city. Gandelsonas follows Rowe (1978) in attributing to "architecture" the role of figure and to "urbanism" the role of ground. Gandelsonas (1999, 59) argued that the "building", rendered complex in the figure/ground plan, is common to both the practices of urbanism and those of architecture, creating an ambiguous and contested terrain that is articulated at the level of the ground-plane. Within the context of Krauss's analytical structure, the fields of figure and ground (inside and outside) are constructed as poles of architecture and urbanism, linked and divided by a sliding scale of aesthetic complexity and psychological repression that is revealed and decoded through the process of drawing.

Gandelsonas uses the Freudian term "traumatic" (1999, 1) to describe the recurring practices of urban dislocations that are teased out through his analytical techniques. For Gandelsonas's this is "a process where architecture and the city occupy and switch the positions of analyst and analysand (the one who is being analysed)". He, like Krauss before him, drags Lacan into the visual domain of architectural analysis, using terms specific to psychoanalysis in his reading of the contemporary urban condition. Gandelsonas writes:

the modernist architect's desire was not for the existing city [...]: urban fantasies construct architecture's desire itself by giving its coordinates, by locating its subject and specifying its object. The construction of desire entails not just depicting a future scene and designating its elements—the garden with objects, the Modernist grid, the skyscraper—but also designating the gaze that witnesses it. (Gandelsonas, 1999, 59).

For Gandelsonas's the "gaze" is equivalent to the layering process of analysis that, by scrutinising the figure/ground plane, reveals the hidden contours of desire that are embedded beneath it. Drawing, as a model of interpretation, is central to the construction of this gaze, and the figure/ground is the medium through which it is transmitted.

The model of urban analysis developed by Gandelsonas replicates the aesthetic model of Krauss where psychology is overlayed against the poles of figure and ground, creating a diagonal "unconscious" axes or what Gandelsonas's terms desire. These contours of desire vibrate against the objective "neutrality" of the grid and establish a "formless" trajectory revealed in the figure ground. This space, carved from the solid spaces of "architecture" and the voids of "urbanism" is decoded by continual and methodical overlaying that distils visual information into the categories of "grid" and "other". Gandelsonas describes his obsession with places of "scriptural density where the neutral grid of the city collapses and trajectories against it are brought forward. (Gandelsonas, 1999, 68). Nowhere is this more evident than in two diagrammatic reconstructions of Chicago that Gandelsonas's uses to describe this slicing "formless" logic within the Cartesian grid. Presented as both figure/ground (Figure 8) and ground/figure (Figure 9) these inverted diagrams show a horizontal abstraction of the city where diagonal trajectories not only cross the city, but dissect it.

![Figure 8: Gandelsonas, Chicago](Source: Gandelsonas, 1999, 141).

![Figure 9: Gandelsonas, Chicago](Source: Gandelsonas, 1999, 141).

This methodical reading of the urban figure/ground in Gandelsonas's work constitutes, like the painting of Pollock, a "flattening" of the picture plane where the inherent "depth" of the architectural plan is eroded by its diagrammatic reduction. The emergence of formal elements against the repetitive structures of the grid creates a visual dialectic that runs throughout his analysis. However what is also inscribed in Gandelsonas's analysis of Chicago is an apparatus through which myth is incorporated into the certainties implied in the figure/ground. Krauss, in her Kleinian graph, attributed a role to myth in mediating the poles of figure and ground. In Gandelsonas's analysis, these myths are created: read from the text of the figure/ground plane itself. Tracing the contours that divide the city between building and void, Gandelsonas's reveals the fossil of a topographical beast assumed, by him, to be a whale lying stranded beside the Lake of Michigan (Figure 10). This beached whale, drawn forward through his ideographic diagrams, is used as a mythic
construction which can be traced in the urban configuration of the city. Buried beneath the grid, the whale creates its own contours that can only be read in the figure/ground plan as the limit of two competing states. Gandelsonas's uses the whale to "decode" the city, establishing a speculative formal history, but at the same time dismantling the orthogonal hegemony of the ground plan.

Figure 10: Gandelsonas, Chicago (Source: Gandelsonas, 1999, 134).

Here the neutrality of the grid is disfigured by the topography of the land, the mythical shape of the whale and the proximity of the natural lake that destabilises the autonomy of the grid and flattens it. This "formless" trajectory contradicts the formal properties of the grid and its infinite repetition creating a speculative psychological profile at the surface of the city. This can be read, in the context of aesthetics and cognition, as a flattening of the picture plane where the objective reality on one side of Lacan's graphic construction is counteracted with a psychologically constructed "unconscious" reality that is revealed at the level of the ground. Equivalent to the processes of Jackson Pollock, the method collapses the spatial object into a horizontal field of process and archaeology where layering and time replace spatial or objective reality as the datum of architectural logic. The flattened image oscillates, like the pioneering studies of Rubin, between states of either/or, figure/ground, inside/outside and architecture/urbanism. The resulting image is either decoded through psychology, or encrypted through creative aesthetics.

2. FIGURE GROUND AND DALI'S PARANOID-CRITICAL METHOD AS A TECHNIQUE OF URBAN ANALYSIS

If Pollock's work prefigured a flattening of the visual field into a horizontal space of psychological impulses, the parallel work of Salvador Dali, sought to "deepen" the picture plane through his "paranoid-critical" method. Dali never relinquished his faith in figurative art and, rather than collapsing the figure-ground sought to expose the ambiguities inscribed within it. Dali was fascinated with the visual experiments of early psychology and particularly the experiments undertaken in cognition concerning visual phenomenon and optical illusions. The paranoid-critical method of Dali is essentially concerned with the complexities inscribed within the figure-ground. Dali's painting of the period demonstrated an obsessive concern with blurring the "flatness" of the picture plane through optical illusion and the foreshortening of perspective.

Dali was also linked intimately with the scientific theorising of Lacan, who, throughout the 1930s, maintained a close relationship with the Surrealists and had published many of his early papers in Surrealist journals such as Minotaure. Of particular interest to Dali was Lacan's "The Problem of Style and the Psychiatric Conception of the Paranoiac Forms of Experience" (1933), which was contemporaneous with Dali's own "Paranoiac-Critical interpretation of the Obsessive Image of Millet's Angelus" (1933). He had also read Lacan's thesis from the period entitled "On Paranoiac Psychosis in its Relations with the Personality". Dali saw his own visual practices as building upon the psychological observations of Lacan as well as the empirical studies into cognition that were emerging in the period. His paranoid-critical method was a way of reading complexity and ambiguity into images through paranoid associations that gave them multiple interpretations. A famous visual example was his painting Invisible Steeper (1930) where a horse's head turns into a lion which is then transformed into a human torso. Like the figure-ground effects being discovered in the period, each of these "states" exists in isolation, and cannot be appreciated in totality or unison. Throughout the 1950s Dali's work became obsessed with the psychological possibilities of figure-ground distortions, informed by developments in optics and his own reading of mathematical principles of vision. Images such as Portrait of My Dead Brother were constructed completely of orchestrated figure-ground anomalies so that the pixelated face of his childhood sibling is constructed from a field of "figure" blobs that transform and morph into soldiers marching in an army. Dali drew widely from architecture in his work, and uses architectural and urban imagery in a number of his explorations of the paranoid-critical method. In Phantom Chariot (c. 1933) Dali blurs the figure ground to such an extent that a stagecoach in the foreground disappears in the fabric of a city behind. In later works such as Exploding Raphaelesque Head, an architectural dome, probably the Pantheon, is visually constructed from a floating field of Rhinoceros Horns (a phallic geometric shape that he linked to
Vermeer's *Lacemaker*) at the same time depicting the exploded interior of a feminine head. Dali had written about architecture directly in his 1931 essay, which was accompanied by the highly eroticised photos of Brassai of the art-nouveau subway entrances of Paris. The importance of the Paranoid-Critical method to architecture (and particularly the avant-garde) was first established by Rem Koolhaas (1978) who, in his urban analysis of Manhattan devoted a significant chapter of *Delirious New York* to Dali's eccentric visit to America. However the actual process embodied in the paranoid-critical method—where “surreal” images are decoded from familiar surroundings—has strong correlations with the methodology of Gandelsonas. Where, in his analysis of Chicago, he reveals a mythical whale lying dormant beneath the city, it is in Des Moines where these spatial paranoia explode across the landscape of the city.

Gandelsonas acknowledges the importance of Surrealism in his method, directly referencing the work of Krauss and Hal Foster. Seeing parallels between the flaneur’s of Surrealism and his own textual decoding of the city, Gandelsonas writes: "there is a strong connection between the reader of the architecture of the city [...] and the Surrealist conception of the artist as ‘agonised witness’" (Gandelsonas, 1999, 66). However where the process in Chicago is a meticulous flattening of the figure/ground (equivalent to the “formalism” of Pollock), the strategy in Des Moines is a deepening, where figure and ground are played against each other to reveal the inherent “figures” hidden in the urban grid. This is reminiscent of the “figurative” images of Dali where the subject of the picture is dismantled by visual games at the level of the picture plane. The evidence of Dali’s process of visual-encryption is clear in Gandelsonas’s reading of the plan of Des Moines (Figure 11), where he locates, among others, the shapes of "duck", "haw", "Labyrinth", "Lozenge", "building", "fish", "face", "bow" and many others. This taxonomy of paranoia, read at the level of the city, reveals not only the places of “scriptural density” in the urban plan, but also the subjective encoding of psychoanalytical principles which compete with the organising structures of the grid.

![Figure 11: Gandelsonas, Des Moines Plan (Source: Gandelsonas, 1999, 164).](image)

The textual demarcation of the plan of Des Moines is a retroactive reconstruction of the unconscious impulses that the surrealissts saw in the physical city. Executed as a spatial abstraction, the haptic experience of the city is reconfigured, as an abstraction of embedded paranoia, specific to the process of "interpretation" and to the act of reading itself.

![Figure 12: Gandelsonas, Duck (Source: Gandelsonas, 1999, 169).](image)

![Figure 13: Gandelsonas, Centipede (Source: Gandelsonas, 1999, 168).](image)

Where figures such as the “duck” (Figure 12) and the “centipede” (Figure 13) can be reduced to simplistic 2-dimensional encodings of spatial objects, they are equally markers of the intellectual process through which they are revealed. Dali always associated his method with a liquid, amorphous "substance" supported by a propped structure that kept it from the ground. In Gandelsonas’ plan of Des Moines the "figures" are lifted from the grounded context of the city, brought forward from the picture plane and deepening the figure/ground.
3. CONCLUSION

The ambiguities embodied in the figure-ground plane provide a rich psychological and spatial history that has underpinned scientific and aesthetic understanding of vision. The fascination of science with aesthetic games in the first half of the century, and the obsession of aesthetics with scientific methods and psychological themes has created a fertile landscape where this spatial history is being aggressively reconstructed. Rebuilding this history through the work of Krauss, the competing, but related, aesthetic poles of the "formal" and the "figurative" can be read as radicalised artistic strategies where the figure and the ground are placed in tension, effectively blurring the boundaries where these states start ad finish. The psychological impulses implied in this, and the scientific strategies through which these observations have been organised, has created in itself, a field of creative exploration in architecture where the inherent certainties of the urban landscape can be dismantled.

These twin aesthetic strategies—one of flattening (through the celebration of formal properties of method) and the other deepening (enhancing the figurative insights of the paranoid-critical method)—represent the complex and encrypted status of the figure-ground plane and its fluid relationship to psychological structures. The work of Gandelsonas uses these parallel creative strategies (deepening and flattening) to psychologically reconstruct the city. At the same time Gandelsonas repositions the picture plane, removing it from the fixed associations of spatial and temporal certainty, and creating a moving, floating and ephemeral field where changes in the landscape of a city can be charted against speculative and neurotic phenomena. By destabilising the picture plane in this way, Gandelsonas’ method creates a framework through which the “optical unconscious” can be assimilated into architectural discourse as well as the associated fields of urbanism and environmental psychology. Creating a tool for decoding the city, the textual archaeology undertaken by Gandelsonas reveals a skeletal structure through which the concerns of aesthetics and psychology are rendered visible. They represent the tactics through which a “neutral” grid is violated by the psychological “unconscious” structures that underpin it at the level of the image and its representation. In the first case they illustrate an aesthetic model of organising opposites, in the latter the spatial embodiment of paranoia. In both cases they mark a creative limit to the visual concerns of aesthetic theory and empirical psychology across the Twentieth Century.

4. REFERENCES