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Abstract
In France, in the first quarter of the Twentieth Century, ‘space’ and ‘psyche’ were uncommon concepts. Both originated in German thought, foreign to a French way of thinking. Still, in the early 1920’s, L’Esprit nouveau, a French review of contemporary visual phenomena co-edited by Charles Eduoard Jeanneret, featured articles on Freud, film, Picasso, Einstein and relativity. Yet implications of these novel perspectives to the formation of space were seldom considered in depth; nor did Jeanneret discuss the concepts in his books on urbanism, architecture, decorative art, and painting that followed. In the late 1930’s, and then immediately following World War II, all of this changed. Space and psyche became common currency in both French architectural and in its popular press, and the conjunction of psyche and space could be said to form the basis of Le Corbusier’s 1946 “Ineffable Space,” a theory of architecture that posits ‘space’ as venustus, delight, in Modern Architecture.

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Le Corbusier and ‘Psychically Innovating Space’

Dan Naegele
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In France, in the first quarter of the Twentieth Century, ‘space’ and ‘psyche’ were uncommon concepts. Both originated in German thought, foreign to a French way of thinking. Still, in the early 1920’s, L’Esprit nouveau, a French review of contemporary visual phenomena co-edited by Charles Eduoard Jeanneret, featured articles on Freud, film, Picasso, Einstein and relativity. Yet implications of these novel perspectives to the formation of space were seldom considered in depth; nor did Jeanneret discuss the concepts in his books on urbanism, architecture, decorative art, and painting that followed. In the late 1930’s, and then immediately following World War II, all of this changed. Space and psyche became common currency in both French architectural and its popular press, and the conjunction of psyche and space could be said to form the basis of Le Corbusier’s 1946 ‘Ineffable Space,’ a theory of architecture that posits ‘space’ as venustus, delight, in Modern Architecture.

By the late 1950’s, works—certainly of art, and occasionally of architecture—that conjoined psyche and space were readily evident in France so much so that in 1958 the acclaimed French philosopher Gaston Bachelard could write definitively in Poetics of Space: “By changing space, by leaving the space of one’s usual sensibilities it had been physically possible in France for over seventy years. During this time, things had gotten bigger. Machines became enormous in size, and by necessity the buildings that enveloped these machines grew gigantic. This tendency toward what must have seemed a kind of giantism is depicted time and again in the popular press. A 1912 advertisement for a German steel foundry, for instance, shows an interior littered with anchors, tools and machine parts the size of buildings. Curvaceous objects are enlarged to the size of space-defining elements. These objects are not merely in space; they create space—and the space created by immense objects would have been sensed as new space by those who ‘saw.’ Yet it’s doubtful that in 1912 even the most ‘seeing’ French artist would have considered this new space ‘psychically innovative.’ Immensity was there; but the concept of psyche wasn’t. Still, and even without this concept, in the discordant scales of the day, gigantic often was conjoined with ‘human,’ and this conjunction of seemingly contradictory scales in a homogenous whole formed a recipe for innovative space.

Representation facilitated the conjunction of diverse scales. Commencing in the early 20th Century and continuing throughout his life, Le Corbusier represented space comprised of discordant scales in a variety of media: in watercolor painting, in graphic and photographic advertisement, in the photography of his architecture, and most consciously in his oil paintings of the late Twenties and early Thirties. So persistent is representation conjoining ambiguous and drastically diverse scales in the work of Le Corbusier, that it could be said to be a particular concern of the artist. The conjunction of diverse scales was not limited to representation, though. It could be offered to a built environment far larger than a book or a painting, for inherent in Le Corbusier’s imaged and fictive space of representation are strategies for imbuing real, three-dimensional, habitable architecture with the ‘psychically innovative.’

To begin, then, in 1908, Le Corbusier was not Le Corbusier but the 21-year-old painter and occasionally graphic designer Charles Eduoard Jeanneret, of the Swiss watch-making town La Chaux-de-Fonds. In that year, he painted Portrait in a Landscape (Portrait dans un paysage), a
fantasy image depicting a huge, bearded head floating in front of a forest of trees; the shoulders of the figure form part of the background hills. Nearly a decade later, in 1917, he painted *A Dream (Un rêve)* picturing a flying dragon confronted by a gigantic tulip above the clouds. The same year, his watercolor, *The Violinist (La violoniste)*, shows what seems to be a tiny female figure fervently playing her instrument, dressed in nothing but high heels. Yet from 1918 - 1926, Le Corbusier’s highly ambiguous Purist paintings exhibit no interest in the colossal. In these paintings, there is a marked effort to create space without the use of perspective, but not by juxtaposing scales. Rather, objects are often depicted as of about the same size, uniformly flattened ‘orthographic projections,’ pattern-like and conforming to the design of the geometrically regulated painting. Space is compressed—suggested not by perspective but by overlapping and by colors that project or recede. The space of Purism is the space of a Paul Strand photograph of ca. 1916—photography labeled ‘Purist’ by critics of the day.

Though giantism and the juxtaposing of scales are absent from Purist painting, Le Corbusier’s fascination with both is evident at this time in the illustrative text of his many articles and books and in the photographs of his architecture. In *L’Esprit Nouveau* #27, for instance, photographs of colossals projected in the Bismark Monument and realized at the Artist Colony at Darmstadt are featured in an article written under the pseudonym Paul Bonnard and titled “Allemagne.” In 1929, the first volume of his *Œuvre complete* featured a photograph of the Maison Cook interior inhabited by a wooden poupée standing on the maison’s windowsill. Far subtler is a photograph of the interior of the Villa Stein that features but a single chair. The chair can be read three ways: as a chair at a distance and therefore rendered small; as a truly small toy model chair in the mid-ground; or as a full-size foreground chair in an architecture of gigantic proportions. In the second volume of the *Œuvre complete* of 1934, a photograph of Le Corbusier’s Porte Molitor apartment block shows a poupée seated on a dining table. Miniature mannequins rendering an interior as colossal and fantastic is the subject of a Le Corbusier watercolor painted at about the same time as the photographs of the Maison Cook were made. It shows five tiny nudes amusing themselves with an artist’s pencils as a person looks on, apparently in bewilderment. In years immediately following, small figures inhabit Le Corbusier’s post-Purist oil paintings, for instance, in *Joyous Accordionist (Joueuse d’accordéon)* of 1928, or in the 1932 *Dancer and Small Cat (La danseuse et le petit félin)*, transforming the still lifes into landscapes of sorts.

This scale juxtaposition was not original to Le Corbusier, but is evident in a variety of Surrealist work where it seems intent on provoking the ‘psychically innovative’ more so than in suggesting ‘new space.’ This is particularly true in works involving photography, ‘the new means’ as it was dubbed at the time. The filmic image seamlessly conjoined heterogeneous perspectives, yet its reputation for ‘never lying’ might have suggested these images as true recordings of another reality, recordings that made evident conventional ways of seeing while simultaneously interrogating those ways.

Man Ray was expert at undermining the conventional—even as he employed it in photographic portraiture, especially portraits of Dada and Surrealist artists. These photographs Juxtapose scales not in an effort to image new space, one suspects, but for the purpose of manifesting a psychological dimension. In Man Ray’s 1922 *Portrait of Jacques Rigaut*, for instance, Rigaut’s head—in its clarity and horizontal position seemingly detached from the out-of-focus shoulders—is visited by a tiny poupée, a wooden ‘doll’ highly ambiguous in scale and of the same species that would later
inhabit photographs of the purportedly utterly rational architecture of Le Corbusier [7]. In Man Ray’s 1936 Portrait of Dora Maar, Maar’s hand is curiously positioned, her head floating horizontally in fabric. Both hand and head are made colossal by contrast to the Surrealist ‘hand-in-hand’ pendant that scratches Maar’s cheek and that wears bracelets which echo in size the ring on her finger. In both photographs, juxtaposed scales enlarge the otherwise shallow space of the photograph and imbue the image with psychological tension. In both, the miniature serves to render a head of normal size as potentially colossal.

A decidedly less real though ostensibly more ‘psychically innovative’ space is represented in montages often executed by Dadaists and Surrealists, beginning as early as 1920 and continuing until the advent of World War II in 1939. Again, the conjunction of often-contradictory scales depicts a wholly fictive, unreal space, encouraging the viewer to leave the space of usual sensibilities. An early example, Raoul Hausmann’s 1920 Tatlin at Home, visualizes what Hausmann believed to be the psychological make-up of the famed Russian constructivist while at the same time imaging a decidedly new space. John Heartfield famously employed montage in his extensive anti-Nazi campaign, but perhaps more fitting here are works such as Heinz Hajek-Halke’s 1927 Refrain Populaire, his 1932 double exposure la Médisance, or Maurice Tabard’s untitled photograph of 1929—a simultaneously haunting and erotic image of a luminous nude figure towering over Paris at night.

Certain other montages of the early 20’s, montages of mixed-media that conjoin diverse scales by situating elements of reality in an unreal-yet-highly-plausible context, portray probable new space while fulfilling the objective of visually commenting on social conditions. Le Corbusier’s proposals for a new urbanism, as well as components essential to his new architecture, occasionally parallel these portrayals. Works by the obviously-not-French Bauhaus master László Moholy-Nagy are particularly germane for often they place images of ‘the human’ in a highly abstract space wholly fabricated by the artist. Moholy-Nagy’s Chute of 1923, for instance, depicts photographs of real people on a drawn-by-hand colossal slide, visually anticipating Le Corbusier’s proposal for the congested urban conditions of ancient Algiers (a proposal that, if enacted, would have reinforced the social condition that the montage holds in question). Another montage, Moholy-Nagy’s Léda et le Cygne of 1925, perhaps less critical of contemporary society, seems to predict Le Corbusier’s renowned ‘corridor space’ imaged as icon in the colored rendering of the Jeanneret/Perriand interior constructed for the 1929 Salon d’Automne and featured in numerous Le
Photography played a special role in exhibiting what would later be labeled as ‘psychically innovative space,’ for made ‘extra sensory perception’—seeing what the eye normally would not see—available to the public at large, often without the artist as interpreter. This is most evident in the popular media of the Twenties and Thirties, where newly developed, inexpensive means of printing photographs and projecting films could suggest giantism to a populace at large. In the Illustrated London News of January 1932, for instance, “Architecture Only the Insect Can See” features micro-photographic pictures of shells that appear as ancient temples, photographs that carry captions encouraging the reader to consider the space of the photograph imaginatively. At the same time, science-fiction films explored scale inversions by exploiting the medium’s capacity ‘image’ unreal scales. In America, the most famous of these films was King Kong, though other films achieved similar situations by shrinking humans to the size of ants and then placing them in a “Homerian world” to be hunted by prowling spiders or playful cats a hundred times their size. Such films encourage the viewer to enter into represented space, into the realm of illusion. Presence is given to the subjective, and the subjective stands in opposition to an objective (though here, highly fictive) reality—a reality known to the observer, albeit from a different perspective.

Le Corbusier employed montage techniques in the Twenties, though more famously in the Thirties. In his 1931 book Croisade ou le crépuscule des Académies, for instance, he conjoined a photographic image of himself with a drawing of a lighthouse. In 1933, instructed by his client to cover up the exposed-stone curved wall in the large hall of his Pavillon Suisse, he created a photomural—a wall-sized montage of sorts, in which the space of representation directly altered ‘real’ space. Comprised of 40, one-meter-by-one-meter ‘scientific,’ black and white photographs, the photomural extended from floor to ceiling and from wall to wall, extending ‘real’ space with the montage’s space of representation. The photomural was understood to be ‘psychically innovating’ and was subsequently condemned by the Swiss press while drawing praise from Surrealist leader André Breton—this despite Breton’s profound dislike of Le Corbusier.

In 1937, working with artist collaborators on numerous photomurals for his Pavillon des Temps Nouveaux, Le Corbusier again employed montage to affect ‘real’ space, though the real space affected was the space of the pavilion, itself a form of representation. This affectation added to the curiosity of the pavilion’s colored space, the color atmosphere a result of daylight filtered through the structure’s green, yellow and red canvas walls and roof. A year later, Le

Figure 6: 1912 advertisement for a German steel foundry.

Figure 7: Man Ray’s 1922 photograph, Portrait of Jacques Rigaut.

Corbusier documented the pavilion in a book titled Figure 8:
Des Canons, des munitions? merci! des logis...

SVP, again employing montage. The book’s text was occasionally photographs of the pavilion’s ‘texted’ walls. Le Corbusier added diminutive scale figures to these photographs, enlarging the pavilion’s apparent space yet leaving the collaged figures wrapped in a space decidedly not that of the pavilion. The conjunction of such distinct spaces reinforces the image as the space of representation, questioning the authority of the image to order by perspective all that falls within its domain, arriving a depiction of a space very much like the hybrid space found in a Hieronymus Bosch painting in which the overarching perspective of a landscape fails to order peculiar local perspectives floating within it. Encased in capsules of ‘other’ space, the collaged figures in the plates of Le Corbusier’s book appear in their temps nouveaux surrounds as exhibition visitors from other times and places.

The hybrid spaces of the Pavilion Suisse and of the Temps Nouveaux pavilion seem early and partial architectural manifestations of a decidedly ‘psychically innovating space.’ Undoubtedly such space parallels the fictive space created in two-dimensional media and in film in the Twenties and Thirties. Yet this space was explored by Le Corbusier earlier—and one suspects more sincerely—in the oil paintings of his post-Purist period, beginning around 1926. At this time, objects depicted are no longer exclusively manufactured objets types determined by precise, geometric lines. Rather, ‘natural’ artifacts of irregular and flowing shapes are featured: bones, bark, shells, body parts. Sometimes flattened, they are often rendered robustly three-dimensional. A temporal dimension—largely absent from the Purist still lifes—is made evident as a distinct moment in time is depicted. ‘Real’ space enters the picture. We see doors, tables, and horizon lines. There are moons, mountains, and clouds. Le Corbusier has located his still lifes within larger scenes. Space is compressed, but the depicted objects no longer seem helplessly locked in the picture’s pattern. In certain cases, the object brings with it a space and scale of its own. The resulting accumulation of many spaces and multiple scales in the single space of the painting challenges the homogeneity, the regime, of ‘real’ space. Miniature is juxtaposed with colossal. An overtly unreal, mental space results that is expansive even while being compressed and decidedly corralled within the borders of the canvas.

Le Corbusier’s 1931 Léa is an example. It depicts an apparently real space in which a table is shown in the foreground and an open door in the background [9]. The depiction is confounded, however, by the presence of a colossal blue shell that appears both to be coming through the door and to be floating in front of it at one and the same time. The shell hovers above a gigantic bone that is flat and pushed against the picture plane yet seems, too, to traverse space from foreground into background.

Though both objects fit in the perspectival space rendered in the painting, their colossal size helps render their position in that space duplicitous. Curious scale gives rise to contradictory space. A further reading of singular space is aggravated by the gray border along the top and right side of the painting, its position suggesting that what we see is in fact a painting of another painting: a painting in the foreground, in front of the gray background. This interpretation, however, is countered by the floating word ‘Léa,’ in sign painter’s script. ‘Léa,’ in turn, seems to belong to two fields at the same time: both to the gray background and to the painted painting in the foreground. In addition, though it floats in the same picture as the bone, shell, and tabletop; as a word, it is of a distinctly different world.

Each object depicted in ‘Léa’ belongs to more than one space: each possesses its own space and each creates space in rapport with other objects. Added to this is the two-dimensional space of representation, a space made apparent by dark lines that seem to flatten themselves against the picture plane, by the stacking of objects in space, and by certain alignments that relate depicted objects to the canvas’ geometry. The back edge of the table aligns with the threshold of the door to form a horizontal line that bisects the canvas into...
two equal parts. Three distinct yet interdependent spaces are connoted: the local space of the object; the (both flat and deep) space between objects; and the space of the canvas itself.

In 1935, Le Corbusier suggested the possibility of such paintings being directly related to the design of the man-made environment when he featured an image of his 1930 painting, *The Hand and the Glove* (*La Main et le silex*) [10], as frontispiece to *The Radiant City* (*Ville Radieuse*) and wrote beneath it:

*This picture is not symbolic. It is a large painting composed in 1930, at the same time as the plates for *The Radiant City* were being worked on in our studio. It is possible that there is a relationship between these works despite their wholly different intentions. The human creative work stands midway between the two poles of the objective and the subjective, a fusion of matter and spirit.* [11]

The caption identifies the objective and subjective poles as opposites and underscores Le Corbusier’s belief in a dialectic condition in which the ‘fusion of matter and spirit’ is an essence of ‘the human creative work.’ It recognizes a psychological dimension to the created artifact, and suggests that the results of a two-dimensional investigation conducted in oil painting might influence the three-dimensional manifestation of a man-made environment. Yet, *The Radiant City*, replete with its Homeric-world message and its glad tidings of ‘sun, space and greenery’ (*soleil, espace, et verdure*) offered no answer as to how architecture and urban design might manifest spirit.

Le Corbusier, one supposes, had partially answered the question in 1933 with the Pavillon Suisse photomural, and would again address the issue in 1937 with his Temps Nouveaux pavilion. In both cases, the space of representation was enlarged to become architectural space. Scale juxtaposition, abstraction, collage and montage strategies were employed to present an illusory, psychically innovating space. Fantastic space was provoked by the self-reflexive nature of two-dimensional representation in response to growing interest in ‘other realities,’ including imaging the space of the subconscious mind. In this representation, competing realities evoked the surreal. But could reality itself—not a fictive rendering or a construed recording of it—also evoke this new and innovating ‘mental’ space? Could the paradoxical space of representation remain convincing when presented as reality?

Surrealist artists attempted answers beginning in the mid-Thirties and continuing through the Forties. Paul Nelson’s ovoid operating rooms in his 1934 Pavillon de Chirurgie project for Ismailia, for instance, or his ‘suspended house’ of 1936-38—a square cage that contains hanging pod-shaped rooms accessed by a rail-less, snaking ramp, and complemented by the amorphous art of Léger, Miró, and Calder—combined free-flowing space with suggestions of high technology to create what one imagines to be ‘psychically innovative.’ [13] In 1938, Matta Echaurren’s contrived a project for an apartment, a project presented in *Minotaure* as illustration to a one-page manifesto, “Mathématique sensible-Architecture du temps.” [11] The caption to Matta’s drawing is a listing of what now seem the cliché components of surreal architecture:

*Espace propre à rendre consciente la verticale humaine. Plans différents, escalier sans barre d’appui, pour maîtriser le vide. Colonne ionique psychologique. Fauteuil souples, pneumatiques. Matériaux employés: caoutchouc gonflé, liège, papiers divers; béton, plâtre; armature d’architecture rationnelle.* [14]

Matta’s project relies on the fictive space of representation, on multiple foci, on curious artifacts and strange contrasts for its psychic innovation. Like Nelson, Matta, perhaps following Giacometti’s 1931 *Cage* or his *The Palace at 4 A. M.* of 1932-33, provided an *armature d’architecture rationnelle* for highly irrational ‘events.’ These armatures established normative perspectival space. Once established, normative
space served as foil to 'new space.' Sinuous lines and suggestions of the curvaceous distort and warp the space and its content, questioning it as a single authority. Though the projects of Nelson and of Matta went un-built for the most part, space suggested in Surrealist images was built in the Forties in America by Frederick Kiesler for exhibitions and for the theatre. In 1942, Kiesler combined floating paintings with curved panels and amorphous furnishings to create habitable curvaceous space for the Art of This Century exhibition at the Guggenheim [12]. In 1948, he built the heterogeneous space of a habitable false perspective frame comprised of colonnes psychologiques for his 1948 set for Milhaud’s Le Pauvre Matelot. Theater encouraged architectural expression of a surrealist environment, demanding a mixture of temporal and spatial. But more to the point, surreal sensation was also achieved by imaging the immense—almost always in highly figurative rendition and typically by enlarging a fragment of the human body: the head, of course, but sometimes the hand, the mouth, the genitals, perhaps the intestines. There are, for instance, Man Ray’s paper projects of the mid-Thirties: his self portrait in which his own likeness sports six-pane windows as eyeglasses; his Portrait of the Marquis de Sade depicting the high priest of Surrealism as a stone colossal comparable to the Great Sphinx; his Les tours d’Eliane—where fortress becomes female, towers and thighs coincide, and building and body share a common entrance; and La plage, where a natural land formation becomes a colossal reclining nude. Salvador Dali provided numerous, more humorous variations on this theme while the far more ominous images of André Masson evoke the inherent power of the colossal head as architecture: his 1925 Portrait of Michel Leiris, and the later City of the Skull (1939), The Palace (1940), and Portrait of André Breton (1941) as well as many others. With colossal heads—immense carcasses frequently without consciousness—Surrealist artists inverted conventional scale, underscoring the relativity of human perspective. For obvious reasons, no colossal art of this sort was built, at least not as Surrealist art. Yet in as unlikely a place as Rapid City, South Dakota, and with the financial support of the United States government, from the mid-Twenties to the late Thirties Gutzon Borglum carved as colossal in the granite face of Mount Rushmore the heads of four former U.S. Presidents to form a decidedly bizarre but quintessentially American monument. At the same time, colossals were built almost fanatically for fairs and international expositions, as attractions in remote towns and villages, and in the world’s greatest cities. The scale of the new times was realized in figurative constructions that both created and suggested new space.

Examples abound, but the suggestion is clear.
A juxtaposition of scales that might provoke psychically innovative space was evident throughout the Twentieth Century, first in representation and then in reality. The 'psychical' component was often elicited by enlarging the human body, typically the head, in both representation and reality. In representation, the results were frequently convincing, yet as 'reality' they were often cartoonish—amusing but hardly edifying. Le Corbusier, I believe, recognized the potency of efforts to manifest the 'psychical,' however commercial or banal the result. Certainly enlargements of this sort intrigued him, and prior to World War II he collected clippings reporting their erection. After the technology to which he allied Modern Architecture in the Twenties brought humankind to the brink of extinction at Hiroshima and Nagasaki, he declared 'ineffable space' the new venustas of architecture to come. Once the domain of the visual artist working in two dimensions, ineffable space would be offered to the world as a three-dimensional, habitable environment. Buildings that might suggest themselves as enlarged body parts rendered this complex space psychically innovative. But that's another story.

NOTES

Many thanks to Susan Poague at Iowa State University for assistance in digitizing the illustrations.

References below to FLC (Fondation Le Corbusier, Paris) documents are to the boxes and numbers as categorized by that archive in 1993. The Fondation has since digitized much of its material and in so doing has changed nearly all of the reference numbers. No means of cross-referencing was established.

5. The Villa Cook was completed in 1927. A poupée is featured in three of the seven interior photographs of the house shown in the Œuvre complète-1. The Immeuble à la Porte Molitor was completed in 1934 and its exterior and the interior of Le Corbusier’s apartment—the penthouse unit of the building—were photographed in July of that year by Albin Salaün. The poupée is featured in only one image [Œuvre complète-2, p147, upper-left], an interior, but not of Le Corbusier’s apartment. It sits on a table and is silhouetted against an ‘urban’ skyline (which in Paris of 1934 meant seven-story high buildings plus the Eiffel Tower). This photograph may well have been made by Pierre Jeanneret who photographed the building for the Œuvre complète. Jeanneret might also have photographed the Maison Cook, and the poupée may therefore have been his contribution. For more on all of this and on furnishings for these and other photographs, see Chapter 2 of my dissertation, Le Corbusier’s Seeing Things: Ambiguity and Illusion in the Representation of Modern Architecture [University of Pennsylvania, 1996].
6. This watercolor is ‘planche 50’ of what was termed an ‘opus’ made for Marcel Levaillant by Le Corbusier, dated October 1926 and titled by Le Corbusier “50 aquarelles de Music-Hall ou le QUAND-MÊME des Illusions.” See Le Corbusier, Une encyclopédie (Paris: Éditions de Centre Pompidou, 1987), p95.
8. The poupée is a wooden ‘doll’ or miniature mannequin with flexible wire joints that permit it to assume numerous poses. It is typically used by art students for modeling and is available in a variety of sizes but always the same shape, making it a deceptive scale clue. It was a favorite prop of Man Ray who used it throughout his career not only in photographs but also as sculpture.
A 1995 Sotheby's catalogue referred to these poupées as 'lay figures' and lists four works by Man Ray that employ them: two photographs (a 1927 self portrait with lay figure and the 1975 "Lay Figures on Bottlerack"); a bottlerack with three lay figures on it; and a maquette (perhaps for a book) comprised of twenty-eight photographs and titled "Mr. and Mrs. Woodman, Man Ray, 1947-71."


12. A cursory review of surrealist tendencies in modern architecture would necessarily begin earlier than the mid-Thirties and include La Villa Noailles and the Beistigui roof terrace (where 'surrealist space' was created in the camera), and perhaps even Duchamp's doors and windows. For more on Surrealism and Le Corbusier’s attitude toward it, see my "Drawing-over: une vie decanté. Le Corbusier and Louis Soutter," Ra 6 (Revista De Arquitectura) (June, 2004) full text in English pp93-96, in Spanish, pp 43-54; my "Duchamp’s Doors and Windows” Ra 9 (Revista De Arquitectura) (June, 2007) full text in English, pp83-88, in Spanish, pp43-60; and my recently completed “Finding Faces” forthcoming in Ra in 2009.

13. These operating rooms were later realized in Nelson's Franco-American Hospital of Saint-Lô, 1946-56. The parti of the suspended house—an independent interior contained within a contrasting structure—anticipated the Pavillon des Temps Nouveaux. Its umbrella-like, tubular steel frame assumed the form of a hangar. As such, it is a structural concept similar to that later proposed by Le Corbusier for various pavilions beginning with Liége in 1939 and ending, in steel, with the Heidi Weber Pavilion. The Heidi Weber Pavilion exhibits the parti of the suspended house, visually if not structurally. For more on Nelson, see The Filter of Reason: Work of Paul Nelson, ed. Terence Riley and Joseph Abram (New York: Rizzoli, 1990). The suspended house was explored as organic architecture by Bruce Goff very convincingly in his Ledbetter (1947) and Bavinger (1950) houses in Norman, Oklahoma.


15. This gallery seems a surreal version of Kiesler’s 1929 subdued, futuristic "auditorium with screen-o-scope" for the Film Guild Cinema, New York. Seen together, the two interiors reveal Kiesler as a fashionable decorator.

16. Kiesler’s work offers examples of most of these: for the mouth, his preliminary 1946 set design for Sartre’s No Exit; for the genitals, his 1960-1 Universal Theatre, a colossal penis; for the intestines, his 1959 Endless House. See Frederick Kiesler (New York: Whitney Museum of Art, 1980). Kiesler’s model of the Endless House is in the permanent collection of the Whitney.

17. Other variations on the theme would include Georges Malkine’s 1928 The Lady of Pique, Roland Penrose’s 1936 The Invisible Isle, and Raoul Ubac’s 1937 photograph Solarization. All are featured in Patrick Waldberg, Surrealism (New York: McGraw-Hill, 1966), fig.’s 89, 90 and 139.

18. The following were found in Le Corbusier’s files: an aerial photograph showing a volcanic landscape in the shape of two gigantic breasts and captioned “Le deux ‘mamelles’;” a photo of ‘le stand Ricard,’ a booth at La Foire de Paris in the form of a cartoon-like, smiling head with windows as eyes; and a photograph of Mt. Rushmore (with Washington looking a lot like Man Ray’s Marquis) taken as its construction neared completion in the late Thirties. For “deux ‘mamelles,’” see FLC Box F2-12, #18, a page from L’Illustration without date or page number, captioned: “Le deux ‘mamelles’ dans la vallée des volcans, laquelle renferme des certaines de bouches volcaniques actuellement fermées.” For ‘le stand Ricard,’ see FLC Box C1-15, #54, a clipping from Ce Soir, 19 May 1939, captioned: “A La Foire de Paris / L’un des stands de la Foire de Paris le plus remarqué par son originalité et le succès qu’il remporte auprès du public est certainement le stand Ricard ‘le vrai pastis de Marseille’...” For Mt. Rushmore, see: FLC Box F2-12, #18, a clipping without source or date that shows the Mt. Rushmore monument under construction with a full frontal view of Jefferson and a profile of Washington.