Clouds of Architecture

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According to newspaper articles, the recent unveiling of Frank Gehry's design for the Louis Vuitton Foundation for Creation - to be built in the Jardin d'Acclimatation in the Bois de Boulogne - left observers struggling for a suitable metaphor. However, as *The Guardian* reported it, the architect himself seemed in no doubt: '"It's a cloud of glass - magical, ephemeral, all transparent," [Gehry] said. It was, he added, "not stodgy."'[1]

Stodginess, certainly, is something that the appeal to clouds might well be hoped to ward off. Of all the flow-motifs available to oppose the heaviness of congealed and earth-bound stodge, the slow and complex three-dimensional circulation, drift and dispersion of the nebular seems the most promising. Moreover, not only does the cloud seem opposed to all material loading, equally it appears to resist being weighted down and tethered by signification. As – symptomatically – *The Guardian's* report concluded: 'Gehry added that one of his main aims was to attract youngsters. He said: 'I hope they will look at the building and say, "what is that?"'[2]

While there is a long association of divine and fantastic architectures with cloud, from the heavenly city, to fairytale giants' castles reached by beanstalks, to Swift's flying island of Laputa buoyed upon the magnetic field of the giant lodestone at its core, it is only recently that we have had a situation in which the cloud shifts from being a fabulous support for the building to a trope for the architectural project itself. Clouds of architecture have been accumulating, and the allusion has become increasingly visible as a sort of post-modern counterpart to the high modern metaphoric series – organism, crystal, machine, etc. My intention here is to explore this architectural aspiration for the cloud, to try to make some suggestions about how we might understand it, and to try to describe the 'work' that the cloud motif might be said to do for architecture and architects.

From one point of view it seems unsurprising that the cloud might be an area of interest for practices that see themselves as aiming to transgress architecture's disciplinary constitution, as opening architecture onto what is taken to be excessive to it, or as mounting an assault upon it. At one point in his book *A Theory of /Cloud/* - to which I'll return – Hubert Damisch characterises cloud as '"matter" aspiring to "form"', thereby registering its infinite provisionality and imminence.[3] But equally the cloud might be thought of as 'matter *after* form', the characteristic 'thing' that accompanies destruction and demolition, the dispersion and suspension of particles that follows convulsions of matter and that is historically and iconographically fixed in photographs such as those of the dynamiting of the Pruitt-Igoe housing in St Louis in 1972, or the attack on the World Trade Center. Curiously it was two buildings by the same architect, Minoru Yamasaki, that supplied the material for these two most iconic examples of the destructuring of form into cloud. At the same time, the Pruitt-Igoe demolition was famously promoted – by, for example, Charles Jencks – as the death-rattle of modernism itself, thereby staging that particular cloud as the registration of not just the collapse of a specific architectural project but of an entire ideology.[4]

Lightness and pneumatology

In 1995 Coop Himmelb(l)au, an Austrian-based architectural practice, produced a competition project for a United Nations building in Geneva, under the title Cloud #9. In a breathless text written 15 years earlier, this group – whose affiliation with the sky, and indeed the clouds, is declared in their name (Himmelblau meaning 'sky blue' and, with the 'l' bracketed off, 'sky building') – concluded 'Architecture must burn'. This text accompanied their Blazing Wing installation in the courtyard of the Technical University in Graz, whose heat, it is reported, smashed the windows in the surrounding historic facades.[5] The cloud however of which they dreamed in 1995 did not consist of the smoke of architecture's combustion: instead it was, they wrote, 'a soft, fluctuating enigma – a building that does not want to be a building any more.' Declaring cloud to be 'an idea without an appropriate concept', they insisted that 'at the end of the twentieth century ... the idea of cloud acquires a new significance.' Cloud is 'a differentiated system rather than an object' which, as 'a product of a complex

tissue of influences in which it constantly recreates itself … is entirely without identity.'[6] Whatever the gap we might feel exists between this and the actual building proposal, what is being rhetorically conjured here is something infinitely responsive and in transformation, something, that is, that is always on the point of becoming something else. The following year Coop Himmelb(l)au extended the allusion to the city itself, comparing the digitally-networked city to a 'field of clouds' in constant flux in patterns of complex interaction. 'The vocabulary of urban planning', they wrote, 'should be placed in an architectural antique shop and replaced with phantasms still to be defined, which fluctuate and flicker like television screens after broadcast.'[7]

At the end of his essay 'Haze: On Nebular Modernism', Steven Connor extends a discussion on the visual registration of mist in the direction of an account of the atmosphere as a medium traversed and saturated with invisible radiation, communication and interferences.[8] And there is something of the sense of this electromagnetic cloud in Coop Himmelb(l)au's new description of public space as a 'semi-conductor'.[9] Yet, at the same time, one is struck by the resplendent luminous, translucent (and auratic) character of these proposals for architectural clouds. Compare Gehry's statement that 'I wanted to create something that every time you approach, it shows a different character depending on the light and the time of day. I wanted to emulate everything this word 'transparence' means', with Coop Himmelb(l)au's description of their Geneva project: 'The cloud envelope becomes a glass-like net structure that loosely defines a semi-public space. The transparency of this shell makes it possible to look at people moving about through the layers of light and colour.'[10] It is almost as if, by some trick of history, the destination of Paul Scheerbart's *Glasarchitektur* has turned out in fact to be the cloud.

However it seems to me that we could also draw a very different historical line to architecture's contemporary clouds, one that would pass through the 1960s' and 70s' preoccupation with pneumatic structures, those structures structured by air. The current prevalence of bouncy castles can obscure the political past of this technology, whose architectural uptake occurred in a context of radical commitments to the mobile, the temporary, the nomadic, the anti-authoritarian and the event. We can look again at Coop Himmelb(l)au here, who produced a number of pneumatic projects in the wake of the German engineer Frei Otto and, more locally, the Austrian architect Hans Hollein who, for a while, had 'shifted his mobile one-man-office into a transparent inflatable – a 'pneu' – … to extraordinary effect in the media.'[11] In 1968 Coop Himmelb(l)au produced their pneumatic Villa Rosa, a cocoon-like structure that might be characterised as an expanded essay in atmospherics, the inhabitant being enveloped doubly by the pressurised inflatable and an environment of sensory stimuli released by technical apparatus located in small spherical compartments. This led, in turn, onto their Cloud (Wolke) I and II projects of 1968-72.

In their commentary on the Villa Rosa, Coop Himmelb(l)au wrote: 'Since the erection of the first totem pole the goal has been dematerialization. The dream has always been release from the force of gravity.'[12] If the pneumatic structure could be understood as a building made of air, with a minimal material support – a building of 'almost nothing' – then by the same token it was minimally borne upon by gravity, which is to say, minimally hitched to the earth, that great sump of material and material history ('everything we loved and by which we have lived', as Malevich had said).[13] Here we can recognise the proximity of the cloud to a modern thematic of lightness and detachment from the ground. Sources as diverse as Heinrich Wöfflin's *Prologomena to a Psychology of Architecture* and Georges Bataille's entry on *Formless* for the *Critical Dictionary* suggest an elevational economy whereby the movement upwards is associated with the sublimation of base matter into vital form – reprehensibly so for Bataille – in contradistinction to the lateral, descendental and gravity-directed seep of the former. Bataille's famous argument posits 'formless' as a declassifying term that serves to depress the status of things, and his references are to squashed spiders, earthworms, and gobs of spittle.[14] Yet at the same time we would have to admit that the cloud presents us with a formless thing that ascends in all senses of the word.

In his commentary on the frescoes painted in the earlier 16th century by Correggio in the cupolas of San Giovanni Evangelista and the Cathedral in Parma, Hubert Damisch, borrowing a phrase from Gaston Bachelard, describes these images enabled by cloud as '*operators of elevation*', while at the same time noting that the cloud theme 'contradicts the very idea of outline and delineation and through its relative insubstantiality constitutes a negation of the solidity, permanence and identity that define *shape*'.[15] We have the paradigmatic example of this last point by way of Damisch's classic analysis of the demonstration of perspective reportedly

carried out by Filippo Brunelleschi. Onto a small panel, Brunelleschi painted a perspectival rendering of the baptistery in Florence, making a hole in the board at the vanishing point toward which the parallels converged. Holding the back of the painting to his face, and looking through the hole, he used a mirror held in front of him to sight the image, thereby producing an optical structure that articulated the homology between the eye of the observer and the vanishing point. On the painting, however, Brunelleschi crucially did not render the sky, but instead provided a silvered surface upon which the real sky was reflected, before being again reflected in the hand-held mirror. Damisch argues that cloud is thus presented as something excessive to the perspectival system, something that escapes the jurisdiction of perspective and forms its constitutive 'outside'. Of cloud he writes: 'this unmastered, unmasterable background element ... had to be *shown* but could not be except by the use of a mirror [the silvered surface] – that is, paradoxically, by resorting to a *di-monstratio*. Thus, the cloud mirror functioned as an index (narrowly construed) of a discontinuity between the order of that susceptible to representation by the means of *perspectiva artificialis*, and another element which, admitting of no term and no limit, seems to escape capture, demanding to be presented "in its natural form"'.[16]

Nebular atmospherics and euphorics

Now it seems to me that there are legitimate connections to be drawn between this transcendent lightness that cloud offers and certain reflections on architectural drawing, which bring the latter within the ambit of our concerns with contemporary clouds of architecture. I am struck, for example, by the terms in which John Hejduk described his drawings for his Lancaster/ Hanover Masque, produced between 1979 and 1982. The community of scripted 'objects' and 'subjects' that this work describes are organised in relation to a central, voided square across which the Church House and Death House face the Court House and Prison House. Hejduk proposed that the drawings he did for these were 'I believe, the first X-ray drawings ... The drawings are apparitions.' He continues: 'During the revealing of a thought the pencil in my hand was almost without weight. The lead of the pencil hardly touched the surface of the paper; a thought captured before total concretion. The drawing of the Court House ... may at first appear to be the vaguest, yet it is most complete. It encompasses the whole of a dematerialised thought'.[17] Here the material ineffability of the drawing, precisely the lightness of the

material of the pencil upon the paper – a lightness that,again, makes it almost, but not quite, nothing – is correlated with thought itself, which thereby finds itself transported and registered on the paper before, as Hejduk puts it, 'total concretion'. Here we are close to the cloud once more and specifically to its spectral equivocality and resistance to being definitively located or contained within representational forms insofar as the precondition for its appearance turns out to be its simultaneous (virtual) absence – in this case the lightness of a drawing produced by a pencil that 'hardly touched the surface of the paper'. Thus too Hejduk's reference to the X-ray for if photography has been claimed to be a spectralising technology,[18] how much more so is its offspring the X-ray, which works by lightening and absenting matter, dissolving solid fleshiness into cloud or 'a spectral haze or plasma'.[19]

It may be happenstance that Hejduk – in his pedagogical role as professor of Architecture at (and, from 1975, Dean of) the School of Architecture at the Cooper Union in New York – was a teacher and colleague of three other architects to whom we could refer at this point. The first, Daniel Libeskind, can be passed over quickly, simply noting his comment that 'What I tried to do with the problem of architecture ... was to disengage it from its position on earth ... to send it to its stellar source',[20] and the 'cloud prop' of his competition-wining City Edge project for Berlin in 1987. The other architects, Elizabeth Diller and Ricardo Scofidio who practice together as Diller + Scofidio (and latterly as Diller, Scofidio + Renfro), here require a little more attention as they are the producers of the most literal and celebrated of contemporary architectural clouds. I'm referring of course to their Blur building, an exhibition pavilion constructed for Swiss Expo 2002 on Lake Neuchâtel, beside the town of Yverdon-les-Bains, in Switzerland. Originating with an invitation to collaboratively participate in a competition project for Swiss Expo 2001, Diller + Scofidio first worked – and were entrusted with what was called 'immaterial design' – as part of a team called Extasia, on what was conceived as a new media landscape. The overarching theme of the Expo was to be 'Swissness', and Extasia's 'assigned theme' was 'sensuality and sexuality'.[21] At first, it seems, the project was imagined as a void that would be made in the lake itself, and be called the 'Waterhole Restaurant'.

In the event the Expo was deferred for a year, and Diller + Scofidio's pavilion emerged as a separate project. Variously

described as 'pure atmosphere' and 'the making of nothing' – the title of a book documenting the work[22] – the project was specifically envisioned as an *anti-spectacle*, a refusal of the demand for visual clarity and the scintillating display of commodities normally associated with exhibitionary pavilions. The building would take the form of a cloud hovering over the lake, a 'fog mass'[23], a piece of architecture made, according to the architects, out of nothing but the 'site itself: water.'[24] One of the project descriptions put it like this: 'Upon entering the fog mass, visual and acoustic references are erased, leaving only an optical 'white out' and 'white noise' of pulsing nozzles. Contrary to immersive environments that strive for high-definition visual fidelity with ever-greater technical virtuosity, Blur is decidedly low-definition: there is nothing to see but our dependence on vision itself.'[25] Now it seems possible to claim this as part of a more general equation that links humidity and visual definition. As Paul Carter has pointed out, a precondition of legibility tends to be that things are dried out, so that – to take one example – ink's temporary flow occurs upon an arid surface that guarantees the future shape of the dried character. To expose a document to humidity is to place in hazard its stability – a stability won through dryness – by exposing it to the warp and wrack of its material substrate. Under the encouragement of the humid, whose very emblem could be the cloud, things lose their linearity, contour and shape: they seep, blot and blur. As Paul Carter puts it: 'the humid … is what causes lines to spread, to get back in touch with the "interiorness" of the world. The humid usefully resists the drive toward "legibility", producing instead a class of marks where writing and drawing discover their common ground. As matter writing back, the humid is the site of movement traces normally overlooked.'[26]

The architects' own descriptions of the project consistently characterize *Blur* through claims of what it excludes, rather than what it incorporates, the claims culminating in the statement that it is the 'making of nothing'. Described as a 'massless and elastic medium in which time is suspended and orientation is lost'[27] (no mass, no time, no direction), and again as 'spaceless, formless, featureless, depthless, scaleless, massless, surfaceless, and dimensionless'[28], one is encouraged to suspect that cloud approximates the propertyless 'thing' which Peter Eisenman and Jacques Derrida sought during their ill-fated collaboration on the design of a garden related to Derrida's commentary on the Platonic chora (for the Parc de la Villette in Paris)[29] – especially so, when one recalls the momentary flickering and dissolution of aleamorphic forms that have historically been glimpsed in clouds, whose art historical aspects have been studied by Ernst Gombrich, James Elkins and others.[30]

It is tempting, then, to see Blur as representing an overcoming of 'construction' by a non-hylomorphic 'atmospherics'. In a richly suggestive essay on the architecture of atmosphere, Mark Wigley has written that atmosphere 'is precisely that which escapes analysis … Atmosphere may be the core of architecture but it is a core that cannot simply be addressed or controlled.'[31] There is much to this, and yet one of the things that is striking about Blur is the huge technological sophistication and the hyper-hylomorphic control of material upon which the vapour cloud is predicated, and indeed how effectively it – as a melding of the meanings of atmosphere as gaseous envelope and atmosphere as experiential ambience – was orchestrated. 'We were determined to defy nature', commented Ricardo Scofidio. Blur 'was like a magic trick. A great effect that took a lot of artifice'.[32]

The hidden support of the project was a steel tensegrity structure anchored into the lake bed, which was armed with 31,500 nozzles through which water, pumped from the lake and filtered, was fed at high pressure and vaporized. During the design process, some large-scale fog tests were carried out, and considerable sophistication and ingenuity had to be deployed in fine-tuning the technique to produce the desired effect (irregular nozzle concentrations, for example). To maintain the cloud within defined limits – to stop it blowing away, dissolving, etc. – the whole water delivery system and assemblage was controlled via a 'smart weather' system that monitored the broader environmental condition (temperature, humidity, wind speed and direction, etc.) and regulated the rate of feed to the nozzles accordingly. This pumping of stuff into a zone could be described, I suppose, as a technology of 'inflation' used – paradoxically – in the absence of any building envelope. And at the same time, this technology of inflation was producing what we could call a sort of 'air-conditioning'. Such a point, it seems to me, opens Blur onto a different kind of cultural history than that within which it is usually situated and suggests another, perhaps more critical way, of thinking about the project.

At the invitation of the architects Hubert Damisch himself visited the project, and subsequently wrote a commentary on it. In this he suggested that Blur had 'something to do with the idea of an inhabitable place, a place where it would be good to breathe, and to breathe differently, by inhaling a

different air '. Blur had, he said, a 'kind of "pneumatic" beauty' (where *pneuma* is both breath and spirit).[33] There is a euphoric aspect to Damisch's discourse here, and I want to hold out for comparison an earlier architectural project which is also euphoric, about an inhabitable place and breathing, and which will return us very directly to the experiments with pneumatic structures at which we glanced before. The project I have in mind is Reyner Banham and François Dallegret's Environment Bubble from their 1965 article 'A Home is Not a House', published in *Art in America*.[34] What is interesting here in terms of the comparison with Blur is that, analogously, the 'stuff' of the site –air – is drawn in, filtered, and then pumped out by the internal air-conditioning system with the resultant internal pressure then inflating the dome. It is as if the project develops an internal environmental cloud which takes the form precisely of air-conditioning and which is consolidated and restrained by virtue of the skin, a skin which, in the Diller + Scofidio project, disappears to leave a visible environmentally conditioned zone which is locationally stabilised not just by the steel structure with its array of nozzles, but by the computer monitoring system too.

Damisch's euphoric response to Blur was by no means unique, and in this regard it is interesting to note shifts in the architects' own accounts as the project developed. In 2000, they presented it in terms of an integrated media installation entitled Blur/Babble, in which visitors would be equipped with so-called 'braincoats', electronically equipped raincoats, enabling fragments of conversation to be detached, jumbled, resequenced and relayed to visitors thus supersensitizing, as they put it, hearing and 'producing an architecture of atmosphere in which the spectacular is traded for the oracular.'[35] The Babble media installation was in the end shelved due to loss of sponsorship, but the paranoid sense of being tracked by the building – an explicit aim of the project at this point – is very different in flavour to the description we find when the completed project was published in the architectural journal *Lotus*. Here, the visitor's ascent to the 'Angel Deck' at the summit of the structure is likened to 'piercing a cloud layer while in flight to the blue sky.'[36]

The euphoric response might, then, make us suspect that we are indeed rather closer to the spectacle here than previously suggested. As Damisch noted, Blur did not fit into the tradition of expositionary pavilions displaying the objects of mercantile production. Yet it certainly still sold something, for located within it was a 'water bar' stocked with bottled waters from around the world. Which is to say – I think without stretching things too far – that what was being sold was an idea of *purity*. Damisch seems to say as much when he comments that, at the bar, 'one could take the waters once more, this time as mineral water, still or sparkling, everything playing on the juncture of the two elements of water and air with nothing earthy muddying the waters.'[37]

There is no doubt that Blur was a remarkable, and properly architectural, achievement: certainly one of the most thoughtful and thought-provoking projects realised in recent times. It provided a witty and critical commentary on expositionary architecture and, more widely, visual desire. Presenting itself as an anti-spectacle, at the same time it conformed to the spectacular demand of the exhibition: to be, in short, show-stopping. And what could be more jaw-droppingly extraordinary than the anchoring of a 'real, live' cloud just above the lake, like a mass hallucination or a little piece of heaven brought down to earth. The computer simulations that Diller + Scofidio produced indicate that their nebular vision participated in the same kind of iridescent, diaphanous imaginary as that of Coop Himmelb(l)au and Gehry.[38] These are magical, transcendent, and rather untroubling clouds. Despite my comments on dust clouds at the start, it seems that architects are not so much interested in historicising their clouds, and certainly not clouds that are part of the modern history of desolation – whether Ruskin's 'storm cloud of the nineteenth-century',[39] the mushroom cloud of the atom bomb, or others.

As such, it may be that for some Blur's achievement is, in fact, the pioneering of a new kind of environmental commodification – a new development in the socio-political history of air conditioning – which takes the form of a localised air conditioning of environmentally manipulated zones, no longer encapsulated within building envelopes, secured against a generally degrading environment. As the planetary environment atrophies, this argument would run, so capital will seek to reconstitute it in localised and socially exclusive zones, and an ideology of purity would be part and parcel of this. In this regard, it might be suggested that Blur has some surprising filiations with, for example, buildings such as those produced for another exhibition: Expo '92 in Seville. There localised cooling effects were produced by tower constructions that used micronisers to spray a fine water mist. Similarly, Nicholas Grimshaw's British pavilion used evaporative techniques, such as a water wall that produced a mist, to cool visitors. This may be – perhaps like bottled water –

an admirable technology that addresses a problem: but it is a problem in which the social can no longer be intelligibly detached from the natural, and it does it in a localised, restricted and even distorted way (I have in mind the congruence of commercial interests with the problem itself: for example, the indebtedness of the bottled water industry to the contamination – or belief in the contamination – of public supplies, etc.)

And in the end, what do clouds do for architects? They allow architects, it seems, to have foot in two very different places at the same time: that is, to rhetorically present works as anti-essentialist, de-ontologised, provisional, shifting and dynamic, while simultaneously enjoying a wonderful weightlessness and a transcendental purity. As a 'designer' of clouds one can, rather magically, be a visionary without the burden, and attendant vulnerability, of having to delineate a vision. As Frank Gehry said of his commission to build a cloud in Paris, it's 'heavenly'.[40]

Notes

1 Kim Willsher, 'Is it a cloud? Is it a cocoon? Gehry's Paris museum unveiled', The Guardian, Tuesday October 3 (2006), p. 15.

2 Ibid., p. 15.

3 Hubert Damisch, A Theory of /Cloud/: Toward a History of Painting, Stanford University Press, Stanford, 2002, p. 35.

4 'Modern architecture died in St Louis, Missouri on July 15, 1972 at 3.32pm (or thereabouts), when the infamous Pruitt-Igoe scheme, or rather several of its slab blocks, were given the final coup de grace by dynamite.' Charles Jencks, The Language of Post-Modern Architecture, Academy Editions, London, 1987, p. 9.

5 Frank Werner, Covering + Exposing: the Architecture of Coop Himmelb(l)au, Birkhäuser, Basel, Berlin and Boston, 2000.

6 Ibid., pp. 67-68.

7 Ibid., pp. 21.

8 Steven Connor, 'Haze: On Nebular Modernism', a paper given at Modernism and Beyond: Interdisciplinary Seminar in Art Theory and Literary Theory, Trinity College, Oxford, 12 May, 2006, p. 12-16. Available at www.bbk.ac.uk/english/skc/haze/haze.pdf

9 Werner, Covering + Exposing, p. 21.

10 Willsher, 'Is it a cloud?', p. 15; Werner, Covering + Exposing, p. 68.

11 Werner, Covering + Exposing, p. 27.

12 Ibid., p. 28.

13 Kasimir Malevich, The Non-Objective World: the Manifesto of Suprematism, Dover Publications, Mineola and New York, 2003, p. 68.

14 Heinrich Wöfflin's 'Prologomena to a Psychology of Architecture' in Harry Francis Mallgrave and Eleftherios Ikonomou, eds, Empathy, Form and Space: Problems in German Aesthetics, 1873-1893, Getty Center for the History of Art and the Humanities, Santa Monica, 1994, pp. 149-

190; Georges Bataille, 'Formless' in Atlas Arkhive Three: Encyclopaedia Acephalica, Atlas Press, London, 1995, pp. 51-52.

15 Damisch, A Theory of /Cloud/, pp. 21, 15.

16 Hubert Damisch, The Origin of Perspective, MIT Press, Cambridge, MA and London, 1994, pp. 94.

17 John Hejduk, The Lancaster/Hanover Masque, Text 8, Architecture Association and Canadian Centre for Architecture, London, 1992, p. 13.

18 'I then experience a micro-version of death (of parenthesis): I am truly becoming a specter'. Roland Barthes, Camera Lucida, Vintage, London, 1993, p. 14. See also Jacques Derrida, 'The Deaths of Roland Barthes' in Hugh J Silverman, ed., Philosophy and Non-Philosophy Since Merleau-Ponty, Routledge, London and New York, 1988, pp. 259-296.

19 Connor, 'Haze', p. 12.

20 Daniel Libeskind, 'The Pilgrimage of Absolute Architecture (A Conversational Explanation)' in Countersign, Academy Editions, London, 1991, p. 42.

21 Charles Renfro, 'Blur Building', A+U 428 (2006), pp. 62-73, 67.

22 Diller + Scofidio, Blur: the Making of Nothing, Harry N Abrams, New York, 2002.

23 Diller + Scofidio, 'Blur Building, Expo 2002, Yverdon-les-bains, Suisse', Lotus International 125 (Liquid Architecture) (2005), pp. 76-81, 78.

24 Renfro, 'Blur Building', p. 67.

25 Diller + Scofidio, Lotus International: 78.

26 From a work in progress. I am grateful to Paul Carter for his permission to quote this.

27 Diller + Scofidio, 'Blur: Swiss EXPO 2002 Diller+Scofidio, Ear Studio, MIT Media Lab', Assemblage 41 (2000), p. 25.

28 Diller + Scofidio, Lotus International, p. 78.

29 See Jacques Derrida and Peter Eisenman, Chora L Works, Monacelli Press, New York, 1997.

30 Ernst Gombrich, Art and Illusion: a Study in the Psychology of Pictorial Representation, Phaidon, London, 1977; James Elkins, Why Are Our Pictures Puzzles? On the Modern Origins of Pictorial Complexity, Routledge, New York and London, 1999.

31 Mark Wigley, 'The Architecture of Atmosphere', Daidalos 68 (1998), pp. 18-27, 27.

32 Patricia C Phillips, 'A parallax practice: a conversation with Elizabeth Diller and Ricardo Scofidio, Art Journal, September 22 (2004).

33 Hubert Damisch, 'Blotting Out Architecture? A Fable in Seven Parts', Log: Observations on Architecture and the Contemporary City 1, (Fall 2003), pp. 9-26, 19, 26.

34 Reyner Banham and François Dallegret, 'A Home in Not a House', Art in America 53 (1965), pp. 70-79.

35 Diller + Scofidio, Assemblage, p. 25.

36 Diller + Scofidio, Lotus International, p. 78.

37 Damisch, 'Blotting Out Architecture?', p. 19.

38 Diller + Scofidio, Blur: the Making of Nothing, pp. 48-49.

39 See Raymond Fitch, The Poison Sky: Myth and Apocalypse in Ruskin, Ohio University Press, Athens, 1982.

40 Willsher, 'Is it a cloud?', p. 15.

Principles of Cloud Architecture. Before you can design your cloud, you must first assess your existing environment and business needs. Here are just some of the questions your team will need to explore Depending on your needs, you may bring in a third party for consultation on cloud design. This can happen before, during, or after your assessment. A systems integrator, managed service provider (MSP), cloud service provider, or hardware provider can help you determine the best platform and architecture for your cloud. Cloud architecture has revolutionized how complex business problems can be solved by designing solutions using a cloud platform. If you want to help a company develop its cloud computing strategy, then you should start by learning cloud architecture. Businesses are moving toward cloud computing to save money, for easier access, and to improve scalability. Therefore job opportunities are increasing, as are the paychecks for experienced cloud architects. As you can see, the architecture of cloud computing is quite simple for understanding and can be used by different customers with different needs. In addition to the described pyramid, you can make your cloud private, public or hybrid. It means, you can make cloud only for your company or use one of the public clouds, or combine both approaches. Wrapup: cloud pyramid as a customization instrument. Cloud computing, in general, provides a huge level of customization. Cloud Architecture Guideâ€" v1.5 SEPTEMBER 2015. Cloud Service Offerings Better known as â€œas a Serviceâ€ or â€œXaaSâ€, which are the actually service types that your organization will consume (or offer). The following items cover the most common offerings you will encounter and is not a complete list of cloud offerings. IaaS: â€œRUN IN ITâ€ Infrastructure as a Service provides the compute, network, and storage resources for users to install software and applications. Cloud architecture is how clouds are designed. It's a blueprint for how individual technologies are integrated to create cloud computing environments. How do I find or become a cloud architect? If you want to find or become one of the most qualified open source cloud architects, consider a Red Hat Certified Architect (RHCA).