Peggy Deamer is an architect, teacher, theorist and lobbyist for a whole range of issues related to the architectural profession as it is practiced and with regards what it produces. She is Assistant Dean and Professor at Yale University, Principal in the firm of Deamer Architects and founder and coordinator of the *Architecture Lobby*, a non-profit group that is defined as "an organization of architectural workers advocating for the value of architecture in the general public and for architectural work within the discipline". She describes her work as "analysing the relationship among architectural labor, craft, and subjectivity".

Amongst her essays, articles and book publications one finds works that span a spectrum of issues that includes formalist architectural theory; concerns for the future of architectural practice; a psychological reading of architectural criticism and history; and a commitment to a socially active and politically committed analysis of the architectural profession. Her works include *Architecture and Capitalism: 1845 to the Present*, 2013; *The Millennium House*, 2004; *Re-Reading Perspecta*, 2005; *Building (in) the Future: Recasting Labor in Architecture*, 2010; and *BIM in Academia*, 2012, amongst others.

In this interview-article she extends on the issues she has promoted, defended and criticised in recent years, responds to criticisms of her approach and priorities with regard the role of new technologies in social and architectural contexts, and casts an eye over the political right as it currently sits within architectural theory and practice. She begins however, with an exposition of some of the issues she promotes through the *Architecture Lobby*, in particular its attempts to raise the issue of the working conditions in the profession. Generally seen as a white collar, middle class, professional discipline, architecture is rarely described in terms of unionism, low pay, long working hours and job insecurity. For Deamer however, this rarely discussed reality is one that needs to be exposed and challenged at all levels. It is a question of the architect *worker's* rights that is seldom aired.

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The Architecture Lobby is concerned with a wide range of issues associated with the profession, much of which is well known but rarely debated such as low pay, long hours and a lack of awareness amongst architects of their role in the broader economy as workers. Practitioners need education about the working practices we have inherited and engage with but, of course, the questions being asked in this regard do not just relate to the mechanisms of practice. On a larger scale, the public needs education too. Clients who commission architects, and the general public who see architecture in a particular way often framed by the media - also need to be pressed to rethink their views of the profession and what it produces.

When we take this into account the *Lobby's* target can seem ambiguous. It cannot be defined by a one-liner like "get the architecture firms to pay their staff better", or simply, "tell those potential clients that architects deserve more money". Nor can it be reduced to a simple statement for architects like "tell those staff they need to ask for more money". To bring about real change in the practice of architecture a readjustment on all those fronts is needed. That is a broad approach. However, the *Lobby* is committed to saying that if you identify any of these things as a problem - whether you are a member of the public, the media, a firm owner, or what we call 'fresh labour' (the AIA's "emerging architects"- you

have a responsibility to do something. No one person or set of people are to blame for the working practices of architects today but, at the same time, everyone is at fault. The multiplicity of this scenario is a reality.

The *Lobby* is also committed to considering the profession, its products and its working practices as both a set of conceptual and practical problems. To address the questions that concern us, which in many cases revolve around an identity problem, requires a shift in conceptual thinking, hence it is a theoretical issue. However, issues of pay and hours are obviously of very real and everyday substance, hence we have to operate practically. As a profession we are completely un-reflexive about many of these issues: unpaid internships; excessive working hours; architects who see themselves as artists rather than embedded in a discourse or framework of labour etc.⁴ There is a real commitment from the *Lobby* to target these issues at both ends - as both theory and practice - and to see and forge the relationship between the two ways of seeing and working. It would be a misrepresentation of the issue if we said one came before the other.

I actually come to the practical questions from the theoretical; it was theory that led me to the labor question. Even though as a practitioner I had experienced its labor/value problems, theory made me realize their unnaturalness. However, in some ways the *Lobby* is talking about these issues to simply get attention to the problem - and theory is one way of getting attention to the problem. Hitting people in the pocket book is another. We could simply say, "this is illegal" and is a form of practice that should be stopped or modified. That is fairly 'practical'. Similarly practical is the pledge the *Lobby* has requested graduates or job seekers to sign. It states that they will not work for a firm that has unpaid internships; a firm that does not pay overtime; or firm that will not pay a living wage, even if they themselves are being paid well. The pledge is accompanied by a formula for what a livable wage is. Whether they sign the pledge or not, getting it disseminated is significant as it gives an indication that people should be thinking about these things - that these are legitimate issues. The pledge is ultimately both practical and theoretical.

The *Lobby* was recently involved in a roundtable discussion with people teaching Professional Practice to try to understand whether it is being taught to make an architect that is 'a compliant worker bee' or a practitioner who has the tools to change practice. It started out just as a workshop but has grown and the questions raised need a larger platform. That platform may well be a conference, which would formulate thinking in a particular way. A large part of what defines the *Lobby's* work as 'theoretical' or 'practical' is a function of the audience. At an academic conference one inevitably deals more with theory; dealing with the AIA, it is practical. However, there is a definite intent to not remain rarefied. One recent initiative for example is to collect data from firms about unpaid overtime in a statistically reliable way. If that survey revealed that a billion dollars' worth of work in the AEC industry is unpaid, that would be interesting information that one would hope could have practical results.

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In discussing the relationship between theory and practice through the prism of the *Architecture Lobby* and its approach to seeking change in the architecture profession, Deamer picks-up on a conceptual

dichotomy that manifests itself in multiple ways in her writings and activities. Perhaps this dichotomy is nowhere more evident than in the dialogues and debates she seeks to instigate around one of the professions most recent applications of technological developments, Building Information Modeling, BIM. Seen by many as a mere technological tool applied to the ever-increasing efficiency drives that have always characterized capitalist development in the industrial age, Deamer suggests it offers more than the simple continuation of the status-quo at greater profit.⁶

However, in order to develop this argument she identifies a need to apply a set of theoretical frameworks to the discussions that occur around BIM which currently are almost completely lacking. Moving the discussion on BIM from its mere technological ramifications into a realm of social practice, shared creative processes, and what may be referred to in Jurgen Habermas' terms as 'communicative rationality', she draws on the theories Peter Druker, Donald Schön, and Bruno Latour, to name but a few. From Latour she borrows the actor network theory, from Schön reflective practice, and from Drucker a whole gamut of arguments and interpretations about the nature collaborative management, knowledge workers and interdisciplnarity. In mining the work of these theorists she discusses criticisms and claims of originality that emanate from contemporary architecture's 'technological avant-garde', and the hostility shown towards BIM as a technology with a potentially transformative influence at the level of practice that comes from within the profession.

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All my writings on BIM are attempting to fill a void – they are attempting to theorize it. However, BIM is a term that is problematic and conjures up a set of very specific negative associations for so many people. At times it can be preferable to simply discard the name – to seek an alternative term - "parametric knowledge"? - because people just 'turn off' immediately. As soon as you talk about BIM conversations can quickly move to REVIT and how inflexible it is and how limited the library is etc. Consequently, the conversation collapses into the particularities of the technology rather than considering BIM as something allowing you to share knowledge – to mine knowledge that we were never able to access before, let alone lever for great benefit. This is an important question because underneath the immediate and simplistic technical associations and reactions, there are these significant issues to address.

One should see BIM more as a stand-in for what one wants to champion. It potentially allows us to share knowledge in a way that gives us, as architects, a model for 'no longer being naïve or stupid'. Often clients ask architects after they have received an initial design, "how much will this cost"? The architect says "I don't know and will not know until we get a contractor.... and by the way, we will not get a contractor until working drawings are done by which time we will already too far down the rabbit hole". That level of ignorance does not help the credibility of the architecture profession. When architects specify a precious wood and do not know whether that wood that is endangered or where it comes from, they cannot say "I don't know, let's talk to the cabinet maker" as they do perhaps with engineers. The profession too often shows a level ignorance about those issues that lie outside the restricted limits of 'design' that is not excusable. BIM challenges all this. ¹⁰

Those isolated working practices that saw the architect, engineer, contractor etc. operating separately have allowed architects to forever more work happily in a vacuum. Part of the problem is that architects did work in a vacuum and part of the problem is that we were happy to work in a vacuum. However, if used to its full extent, BIM will oblige us not to work in this way – although currently few people are doing that. Many people are still just using BIM for production, and a lot of people will only do so because clients have said they are only hiring architects that use BIM. At this point in time there are clearly problems of application - the client/owners can be accused of not knowing what they are asking for and not all contractors are using it, so there are limitations, even on those using BIM in basic ways to aid production.¹¹

Both the simple production use of BIM and Revit's problems cause criticisms of technology. However, some of the hostility to BIM goes further than that. When Autocad emerged it made the profession more efficient, there was discussion about the 'loss of the hand' and the 'missing beauty of the pencil on the paper', but the criticism of it as a 'production tool' was different to that we see around BIM today. Perhaps the hostility BIM is experiencing is in relation to its potential – the greater hostility reflecting that there is more at stake.

Part of that hostility comes from the early parametricists - the formal parametricists – who oppose this kind of design work. For them, the argument occurs at the level of an avant-garde celebrating its formal autonomy versus the purely functional and efficiency-driven BIM practitioners who 'have a slide rule, hard hats and know how to deal with a complicated hospital program'. It is an argument of stereotypes that echoes many others: designer or builder; white collar or blue collar worker; artist or nerd etc. ¹² These arguments transcend the technology and are, in a sense, ideological.

It may well also be an issue of 'terrain' with parametricists possibly losing the claim to "newness" and with it a stake in the avant-garde. Besides the criticism from them that BIM is formally limited, they also claim that there is nothing new that BIM does that they haven't been doing all along. This version of criticism is less "it's bad" and more, "so what?" The parametricists want to lay claim to the territory of the new, zeigeist leading technologies and fear being irrelevant.

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In drawing in the arguments that emerge from the parametricist wing of architectural profession around BIM, Deamer opens up questions of potentially significant social and political import. Tied into the criticism of BIM as offering little in terms of form, aesthetic or programmatic originality that comes from the view of architecture as formal creative practice, a la parameticism, is a corollary socio-economic criticism of BIM as another technological development yielded as little more than the latest phase of the technological production of architecture in the service of wealth creation and developer profit. In this light her own avowed stance on 'theorising BIM' opens her up to being labelled an apologist for this nuanced evolution of capitalism in the context of the architectural profession.

In this regard, some of the writings that appear in her own edited volume, *Building (in) the Future* appear portentous. Essays included in that publication include Reinhold Martin's *Post Script* and Kenneth Frampton's text *Intention, Craft and Rationality*. ¹³ The reservations about BIM from a social and

professional sense that are latent in these texts are more overtly expressed by Nadir Lahiji who is not only dismissive of parametric form creation through the medium of technology (or more specifically computer algorithms) but sees it as an inevitable manifestation of capitalism's continual appropriation of technology for individualized profit. In his criticisms of parametricism he highlights the way it has attempted to construct a theory around itself as part and parcel of the capitalist process of justification and naturalization that facilitates the acceptance of technology for profit rather than social benefit. Potentially falling prey to this type theorizing-apologist analysis in the context of BIM, Deamer is clear in her acceptance of the pitfalls.

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Although the parametricists offer a critique of BIM as a boring application of technology that is not being applied to achieve anything formally new, there is another reading to their criticism that revolves around the question of the 'other'. Once the technology of BIM is linked to particular industries, particular product libraries and particular sets of information one is seen as potentially losing independence. In those terms, the benefits of BIM can get reduced or presented as simply 'being the latest stage of technical production for wealth accumulation'. It's not just that the parametricists have already offered that criticism or backlash; it is the context against which I argue for BIM's attributes - collaboration and the cultural equality of constructors and designers.

Of more interest is the embedded question about whether one can escape the hegemonic role of a software company. That is a legitimate question. Even amongst *Architecture Lobby* colleagues BIM is 'suspect', in particular when my interest in it leads to collaborations with Phil Bernstein, the vice president of Autodesk, the producer of Revit. In this light I can be seen as having drunk the Kool-Aid and that Kool-Aid is seeped in commodification and capitalist gain. In other words, how can I critique architecture's role in capitalism while advocating for its most aggressive, profit-seeking technological tool? My response is that I trust Phil because he is as committed to overturning the dysfunctional practice that we currently have as I am. But in any case, my writings distance themselves from REVIT and technical questions of software - without negating the software hegemony problem. They seek to acknowledge the issue but still come out and say something positive about the potential for this technology to proffer a different way of working. My work suggests that what makes BIM interesting is not the potential efficiencies it brings, but rather the risks it invites. It is important to get the efficiency question off the agenda because it feeds into the criticism that BIM is just about production and risk management. What actually makes BIM interesting is that it thrusts the AEC industries, and architects in particular, into the realm of knowledge, power, and decision-making.¹⁶

If one follows BIM to its logical conclusion, the sharing of information and getting those workers who used to be at the tail end of the process (fabricators for example) involved early on in the process, it makes all who contribute designers. This, I suggest, is a good thing, but it is threatening. It alters claims to authority and authorship. It is risky for the architect vis-a-vis our clients. It challenges the architect's traditional status.

Contractually things change significantly as well - the assigning of risk and reward gets very messy. Who owns the drawings, who owns the intellectual property, etc. in a collaborative environment is an open ended questions. Furthermore, architects also lose the ability to brush-off responsibility about questions of cost and construction etc. However, down at the other end of the design and construction process, architects can actually 'be in there' when important detailed decisions are being made about whether 'one or two bolts are required' etc. Traditionally, architects have not wanted to take on that risk and whole apparatus of contracts, insurance, lawyers, professionalization, and organizational affiliations is set up to sustain our avoidance of this risk. So, potentially, BIM messes up many things for inviting us to no longer avoid these risks.¹⁷

Peggy Deamer's writings on BIM and parametricism include 'Parametric Schizophrenia' in which she draws a distinction between parametricism, as an aesthetic and object-focused way of thinking, and BIM, as non-aesthetic, process focused mindset. She explores this dichotomy through recourse to the psychological theories of Melanie Klein and questions the object-subject relationship in architectural practice and production more generally. In considering the creative process, and the end product of that process, as a subject-object relationship she foregrounds psychoanalysis. It is something she has done throughout her texts which draw upon ideas from, amongst others, Ernst Cassirer, Heinrich Wölfflin, Theodore Adorno, Walter Benjamin, Bertolt Brecht and the entire Russian Formalist tradition.

Questioned on various components and readings of this diverse range of theories and how they interrelate she responds to the proposition that the symbolism of Cassier and the psychological reading of the 'creative individual' can feed into today's *starchitect* cult – a phenomonenen whose perceived disregard for context and collaborative modes of working echo some criticisms of the Modern Movement. She also responds to questions on the relevance and potential current application of the Russian Formalist tradition and, in particular, its central tenant of defamiliarisation. Considering ways in which this concept, referenced regularly in her theoretical texts, can avoid being subsumed into the 'logic of unusual form creation', she cites a number of projects and practices, and the limitations of their analysis through the rubric of defamiliarisation. So

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The interest in psychology comes from my PhD work on Adrian Stokes. He utilized Melanie Klein in his art and architecture criticism which was, in effect, a promotion of her psychoanalysis.²¹ One thrust of that work is the idea that the artist / architect should not be 'willful' over the thing they are making. For Stokes this is very literal. Just as for Michelangelo the stone holds the form within it, for Stokes, the artist or architect has to deal with the material's resistance or otherness, and through that process learn about the self. It is not individual expression; it is a subject-object relation. You can see this as a use or abuse of Melanie Klein, but it is possible to expand on the idea of the material feeding-back, to the site's or the program's feedback.²² Design in this sense is not simply a question of a vision or a gift, but a dialogue with context.

My problem with the *starchitect* phenomena is that it is really a poor representation of this two-way practice. It is not just bad form, literally, to create willful shapes, it is bad practice. It does not inform

you; it is just a self-fulfilling scenario. We do not need those kinds of architects constructing our social environment, ²³ Or, if this work is in fact more responsive than this description implies, we don't need the kind of representative in the media that "starchitect" provides.

Defamiliarization comes in as an extension of this idea of dialogue between the subject and the object; the subject/architect's job is to bring the object to life by defamiliarizing it. When a place or conditions is experienced so habitually that it disappears from view, defamiliarization allows it to appear anew.

If we consider defamiliarisation, we should include aesthetic criticism; Wolfflin I think is a good example through the vehicle of visual categorization. ²⁴ Whether you believe in his approach or not, there is something about the ferocity of his analytic use of formal pairings that makes you see in a totally new way. You really do see more of the paintings and buildings he examines for his imposition of - defamiliarization by - formal categories. The star architecture cult could all argue the need for forms that analogously challenge conventional ways of looking, making and, by extension thinking, but it rarely comes across as intended to get an audience to 'rethink' anything. It is only ever intended to get people's attention to the new. Defamiliarisation is more interesting psychologically when it makes us see something new - and that should be embraced.

For me, an example of successful defamiliarisation is the early work of Diller and Scofidio that manipulates program to provoke an fresh engagement with architecture. They set up arrangements that were not the typical ones - the relationship between a car and a picture window; the exchange between windows, video screens, and mirrors; furniture that expects to be on floors and is on walls. Joel Sanders also - putting a bathroom in the kitchen, to cite a blunt example - manages powerful, unfamiliar juxtapositions. This was central to what was called in recent times 'critical architecture' - although not in the Peter Eisenman sense, rather an architecture that was 'literally' critical of the status quo. Again, a blunt example would be exposing the fact that an airport is nothing but a system of surveillance by exaggerating the layers of screening apparati, preventing a naïve belief that we are merely anonymous consumers of air travel ²⁶ You can define all of that as working with defmiliarisiation. It is a different approach than willful form. It provokes resistance.

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Through this discussion of defamiliarisation, the potential appropriation of the term and its strategies by architects of very different ilks and political persuasions becomes manifest. Whether it be the predilection of today's *starchitects* for formal innovation, or the critical agenda of those seeking to use architecture as a vehicle to provoke social and political debate, the notion of the defamiliar can be molded in any number of ways and presented under quite distinct lights. The inherent multiplicity of this is something that Peggy Deamer has sought to embrace in a number of contexts, most openly perhaps in her book *Architecture and Capitalism* and the teaching around that book.

In the introduction to *Architecture and Capitalism* she references a desire for conflicting ideological debates whilst, at the same time, identifying the difficulties in ensuring it. In this book Deamer suggests a wish to "go beyond a Marxist critique of architecture and its relationship with capitalism" but indicates a dearth of theories and essays coming from the political right. Questioned on the perceived scarcity of

what may, in reductive terms, be defined as right-wing architectural-political theory, she begins by running through some of the familiar names that have openly embraced neo-liberalism and / or conservative values trough their architectural work and writings. However, she also discusses another stratum of this disjuncture through reference to the expected working practices of the next generation of architects – a generation expected to seek out alternative ways of working that will, by definition, oblige them to be more entrepreneurial. A self-reliant model of working the students are not currently trained for, and which in many ways leads them along a path traditionally associated with the right of the political spectrum, this entrepreneurial model of the future is one she sees favorably.

Architecture and Capitalism is also a seminar I teach but after the first few times I taught it, I stopped trying to introduce more conservative voices to its critical theory framework. It was too difficult to find those that were philosophically grounded while also culturally literate, except for Ayn Rand and Daniel Bell.²⁸ There are architecture practices that are more right wing than they are admitting or those that have been around for some time - Dimitri Porphyrios, Robert Stern and Leon Krier. And now there is Patrik Schumacher who has taken an overtly right wing political stance in recent years. To his credit, he is openly links this to avant-garde work. (He recently made a pronouncement that state funded programs for the arts should be stopped.²⁹) And then there is Rem... Beyond these people there are not many useful examples.

That is, unless you see post-criticality as a pro-capitalist theory.³⁰ In this light, Sylvia Lavin is pretty interesting. Her anti-elitism may be summarized by the question 'why should we feel self-conscious about making?' Let's just make. Associated with post-criticality, the LA scene, her husband Greg Lynn, she asks why architecture cannot be more like *Nike* and why is theory so rarified? Why is theory not more like gossip?. You could say her challenge to elitism is politically leftist or you could see it as politically right-wing in as much as its target is Tafurian Marxism and it acquiesces to capitalism. This may be a starker definition than would be accepted by those associated with post-criticality but there you go.³¹

The other example that comes up is *SHoP Architects*. They are interesting in the context of BIM because, in some ways they are a 'poster child' for BIM. They are doing on a project-by-project basis, what the larger BIM project strives for: leveraging their combined knowledge to bring a project in on time and on budget. This gets the developers' attention while not precluding creativity. They know how to design, source materials, build, and because a couple of them come from a financial background, they can do the figures.³² For a lot of us that was initially totally inspiring. Now the projects they are working on are very questionable; they are not using their expertise for anything socially viable. So while we may want to admire aspects of how they work - their embracing of the forms of knowledge that give them power one struggles to admire how they deploy their power at this point.

So, although there are not many people addressing a right wing political stance overtly in the architecture field, if we look beyond the surface it is there. The current focus on entrepreneurialism is interesting and complex in this regard. This comes with a younger generation using Google, Facebook and Apple, etc. as role models; the entrepreneur is celebrated in every way. On the one hand, there is legitimate awareness among the next generation of architects that the way architectural practice

operates is fairly ossified and that architects can and should be more empowered, strategic, and rewarded than they are. On the other hand (as with SHoP), you don't want the goal to be money. Academia is schizophrenic about entrepreneurialism, about how to address the thirst the students have to be savvy professionals and how to balance this with traditional Beaux Arts-type studio teaching. Yale is attempting to preserve the traditional studio culture; Columbia under Mark Wigley challenged this; the Studio X's and the various labs were a part of this.

In all of this, there is the question of the role of Professional Practice in the academy. From the work the *Architecture Lobby* has done on this, it is very clear that only a few people are teaching professional practice in a way that encourages students to think about their role in more entrepreneurial, or just alternative, ways. Basically, everyone teaches from the AIA handbook, which should be questioned in and of itself. The AIA sets out the contracts, and following that, the teaching of the contracts, liabilities, management structures, etc. However, it is not the rule that to be a professional you have to obey the AIA rules. It is just that nobody has organized the information other than the AIA and, as a result, their method dominates and the status quo rules. That said, some people are teaching Professional Practice based less on the assumption that students are going to work in a preexisting, traditionally managed firm, and may act as their own developers, ask for a share in the profits or savings, or charge for their research, not just their drawings. That gives you different structures and opens up the levels on which Professional Practice could be redefined.

This is important but once we start dealing with entrepreneurialism in architecture we immediately come up against its criticisms - not just its role in neo-liberalism that its link to precarity, unlimited work hours, and lack of class identity or collective voice. A lot of us theorists are struggling with this scenario. We see the benefits of challenging current working practices and how they are taught and engrained, but we see the disadvantages of an entrepreneurial model too. What is admirable about the entrepreneurs, however, is that they are taking a different path to the one architecture has generally offered them which is to be a 'worker bee' – probably on a low salary and with long hours. If you are lucky, you go from being a worker bee to having your own practice, and then you are praying to get beyond doing house additions or bathrooms. 34

In this context, I am actually proud that I have sent three of my architecture students to do joint degrees with Yale's School of Management. Again, politically, this stance is complex. But I see it in a humanist tradition that links the psychological component of my writings with the political side of my work. When I read Marx I am reading a humanist - somebody who is looking at the conditions under which one can go home to one's family and say "I can feed you and I can get you to school," and "I am satisfied enough by work that I have no desire to inflict psychological or physical harm." These are not different to the concerns of psychoanalysts who are seeking to understand the conditions leading to the integrated, creative, and autonomous subject.

¹ The Architecture Lobby's Manifesto begins thus: The myth that architects have it all – professionalism, creative freedom, autonomy, civic power, cultural cache – lasts until your first day of work. It is not that you immediately get the full picture; surely

the bad compensation and crummy hours and the lack of power over design decisions are temporary, the dues you pay. But later, when you have your own firm or become a partner and the deferral can't be deferred any longer, you don't earn reasonable compensation, you work crummy hours, and you lack power over design decisions. Along the way, you may have adjusted your thinking about the myth while still maintaining its mystical aura. "Architecture," you can say, "isn't a career; it's a calling!" ... which is to say, the lack of money and appreciation is justified by sacrifice. See: http://www.architecture-lobby.org/

- ² Again, this point is reiterated in the Lobby's Manifesto which suggests it is necessary to "redirect the public's perception of what architects do". This, they suggest, means tying the architect's salary into the building's success over its lifetime and significantly redefining the way the media showcases individual architects and projects. See: http://www.architecture-lobby.org/
- ³ The issues raised by the Architecture Lobby in this regard are far from unique to them or the United States, where the Lobby is based. The issue was recently discussed extensively in the United Kingdom Press. See, by way of example: Dunton, Jim "Architects' willingness to work long hours blamed for overtime culture". *The Architect's Journal*, London. 20 November, 2014; Waite, Richard. "Hodder: overtime problems are 'legacy of fee cutting'" *The Architect's Journal*, London. 26 November, 2014.
- One of the texts referenced on the Architecture Lobby website with regard these issues is *Future practice: conversations from the edge of architecture*. See: Hyde, Rory. 2012. *Future practice: conversations from the edge of architecture*. New York: Routledge. Hyde's interview with Mark Minjan is also highlighted by the Architecture Lobby in which Hyde outlines a number of issues relevant to architectural practice today including the need to be more open to collaboration with other disciplines. He says [as a profession] "we have constructed such an exclusive professional fortress of accreditation, institutes, awards and even our own discourse, that we have lost touch with other people and adjacent disciplines and what we could learn from them". Reiterating the arguments of Peggy Deamer he also highlights the need for architecture to be more 'civically engaged' and "part of much broader strategy for social change, rather than as an object in space and therefore an end in itself". All this involves a reconsideration of practice that eschews the large established firms and favours smaller more varied collaborations, initiatives and less object focused approaches. See: Interview with Mark Minjan. "Is the Architecture Profession Still relevant?". *Failed Architecture*. http://www.failedarchitecture.com/is-the-architectural-profession-still-relevant/
- ⁵ In a recent business poll architecture was listed as one of 19 professions with 'surprising low pay'. See: Nisen, Max and Taube, Aaron. "18 Prestigious Jobs With Surprisingly Low Pay". Business Insider. 25 August, 2014. http://www.businessinsider.com/jobs-with-surprisingly-low-pay-2014-8 They cite the average income for architects at \$71,790. The US Census Bureau indicates that the average salary of people with doctoral degrees in the United States is approximately \$81,400, while the average salary for an advanced degree holder was \$72,824. The average male salary in this range was \$90,761 with women averaging \$50,756. See: https://www.census.gov/content/dam/Census/library/publications/2014/demo/p60-249.pdf. The discrepancy of income across gender distinctions is also an issue brought up by the Architecture Lobby. It has been subject to various surveys and reports in both the United States and the United Kingdom.
- ⁶ Amongst Peggy Deamer's writings on BIM are: Deamer, Peggy, and Phillip G. Bernstein. 2011. *BIM in academia: edited by Peggy Deamer and Phil Bernstein*. New Haven: Yale School of Architecture; Deamer, Peggy. "BIM and Contemporary Labor". *Pidgin. No.15: Architecture & Money*. Princeton University School of Architecture. May 2013; Deamer, Peggy. "Parametric Schizophrenia". The Politics of Parametricism: CalArts. Conference. 16 November, 2013. http://www.peggydeamer.com/images/parametrics.pdf
- ⁷ Peggy Deamer's arguments on how BIM can, indeed must, induce greater collaboration between parties normally kept apart in the design and construction process most obviously architects and contractors is key here. For BIM to operate effectively these often inimical players have to learn to understand and collaborate with each other. Habermas is interesting in this regard for his writings on communicative rationality, according to which effective communication in which norms and procedures have been pre-agreed and understood will lead to 'rational' and successful results. For Habermas, this is coached under the umbrella term Universal Pragmatics the study of the conditions required to ensure understanding through communication. See: Habermas, Jurgen. "What is Universal Pragmatics?" Communication and the evolution of society. Boston: Beacon Press. pp1-68

⁸ The work of these theorists is referenced in an article entitled Practicing Practice. See: Deamer, Peggy. "Practicing Practice" In: Gharagozlou, T; Sadighian, D; Welch, R (eds). *Perspecta*, No. 44. Domain. MIT Press, 2011

- ¹⁰ These are arguments more extensively expressed in: Deamer, Peggy. "BIM and Contemporary Labor". *Pidgin. No.15: Architecture & Money.* Princeton University School of Architecture.
- An indication of the newness and unfamiliarity of the profession currently with BIM is the number of introductory level books on the market aimed at professionals. See, by way of example: Eastman, Charles M. 2008. *BIM handbook: a guide to building information modeling for owners, managers, designers, engineers, and contractors.* Hoboken, N.J.: Wiley; Teicholz, Paul M. 2013. *BIM for facility managers.* Hoboken, New Jersey: John Wiley & Sons, Inc.
- ¹² This set of arguments are also more extensively expressed in: Deamer, Peggy. "Parametric Schizophrenia". *The Politics of Parametricism*. Ibid.
- 13 Kenneth Frampton argues in his text in Deamer's edited volume *Building i(in)* the *Future recasting Labour in Architecture*, against an overly enthusiastic and, perhaps utopian, acceptance of the latest technological developments in the profession. With specific reference to the parametricists, he argues that "the rhetoric the profession employs borders on techno-idolatry, recalling the scientific discourse of Buckminster Fuller and Marshall McLuhan and coloring the present moment in architecture, in which demand for spectacular, mediatic images eclipses critical reflection". Rheinhold Martin is no less circumspect in his contribution, warning against the contemporary designer's preferred motto WYSIWYG, What You See Is What You Get. Referring to the perceived ability for computer technology to accurately represent finished built form, he suggest the latest technologies in use in the profession are leading to ever more focus on the architectural object with a concomitant distraction from the subject. See: Deamer, Peggy, and Phillip Bernstein. 2010. *Building (in) the future recasting labor in architecture*. Ibid.
- ¹⁴ Lahiji specifically references 'an artificial application of Deleuze by the architectural parametricists' as part of an attempt to justify what he sees as the intellectually vacuous creation of spectacular forms. See: Lahiji, Nadir. "Phantasmagoria and the Architecture of the Contemporary City". In: G. cairns (ed). Architecture_MPS, London. Vol. 7, No. 4. June 2015.
- ¹⁶ The potentially disruptive influence on BIM on the architecture profession was captured early by the Australia Institute of Architects who, in 2007 defined BIM as potentially 'revolutionary'. See: "New digital technology set to revolutionise architectural practice". In: RAIA National Conference, April 2007, Sydney. http://www.raia.com.au/i-cms?page=9281
- ¹⁷ In 2012 the Royal Institute of British Architects (RIBA) set out a document to be read in conjunction with the RIBA Plan of Work that they saw as 'overlaying' the practices of conventional design, procurement and delivery with those of BIM. The importance the RIBA and the UK government placed on BIM is evident in the introduction to that document: "Evolving BIM technology is transforming modes of working in the construction industry in terms of the ways in which design data is generated, shared and integrated, and this creates a requirement for new protocols, activities and definitions. The technological and conceptual basis of BIM has been emerging for more than twenty years and is now rapidly approaching maturity. The UK Government has set out an ambitious vision for the adoption of BIM on all public sector projects". See: Sinclair, Dale. (ed). BIM: Overlay to the Plan of Work. Royal Institute of British Architects, 2012. http://www.architecture.com/files/ribaprofessionalservices/practice/general/bimoverlaytotheribaoutlineplanofwork2007.pdf
- ¹⁸ In this regard Deamer was addressing different mindsets, ways of working and audiences that two sets of 'digital practitioners' she identifies as operating at diametrically opposed positions on their respective but related technologies the parametricists and the BIM practitioners. See: Deamer, Peggy. "Parametric Schizophrenia". *The Politics of Parametricism*. Ibid.

⁹ Coinciding with a period of architectural theory in which post-criticality has been ascendant, the lack of a deep and critical exposition of the possibilities and potential shortcomings of BIM is something she has identified on several occasions. See: Deamer, Peggy. "Introduction". In: Deamer, Peggy, and Phillip Bernstein. 2010. *Building (in) the future recasting labor in architecture*. New Haven: Yale School of Architecture.

¹⁹ Peggy Deamer's referencing of Ernst Cassier comes in "What is the status of work on form today?". See: Deamer, Peggy. "What is the status of work on form today?" In: *ANY –Architecture*. New York, No. 7/8, Form Work: Colin Rowe (1994), pp. 58-

65. The relevance of Cassier in the context of questions of the star architect cult today is found in his focus on the interpretation of humans as 'symbolic animals' and our proclivity to communicate through symbols and 'symbolic forms'. The suggestion made here was that these forms today get reduced to willful, eye-catching forms that have 'shock' value. See: Cassirer, Ernst. 1944. An essay on man; an introduction to a philosophy of human culture. New Haven: Yale University Press; Cassirer, Ernst, and Donald Phillip Verene. 1979. Symbol, myth, and culture: essays and lectures of Ernst Cassirer, 1935-1945. New Haven: Yale University Press.

- ²⁰ The term "defamiliarization" was first coined in 1917 by the Russian literary theorist Viktor Shlovsky in his essay "Art as Device". Its used morphed into a range of presentation techniques in various disciplines and artistic genres aimed at presenting audiences with everyday subjects in unfamiliar ways so as to challenge and provoke new readings. In the work of Bertolt Brecht, referenced several times in various texts by Peggy Deamer, it became more commonly known as 'distancing'. Although less common in architecture 'defamiliarization' has been variously associated with a range of architects but has not yet been fully explored or documented.
- The ideas outlined here are explored more thoroughly in Deamer's text, *Adrian Stokes: Surface, Form, and (Dis)Content*. See: Deamer, Peggy. "Adrian Stokes: Surface, Form, and (Dis)Content". Architecture and Psychoanalysis. October 25, 2003
- ²² Melanie Klein is best known for Object Relations Theory according to which the psyche develops in relation to others in the environment during childhood. Thus, both early experience and environment become key issues, as does the notion of interaction between these elements. In her text "Adrian Stokes: Surface, Form, and (Dis)Content", Deamer draws out the importance of the projection introspection relationship in Klein's work.
- ²³ A more extensive critique of the star architect, and its relation with fame is offered by Deamer in: Deamer, Peggy. "Branding the Architectural Author". In: Lee. B.M; Kang, D; Kwok, J; McClure, R. (ed) *Perspecta. No.37, Fame*. MIT Press, 2006.
- Heinrich Wölfflin was the key figure in the development of the 'formalist' art movement. His primary and iconic texts were *Renaissance und Barroque*, 1888; *Classic Art*, 1898; and *Principles of Art History*, 1915. It was in the first of these that he developed his methodology of 'pairing' to identify and underline formal differences in the artistic movements of related but distinct periods. Despite his 'formalism' however, key to Wölfflin's theories was the argument that underlying the visually evident shifts in artistic tropes, were more fundamental 'psychological' shifts of the epochs in question. Deamer draws upon the work and theories of Wölfflin on several occasions. See, by way of example: Deamer, Peggy. "First Year: The Fictions of Studio Design. In: McCleary, M and Silbert, J. (eds) *Perspecta, No. 36, Juxtapositions*. 2005. pp. 10-16 MIT Press; Adrian Stokes: Surface, Form, and (Dis)Content, Ibid.
- For an overview of this early work by Diller and Scofidio, see: Diller, Elizabeth, Ricardo Scofidio, and Georges Teyssot. 1994. Flesh: Architectural Probes. New York: Princeton Architectural Press; Incerti, Guido, Daria Ricchi, and Deane Simpson. 2007. Diller + Scofidio (+ Renfro), the ciliary function: works and projects, 1979-2007. Milano, Italy: Skira. Much of this early work was small scale architectural schemes, speculative projects and installations which allowed greater freedom for 'critical' experiment. Their more recent architectural work has been larger scale and operative through the mechanisms of the conventional design and construction industries. Consequently, its 'critical scope' has been tempered.
- Perhaps the most iconic early work from Diller and Scoffidio that most literally reflects the issues raised by Peggy Deamer here is the *Slow House* a project in which the act of viewing landscape became overlaid with mechanical devices for recording that same landscape. See: Bremner, Alex. "Re-Activating the Docile Body: a Critical (Re)view of Diller and Scoffidio's Slow House". *Architectural Theory Review*. vol. 5, iss. 1, 2000. The particular reference to airports is one associable with the *Travelogues* installation by Diller and Scoffidio at JFK airport in 2001 in which the x-raying of the content of suitcases became the theme, material and, in part, subject of the installation. It is covered in: Antonello, Marotta. "Connective Architecture The Society of Control". In: Antonello, Marotta and Christine Tilley. 2011. *Diller + Scofidio: blurred theater*. Roma: Edilstampa srl. pp.50-54
- ²⁷ In the introduction of *Architecture and Capitalism: 1845 to the present*, Deamer expands on this point stating that although the book "is about capitalism, [it] is indebted to those who have devoted themselves to its critique, Marx in particular. As analyses of capitalism's multifarious modes of operation, Marxism, neo-Marxism and the Critical Theory of the Frankfurt School has informed the terms by which this editor and a number of the authors understand the subject-matter [....] The hope is that

this anthology will open up debates about the relationship of architecture and capitalism that include non-Marxists orientations". Deamer, Peggy. Architecture and capitalism: 1845 to the present. London: Routledge. pp.4-5

²⁸ Ayn Rand was an early twentieth century philosopher, playwright, and screenwriter. Her theories are encapsulated by the term and movement of Objectivism, In outline terms they include the rejection of altruism, collectivism and state intervention in favour of a *laissez-faire* capitalism based on the primacy of individual rights. It is a set of theories centred on the notion of 'ethical egoism' – the argument that moral agents should to do what is in their own self-interest. Rand is, perhaps, best known in architecture circles for her 1943 novel, *The Fountainhead*, said to be modelled on the figure of Frank Lloyd Wright and later made into a film directed and produced by King Vidor in 1949. In the *Fountainhead*, Rand's theories are channeled through the figure of an architect who refuses to conform to social norms preferring an artistic and personal vision of 'architecture as art'. For an analysis of her theories see: Gladstein, Mimi Reisel. 2010. *Ayn Rand*. New York: Continuum. http://public.eblib.com/choice/publicfullrecord.aspx?p=601573. For an analysis of the *Fountainhead*, see: Mayhew, Robert. 2007. *Essays on Ayn Rand's The fountainhead*. Lanham: Lexington Books.

- ²⁹ In March 2015 Patrik Schumacher published an extensive article on his own Facebook page to call for the abolition of state-funded arts schools, defining them as "an indefensible anachronism". In Schumacher's argument a distinction is drawn between open ended and non-product based art courses, and those that more readily feed directly into industries such as product design and architecture. Reworking old debates on vocational and economically 'productive' education on the one hand, and more recent debates about educational funding in a climate of 'economic austerity' on the other, Schumacher is clearly offering a neo-liberal perspective. It has drawn the expected backlash and media coverage. See: Foster, Dawn. "Patrik Schumacher is wrong about scrapping arts funding". The Architectural review, London. 4 March 2015; "Stop all Public Funding for Arts Schools says Patrik Schumacher". Deezeen Magazine. 25 March, 2015. http://www.dezeen.com/2015/02/25/stop-public-funding-arts-schools-patrik-schumacher-facebook/
- 30 Post-Criticality as a defined position was initially outlined in the 1950s by Michael Polanyi. Proposing that the 'critical' or 'distanced objective stance' of philosophical thought was fundamentally flawed and, ultimately impossible, it echoed aspects of the theories coming through the phenomenological writings of Husserl and Merleau-Ponty. More importantly, in the context of its architectural application, it proposes a foregrounding of a methodological stance and concomitant mindset open to personal presence, empathy, and sensual engagement with our objects of study. Manifesting itself in architectural theory in the early 2000s, through related but distant frameworks, it has been associated with the writings of Michael Speaks, Robert Somol and Sarah Whiting, amongst others. In Notes around the Doppler Effect and Other Moods of Modernism, Robert Somol and Sarah Whiting suggest that 'criticality' has become formulaic and needs to be replaced by a less prescriptive approach to thinking that embraces a more 'thinking by doing' approach requiring an 'adaptive synthesis of architecture's many contingencies'. They define their more extensive description of this approach as 'projective'. See: Somol, Robert and Whiting, Sarah. "Notes around the Doppler Effect and Other Moods of Modernism". Perspecta, Vol. 33, Mining Autonomy. The MIT Press, 2002. pp. 72-77. In a paper that appeared in Architectural Record in June 2005, Michael Speaks, suggested that theory, and by extension 'criticality' restricted the innovative potential of students by separating thinking from doing. He argued that in the post-theoretical world of the early 21st century, architectural theory had to 'give way to pragmatic frameworks capable of engaging' rather than remaining distant from the world. Framing his arguments specifically in the context of a changed world of work and a new set of intellectual and practical skills required by students to 'get a job', he most clearly presents post-criticality in the potentially neo-liberal guise indicated here by Peggy Deamer. See: Speaks, Michael. "After Theory". Architectural Record. Vol.193 no.6 June 2005 / p.72-75.

³¹ Sylvia Lavin is a professor at University of California Los Angeles, an author critic and curator. Her written works include *Form Follows Libido: Architecture and Richard Neutra in a Psychoanalytic Culture*, 2005; and *Kissing Architecture* which, reflecting the arguments of Peggy Deamer here, she describes as "initiating readers into the guilty pleasures of architecture that abandons the narrow focus on function". In *Kissing Architecture* Lavin suggests she "looks at recent work by Pipilotti Rist, Doug Aitken, the firm Diller Scofidio + Renfro, and others who choose to embrace the viewer in powerful affects and visual and sensory atmospheres". See: http://press.princeton.edu/titles/9429.html. See also: Lavin, Sylvia. 2011. *Kissing architecture*. Princeton, N.J.: Princeton University Press; Lavin, Sylvia. 2004. *Form follows libido: architecture and Richard Neutra in a psychoanalytic culture*. Cambridge, Mass: MIT Press.

³² In 2014, SHoP was unofficially named by Andrew Rice of *Fast Company Magazine* as 'the most Innovative Architecture Firm in the World'. He describes SHoP as "a small group with big ambitions: redesigning the New York City skyline". What makes them 'innovative' for Rice is their design and production approach and their 'favouring of equity participation arrangements

over fees'. See: Rice, Andrew. "A Band of Seven is Drafting a Different Architecture Firm—One that Values More Than Fancy Blueprints or Lucrative Scut Work". Fast Company Magazine. 10th February 2014. http://www.fastcompany.com/most-innovative-companies/2014/shop-architects. The blurring of architecture with property development that this approach to fees represents is one of the characteristics of SHoP as a new 'entrepreneurial' endeavour highlighted by Deborah Grossberg who discussed the increasing trend of architects taking on the dual role of designer and developer with Shop a decade ago. See: Grossberg, Deborah. "Architects Turned Developers". The Architect's Newspaper. New York. 27 July 2005. http://archpaper.com/news/articles.asp?id=127#.VQOCbdLF-So

This consideration of alternative modes of practice in architecture and its relation to education has been covered in a limited number of essays and books in recent years. See, by way of example: Awan, Nishat, Tatjana Schneider, and Jeremy Till. 2011. *Spatial agency: other ways of doing architecture*. Abingdon, Oxon: Routledge; Jia, Yunyan and Kvan, Thomas. "Students' learning styles and their correlation with performance in architectural design studio". *Design Studies*. Volume 26, Issue 1, January 2005, pp 19–34;

The humanist reading of Marx mentioned here was rejected by Louis Althusser for whom the distinction between Marx's early and later writings is fundamental. What Althusser defines as the 'epistemological break' in Marx's thought is of such significance that the earlier works and humanist readings thereof need to be considered as secondary at best and, at worst, as distracting attention from the more significant later work less concerned with the human subject and more focused on questions of epistemology and thus, abstract theory. However, the humanist reading of Marx is deep rooted and is at the heart of an entire branch of Marxist thought revolving around his earliest works and, in particular, his theory of alienation. Prominent amongst scholars in this lineage are Teodor Shanin and Raya Dunayevskaya: see: Shanin, Teodor. 1983. *Late Marx and the Russian road: Marx and "the peripheries of capitalism"*. London: Routledge & Kegan Paul; Dunayevskaya, Raya. 1992. *The Marxist-Humanist theory of state-capitalism: selected writings*. Chicago: News and Letters. For these theorists, and in line with Peggy Deamer's comments here, issues of political economy merge with philosophy and human psychology.