

Meaning in Architecture, now. A debate

Original

Meaning in Architecture, now. A debate / Deregibus, Carlo; Epstein Jones, Dora; Jolliffe, Eleanor; Lindsay, Georgia; Okabe, Akiko; Nyakato Tumubweinee, Philippa. - In: PHILOSOPHY KITCHEN. - ISSN 2385-1945. - ELETTRONICO. - 21:(2024), pp. 19-56.

Availability:

This version is available at: 11583/2995943 since: 2025-01-23T13:31:58Z

Publisher:

Università degli Studi di Torino

Published

DOI:

Terms of use:

This article is made available under terms and conditions as specified in the corresponding bibliographic description in the repository

Publisher copyright

(Article begins on next page)

Meaning in Architecture, now. A debate*

Carlo Deregibus

Architect and PhD in Architecture and Building Design, is an Assistant Professor of Architectural and Urban Design at Politecnico di Torino, and the design manager of the Masterplan Team – the atheneum’s strategic design division. He has won the VI International Hangai Prize for Young Researchers and, in 2018, his firm, “Bottega di Architettura”, was prized among the ten best emerging architectural practices in Italy.

carlo.deregibus@polito.it

Dora Epstein Jones

PhD, is an architectural theorist, and a dedicated educator. She has published in Log, Arch’it, ArcCa and the ACSA, edited for Morphosis and Thom Mayne and written essays for publications by J,P:A, Possible Mediums, Office dA, SCI-Arc’s OnRamp and various group publications. She has been a long-time collaborator with Jones, Partners: Architecture, and has curated a number of exhibitions of art practices by architects.

dora.epstein@austin.utexas.edu

Georgia Lindsay

PhD, is a Senior Lecturer in Architecture and Design at the University of Tasmania and co-leader of the Mediated Constructions lab. She has published books on the user perspective on art museums, the architecture of art museums, and social responses to space, and is currently completing a book about architecture, tourism, and media. She also has experience consulting with building owners on how people respond to design.

georgia.lindsay@utas.edu.au

Eleanor Jolliffe

Architect and writer. She’s an Associate at Allies and Morrison and the 2023 Rome Scholar in Architecture at The British School at Rome. She has a regular column in Building Design with further published work in Architects’ Journal, Architectural Review, Dezeen, Unherd and with the Saturated Space research group, and was lead author of “Architect; The Evolving Story of a Profession”, published in 2023.

eleanormjolliffe@gmail.com

Akiko Okabe

Architect, PhD and Professor at the University of Tokyo. She has practiced at Arata Isozaki & Associates in Barcelona. She copes with global environmental issues, working with residents of informal neighbourhoods in developing countries, and with the meaning of regenerative architecture, practicing with students in Gonjira, a thatched roof farmhouse in Tateyama, Japan.

aokab@k.u-tokyo.ac.jp

Philippa Nyakato Tumubweinee

Associate Professor at the University of Cape Town (UCT), the convenor of the first year in the Bachelor of Architectural Studies at UCT, researcher at the African Centre for Cities (ACC), the Curator and strategic support for the UCT University of the Futures Project, and a practicing architect at Stewart & Partners (S&P) based in Cape Town.

philippa.tumubweinee@uct.ac.za

More than fifty years have passed since the publication of “Meaning in Architecture”, yet the debate on the issue of meaning in architecture continues to evolve and engage the architectural community, even if in subtler, less apparent ways than in the past.

Five questions. Five women. Five places. Five sensitivities. Five visions of architecture. This debate looks at the most critical emerging architectural trends, using the peculiar multivalence of meaning to discuss its architectural nature in a rich discussion involving various architects and scholars in five parallel interviews. Delving into the independence (or not) of architecture, the relevance (or not) of the process, the confrontation between shapes and uses, the economic dimension of design and the rise of AI, the debate aims to give a multifaceted interpretation of meanings, or rather, to explore how architectural design is evolving, and why. The answers were blind and even unknown to each other, so to better highlight the different approaches and ideas: to the reader the possibility of side-reading them and adhering to one, all or even none, postulating a distinct personal position.

* The introduction, the questions and the conclusion are by Carlo Deregibus. Answers and comments are by the credited authors.

– MEANING IN ARCHITECTURE
– ARCHITECTURAL DESIGN
– DESIGN-FOR-ALL

– ANY
– DESIGN PROCESS
– FORMALISM

– AI



Always again

The one thing we can safely say about *meaning in architecture* is that no one honestly knows what meaning means, or rather, each refers to meaning by meaning different things. ^{GL} That was, in fact, the programmatic premise of the book edited by Charles Jencks and George Baird, a “veritable Tower of Babel” (Bletter 1971) where the meaning of meaning continuously shifted. Partly, this vagueness comes from the apparent confrontation with the emerging philosophical dimension of meaning: for example, architects rarely master the difference between semiology (after Ferdinand de Saussure) and semiotics (after Charles Sanders Peirce and then Charles William Morris) – even Jencks and Baird were likely on opposite parts on that – nor can discern the meticulous definitions by Charles Kay Ogden and Armstrong Richards that Jencks seemed to love. Partly, it is the result of the misuse of technical terms and common language, where meaning can alternatively be akin to “reason”, “sense”, “value”, or “trace”: architects are used to explain the reasons for their proposals, and the whole debate between modernism and post-modernism can be defined using these terms. The combined result of those two factors,

^{GL} GEORGIA LINDSAY
Thinking back at Sarah Robinson’s essay [see the paper at the end of Part 1], I think this same problem applies to the meaning of ecological architecture – and certainly to the term “sustainability”, as described by Guy and Farmer nearly two decades ago (Guy & Farmer 2001).

indulging the rhetorical tendency of architects, led to fantastic results, produced a decade of debates and, even more importantly, redefined the language of architecture both in theory – with new use of figures of speech as a tool for analysing design methods and an extensive application of language rules – and in practice – with more and more designer eager to fill their proposal with symbolism and metaphors devoid of any political or ethical afflatus.

Far from arriving at convergence, the discussion on meaning spread uncontrolled, involving philosophers, historians, and critics, ending with being rejected and criticised. Up to the point that, even if the book by Jencks is considered a classic (Broadbent 1977; Nesbitt 1996; Hays 1998; Mallgrave 2005; Schumacher 2012. Cfr. Martin 2002; Steen 2015), this inconclusive character always emerges (Eisenman 1970; Bletter 1971; Hays 2010; Mallgrave & Goodman 2011; Heynen & Wright 2012). Indeed, strange would be the opposite, as Jencks and Baird «have consciously sought out views which contradict our own and each of the others» (Jencks 1969a, 7). The inescapable freedom granted to anyone – to attribute meanings at preference – joined with the fallacy of architectural position after modernism – made it possible to ascribe to everything, whether it was a chair, an entrance or a plan, supposed or real meanings as deep as obscure. But at the same time, this radical ambiguity (Dorfles 1984) or multivalence (Jencks 1969b) made it impossible to derive a veritable and reliable design method from those reasonings. In other words, paraphrasing the famous quote by Rafael Moneo,

a discomfoting thought arises: was it not perhaps at the very point when the idea of *meaning* became clearly articulated in architectural theory [...] that the reality of its existence, its traditional operation in history, became finally impossible? Did not the historical awareness of the fact of *meaning* in architectural theory forever bar the unity of its practice? Or to put it another way, is not the theoretical recognition of a fact the symptom of its loss? Hence the extreme difficulty of applying the concept of *meaning* to current architecture, in spite of our awareness of its value in explaining a historical tradition. (Moneo 1978, 40. The substitution of *type* with *meaning* is mine)

Not casually, the concepts of type and meaning share another feature. They both rely on the past. The present understanding is described as the natural evolution of history, with a positivist allusion to the construction of values and a romantic blindness toward all that has gone wrong in the past. Moreover, two critical elements vanish when shifting toward the design issue (how to apply this new knowledge in new projects): the time needed for meaning to emerge and the absence of authors. In fact, collective values and meanings are visible only when looking from a distance (a typical and exquisite example of the system's theory), while the designer is *within* the system of the project and, hence, cannot control the emergence of meanings. Therefore, those glorious years faded away, and the discourse on meaning knew a quick consumption (Agest & Gandelonas 1973).

Nevertheless, always again, we design.

Hence, we continue producing architectural meaning, or rather, occasions for meanings in architecture, whether we want it or not, continuously entering and exiting the realm of meaning while quite ignoring it.

Places are collectors of memories and meanings: it was clear since Riegl's distinction between commemorative values and contemporary ones (see Burgos Vargas & Mora Alonso-Muñoyerro 2022), but a long series of studies have made it clear that this signification concerns not only monuments and intentionally connoted buildings, but any urban place, and that meanings rise, change and fall in a continuous, even unexpected and unpredictable way (Boyer 1994, Massey 1994, Alderman *et al.* 2004, Crinson 2005). In the past, some emerging meanings (e.g., hygiene, safety, housing) led to immense changes in old cities. What is perhaps less obvious is that those potent meanings then transformed into a series of uncoordinated, hyper-specialistic and over-powering (albeit well-intentioned) norms: a system of constraints so strong that all emerging collective meaning (e.g., sustainability, inclusivity, soft mobility) struggle to change spaces anymore, other than uses (Gaffikin & Sterrett 2006; Lemp *et al.* 2008). At a practical level, quite all designers have to deal with this system: the possible exception is the work of many architects, who appear to have the power to claim derogations from norms.

Does architecture consist of combining all these less evident but performative meanings, or rather, does it happen despite them?

Dora Epstein Jones

I would argue that architecture happens *because of them* – and what I mean by this, is my very firm belief that architecture owes much of its nature as architecture to *constraints*. ^(GL) Think of any great historic architecture, say *Notre-Dame de Chartres* or the Bernini Piazza of the Vatican, and try to imagine it without the burdens of its symbolic functions, or the liturgical functions, or the shaping of the city and the relation to the perspective of the mobile viewer, or even the availability of materials and craftspeople. What we see in these historic examples is that the constraints, while onerous, might develop a type, but they do not develop a single *a priori* architectural answer. And, further, among architectural answers, let's say that we compare the many Notre-Dames in France, we can create a culture of judgment about their goodness. So, I think at the heart of your question is really a question of how we can make good places when the multiple criterium is so difficult to manage. In more contemporary architectures, we might tie constraints to many of the performative qualities that you are describing, of course, and you're right, those can be both hyper-specific and weirdly populist (a green roof should be the color green,

^(GL) GEORGIA LINDSAY
I agree entirely! I had this exact point in my answer to question II, but eventually took it out because of space constraints (ha).

DORA EPSTEIN JONES
:D

Eleanor Jolliffe

To ask if architecture is formed from collective meaning, or happens in spite of it is to presuppose that architecture is a known value. In order to answer this, we need to be sure of the definition of "architecture". At what point does building, or city planning become architecture? If I were an academic, I could propound a theory backed up by multiple footnotes. I am not though. As a practising architect I suppose that technically the buildings I work on constitute architecture. However, on a day-to-day basis when coordinating ductwork or answering queries on site I don't feel like I am contributing to the "art" of architecture: I am a construction professional providing a necessary service. The point at which this pragmatic service transcends to "architecture" is uncertain and arguably subjective. ^(CD) Perhaps though, this is where we find architecture – the moment at which the pragmatic and the picturesque meet – at which the artist and the professional are held in balance.

With that in mind architecture cannot happen without the prevailing


^(CD) CARLO DEREGIBUS
I agree, and I think that most people forget this difference. On the other hand, it is true that many architects nowadays design in what Juhani Pallasmaa (1996) called a "retinal" way, trying to using the motives of trending architecture. Only, in this sense, the problem seems to be more moral than real...

Georgia Lindsay

Meaning-making and space-making are often conflated, so it is important to disambiguate what each is. The first of these is about the rise and fall of our understanding of how people use and think about space, about who and what behaviours are welcome where. The second is about insertions, about the creation of buildings which are at first imbued primarily with the meanings that architects have given them, but quickly shift as uses and practices create collective and individual meanings for the people who use them.

Architects make form and space, and in one sense, architects can only respond to the known meanings at the time of the design. However, occasionally architecture can propose new meanings. Star architecture is interesting to think about precisely because it is given a pass on some norms and thus is allowed to make new meanings and propose new uses of spaces. This is largely related to the exceptional resources devoted to these buildings, although the causal direction of this relationship is not always stable: sometimes the necessary capital gets raised because of the norm-breaking nature of the architecture, while other times the funding available allows architects to break norms. For example, the board of the Denver Art Museum was able to raise additional funds for their new building once Daniel Libeskind unveiled and passionately presented a model for the building, a model which revealed new ideas about form and public space (Lindsay, 2013).


Akiko Okabe

For more than 10 years, I have been practicing architecture with students in urban “informal” areas, so-called slums, in developing countries. We have proposed and erected common spaces for a local community. It has been a must that the main members of the team live together with the community in the field. This is to reach the root of the unconscious needs of the dwellers, rather than just taking their words literally. 

Initially, we started with the image of improving the environment, or “giving” something. On the contrary, however, we asked ourselves a lot about what architecture is and what “meaning in architecture” is.

Indeed, if the world we live in is defined by a larger and larger system created by humans, then there is less and less room for meaning to be entrusted to architecture by architects, and architectural works may be atrophying.

Society’s priority on values that architecture is judged by has shifted from explicit ideologies to social

 **CARLO DEREGIBUS**
I completely agree. Too often, present meanings are so given for granted that people (and architect) struggle to understand how infinite is the unknown and the possible (Deregibus 2021). This is why I doubt many contemporary participatory practices, while I advocate a co-design approach able not to answer to apparent issues, but to open the potential (see Eleanor Jolliffe answer).

Philippa Tumubweinee

To question whether architecture successfully commemorates or reflects the meanings derived from memories of place, we must study the origins of the practice that brings the architecture into being. Its origins are in practice. By practice I refer to that process of thinking that comes from the complex process of conceptual negotiations. Practice in architecture is a long-term commitment to understanding multifaceted issues as they manifest, and the negotiations that must be made between diverse constituents. It is in these negotiations that the architecture can solve programmatic and technical problems within the aesthetics of creative endeavors, in a manner that is representative of past, present, and future socio-cultural and sometimes political sensibilities.

When practice sets out to discover or construct relationships between the different and differentiated fields in which a society identifies and classifies itself, it moves architecture beyond the performative towards «the inextricable relationship between material forces, social processes and the production of knowledge» (Aronowitz 2012, 3). In its manifestation as architecture, practice can acknowledge the past, respond to the present, and speculate about an imagined future. This form of practice that produces architecture is part of a practical relationship between various factors that express material, social-cultural, and conceptual relationships that can commemorate and

DEJ

for example), but I think that we need to weigh the sources of judgment more critically and more carefully if we want to see progress on the fronts that your question concerns itself with. Judgment, following Kant's *Critique of Judgment*, but a little Bourdieu as well (Bourdieu 1979), and definitely Erving Goffman (1959), can be bound by norms, and most often, it is. The same judgment that can be practiced by the architect to wrest from constraints the value of powerful aesthetics and meaningful spaces, is all too often the judgment that tampers creativity, whether from the architect themselves or from a client or from a critic or from popular opinion. This is why I passionately advocate for an architectural discipline. In the Classicist past, the discipline provided means of judgment that were geometric, proportional, axial, and Humanist. Then, as the discipline moved and changed, the rubrics for judgment have also changed, for example, the judgments imposed by modernist dictums of parts, assemblies, organization, and ideology. The last time we, in architecture, enunciated new judgment rubrics was with postmodernism, and as such, were more reactionary in tone – different, challenging, heterogeneous, non-normative. I have argued that where we are today in architecture is “late postmodernity” (Epstein Jones 2024), and what I mean is that the values for difference in architecture have not changed much, and this is why we think mostly in terms of architects who seemingly have freedom (a Thom Mayne or a Frank Gehry) versus the absolute majority of architects who are CAD stamping floor plans or doing door schedules in large firms. ^(CD) So, I think that the discipline needs to embrace a new set of judgment rubrics, and I do think that “ecological” must be one, but perhaps also “artful” or better “culturally significant”. And, the fact is, yes, it's a frustrating moment in many ways because there just aren't the opportunities that even my generation had, and frankly also because architecture is becoming heavily monopolized by giant firms. Furthermore, we are frustrated more and more these days by a sort of populist merger of neocon and neoliberal sentiments that control our work through financial success. But, I think

^(CD) CARLO DEREGIBUS

I love the concept of architecture happening because of constraints. I always recall Luigi Pareyson and his “theory of formativity”, where art (and architecture) makes its own rules all during its development, finding its success if and when it becomes necessary. I would also say that an architect, being within the system of constraints, must be able to turn his design moves into constraints, as well as other ones, so as to enter a “game of forms” where the success is precisely

EJ

“meanings” in a city. We can post-rationalise the motives, or the outcomes – but that is mostly for historians and academics. The primary work of the architect is to effect meaningful and beneficial change; but this is usually driven around a brief. Few architects have the luxury of primarily creating “architecture”; instead we are designing and building a new school, or a block of flats, or an urban masterplan. ^(GL) That this becomes architecture is the skill perhaps of the individual architect, or the post-rationalising of those whose role it is to classify buildings. It is certain though that in order to have “architecture” you must have some elements of human design and construction. A beautiful drawing of a building is not architecture, this is art.

All building projects though happen in a specific and unique context. No building can be built in a floating void. This context, let us call it a site, has its physical constraints (site boundaries and transport/ utility infrastructure); its legal constraints (local laws and building regulations); and its cultural context. ^(DEJ) This last is less immediately obvious to deduce. Here though is where we find the role of the collective meaning of a site, and, perhaps, the potential for its architecture. ^(CD)

The cultural context of a site could be pragmatic – a community in desperate need of better sanitation – or it could be driven by the context of historic buildings around it. Even less tangibly it can be driven by the community local to the site, the meaning given to the site by their experiences and the rhythm of their lives. It is in this space that we may find masterplans driven by a “desire line” walked across the site by hundreds of feet on their daily commute, or a reference in

^(GL) GEORGIA LINDSAY

And to return to your previous paragraph, perhaps it is in the elegant balance between the pragmatics of that school, those flats, the details needed to make a masterplan work and some artistic vision, locally-held meaning, or cultural norm that the architecture emerges.

ELEANOR JOLLIFFE

Very true! Thank you!

^(DEJ) DORA EPSTEIN JONES

I love this whole sentence and I will quote it in my classes.

^(CD) CARLO DEREGIBUS

I'm particularly fond of the concept of potential, as described by Jullien (2004), because the strategic dimension of architectural design emerges – in the sense that the potential can be revealed only through a design action (Deregibus 2020). In connection with the answer given by Dora Epstein Jones, we could say that the potential comes from the constraints (Deregibus & Giustiniano 2021).

Regardless, and the valorisation of creative destruction notwithstanding (e.g., Koolhaas, 1978; Page, 2001), a rapid change of space and form in response to changing meanings is not really something that is socially desirable. War, natural disaster, neglect, policies of coercion...these are the forces that allow for rapid changes to space, for architecture to step in with responses to new meanings. Many of the changes wrought in previous centuries to old cities were possible because of political or social norms that made rapid and un-consultative change possible. Haussmann remade Paris for Napoleon III, redefining a medieval population centre as a modern metropolis only by displacing the poor and recently re-disenfranchised people who lived in the oldest parts of the city (Ching et al., 2017, p. 675). More recently, urban renewal fundamentally changed the shape of many American cities. It could be said that this was in response to the changing meaning of the central areas of cities, from places of home to places of commerce; or to racist policies and generations of dis-investment; or to the relentless pressure of capitalist desire for land. Regardless, the policy has since been amended to require slower changes to the city precisely because those "renewal" projects of fifty years ago were so disastrous for so many people who had valued the use value of their homes over the exchange value of the land they sat upon (Logan & Molotch, 1987). ^(EJ)

Now Haussmann's Parisian boulevards host, among many other things, the triumphant final stage of a world-famous bicycle race through France, a use neither intended nor anticipated by the designer. And the meaning of big-block commercial buildings created in downtowns throughout the United States has quite recently changed rapidly in response to the global pandemic, as the very air we breathe became suspect and the location of much more white-collar work shifted away from the office (Casselman et al., 2024). Architecture happens neither because of or despite the use or meaning granted to space, but is one component among many that shape, colour, encourage, and regulate the complexity of the human condition. ^(CD)

^(EJ) ELEANOR JOLLIFFE
I agree and similarly post WWII planning moves in many UK cities made bold changes to cities that have not stood the test of time, and are being slowly unpicked by the present generation of urban designers.

^(CD) CARLO DEREGIBUS
However, architecture may or may not enhance the possibility of change, being open or not to further uses and variations. In this sense, star architecture seems to be the most bound to the

justice and political correctness, which are difficult to link directly to architectural form. Also, regulations and guidelines have become more sophisticated. Furthermore, data sciences have become more technologically advanced. Thus, the discretion of architects has become more narrowly defined, and it could be said that the meaning in architecture is in crisis.

On the other hand, informal areas don't depend on a man-made established system. Informal areas are, essentially, to be included by the current formal system, and their very existence is ignored in it.

Legal regulations are absent, and basically, the built environment naturally emerges from people's living necessities. The built environment is a result of adding hands to the ground of the earth's environment to survive. Though the built environment of informal areas can never happen without human hands, it is not a materialized result of what is planned and designed intentionally. It is an incomprehensible, meaningless, unmanageable, and uncontrollable environment for humans. It is an "impossible" world for humans. Occasionally, certain rules may happen autonomously from below. It is a modest but "possible" world grown from the ground of the impossible world.

Now, inspired by informal areas, I propose to reframe the possible/impossible world. The world with meanings for humans, that is the possible world, depends on the relation with the overwhelming impossible world. Therefore, the meaning in architecture can be a subject of reflection.

Occidental philosophers have exclusively regarded the possible world as an absolute subject of exploration and have attempted to expand it. Even when the notion of "uncertainty" has been discussed, it has been for clarifying and looking for its meaning. It was different in oriental thoughts. Okakura Kakuzō described the spirit of Teatism based on the relational concepts of impossible and possible: «[Teatism] is essentially a worship of the Imperfect, as it is a tender attempt to accomplish something possible in this impossible thing we know as life» (Okakura 1906). Also, the idea of Daoism by Laozi, frequently cited from the environmental approach, to harmonize the human microcosm with the macrocosm of ecosystems (Callicott 1994), stands on the premise that the latter is an impossible cosmos.

If we adopt this relational framework of possible/impossible, the admiration towards the imperfectness and the impossible world as a ground where humans are embedded is a precondition that humans can create a small but possible world where we can give meanings to both tangible and intangible things. If we feel that

reflect on the specificities of history, traditions, customs, representations, and self-identifications (Friedman 1992).

Architectural practice, more than architecture itself, is where one can intelligently respond to the ever-evolving rituals of a gloriously disorderly affair of humanity in a localised context (Selasi 2014), reflecting the characteristics of society back to itself. ^(DEJ) ^(CD)

This view of architecture as a derivative of practice allows for its transformation from artefact into a process, and a system that can be applied in diverse conditions in a world with intertwined and superimposed rules and values. In this form, architecture can incorporate «the actions of subjects both individual and collective» (Lefebvre 1991, 33). Architecture emerges as something that is symbolic of the realities and opportunities in the objective and subjective understanding of a society. In this form, architecture is a mechanism from which to attach value to the way "we" locate ourselves and our experiences of being in a place. And from this meaning derives.

When architecture embodies the socialites, aspirations, ambitions, and aesthetics of people, it captures and makes visible the specificities of place. It does so in the way it allows for the performance of everyday rituals that portray to us, who we are, where we are. If we understand that the "we" in the "who we are, where we are" commits any number of individuals into what we understand as our society, then "we", as a collective humanity, can determine if architecture, the material manifestation of place, is meaningful.

^(DEJ) DORA EPSTEIN JONES
I love this thought, as in I think its accurate and somehow also poetic. Framing practice in this way also allows for error and chance. Thom Mayne speaks of "chance" often in his works on Combinatory Urbanism, and I think his work aligns with the thought expressed here. We are ever really done, are we? There's always feedback.

^(CD) CARLO DEREGIBUS
I agree with the distinction. Even if it is not obvious to require to architects such a monstrous moral commitment: most often, architects will be paid (not so much) to design a building, following requirements more or less clear. Curiously, even if quite all scholars and architects stress on this potentiality of architectural design, the world does not seem too convinced to give architects the occasion "to respond". I think we should ask ourselves why, and the last Century's history is, for me, a clear answer.

DEJ

sublimating constraints and building a system of architecture...(Deregibus & Giustiniano 2020).

ELEANOR JOLLIFFE

While I agree with your comment, I think it academicizes the reality of architectural practice a bit too much. Sometimes a specification isn't architecture or a constraint as such – but it is vital to the process of making architecture. There's an element of needing to keep our feet on the ground!

DORA EPSTEIN JONES

Eleanor, yes, to your point. In fact, I find building within codes or the regulatory environment to be the most direct example of using constraints to locate the opportunities and often the (c)leveraging of design. In the academic worlds of our discipline, constraints help us to recognize meaning, to attach signifiers to the "game of forms" (beautifully said!). I would say that all of these contexts are the grounds of our practices however.

CARLO DEREGIBUS

I agree: so many things have direct or indirect effects on architecture!

we need to shift OUR understanding to see how OUR judgment can determine what we want architecture to be in the world. We need to do this in schools of architecture, and on competition juries, and in awards, anywhere where judgment is the call to duty. I know this is possible not just because I can look through the lens of history. It's possible because there are quite a few new projects in the world that I think exemplify new judgment criteria – such as those exposed in the second *Sharjah Architecture Triennial* (curated by Tosin Ohsinowo and entitled *The Beauty of Impermanence: An Architecture of Adaptability*), Vo Trong Nghia's *Urban Farming Office*, or Jimenez Lai's disuse sculpture (*Outcasts from the Underground*) at *Art Omi Sculpture & Architecture Park* – and from work such as this, I think we can break out of the dilemmas that you describe. Ultimately, it's a call to a new goodness.

EJ

the cladding patterns or building form to the history of the people groups who have gone before.

A building which responds to its physical and legal constraints alone may struggle to become "architecture". There must, I believe, be the sense of something more: architecture generates a response in the human soul – it "strikes a chord". The note struck may be discordant – our reaction is driven by personal taste – but it is struck nonetheless. Without the influence of culture, of "collective meanings" it would be all but impossible to strike this chord.

Marc Augé describes the theories of "place" and "non-place". "Places" are imbued with meaning. "Non-places" are divested of meaning. I would not argue that all architecture is imbued with meaning; an airport could be architecture and yet still not a "place". However, the way in which the airport is designed and constructed must be imbued with a sense of meaning, a sense of "place", in order for it to become architecture. For, if architecture happens at the crossroads of the pragmatic and the picturesque, this collective meaning is crucial. Without it we just have buildings.

GL

meaning desired by the architect. The *Denver Art Museum* is quite an example, like the *Gilder Center*, which Sarah Robinson described in her paper.

GEORGIA LINDSAY

In my research on the Denver Art Museum, I found a plurality of meanings ascribed to the building, some of which were intended by the architect, and some of which were a result of the form but not necessarily intended by the architect... happy accidents, perhaps. What I have found in my research is that the spectacularity of star architecture projects leaves them open to a variety of meanings granted by the community (see for example Lindsay & Sawyer 2022a).

AO

architecture has transformed into a mere combination of less evident and performative meanings, it can be warning evidence that the man-made possible world is becoming impossible.

CD

PT

CD CARLO DEREGIBUS
So inspiring, thanks!

Place-making practices were born precisely to help architects understand the actual effects of their design actions, reducing the misunderstanding of hidden or less apparent meanings and, at the same time, involving communities in lending significance to new or renewed spaces (Duconseille & Saner 2020; Cilliers & Timmermans 2014). Participatory policies and co-designing practices are now so diffused and politically correct that rarely they are discussed. However, considering how variable meanings are and the much-increased mobility of people, it seems complicated even to recognise communities: or rather, design acts in a multiple memory system, and that is why perceived meanings, in any case, shift from the intentioned ones, with the paradoxical effect for projects to be both meaningful and meaningless (Toth & Hunt 1999; Green 1999). On the opposite side, many architects – especially the so-called starchitects – promote their last project with visual metaphors and symbolisms (e.g., Frank Gehry’s iceberg headquarters for Warner Bros, Jean Nouvel’s *Desert Rose*, Herzog & De Meuron’s *Bird’s Nest*): an aesthetic approach that seems to ignore any process of co-signification.

Therefore, does architecture come from the process, thus having a political dimension (Bojanić 2022), or rather, is it a matter of pure form which the process could at most legitimate?

Dora Epstein Jones

Wow, what a question – it hits the nail hard, and will also give me a chance to talk about place, which I mostly adverted in the first question.

Place is nothing without signification. Signification plus space equals place. Just like building plus judgment equals architecture. Simplistic, I know, and maybe completely wrong – but let me continue. When we speak of place, what we really are referring to is a fairly late 20th century idea, whether that’s Spiro Kostof (1991) or Norberg-Schulz (1976) or almost any environmental psychology text. And, of course, a LOT of money depends on a definition of place, as a way of, well, guaranteeing the gathering of peoples. Some places are far more agnostic to people gathering – a historic artifact such as the Colosseum or the Forum, a mountaintop, a great spot to watch the ocean or the Northern Lights, or a watering hole in the desert. But, the places we speak of when we architects talk about place, well, that’s more of a means to create aesthetically and spatially a sense of authentic (or authentically felt) phenomena, in spite of modern culture’s tendency to flatten human experience, in order to what, commoditize it, whether through direct exchange or tourism, OR, and this is the fun part, to create monstrous visual affect. Of course, we now live in a post-virtual era – we can gather and/or commoditize any space, even if it’s not material or physical. And, we can turn almost any space into a place for political exchange,

Eleanor Jolliffe

In the earlier answer I defined architecture as “the moment at which the pragmatic and the picturesque meet – at which the artist and the professional are held in balance”. As such the briefest answer to this question *must* be that architecture is formed by the balance of collaborative placemaking and skilfully applied form.

For example, Zaha Hadid’s MAXXI in Rome is not, in my opinion, architecture. It is a sublime sculpture, but it is not a good art gallery. Here the sculptural form created by the artist has taken precedence over the practicality of exhibition design, efficient circulation or comfortable user experience. I have visited twice now, and spoken with curators who described their “fight” with the building in order to display art. It is the only building I have ever entered that made me feel physically disoriented and dizzy. It is a fantastically interesting exploration of the effects of space, of the historic links of the site to railways, and of the nature of form. It is not architecture though, as it does not effectively fulfil its function. Were this beautiful and intriguing space to have been designed in more effective collaboration with those who wish to display and view art within its walls, then, only then, would it have become architecture. As it is, the MAXXI is simply sculpture. ^{CD}

^{CD} CARLO DEREGIBUS

I can’t agree. I was so critical about MAXXI before visiting there, but after spending more than a day there, I’ve surprisingly changed my mind. I

Georgia Lindsay

All architecture is political. For a building to be built, it requires the input of massive human and material resources, resources that must be invested up front, before anyone can use the building and before any return on the investment can be made. It is this investment of labour, capital, and material that makes architecture political, not participatory or co-design processes (see Brott 2019; Sklair 2005, for examples of discussion of the subservience of architecture to capital, although these are hardly the only two scholars to make this point). ^{CD}

Architecture can never be pure form. Exercises in pure form do not yield buildings, they yield sculptures; buildings hold people, plants, objects, animals, and institutions, all with their own needs, desires, restrictions, limitations, and shifting understandings of meaning, to take an object-oriented and bio-inclusive ontological approach (see Lindsay 2016, the concluding chapter, for a discussion of how this works in the museum context). Architecture as a discipline and in practice must necessarily bow to practicality and shared meanings. Star architects might promote their buildings with visual metaphors – or sometimes

^{CD} CARLO DEREGIBUS
I completely agree. And I think that the same works for many practices other than architectural ones.

GEORGIA LINDSAY
Yes, for sure!

Akiko Okabe

According to Nicolaas John Habraken, «It is us [professionals] who must participate. Humanity has done without us for a long time and would, we can be sure, survive and continue to build if we were to disappear overnight» (Habraken 1986). If so, without the process of participation, there would be no space for architects who design architecture as professionals. I will try to consider the process of participation, adopting the framework of impossible and possible worlds, as proposed in answer to the previous question.

People have built vernacular houses in Japan called *minkas* as living spaces, using locally available materials and working together as a community. Over the years, materials and forms have become fixed to those suitable for the local environment, forming an identity. ⁱ@Shinohara Kazuo, a Japanese architect, whose housing works have been appreciated in architectural history, said that «*minkas* are fungi» (Shinohara 1970). A *minka* is a building that is created outside of people's consciousness, and it adapts to the climate there – temperature, humidity, wind, and seasonal variations – just as different fungi or moulds grow under different conditions, so a *minka* takes root and grows in the earth. A *minka* is a physical environment that would not be possible without human hands, but the way it arises and disappears is a natural phenomenon, and it is a building of the impossible world where

Philippa Tumubweinee

In the context from which I write, the Global South, for the most part architecture is political. And by political, I mean that the built environment has the arduous task of negotiating a problematic past, a precarious present, and an uncertain future. ^{GL} The built environment must do so if the resultant architecture is expected to deliver on aspirations of the urbanites that live out their lives in an emergent urban form, a condition that dominates the majority of the developing Global South. This means that the design process must allow for and identify points of entry and exit within it for the possibilities embedded in shifting conditions of an urban landscape. One of the ways that this can be made possible is through participatory and co-design practices. The process of participatory and co-design practice, in this instance, is used to generate knowledge about a place and bring to light its «multi-faceted and multi-voiced realities» (Markova *et al.* 2007, 17). It is not intended to dictate and/or to orientate the architectural design process and the resultant aesthetic or form; it should be inclusionary across scales. To position architecture as relevant in the tensions between

^{GL} GEORGIA LINDSAY
I would argue that this is true in the Global North as well – even if it is (perhaps) more obscured by easy capital and overweening confidence in a nation's position at the pinnacle of politics.

DEJ

like the *Barclay Center* in New York during the *Black Lives Matter* protests. So, to answer the first part, I doubt very sincerely whether it matters from where any contemporary place arises. It would be wonderful if place could still arise, and be designed, from the many fingers of authentic community reach, but you're correct about its pitfalls. Therefore, I am OK with place arising from non- or even contrary-signification. The *Cloud Gate* by Anish Kapoor (nick-named *Chicago Bean*) is weird and idiosyncratic, and I don't know what it has to do with Chicago, but it's undeniably a place. The *Bird's Nest* by Herzog & de Meuron or any Olympic disjunctive icon, they create places of cities to which we've never travelled. I had no interest in traveling to Bilbao 30 years ago. Sometimes, places follow.

As to the sharper edge of the question – the idea of a pure form and a process – I'm afraid that I believe in neither in its entirety. I don't know that I've ever seen a pure form because my eyes are in my head and my head is attached to my body and I itch and blink – mostly I see images, and here I do agree with John May (2019) for the image of form is also mediated. And mediation implies process. I do not mean to evade your question. I just want to be clear that I am not clear on either concept because I don't think either form nor process are clear. Everything is mediated. There is nothing outside the text. ^{GL}

But, as for the legitimation of architecture, I will continue to yell this out – architecture legitimates itself. If enough of us say the *Bird's*

^{GL} GEORGIA LINDSAY

I totally agree that everything is mediated! But I wonder if calling it all "text" is perhaps to flatten it too much. Image is such a vital part of mediation now, with the rise of social media platforms that prioritise images over text, and of course the nature of architectural drawing highlights the differences between what one says with text versus what one "says" with an image.

CARLO DEREGIBUS

I don't think that text has here a literal sense, I wonder if we could use a word like "narratives" for including all media, but at the same time this term implies even too much a desired meaning, undervaluing the emerging ones...

DORA EPSTEIN JONES

I agree, Georgia, that the term "text" seems flat, but I am trying to paraphrase Derrida badly, I suppose, in that "text" can be of any medium, and that would include image. Your point is well taken, though, as I think images are beginning to overtake text (See May 2019)

EJ

highlight two things. The first is the urban space in front of it, which is beautiful and usable, much more than, for example, Renzo Piano's City of Music nearby. The second is that this kind of museum is not strictly a "museum" in the Western sense: to me, it recalls more of a Far East museum, a place where you spend your time more than looking at pieces of art. I understand the difficulties for curators, but I would say that, in this case, the meaning of the building far surpasses the museum's function, and this is also an issue of judgment, recalling Dora Epstein Jones and Akiko Okabe's first answers.

ELEANOR JOLLIFFE

Perhaps, and I agree it's an interesting space. It still fails on its brief though which was to create a place to allow people to comfortably view art. This is a crucial failing to me, and the sort of thing that would mean I would not a practising architect for too much longer were I to practice in this way.

GEORGIA LINDSAY

I thought this about the Denver Art Museum, too (which is what I wrote my dissertation on). And what I found was that there were multiple programmatic requirements on the brief, including showing art but also making public spaces and putting Denver on the map. The building did some of these better and some worse, and some curators did not want their collections shown in the new galleries. But some curators embraced the creativity required to make art look good in the new building, and artists absolutely loved getting commissions to work within the odd angles and interesting spaces. So I think it all might be nuanced.

To take another example. In the MAXXI we see skilfully applied form, but a lack of collaborative placemaking. In this next we see collaborative placemaking but little application of form. A good factory building is superbly designed in order to affect the efficient manufacturer of its products. The ergonomics of the space have been tailored to maximise the efficiency of the workers and ensure the smooth running of the production line. This can only be done with a thorough and full understanding of how the building will be used and the needs of those who use it. It is not the most glamorous example of collaborative placemaking but it is an effective one. However, I have yet to discover a factory that could be described as "architecture". The form fits simply around the function – fulfilling needs of shelter, daylight and ventilation – but there is no moment at which the soul is lifted or the veil between here and thereafter feels thin. The factory is not architecture, it is simply well-planned functionality.

And now we come to the most difficult example, as I have led us to

visual metaphors are assigned to their buildings perhaps without their endorsement as in Norman Foster's headquarters for Swiss Re, now called the *Gherkin* – but this does not set the meaning, it just offers a shorthand, acting as a propositional placeholder until collective meanings emerge. Iconic buildings may be enigmatic signifiers (Jencks 2005), but they are also places, and the Guggenheim Museum at Bilbao building is much more than an architectural form: among other things, it is also an economic engine of tourism to Basque (Plaza 2006), and a museum space (Fraser 2006). Any building operates at a variety of scales, requiring varied levels of analysis to truly understand how they work, for whom, and under what conditions (Cranz 2011; Davis 2020; Lindsay 2013).

Process is inescapable: architecture does not get built without it. Even emphatically formal buildings, buildings named after the shape they mimic designed by international star architects known for their iconic structures, require a process. Taking the *Michael Lee-Chin Crystal*, the 2007 addition to the *Royal Ontario Museum* by Studio Daniel Libeskind as an example, the architect's website lists fourteen collaborating organizations (Studio Libeskind 2024), each of which would in turn have multiple people working on the project for multiple years. That is a process, even without the public consultation which helped legitimate the institution and foster support for the museum (not necessarily the architecture) amongst the general public (Patterson, 2012). That the process of design is rendered invisible by the shorthand of giving credit for the building to a single person or partnership who represents the face of the firm behind the winning bid does not make it any less of a process or any more devoid of political implications.

Architecture helps construct reality, both physical and symbolic, and architects add cultural authority to that construction (Jones 2009; Sawyer et al. 2023). Moreover, when architects consult with a wider constituency – true consultation, that is, not an exercise in “process” meant only to give the appearance of broader participation – they produce better, more nuanced, more useful buildings. (CD) And often learn something in the process.

(CD) CARLO DEREGIBUS

I think the point is precisely here, between the “cultural authority” and the “true” consultation. No true consultation is possible, in my opinion, without that cultural authority, in the sense that in any process, the roles of the actants must be recognized by others to make their agency effective. It is an institutional problem. In Italy, for example, this usually leads to very conservative approaches to architecture: seeing Philippa Tumubweinee's answer, I would love participative processes to work as she describes...

people cannot manage it as they wish.

It is difficult for a single individual to self-build a house, so anywhere in the world, human beings have been working together for a long time to build them. (GL) Such collaborative activities are known as *fushin* in Japan and *minga* or *minka* in Peru, Ecuador, and Bolivia. While the recent participatory processes in which many people participate create architecture in a possible world, *minka* construction is an activity outside of consciousness, in an impossible world. In the possible world, it is of course the indivisible individual who participates, but in the impossible world, it is the “hand” that participates in the collaborative activity. The hands of family members, neighbours, and other people participate, as well as the hands of the backwoods, be it wood or bamboo. The hands of the earth also participate with its soil. Thus, the bundle of hands becomes materialized as a *minka*. It is as if a magnificent fungus will grow eventually when it is lucky enough to have good conditions.

The *Meghalaya bridge* in north-western India is bridged by people hauling in vines of trees from both banks of the river. (EJ) Then the vegetation grows and the bridge connecting the two banks becomes stronger. Consecutively, people will put their hands on it and it will become a bridge that people can walk. The vines reach out and people provide hands, and that's how bridges are built. It is a collaborative work of nature and humans.

In an impossible world, the built environment is created by chance through the combined efforts of many hands, including human hands. These buildings are built on the basis of participation, and the buildings we are now seeing are a mere cross-section of the process, rather than a consequence of the process.

The architectural works designed by architects are something possible and differ from the aforementioned built environment of the impossible world. Recently, architectural works that are given meaning through participatory processes have become prominent, but insofar, as these are participatory processes within a human-manageable system, the process can't go beyond legitimating

(GL) GEORGIA LINDSAY

This is such an important point! Collective building is ancient, it is only recently that architects have formalized procedural professional processes for participation.

(EJ) ELEANOR JOLLIFFE

I find it very interesting that the two examples you cite are both forms of vernacular construction. There's long been a debate in the UK about whether this ‘counts’ as architecture due to the lack of formalised

shifting temporalities.

When they are conceptualized as holistic and inclusionary, participatory and co-design practices in the design process cultivate intersections between individualised subjects, citizens, and the architecture as the material object. These practices in an active and dynamic dialogue between the communities for whom the architecture is conceptualized and the persons who conceptualize it – the practitioners – moves architecture beyond the pursuit of pure form as a conceptual driver. When architecture is conceptualized and realised as more than pure form it can be assessed in terms of the opportunity it creates in the maximization of resource and return. This approach positions architectural practice in a vantage position from where it can deliver on the imaginations of a community (participation and co-design) in the realisation of architecture that speaks to and is meaningful in a particular place.

However, the weaponisation of participatory and co-design processes through the regulatory statutes of policy minimizes the benefit of the architecture in the community for whom the building is being provided. Simply accommodating participatory and co-design process in the design process as a policy requirement is neither sustainable nor beneficial in the long term for a community long after the architectural intervention has been actioned. (CD) The argument here is not to delegitimize policies that encourage participatory and co-design processes, rather it is to make the point that when these processes, aimed at inclusion, are hampered by the inefficiencies of onerous bureaucratic rules and oversight, they fail in their intention to speak to the hidden or less apparent meanings that come from the specificities of place.

(CD) CARLO DEREGIBUS

I agree, both concerning the potential of co-design processes, and the «weaponisation» of participatory processes. However, considering the previous answers by all, I would say that in any case these processes have a limited effect, in the sense that meaning, in any case, will emerge after, surpassing those initial meanings maybe in a completely unpredictable way. This opening toward what Akiko Okabe calls «the impossible», or Dora Epstein Jones refers with «place arising» and, in the next answer, “chance”, could be difficult to promote in a co-design process, while it should be maybe its most important feature.

DEJ

Nest is an architecture that created a place, and it's good, then the *Bird's Nest* moves towards canon, and canon delineates the definition of "place and architecture". The *Bird's Nest* becomes precedent. ^{CD} But, if we continually say, "eh, I don't know, it's just a compelling visual form but otherwise, not so much," then the *Bird's Nest* will really only occupy a place of kitsch or folly. It CAN be a signifier that can help form a place, but what really matters is if the design and the flow of the city around it supports possible gathering, and then, if that gathering has the potential to carry political care. In that sense, cultural significance is really the key, and that goes back to my comments on a new judgment.

EJ

the illustration of the perfect marriage of collaborative placemaking and skilfully applied form. There are so many buildings which could illustrate this. It is highly subjective. This though is where the imposter can sneak in – the perfectly serviceable building that demands to be called architecture by parading a form so deliberately performative that it tricks us into naming it "architecture". Resist if you can. This is a misuse of the subjective nature of style. ^{CD}

But I have prevaricated long enough. I don't want to use an example that I have not visited, spatial experience cannot be gleaned from photographs. The illustration I will use therefore I have visited multiple times. It is an old and uncontroversial example of good architecture, it is also, like the MAXXI, Roman. It is the *Pantheon*. Here we have a building in which efficient structural engineering and knowledge of materials combines with skilful form. The dome of the *Pantheon* sweeps across the space as is emulating the heavens themselves. The materials operated at the limit of contemporaneous technology, and have lasted for centuries.

Crucially though, it was designed with an understanding of human worship. The very fact that it has stood as a space of worship for around two millennia suggests that the "collaborative placemaking" displayed here transcends an understanding of contemporaneous *zeitgeists*. The designers of the Pantheon understood something about the essence of humanity that allowed them to create a space that has resonated with the souls of millions of people, over thousands of years. This is collaborative placemaking at its finest – where the pragmatics of the ritual of worship can be fulfilled, but also adapted as humanity's tastes change – all with barely a change to the space itself. Here is a place at which the veil between "here" and "there" becomes thin. Here is architecture.

^{CD} CARLO DEREGIBUS

I think that the concept of canon deserves more consideration. Clearly, as Walter Benjamin's back-faced angel, we continue designing while the canon shapes at various intensities, with buildings continuously rising and falling in the debates, maybe disappearing after some years or, instead, staying there (like the Guggenheim Museum in Bilbao). And I think most discussions on meanings depend on our unavoidable tendency to build canons.

GEORGIA LINDSAY

I think it's worth considering whose canon, and whose meaning. Even historical buildings – seemingly settled into the canon – are being examined anew as to whether they truly mean more to the canon than others that had previously been left out...and why those were excluded in the first place.

DORA EPSTEIN JONES

Truth. On both points. Canon deserves so much more study, especially now that we can understand how it is both dynamic and historically, privileged.

^{CD} CARLO DEREGIBUS

I would say that this kind of buildings is dominant indeed...in this sense, I don't agree with the idea that factories cannot be architecture: Florian Nagler, Matthias Müller and Almut Schwabe's *Kuhstall des Rasshoferhofs*, Kraaijvanger Architects' *Van Gelder Fruit and Vegetables*, Voss Architekten's *SKF test center*, so many vineries all around the world, show that factories can spread between pure functionalist sites to architecture, I think.

ELEANOR JOLLIFFE

I think I would agree on those examples. I don't think any of them fall into the category of a standard serviceable factory though!

CARLO DEREGIBUS

Well, architecture is never standard: or rather, any factory that is designed is beyond standards. Only, just a few are designed in an architectural way...:)

GL


ELEANOR JOLLIFFE
Yes. I really enjoyed this part
– and agree!

GEORGIA LINDSAY
) thank you!

AO

education of the designers involved
and its proximity to the building crafts.

the resulting form. We must remember, however, that the possible and impossible worlds are not symmetrical; the possible world is embedded in the impossible world. Therefore, everything including architecture in the human operable world can't be denied to participate in the built environment of the impossible world.

Just as natural landscapes such as mountains and rivers participate in the physical environment, so do man-made forms of infrastructure or architecture. No matter whether natural or artificial, those hands all together configure the physical environment of the impossible world. If architecture, which has been based on the premise of a possible world and individualism, were to step into an impossible world of *dividualism* governed by the logic of fundamental participation of hands, participation would acquire a post-human, unknown political dimension. 

PT

 CARLO DEREGIBUS

I'm fascinated by the concept of *dividualism* you highlight. I think that here the point is, which kind of involvement do people have in the process. You speak of buildings and communities where people have a *direct* involvement: whether they use their hands or minds, there is an adhesion at a personal level. I'm not if the same approach can work in bigger processes (the ones that «can't go beyond legitimating the resulting form», as you wrote), where personal involvement is much more indirect.

Many contributors to *Meaning in Architecture* (Jencks & Baird 1969), like Baird himself, Norberg-Schulz, Broadbent, Rykwert, and Silver, investigated meaning through how shapes affect freedom. Then, in the last decades, discussions slowly diverted from liberty to inclusivity, changing into pervasive norms and approaches – universal design, design for all – aimed at removing possible obstacles and sensible elements (Persson *et al.* 2014, Zallio & Clarkson 2021, Lamirande 2022). All these approaches aim at maximising the so-called *negative liberty*, or the freedom from constrictions, but surprisingly seem quite to ignore the *positive liberty*, or the conditions that give people the capacity to do things (Berlin 1969). Nevertheless, any project defines a field of freedom while imposing limits to the use/form compatibility. In other words, it seems that architects concentrate on expressed requirements and desires – which are part of the metaphysical dimension of architecture (Derrida 2008) – without leaving space to the unknown, undesigned and unpredictable (Agrest 1974) – which could be the expression of the concept of *any*, instead of *all*, applied to design (Davidson 1996).

Should architecture concentrate on reducing contrast and valorising the *design-for-all* approach, or rather, should it aim for a less obvious but potentially more interesting *design-for-any* attitude?

Dora Epstein Jones

Obviously, this question ties back to the earlier discussion on norms and constraints, and how those are differently impactful. But, I should acknowledge that I'm not without bias on this particular question. I work frequently on writings with Thom Mayne, and we discuss often how we need to not just design away from the a priori, but also embrace *chance*. Chance invites the unpredictable, and again, I believe that chance is the "God particle" in terms of making architecture, Architecture. I did my dissertation on travel trailers and prefab housing in the immediate postwar period in the USA. The story is quite interesting because it's a story based on the immigration of architectural knowledge from Europe to the USA, and then, the subsequent institutionalization of that knowledge. Basically, the European emigres were excited about the American freedom to use standardization to make architectural objects like travel trailers. But, once they arrived and WWII started, they mostly turned to prefab. And, while prefab is always exciting at first, it very quickly becomes so regularized and predictable that architects almost always end up abandoning the prefab project. Did you know that Walter Gropius led a prefab housing effort after WWII (*The Packaged House for General Panel, 1941-47*)? He got so bored with it that he started farming the system out to other architects like Richard Neutra. Let me be clear, I'm not saying that prefab is bad. In fact, it can solve many of the housing crises

Eleanor Jolliffe

Is architectural design too constrained by solving today's problems? I can only really speak to UK practice, but it is a serious consideration. A significant percentage of my time is spent proving that accessibility, fire, sustainability and inclusion standards and best practice are met. Not to mention that building regulations, spatial standards and local planning laws are followed. Since the building boom of the 1950s to 70s building regulations and bureaucracy has grown almost exponentially in the UK. The amount of reports, consultations and stakeholders for larger projects is a major part of any architect's workload, inevitably impacting design.

It may be true that architects in this era were able to experiment more freely, but I think there are several factors at play here. Firstly, we should be careful not to fall prey to chronological bias. The architectural failures of the post war years are significant and famous in Britain. Not everything that was built was of high quality or suited to its purpose. ^{GL} What has survived and is well loved tends to be the best of what happens in an era. There is every chance that our age will be seen as a golden era

^{GL} GEORGIA LINDSAY

I tell my students that every clause or policy in the syllabus has an awkward story behind it, and while it is not exactly true that every single building code or policy has a failed structure behind it, I think a parallel could be drawn.

DORA EPSTEIN JONES

I love it.

Georgia Lindsay

There are two different, yet both important, answers to this question.

The first one responds to the critique of accessibility and universal design paradigms as they have been codified and practiced in architecture over the last half century or so.

By focusing attention on design, and positing better design as *the* solution to exclusionary objects and environments, Universal Design ignores the social, cultural, and political relations that structure human existence (see Imrie 2012 for a thoughtful discussion of this with ample links to other scholars making similar points).

While the built environment can play a role in disabling and othering people (Heylighen 2015), it is certainly not the only thing that does and to focus on design as a solution can allow for social practices, legal frameworks, and other immaterial structures to continue unexamined in their role in erecting barriers.

The second emphasises the fundamental importance of making spaces that do not exclude, by design, entire groups of people. ^(CD)

^(CD) CARLO DEREGIBUS

I agree plainly with the necessity of reducing and eliminating known barriers and making buildings inclusive. However, I have some difficulties with the concept of “groups” (see also Akiko Okabe’s answer and my comment on it).

For example, in the Seventies (following the 1968 riots), many institutions built separate bathrooms for women. It

Akiko Okabe

In a possible world ordered by man-made systems, there must be no exclusion, as long as respect for individual freedom and equality are global universal principles. In this possible world, definitely, architecture for all would be politically correct.

Architecture is expected to play a role in promoting inclusion through physical space. However, because exclusion is persistent, it is oriented toward inclusion, and inclusion is possible.

For example, in my field, informal areas, which are areas of vulnerable environment in developing country cities, there is support for the unfounded hypothesis, in response to neoliberalism, that if land ownership is normalized, environmental improvements will occur. The so-called slum in the past is called now the informal area with the expectation to be formalized. Formalization means inclusion in the current dominant system. However, the reality for those who are targets of inclusion is that they are clearly positioned as poor rather than becoming economically rich through being included in the formal market. ^(CD)

^(CD) CARLO DEREGIBUS

I think you are absolutely right. Most times, indeed, practices of regeneration either formalise things by officialising poor districts, somehow officialising their state, or dislocating inhabitants through gentrification processes. Less sure I am of the formal intentionality of norms. I think they were born for the same reason – the system’s control – but I think now they

Philippa Tumubweinee

Both design-for-all and design-for-any as approaches to architectural design are with their own merits and shortcomings and should be seen as such. It is not a question of one or the other, rather it is a question of whether a design approach within the specificities of place concerns itself, through creative endeavours and experimentation, with the reciprocal relationship between the architecture, as a functional programmatic intervention, and the realities of society for which it is being built. ^(GL)

When place, the container of society’s reality, is an active ingredient in shaping thinking about design, it nuances how one approaches the design process. The nuance of place offers a conceptual “opportunity space” from which to imagine and instantiate approaches that are universal by design but are differentiated in how they translate concepts and ideas in different contexts and conditions. ^(CD) Considerations of place do away with the need for a

^(GL) GEORGIA LINDSAY

What an important point, to ensure that the thing being designed fits its context instead of into some arbitrary dichotomy! Thank you.

^(CD) CARLO DEREGIBUS

I really love the definition of “opportunity place”. I also think you touch on one critical point when speaking of the «relationship between the architecture... and the realities of society», as they could be separated. It is a critical distance (in Husserlian terms, an *epochē*. See Paci 1961) we cannot reach but should always again commit to. That

that we face worldwide. I'm saying that the architectural portion of prefabrication is mostly in designing the system of assemblage and parts such that they produce certain aesthetic and spatial outcomes. And then, it's over.

So, to get back to your question, universal design has been valorous in concept but too often much too normalized and predictable to even be called architecture, if you understand architecture as an essentially creative act. So, I would say that the unpredictable, the unknown, the various exceptions, that invariably winnow their way through existence itself, is really the architecture part. You can call it positive liberty – I like that – but more to the point, I think that the unpredictable should not be seen as a choice but as a necessity. ^{GL}

Our discipline cannot be the same kind of discipline as before. If a discipline, following Foucault, attaches itself to rigidities of rules, of bias, of control over bodies, of market valuation, and so on, then I think we can move towards a discipline now, in a contemporary era, an era that is as much virtual as physical, as much AI as just I, that is dynamically moving, more like an algorithm than a mathematical formula, more like 4D chess or a baseball game – and that means welcoming and necessarily including chance. I call it *Discipline and Reward* instead of Michel Foucault's *Discipline and Punish* (1977).

Finally, I want to add a more philosophical take on this question – and that is I think that norms and rigid rules are illusions. They can be very

^{GL} GEORGIA LINDSAY
For whom? For the architects to keep finding it interesting? Or for the people who inhabit and use the buildings?

DORA EPSTEIN JONES

Georgia, good question. In the biggest picture, I think human consciousness has an obligation towards chance. I think it would be difficult to advance without a continuous opening up to the unpredictable. But really for design to flourish, I think the mindset has to be open. I think we have seen the disastrous effects of "top down" design. Alternatively, we have so few "bottom up" examples that I don't think we have a good sense of judgment about them. I would also add "side-ways" and "particle shifts" because we want and need to see design as an activity within so many variable contexts. It bugs me in so many ways how much the good properties of the unpredictable were subsumed by purely formalist architecture, and only to promote what, some kind of privileged frisson of excitement. I think that embracing the unpredictable can be a kind of universal.

of design in a hundred years, when the more mediocre has passed out of use and perhaps even been demolished. ^{GL}

Secondly there is always a risk when considering well studied and feted architects. Those who are feted are rarely representative, otherwise they would not be interesting. There are great architects in every era and they are always in the minority. There was only one Inigo Jones, there was only one Alvar Aalto, there was only one Filippo Brunelleschi. As such we cannot allow ourselves to believe that the well documented are typical. Between the destruction of urban fabric and the faded memory of the everyday architect we are left with what is likely a false sense of failure in the intellectual rigour of our own times. A rose-tinted nostalgia of a glorious past if you will.

That being said however, I do believe the administrative burden today is a significant constraint. After World War II, architecture in Britain was dominated by architects employed by the local governmental authorities. The housing schemes and public buildings for which the modernist and brutalist eras in my country are so famous were usually built by architects who were not being briefed, and paid, by the end users of the building. They were employed by the state. Anyone who has ever worked for a private client will therefore understand the relative creative freedom this allowed. There was also a lot of work, British cities were heavily damaged by bombing raids during World War Two and there were opportunities to build big, and to build quickly. The bureaucratic burden was considerably lighter and there was a glut of new building materials and techniques driven by military breakthroughs and severe material shortages. This combination of factors led to a level of responsibility, opportunity and creative freedom that has rarely been seen in UK history. Some spectacular architecture came from it, but also some noted and significant failures. ^{CD}

^{GL} GEORGIA LINDSAY

This is such an excellent point, to not glorify the past based on what we still see of it in the present.

^{CD} CARLO DEREGIBUS

I perfectly understand you, and my experience is the very same. This sequence – emergency > design freedom > norms' setting > design restrictions – is typical, I think, of any country facing an emergency – wars, natural disasters, etc. – because emergency highlights priorities. All the rest is just optional. Hence, the first norms were about jolly critical things like properties, limits, and standards, while now we have local, national and international norms on handrails, closing the door to new possible, unexpected and new design solutions. I think this is the strongest confirmation of the often-misunderstood critique of the metaphysics of architecture made by Jacques Derrida (Deregibus 2015).

was intended and perceived as a victory by the feminists. Now, the separation of bathrooms is perceived (even if it is not intended) as offensive by the LGBTQIA+ community (each letter staying for a group), which claims to have gender-free bathrooms. The design issue, indeed, is just about how one uses a bathroom: standing up or sitting down. However, the political issue is about group contrast. And I think that norms, most times, follow the second issue more than the first one.

Notwithstanding the universalising and technocratic critiques of the current approach to reducing or eliminating known barriers to equal access to spaces, this codified framework has made it so that more people with more diverse physical and neurological characteristics and abilities are able to engage with, and are indeed welcomed into, a wider variety of places.

Those of us who live in countries and cities with well-developed accessibility requirements perhaps take for granted the ease with which many of us can move through the city and into buildings.

Cities with old infrastructure or with a less-developed codification of accessibility create many more limitations for many more people. Even in cities with the best intentions for adapting old infrastructure to increase accessibility still, in practice, exclude many from public services (see, for example, Wilson 2017; Fitzsimmons 2019; Kim 2024).

Buildings (the embodied results of architectural designs) are artifacts that encourage, discourage, allow, and refuse actions by users, and Jenny Davis' mechanisms and conditions framework provides a useful way of understanding for whom and under what conditions the built environment affords different actions (Davis 2020).

Universal design, design for all, accessibility standards and the like all seek to expand for whom the built and designed environments work, broadening the conditions under which people can use public (and often private) spaces. This reduction of barriers, this maximisation of negative liberty, is vital to ensure positive liberty. It is a necessary, if perhaps insufficient, condition for liberty.

The real answer to the question is, then, that architecture should – and, I would hope, *can* – do both. (CD)

(CD) CARLO DEREGIBUS

I find it interesting, and also revealing, that you inverted the typical ethical issue: "If you can, you should." Firstly, it shows the moral imperative – what one should do is an ideal way to overcome actual conditions. Secondly, the problem, more than

reflect a multifaceted system where various institutions – including professional orders and universities – have interests consistent with the market without being strictly inside of the market by taking advantage of it.

Of course, inclusion in a larger system protects individual liberty, and the sacrifice of individuals for the collective benefit should no longer occur. Meanwhile, our lives are determined by the larger system that covers the entire planet, and the monstrous system is so far out of our hands that even though the freedom to alter it is institutionally guaranteed, the reality is inaccessible. This resignation has become a blockage that is causing us to suffer.

We are looking for an escape to free ourselves from the big system. It can be identified as an asylum in the impossible world. However, the place where one escapes when one thinks one has finally escaped may also be a place of refuge prepared in advance by the larger system, and already encompassed by the system. Through the creation of physical space that meets the demands of "design for all" in a possible world, we may feel human and relieved by architecture in which spaces for nobody are unconsciously interwoven as a hidden path to an impossible world. (CD)

(CD) CARLO DEREGIBUS

So inspiring...I think this vision is what can balance a liberal view (in the sense of a system where individual freedom is not sacrificed to groups rights) with a social justice, and we all should act for that, I think.

is why architecture is indeed a political practice (see Georgia Lindsay's previous answer).

singular approach to design, it allows designers to take inspiration and have their thinking be influenced differently by different things.

Any approach to design should have at its core the ability to adapt and change, across different places and differentiated scales. What was considered an appropriate approach to design one hundred years ago might not be applicable in a contemporary context or in an unseen future. Any approach to design, good design, should neither valorise nor debase difference. It should rather focus on being clear in its identity as a revelation of the values and codes in the specificities of a society and the environment in which that society exists. It does not refute the possibility of anything or anyone that is not of the same mind and thinking, rather it opens itself up to a dynamism that has evolved from lessons in the past, concerns in the present, and speculations of an unseen future. The flexibility with which we think about how we approach architectural design, is important if architecture is to remain a going concern. (EJ) (CD)

(EJ) ELEANOR JOLLIFFE

I think this is such a good point - and one of the main struggles inherent in practicing architecture well.

(CD) CARLO DEREGIBUS

I think this clearly highlights the main problem, which is ontological: the contrast between the universal perspective of the norm and the specificity of the project. That is why prescriptive norms are so bad. They look at an ideal world that is contrary to actual contingency and stops any possible new unknown. In terms of Luhmann, such norms define a present-of-the-future instead of proposing futures-of-the-present (Deregibus 2021).

DEJ

useful illusions as they help societies functioning, and I think it's good to make certain norms and rules appear rigid to young children, as well as to create moral codes among groups of peoples. All good. But, understanding that rules and norms are illusions may also be key if we are really committed to social and political change. For example, instead of viewing the earth as a system of exchanges, or resources as a "standing reserve", to vaguely refer to Heidegger (1977), we could view our planet from a much less human-centered view. ^{CD} And doing so, could free us to think much more ecologically. My desire would be that eventually we could see the "norms" as the most impermanent aspect – the lines on a football pitch for example or to be more precise, the "regulating lines" of a plan – and really dig into all of the extant and exciting layers of being and change, just like the organic world has always done. Have you ever seen the verticalized operations of a dense forest or jungle? It's a kind of satori for me.

^{CD} CARLO DEREGIBUS

I agree completely with the importance of chance and including chance in the project (Deregibus 2021, and I recall Akiko Okabe's first answer). At the same time, I think that your vision is about what norms should be – like providing desiderata instead of prescriptions or not being continuously, almost yearly updated (see my last comment to Philippa Tumubweinee 's answer): these problems come exactly from the separation between the deepest sense of the law and its bureaucratic dimension. Besides, I will note that architects rarely write norms and are able to control them, even if famous examples like BIG's *Vancouver House* or Richard Seifert's buildings in London, or the whole Manhattan setting, show how important this would be.

EJ

Today British regulations around buildings and planning are heavy, contradictory and multifaceted. They have led to safer, more spacious and more environmentally friendly buildings but they heavily inhibit creative freedom. For example, there is only one diameter of handrail that is acceptable on a publicly used staircase – and so most handrails now have the same profile. Regulations around building fabric efficiency and minimum light levels prescribe a very strict wall to glazing ratio, and as such there are only a handful of ways a residential facade can be composed. Arguably this is dull and restrictive, but only time will tell if this ultimately leads to a higher percentage of longer lasting architecture that continues to serve its functions well into the future.

For all that we may live slightly differently in fifty or a hundred years, we will still need homes to live in, buildings to gather in, places to watch entertainment or transport nodes – and there are only so many ways these activities can be carried out. The regulatory restrictions of our time prevent truly dangerous buildings, for all that they do not encourage greatly imaginative ones. The truly great architects of our day though will not be inhibited by this, constraints are part of the joy and skill of practising architecture.

GL

what one *can* do, is precisely in the opportunity to do or not do a thing (Deregibus 2016).

In fact, besides respecting the norms, understanding what opens up possibilities without simultaneously closing others is often beyond our comprehension...

It can respond to desires and reduce barriers while simultaneously celebrating the particulars of any project and allowing for unpredictability, through deep attentiveness to program, place, and people.

AO

PT

IV

An expression of the power and economic system of the time, architecture never has been a cheap affair (Rowe 1994, Aureli 2008). Nowadays, nearly all published projects are much more expensive than “ordinary” buildings, whose possible spatial qualities are irrelevant. And The Line, in NEOM city, whose concept is quite the same as many failed projects such as Corviale or Prora (just on steroid), shows that the actual difference is its stellar budget – and that is why so many renowned firms joined the project despite all polemics (Aly 2023, Bullough 2023). Therefore, Tafuri’s and Foucault’s pessimistic idea that architecture cannot change the system it is a part of seems true (Karim 2018). However, there exists a tradition of social engagement, magnified in many international expositions (MoMA 2010-2011, Biennale di Venezia 2023, 2021, 2016, 2008): once the result of illuminism and colonialism, in the XX Century, it was championed by the Bauhaus and, more recently, by architects such as Anna Heringer and Alejandro Aravena. Yet, these cases always concern pretty extreme situations, more than ordinary ones: there, architecture seems not to exist.

Can architecture truthfully impact society, or is this just an illusion to give a moral legitimation to its hedonistic essence?

Dora Epstein Jones

Oh, yes, of course architecture can impact society! I wouldn’t have joined the architecture world if I didn’t think so. Just think of how the efficient and migrating kitchen (from the 19th century to modernism) impacted women’s lives, for example. ^{GL} Or Richard Neutra and Christopher Alexander’s total redesign of education buildings.

But, my question today is the other way around – how can society impact architecture? This is where I would return to my thoughts about a more contemporary version of a discipline. Maybe today if we set new rubrics, obviously ecology would be one, but ecology is really only a piece of a much larger set of concerns about environmental and spatial justice.

We need to understand and hold closely now that society is not just a client or people “out there” (I’ve become annoyed lately at the generalized manner in which architects and students see people by the way – see my essay on the “populated plan”). ^{EJ} ^{GL}

^{GL} GEORGIA LINDSAY
What a great point! I think when I was answering the question, I was thinking about big public or cultural projects and big societal shifts, so I really appreciate your emphasis on the personal and the domestic.

^{EJ} ELEANOR JOLLIFFE
very much agreed! Humans are human but not all people are people in the same way!

DORA EPSTEIN JONES
Lovely thanks.

^{GL} GEORGIA LINDSAY
This is such a great way to say this!

Eleanor Jolliffe

The British Prime Minister Winston Churchill once said, «we shape our buildings; thereafter they shape us» (Churchill, House of Lords, 28 October 1943). He was referring to the design of the debating chamber for the House of Commons, the elected house of the UK Parliament. The relatively compact debating chamber is designed as a rectangle, with two sets of benches for the Members of Parliament, set more than two swords width apart. Its design grew from tradition and conflicts within the British governing classes over centuries, but also has shaped the two-party democracy system that we have today.

I think it is an apt example for the power of architecture. ^{CD} It has never been designed in a vacuum. It has never been realised without the backing of individuals with power and money. Therefore architecture, not theoretical exercises but realised projects, is driven by the powerful, usually to suit their priorities. If in the future we move into suits those buildings I am not certain if it is the building or the powerful people that shape it.

Architecture has also been co-opted by the powerful throughout history to shape cities, or reinforce messages of power or ideological control. It is easy to list dictators, such as Hitler, Imperial powers such as

^{CD} CARLO DEREGIBUS
I agree, a clever example. At the same time, buildings are (or rather, can be) very resilient. Older ones were, for sure – just think to the famous essay of Moneo on the Cordoba Mosque (Moneo 1985).

Georgia Lindsay

Because of its close ties to power, architecture *can* impact elements of society: it can change how people move through public spaces, it can change how people work together, it can offer safe shelter or it can further engender feelings of dis-ease amongst people experiencing trauma, among many other ways it subtly impacts the human experience. To take one recent example, the thoughtful design of an aged care facility in Nhulunbuy (Yolŋu Country, North East Arnhem Land, Northern Territory, Australia) has meant that Yolŋu elders can continue to care for *Country and Culture* while accessing the care they need, in a deeply respectful setting (Kaunitz Yeung Architecture 2024). The care the architects took to engage with and support the community has transformed what aged care means to people who have been subjected to centuries of hostility and marginalization.

However, architecture sits within a web of policies, programs, and financial decisions that constrain its impact. Pruitt-Igoe, a housing estate in St. Louis built in the early 1950s to offer new and state-supported housing, is an older example of design transforming lives. Initially, the residents were delighted to live in the building, and appreciated many of the design innovations championed by the architect Minoru Yamasaki, but two decades after opening it was famously demolished and the modernist design was blamed for its failure (Freidrichs 2012). However, careful scholarship has demonstrated it was a series of financial, programmatic, and managerial decisions that caused the demise of the housing project, not

Akiko Okabe

If the question is whether architecture in the narrow sense has the power to change society, I can only say that it may or may not. It is a contingent question. Besides, I am convinced that architecture as a verb, practicing architecture, or building is a realistic tool for social change that starts with each of us. ^{CD}

Rwanda is a society that is still suffering from the past genocide, where there have been attempts by perpetrators to build homes for victims and their remained relatives. By having the victims live in a space that the perpetrators “built” with their own work and in which their handiwork remains, the reconciliation that could not be achieved no matter how much they talked about it, has gone one step further through a physical space. It was, however, a difficult and conflicting process, and an experience that confronted them with a wound that could not be erased no matter what they did.

The thirst for social change is even more acute in many ordinary countries and regions where there are seemingly no pressing problems. The great systems that order society are human-made, but they have become monstrous. Almost nobody attempts to change it. While there is widespread disappointment with revolutionary change based on the ideology that solidarity and collective action can change things towards betterment,

^{CD} CARLO DEREGIBUS
So concise and so true! Sincerely, I love the continuous balancing between the practice of individuals and the nature of the possible/impossible world that emerges in your answers.

Philippa Tumubweinee

On the African continent, the rate of urbanization soared from 15% in 1960 to 40% in 2010 and is projected to reach 60% in 2050 – a conservative estimate indeed: some reports, and scholars such Pieterse (2011) and others place this at 75%; the need for housing and infrastructure that supports urban living is therefore vital. ^{GL} This means that most urban environments, at least in Africa, will have to accommodate almost 50% more people in the next 25 years or so. That means a significant increase in the current built footprint of these environments. The scale of the built form (architecture) that is required to meet these predictions is significant and therefore the development of architecture in these environments cannot be divorced from their ability to provide adequately humane conditions for the people that are expected to live in them. Speaking from an African perspective, the notion that Africans will return to a rural hinterland and bask in the warm glow of a setting savannah sun is misguided; we are urbanising, and we are doing so rapidly. Thus, if we acknowledge that we need to build more urban settlements, and that the architecture in those settlements is intended to provide shelter and provide a functional envelope for the programmes and ambitions of a rapidly urbanising society, then the short answer to the question, can architecture impact society, is yes.

^{GL} GEORGIA LINDSAY
Such a fascinating contrast with the situation Akiko Okabe describes in her answer!

DEJ

Society is both the locus of meaning and totally heterogeneous.

I would say that this is also why chance is so important. Society moves, changes, has varying needs, and it would be folly to assume that the architect could possibly know all of it. Instead, we in architecture must first reject our own bias towards being a design colonizer, towards the thinking that leads to us assuming that we know better, and instead, be gatherers first. (GL)

I think in the early 2000's, we were pretty cautious about "big data." But data is quite necessary if we want to put societal needs first. I really appreciate the work of Neeraj Bhatia and The Open Workshop or Ersela Kripa and Stephen Mueller of Agency because they are both using data and narrative and place to really locate where architecture can be useful to a society in situ for a time. Plus, their work is gorgeous to look at.

Maybe we can get to a point where we can mark a project down for hedonism? I'll tell you though, there's a lot of work out there that might appear hedonistic but it really isn't at all, and a lot of work out there, if not the majority of the built environment, that seems mild that is really blunt force architectural colonialism. (CD)

(GL) GEORGIA LINDSAY

What a lovely concept, to think of architects as gatherers.

(CD) CARLO DEREGIBUS

I think you hit the mark: what is hedonism, in fact? I believe that too often, we (architects, critics, scholars) stigmatise buildings as hedonistic (and self-referential) because we simply don't like them.

A problem of judgment (as you highlighted in your previous answers). However, just as it is «folly to assume that the architect could know all», I would say that the importance of data is in the opposite sense.

It is the project that recalls and gives meaning to the data: data are senseless without the project, and their meaning changes following the project.

DORA EPSTEIN JONES

True. It's an important point to direct the causality. And I agree.

These architects that I have mentioned, and especially Agency Architecture, actually have to create entirely new datasets simply because there's a paucity of data that tells us, for example, how many people have shade at their transit stop.

And I think it's just crazy to think about how many transit stops have been designed by architects based on a mere guess, or what a transit authority guesstimated. They're literally designing algorithms to understand and interpret GIS data alongside border data, census data, really

EJ

Britain, or religions such as Christianity of Islam that have used architecture to signify power, influence, a new regime, or local dominance. Nothing feels quite so permanent, or so powerful, as large buildings. To wield the political and financial might to shape buildings and cities signifies great power without a word being spoken, in this instance buildings become psychological facilitators of their patron's whims.

Saying this however, architects across the centuries have influenced their patrons and considered space in ways that shape the experience and lifestyle of less fortunate building users. Whilst architecture cannot be realised without the powerful it isn't realised solely by them – somewhat like society itself.

The international exhibitions in the question are interesting but again display an elite interest – those with the time and money to explore form and space for its own sake – no matter how altruistic their motivations. Building is expensive – financially and emotionally. However, it does shape us. Anyone who has lived in a poorly designed home badly converted into a flatshare, or worked in an office with ceiling too low or not enough light or ventilation knows just how considerable an effect architecture can have on daily existence.

People who feel comfortable, connected to others and are regularly in contact with beauty and moments of life that lift the soul are arguably more likely to have better mental health, and therefore to interact more generously and kindly to the world around them. Ultimately buildings do not shape society – people do – but buildings impact people. So well designed buildings, architecture, does shape society – but perhaps not as directly as some architects would wish to imagine. (CD) It's a responsibility I try to be aware of on every project I work on – no matter how tedious or mundane – as it is the ordinary and the mundane that shapes our lives.

(CD) CARLO DEREGIBUS

I completely agree, and I think that it is critical to make clear that the impact of architecture on society is always indirect. The failure of the Modern comes from the will to directly impact society, and the same holds true for the experiment you recalled in your previous answer. Recalling my first comment to your answer, I would say that any architect can design the condition for the buildings to change as the Mosque, *grafting potential* into it.

the design (Bristol 1991). To put it more directly, the best most evidence-based hospital design will not matter if nurses and doctors and aides and others are not paid enough to staff it.

Occasionally buildings might revolutionize building practices or assumptions about what buildings or a type of building might do. For example, Maya Lin's minimalist 1982 *Vietnam Veterans Memorial* in Washington profoundly altered the paradigm of memorialization, and echoes of her formal and material choices are seen in contemporary examples from the *National September 11 Memorial* in New York (by Museum Michael Arad Peter and PWP), to the *Civil Rights Memorial Center* in Montgomery, Alamba (also by Maya Lin). A similarly phenomenological and embodied experience of remembering was offered by Daniel Libeskind in his building for the *Jewish Museum* of Berlin, which was arguably just as powerful empty as it was as a vessel for artefacts (Schneider 1999).

But even for those examples, examples of monuments and museums that propose new relationships to the meaning of monuments and museums, their impact on society more broadly was limited. In spite of the emotion and introspection encouraged by Maya Lin's memorial, twenty years later the United States entered another war of ideology on another continent, a war which lasted twenty years and by all accounts the US eventually lost. In spite of the powerful argument about what is lost made by Libeskind's museum, genocide continues to be perpetuated in multiple arenas at the time of this writing.

Architecture is not likely to be a truly revolutionary force, fundamentally changing society (as opposed to paradigms of space). It requires too much investment, too many resources to truly overthrow the power structure. However, that does not mean that revolution oughtn't be attempted, and there are proposals out there for how to approach it. (CD) (EJ) Feminist

(CD) CARLO DEREGIBUS

I agree (see also Eleanor Jolliffe's answer and my comment on it). Architecture influences and impacts people's lives, but its actual capacity to revolutionise things is limited by the socio-techno-economical system it belongs to, aside from finding "opportunity places", as named by Philippa Tumubweinee in previous answers.

GEORGIA LINDSAY

Absolutely, and there is the paradox of any one attempting revolution through buildings!

(EJ) ELEANOR JOLLIFFE

I entirely agree – though this is something that is almost always at the discretion of the client or funding body. A building can usually be only as overtly revolutionary as the person paying to build it will allow!

small, quiet anarchic actions that start by changing what is within one's reach physically are attracting people and holding out hope for change.

For instance, in Japan, the structurally increasing number of vacant houses is a major social problem due to depopulation. A movement among young people to take on vacant houses and renovate them with their own hands is spreading simultaneously. (GL) They range from temporary art events to those that live while renovating it. Looking back through human history, people have the ability to shape their own environment (Ilich 1973), but as housing has become more sophisticated, it has become inaccessible to the dweller. (EJ)

Sakaguchi Kyohei has responded to this situation by beginning with a survey on houses built by homeless people, non-professionals in the field of architecture, and has questioned the situation of being comfortably ensconced in a system created by humans. Sakaguchi's mentor was architect Ishiyama Osamu. Unlike big-headed anarchists, they throw themselves into social change that begins with modest modifications of the real, everyday environment by their own hands. This is in keeping with the quiet anarchism of Shunsuke Tsurumi, known as a pragmatist thinker.

Living primarily in human-made environments, both tangible and intangible, I am most interested in the possible social impact starting from everyday interventions to man-made environments by the users' hands. (CD)

(GL) GEORGIA LINDSAY

Very cool. I would be curious to hear how it works – do they have to buy the homes or are they gifted them? There were some interesting strategies tried in Detroit in the late 90s when it was similarly hollowed out from population loss...

(EJ) ELEANOR JOLLIFFE

In itself I wonder if this is an impact on society – a negative one in that it decreases the agency and ability for people to feel they are educated enough to hold opinions on their environment.

(CD) CARLO DEREGIBUS

This is something I, too, care a lot. Ordinary design actions, ordinary architecture – not just buildings. When Dora Epstein Jones says in her answer, «yes, of course architecture can impact society», I'm not sure if it is really Architecture (that is, the sequence of extraordinary cases selected by history) or architecture (the many ordinary cases shaping canons) that do it. I believe both, in different ways. And, in my practice, I've come to think that if I'm able to improve the life of even a single person, then I'm «making architecture, Architecture» (again, Dora Epstein Jones, in her previous answer).

A longer answer: the truth of architecture's impact on society attempts to deal with the way the architecture impacts on the ability of a society to provide shelter for its inhabitants (housing) and accommodate the systems and structures that allow for it to operate (function, programme, and ambition). The relationship between the built form (architecture) and the society that exists in it is complex, but not complicated. Complex because this relationship is governed by the murky undercurrents of political, social, cultural, and environmental dynamics; uncomplicated because, at a very basic level, architecture provides shelter and contains functions and programmes that support a society's growth and development. The truths of architecture's impact on society lie in the ambiguous territory between these two. (CD)

If architectural design explores questions related to the rationalities of development processes assigned to the creation of place (Watson 2003), it can reveal characteristics about that place that provide insights into how that society functions as a network of intersections, connections, and relationships. This puts the design process and the architecture in an interesting relationship with shifting temporalities – in an emerging urban environment this is sometimes rogue and sometimes ad-hoc (Pieterse 2011). The conceptual positioning of architecture as a tangible outcome of a process, a system of thinking about place, can bring into focus the creative practice that is composed and invented by a society. The architecture in its exposition of novelty and originality meaningfully contributes to the way in which society begins to understand itself (Mbembé & Nuttall 2004, 348). The point being made here is not that architecture in and of itself can locate itself across different modalities, temporalities, and histories; rather,

(CD) CARLO DEREGIBUS

And, I would add, here lies the *meaning of meaning* in architecture. This «territory», as you've called it – and I also recall the historical essay by Vittorio Gregotti (1966) – is truly ambiguous and variable, not only between different situations but also in the very same place at different times. Your example of urbanisation process is just perfect. In Italy, we lived a similar situation in the Fifties, with a strong urbanisation; then all stopped in the Nineties. The meaning of those settlements changed consistently. During the emergency, people were proud of those new houses – *their* houses, earned the hard way. Now, these neighbourhood are seen as problematic – failures (as Eleanor Jolliffe reported in the previous answer). Meanings fluctuate in this ambiguous territory.

DEJ

EJ

any data that they can piece together to form an impression of some really specific places for needed intervention. The fact that they need to do this when supposedly we have a saturation of data is just horrifying.

approaches to architecture, for example, suggest methods or practices to respond to environmental and socio-political issues (Frichot 2016), and related ideas of bio-inclusive design and ecological architecture pose radical perspectives on who is considered when buildings are designed (Frichot *et al.* 2017; Veselova & Gaziulusoy 2022). For architecture to impact society, it must open itself and engage in deep and meaningful ways with the subalterns whose voices are often ignored.

Undoubtedly, there are many architectures that have had a great impact on society since ancient times, both in the West and in the East. In an age when such architectural works are valued as inseparable from the individual architect who is the author of them, once an architect achieves fame through the power of his or her work, a cycle is created in which being a prominent architect increases his or her appeal to society. But I regard them as directly changing the physical environment or changing the way people view architecture, just as a volcanic explosion or natural disaster can transform the world. This is the opposite of the social impact that I myself am more interested in, but sometimes architectural works of renowned architects, significantly, can stimulate small but countless actions by laypeople and possibly shake the earth, as if large disasters do so.

it is that, if its conceptualisation takes on the tensions borne from what is visible (built form) and what is hidden (socio-spatial), then it can successfully bridge the complexities of its realisation in the complications of its perception to have a truthful impact on society.

In conclusion, although both the short and long answers do not adequately address the grandeur of architectural projects that are a product of individualised creativity and aesthetics from so called star-architects or “starchitects”, they attempt to refocus the debate on the impact of architecture in the realm of the ordinary urbanite from whom most of the built form is intended. And for the ordinary urbanite who requires shelter, schools, office-space, hospitals, markets, transport nodes, recreational facilities and more, the impact of the architecture that contains these necessary functions, programmes and ambitions is significant.

Nowadays, the most tremendous debate about architectural design is around the explosion of artificial intelligence (AI). While most critics and theorists reflect on (job) threats and (formal and managing) opportunities (Desouki et al. 2023, Wainwright 2023), AI tools are already consistently part of the leading firms' workflows – such as Midjourney for BIG or Dall-E for Zaha Hadid Architects, without speaking of urban design software such as Delve or Spacemaker or managing programs like Forma or LookX (Leach 2021, Bernstein 2022). Far less discussed is how architecture will change in non-architects' eyes, who mostly look at architecture as an image (Bergera & Esteban 2022, Del Campo & Leach 2022). But if easily accessible tools make it possible to generate architectural images with no apparent difference from proper design images, then the added value of design, too, becomes less evident. This problem won't affect big firms and starchitects – whose signature style is indeed a source for AI – but “human ingenuity” will inevitably affect (the market of) ordinary architecture, – as photography and music are experiencing.

How will AI-generated images affect people's perception of architecture, and how will this changed perception affect the practice and teaching of architectural design?

Dora Epstein Jones

OK, so first, AI is us. It's totally chock full of bias, and it gets that bias from us. It's like a child using a curse word – the parent is the source of that word. The same with AI images. That's all just us, and us collectively by percentage.

GL I think you're correct that leading architects can influence AI images but that's only because of the superfluity of images that show the Norman Foster so-called *Gherkin* or Herzog & De Meuron's *Bird's Nest* or whatever. But, for the majority of AI images on architecture, there are some common themes that derive from more popular aesthetic sentiments. One is dusk lighting. I think it comes from Thomas Kinkade (often called “the Painter of Light”) but also probably that odd fixation that mostly Western people have on the Impressionists. Another is wet-weather plants, like vines, often envisioned as ornamentation, which seems to be inflected by a much more European ideal of lushness and luxury. And finally, just so much glass, so much glass. And all of this together tells me that AI images are deriving

GL GEORGIA LINDSAY
Such a good point...but also, it's not even really all of us, just the part of us that are online or the artefacts we have created that have been put online.

DORA EPSTEIN JONES
Ooooo good point!

Eleanor Jolliffe

At the moment the images generated by AI are useful tools. However, without significant guidance they are unrealistic, structurally unsound and unachievable in reality. They come closer to video game graphics than real buildings. It is likely that this will change quickly though as the tools are used more, and learn more about what makes buildings work, and the constraints of physics, building regulations, budgets etc. This is the key I think, “the tools”. AI is not a new species – it, like any other software tool, is only ever as good as the source material that its foundations are based upon. We need to be careful how such a powerful tool is used however, and we also need to be aware that it cannot discriminate between users. It has no knowledge of which information is fed to it by an educated professional, and which by a playful teenager. We need therefore to be careful of its outputs.

At the moment we have trained without AI and can see the flaws when we pause to look for them. We know that panes of glass can only reach a certain size before they become difficult to manufacture or transport. We know that buildings must be supported by structure and not by “sky hooks”, and we know that buildings are not made in the surface image but in the complex interfaces

Georgia Lindsay

Images generated by AI programs such as Dall-E or Midjourney are unlikely to have much impact on either people's perception of architecture or the teaching of architectural design for the foreseeable future.

I am not convinced that the general public pays much attention to *architecture* at all, per se. When I have studied how people talk about architecture online on sites like Yelp and YouTube and TripAdvisor, my collaborators and I have found that even at famous buildings, works of star architecture, many or most of the comments are not about architecture, and when people take pictures of even famous buildings, most of their images do not focus on or highlight the architecture, but instead focus on the program or on experiences (Lindsay 2016, Chapter 12; Lindsay & Sawyer 2022b; Sawyer & Lindsay 2024). Even in newspaper coverage of star architecture projects, journalists often use famous buildings as locators (what my co-author and I called "urban intertextuality") and talk about how they will increase visitors and tourism, rather than focusing on the architecture itself (Lindsay & Sawyer 2022a). When asked which features made a LEED-Platinum building energy-efficient or sustainable, the general public was more likely to point to the signs about recycling than any

Akiko Okabe

Architects stand on the premise that architecture is a perceivable object. However, if we define architecture in the broadest sense as an environment in which humans have placed their bodies, then the vast majority of people live in an environment of architecture that is not conceptually perceived. In other words, it is not architecture that is created with intention, i.e., designable architecture, but architecture or the environment just happened, i.e., non-designable architecture.

As I said in my response to the first question, I have been working primarily with so-called slums, which are self-generated built environments that are not designed as intended. Digital science allows the translation of these naturally formed agglomerations into algorithmically and automatically generated information. Generative AI makes it possible to create artificially these naturally occurring environments. Until now, naturally occurring cities such as slums have been a nuisance to urban planners. In this respect, I believe that generative AI is ground-breaking in the sense that it looks positively at informal areas.

Furthermore, there are growing expectations that generative AI will be able to generate natural ecosystems as humans wish. In this way, we will be able to regenerate and artificially

Philippa Tumubweinee

Although AI has been around and part of some specialist practices, for most people, sentiment around its proliferation ranges from trepidation to excitement. The premise of both sentiments, in their extremity, is an angst that comes from engagement with an unknown.

The question should not be about the proliferation of AI generated images, rather the intuitive relational engagement of society with those images. In this relationship, AI can provide the opportunity from which to explore architecture as undetermined in its practice, education, and perception. In the imaginative process of speculation about AI generated images, it may be possible to develop an aesthetic, an identity of architecture that means something to, and is relatable, to a society. When we encourage speculation about architecture through AI generated images that combine place-based imaginaries in the particulars of architectural experiments, we as practitioners and educationists can locate practise across different and differentiated modalities, temporalities, and histories. To suggest a process of design whose narrative is representative of localised histories in broad geopolitical economic, social, cultural, colonial, and postcolonial realities. In this instance, the speculative process of generating

DEJ

a ton of visual information from sexy architecture in movies, magazines, and ads. So, my first point is that AI is doing a lot of work within the comfort arena of the privileged image producers and consumers. That's not so good. (EJ) (GL)

Second, I really want to shift the conversation from AI images generally to data sets more specifically. Each AI platform has different data sets. And, these data sets cost money. So, if you want more heterogeneity in the image-making, you need to pay for it. I think you can see how that might be a problem then. I really, really believe that all data sets need to be much, much larger, and open access, if we want the image-making to be useful to architecture on the terms of the ecological and diverse architectures that I have already laid out. (EJ)

So, to answer your question about the practice and teaching – I think the best aspect of AI image-making is the audacity of the forms. AI doesn't care if it's buildable, or if everything is on square, or is normal in the terms that Western architecture has mostly laid out, and so it proposes some very exciting formalisms, and some really delightfully improbable tectonics and detailing. It's really great then for pushing everyone – practitioners and students alike – in a much more fun way to explore and discover forms. (CD) Moreover, I think it shifts some of the design work into a curation of prompts and a super-multiple output of images. You know, after recognizing bias and

(EJ) ELEANOR JOLLIFFE
I entirely agree with all of this!

(GL) GEORGIA LINDSAY
Totally agree!

(EJ) ELEANOR JOLLIFFE
The difficulty with data sets being open access is that architects derive their living from owning intellectual property. Trying to make too much architectural data open access could wipe out the profession.

DORA EPSTEIN JONES
I so did not know this. Whoa.

(CD) CARLO DEREGIBUS
Referring to your second answer, wouldn't you call this «a pure form» or an almost pure one? On the creative side, the potential for designers is clear (and already in use), but this potential also works for the others. And, if anybody can create architectural images at such ease, with no awareness of their «improbability», the perception itself of «audacity» will change, as we could live in sci-fi movies, starting a senseless race. Just as fake news, there are and will be more and more fake architecture, and how could beauty be «mindful» in these imaginaries? The limit between what is creative and what is fake is so thin that I think AI will force us to break the very basis of our usual distinctions.

EJ

usually hidden from view. Will we always know this though?

My greatest concern with AI is not that it will make unrealistic images that will somehow change public taste. Every revolution in drawing technology in history has done this. Changing architectural styles are as much part of fashion as changes in clothing styles or tastes in television programmes – albeit moving at a slower pace due to the relative investment. My concern is that the tool becomes so powerful we come to rely on it uncritically. That it makes us lazy, and we cease to be able to properly monitor its output. To use a silly example, I can no longer follow directions or memorise maps. I have become so used to the power of the mapping app on my mobile phone that my short-term memory for directions has gone. I have no need to exercise that skill and I have lost it. I'm sure I could re-learn should I need to but I don't.

My fear is that AI will de-skill the architectural profession in the same way. As it becomes increasingly powerful it may carry out many of the mundane tasks in architecture that we all hate – the checking of door schedules, the monitoring of regulatory compliance on layouts etc. there may be a pop up that tell you where you have made an unconscious error. At the moment we are used to operating without this, we can override these prompts, or critique the images generated with the knowledge we have gained in carrying out these tasks, day by day. In the future we may lose this “muscle memory”, much as I can no longer remember verbal directions – we may become reliant on the tool, and therefore on the information on which it bases its information, this is the concern I see in the increasing power of AI. (CD)

How this may impact architectural education though. This is an even greater concern. I can only speak to UK architectural education but it has seen a significant de-skilling and movement away from the art of construction over the last fifty to sixty

(CD) CARLO DEREGIBUS
For sure, I think, architects will lose some skills, just as they did in the past and are doing now – it is the typical complaint of older generations toward the newer ones. However, conversely, they will gain new and different knowledge. In education, I think we need to maintain one basic skill for architects, that is, the ability to grasp different subjects through the project. But for the non-educated, the risk of seeing architecture even more as a strange shape (at most, a series of «sublime sculptures», as you said in your second answer) is strong and hugely impactful for meaning in architecture – even if

feature of the architecture (Cranz *et al.* 2014).

Furthermore, I suspect that many of the non-architects who do consider or pay attention to architecture in the media might already think of it as obsessed with visuals and impossible-seeming forms. The buildings that make international news are star architecture projects such as the Beijing National Stadium, colloquially referred to as the *Bird's Nest* (a moniker gifted to the building by local residents), a project that from the beginning had visual and symbolic aspirations and included Chinese artist Ai Weiwei on the design team (Herzog & de Meuron 2007). Local news stories about architecture might focus on buildings such as the *Aspen Art Museum*, where much of the discourse about the architecture from the public was dominated by complaints about some outsider swooping in to plop an over-the-top form into the setting which had nothing to do with the local place, in spite of a place-inspired design by the sensitive and Pritzker-prize winning architect Shigeru Ban (Shelby *et al.* 2022). In that and other similar projects, the image is part of the controversy, which is driven by a narrative that some outsider is imposing an arbitrary form. How much can it matter if that arbitrary form was created by the latest controversial star architect or Midjourney? ^{CD}

Moreover, even if the public changes how it understands or perceives architecture, that will not necessarily change how architecture is taught. That is, there will be minimal impact on architecture pedagogy for quite some time. Emerging architects – architecture students – will still need to know about architecture history even if AI models can offer images of a building “in the style of...” (the contestedness of

^{CD} CARLO DEREGIBUS

You're surely right. Just like any art, people live without it until they experience it for some reason. At the same time, if it was truly irrelevant, discussing architecture would be pointless at all. But I think the problem is the opposite. It is precisely because people less and less understand and accept what you called, in your second answer, the «cultural authority» of architects, that AI tools could change the game. Because, for the first time, everybody can (think of being able to) easily design architectural shapes: and why not propose it in a competition? Why don't select trending styles (full of the biases Dora Epstein Jones highlighted)? It would be “democratic” and “inclusive”, a typical posthuman evolution. To exaggerate a bit, only legal responsibility now prevents this dystopia. I think AI will change architecture in the realm of *unthought* (Hayles 2017), becoming apparent only after.

restore the natural ecosystems that humans have damaged in the past. It responds to the social demands of a circular economy while opening up design possibilities that have never existed before. This is why regenerative design has attracted strongly today's architects.

But if the mechanisms of the biosphere, which have been mysterious until now, are clarified in the near future and can be generated as humans wish, both cities and the global environment will become boring. This assumption, however, is implicit in the fact that generative AI is a tool for human use.

But what if the generative AI becomes a tool that cannot be controlled by humans to create a built environment? The unmanageably left natural environment and the AI-generated environment jointly form an even more uncontrollable and impossible environment. Amid the man-made but impossible world, architects can only create a box garden of modest man-made wild nature. I see the recent regenerative architecture as a Noah's Ark of wildness floating in such a dystopia. ^{CD}

What I have attempted to do in my own architectural practice and education is the opposite: to deal with the environment of the earth as it is, without going through the process of conceptualizing it and making it graspable, just like the Geddes' diagram of organism-function-environment (Geddes 1915).

In any case, architecture in the narrow sense of designing with intention can only create a small possible microcosm after accepting an incomprehensible macrocosm without meaning. Which one are we to deal with as the incomprehensible and impossible world, the mother-earth environment from the ancient past, or the Anthropocene earth environment beyond human's control?

Up to this point, I have answered the questions about “meaning in architecture” with the framework of “a small possible human world within a vast impossible world that is beyond human's perception” in mind. If so, architecture in the narrow sense of design with intention has to do with the creation of a small possible microcosm, accepting an

^{CD} CARLO DEREGIBUS

I don't think we can really “control” AI. It is part of its fascination and, more generally, of technology fascination, that we don't and can't understand how it operate, but just use it, grasping its algorithms. Maybe, precisely this impossibility to fully control it could be, in a future, the way for overcoming the limit between what is possible and what is impossible, what is the intentioned creation and what is the incomprehensible world.

AI images is fertile ground for design processes that are deeply implicated in the everyday imaginaries of urbanites and the urban contexts in which they exist. ^{CD}

Architectural practise, in engagement with AI, can separate itself from premediated foundational knowledge about what is good design and the principles that make it so. In the space of AI, architectural practise can creatively engage with questions in a manner that breaks with tendencies that reduce observations and explanations to a materialist reading of known and existing conditions. And, in the hands of untutored masses, provide a level of access to processes and insights that have been confined to the protected realm of architectural practice that creatives and architects have had dominion over, tended to, and developed over time. This level of access means that as practitioners we can structure consequential discussion about architecture and in the process develop meaningful approaches to practice that truthful speaks to a broader society.

In the classroom, AI generated images cannot replicate the richness born from intuition that translates through creative process into design. It can, when it is intelligently incorporated into an architectural curriculum, render the extraordinary to the ordinary in a commonplace approach to thinking about architecture and its practise. Although the nature of AI generated images, a simplistic approach to design that stitches together images taken from revolving algorithms, can provide alternate pathways for thinking through place-based architectural interventions, it does not replace the critical nature of architectural education nor the

^{CD} CARLO DEREGIBUS

I think that your answer perfectly balances Dora Epstein Jones' one. Thinking about the work you did in your university – the imaginaries of working places for different departments – I think it is clear that AI allowed these imaginaries to become images and that those imaginaries were just biased from dusk lighting, glass and indoor plants. Therefore, the result can be involving and inclusive but also promote a standardised, non-local, unrelated to experience vision of the desired future. Here the «cultural» role of architects mentioned in her second answer by Georgia Lindsay would be critical, I think.

DORA EPSTEIN JONES

I agree, and I love that we are demonstrating here exactly the collective thinking-through that the world, and especially architecture, needs. Something must dislodge the privileging of current AI images. We also might think in terms of establishing, really establishing, new ethics!

DEJ

DORA EPSTEIN JONES

Carlo, I think about the point you are making often. And, it does hurt my brain, which may be a symptom of my age and context. You know, Vivian Sobchack, a film theorist who writes from a phenomenological perspective, once told me that people in the 19th century and earlier may not be able to see a virtual space, like a video game, as in, their brains would not let them perceive it. And, I think we are at a similar point with AI and what is true or real, and what is false or fake. We know that we still value the real over the fake (gemstone and jewelry needs to change the “value of the real” yesterday - so much needless suffering) but we are getting to the point where we can’t discern it. I do not know what the new distinctions will be, but I’m holding out hope for the compassionate over the exploitative.

the limitations of the data sets, you’re only as good with the AI image-making as your prompts. And I think that really expands some of the critical-thinking dimensions of design work. I’d love to see an emergence of a new expertise in prompting and curating, and it would really be wonderful if we could guide that expertise with a sense of meaning, and politic, and justice. AI is very aesthetical, obviously, but I hope that we can finally end the seeming divide between the aesthetic in architecture and the value of social consciousness. Everyone deserves mindful beauty, don’t you think?

EJ

Georgia Lindsay’s answer seem to say different things.

ELEANOR JOLLIFFE

They will gain new and different skills – but even in the last fifty years there has been a decrease in the technical ability of UK architects due to the widening gap between their education and the process of construction. The new skills that have replaced this more material understanding have led to better images – but poorer built architecture. I fear AI is an exacerbation of this (even speaking as a younger less technically skilled architect!)

years. Much of this was driven by a mis-placed snobbery, and a belief that there was no intellectual value to knowledge of manual or mundane skills. AI could exacerbate this leading to an architectural education that promotes the image over the actualisation.

The images created by AI are driven by our personal preferences, it shows us what we want to see. The images I see coming from AI are not sophisticated construction drawings, they are celebrations of imaginative concept. They are beautiful, but they are not really architecture. My fear is that what we have fed it drives the cycle of demand and preference and that we cease to see or to celebrate skill in drawings, and architects, that understand the process of construction. Architecture is not about image creation. My fear is that the eventual conclusion to this trajectory is the death of the belief that architecture is about creating buildings.

historiography and the nature of the canon notwithstanding). Architecture schools will still be responsible to accreditation boards, which require teaching professional practices such as contract management and budgeting, and an understanding of technical specifications and codes. They require some cultural competencies, although whose cultures and what exactly is the relationship of architecture to place and to the traditional custodians of lands is currently shifting as well. ^{EJ}

Architecture is much more than the visual form-making that Dall-E can provide, and architectural pedagogy will continue to reflect that. For the foreseeable future, AI might streamline some steps in practice, but it is not likely to fundamentally change the nature of what gets designed or how architecture is taught.

^{EJ} ELEANOR JOLLIFFE

I suppose there may be a question however as to whether people more generally would still see architecture as a valid career path. Many people perceive it (incorrectly) to largely be the making of images of buildings, if AI does this 'better' or faster will architects hold their value to society?

GEORGIA LINDSAY

That is the open question about so many creative industries right now, isn't it? I do see growing skepticism towards AI—even in the few months since we wrote these answers, the sheen of AI has worn off a bit as its limitations, expense, faults, and hallucinations become more apparent. Simultaneously, of course, newer versions of AI keep emerging. I do think it is important to think about and theorize...and also that we won't really know how this shakes out for a while!

incomprehensible world to which no meaning can be attached. Architecture can only have meaning relationally with the impossible world.

Hiroshi Naito, a Japanese architect, explains his works using an analogy with fragile boats made of a bamboo leaf floating in a huge current. The current is left as it is. We can do nothing with the current. ^{EJ} It is an impossible world. In the case of a museum surrounded by nature, the current is a natural ecosystem. In the case of Shibuya redevelopment, the current is a flow of numerous people. In both cases, the background current gives meaning to his architectural works.

^{EJ} ELEANOR JOLLIFFE

While pointing to a broader truth I don't know if I agree. It's certainly harder to impact 'the current' but the artificial islands of many middle eastern states, hydroelectric dams, artificial rivers, demolition of mountains, even climate change— would all indicate that man has an ability to shape their environment when they are truly motivated. I wouldn't argue this was necessarily good – but it is possible.

identity or architectural practise as a noble discipline from which meaningful architecture is conceptualised and realised. ^{EJ} ^{CD}

^{EJ} ELEANOR JOLLIFFE

I would agree. I hope it's a viewpoint that remains current!

^{CD} CARLO DEREGIBUS

I'm not sure of that. Practice and conception influence reciprocally, just as conception and design are not sequential. AI provides very effective tools, and just as previous media and discover influenced architecture – think how perspective changed it in XIV Century – its real impact is yet to be seen. However, I agree, in the sense that even our judgement on architecture will change, consistently :)

In, of, from, to, after, for

Strictly speaking, this debate was not on Meaning in Architecture, or, in any case, not only. However, meaning has proven to be such an elusive concept when discussed outside its analytic dimension that strange would be the opposite. In the free and incompressible space of between – the individual and the world, the theory and the action, the conception and the realising, the possible and the impossible – the meaning is just as pervasive as ephemeral, as performative as evanescent. This is why the topic of Meaning has always been analysed in Architecture – without clarifying the limits of the term “architecture”, thus surpassing the problematic character of the Meaning of Architecture – which would seem to be immediately monodirectional and intentional. Nevertheless, it is mainly the Meaning of Architecture, and of architectural design, that the guests of Jencks and Baird (1969) highlighted: or rather, the meanings, and more correctly, we should add, the possible meanings. However, the issue of Meaning can be seen through other, less (allegedly) apparent prepositions: from and to Architecture, for example, as Architecture is not out of the world – nor architectures, nor architects are. Its practices happen within the world and, thus, are political. Therefore, it is possible to look at architectural processes as a continuous exchange of meanings, incessantly extracted from architecture and attributed to it. It would be interesting to trace the way meaning changes, evolves, and transmutes, understanding how architects influence or not this transformation. Then, there is also a Meaning after Architecture, which would be a way to investigate the very edge of the discipline: not only since many of the trends – here, the debate seems solidly consistent – are not as revolutionary as often claimed, so there be Architecture after Architecture; but also to understand how Meaning is and will be changing after changes in Architecture. Lastly, and maybe even more crucially, we should discuss Meaning for Architecture. Not to: the point is not to give or decide a meaning to design actions, which would be senseless, but to decide the place of architecture and its role in the world. The debate above relies on very different ideas about what Architecture is (and should be) and what architects do (and should do). The issue of Meaning deserves renovated attention precisely to place Architecture and architects within the past, present and future world, not just adapting to the evolving, dominant ideologies – like the neoliberal overwhelming contemporary system – but also, above all, to make clear its and their capability to impact the becoming of our world.

Bibliography

- Agrest, D. (1974). Designed versus non-designed public places. *First Congress of the International Association of Semiotic Studies*, June 1974, Milan.
- Agrest, D. & Gandelonas, M. (1973). Semiotics and Architecture: ideological consumption or theoretical work. *Oppositions*, 1, 93-100.
- Alderman, D.H. et al. (2004). Memory and place: Geographies of a critical relationship. *Social & Cultural Geography*, 5(3), 347-355.
- Aly, H. (2023). Place Branding as a Political Act: Approaching Saudi Arabia's NEOM beyond Its Shiny Façade. In S. Wippel (ed.), *Branding the Middle East* (543 – 560). Berlin: De Gruyter.
- Aronowitz, S. (2012). *Lefebvre's The Production of Space; a Unitary Approach to the City*. <http://www.pilarortiz.cl/files/portiz-spacetime12.pdf>
- Aureli P. V. (2008). *The Project of Autonomy: Politics and Architecture Within and Against Capitalism*. Hudson: Princeton Architectural Press.
- Bergera, I. & Esteban, Jd. (2022). Architecture and Contemporary Visual Culture, the Image of Realism and the Realism of Image. *Arts*, 11(1), 26.
- Berlin, I. (1969). *Four Essays on Liberty*. Oxford: Oxford University Press.
- Bernstein, P. (2022). *Machine Learning: Architecture in the age of Artificial Intelligence*. London: RIBA Publishing.
- Bletter, R. (1971). Review. Meaning in Architecture, Charles Jencks, George Baird, Editors. *Journal of the Society of Architectural Historians*, 30(2), 178-80.
- Bojanić, P. (2022). *In-Statuere: figures of institutional building*. En. Trans. by E. Djordjevic. Frankfurt am Main: Vittorio Klostermann.
- Bourdieu, P. (1979). *La Distinction. Critique sociale du jugement*. Paris: Les Editions de Minuit.
- Boyer, M.C. (1994). *The City of Collective Memory: Its Historical. Imagery and Architectural Entertainment*. Cambridge MA: MIT Press.
- Bristol, K. G. (1991). The Pruitt-Igoe Myth. *Journal of Architectural Education*, 44(3), 163-171. <https://doi.org/10.1080/10464883.1991.1102687>
- Broadbent, G. (1977). A plain man's guide to the theory of signs in architecture. *Architectural Design*, 47(7-8), 474-482.
- Brott, S. (2019). *Digital Monuments: The Dreams and Abuses of Iconic Architecture*. New York: Routledge. <https://doi.org/10.4324/9780429259647>
- Bullough, O. (2023). Why Saudi money is so hard to refuse. *Codastory*, 06/09/2023. <https://www.codastory.com/newsletters/saudi-arabia-neom-oil-money/>
- Burgos Vargas, C. & Mora Alonso-Muñoyerro, S. (2022). About the validity of Alois Riegl's "The Modern Cult of Monuments". *Journal of Architectural Conservation*, 28(3), 183-196.
- Callicott, J. B. (1994). *Earth's Insights: A Multicultural Survey of Ecological Ethics from the Mediterranean Basin to Australian Outback*. Berkeley: University of California Press.
- Casselman, B., Goldberg, E., & Koeze, E. (2024, March 8). Who Still Works From Home? *The New York Times*. <https://www.nytimes.com/interactive/2024/03/08/business/economy/remote-work-home.html>
- Cilliers, E. J., & Timmermans, W. (2014). The importance of creative participatory planning in the public place-making process. *Environment and Planning B - Planning and Design*, 41(3), 413-429.
- Ching, F. D. K., Jarzombek, M. M., & Prakash, V. (2017). *A Global History of Architecture* (3rd edition). Hoboken, New Jersey: John Wiley.
- Cranz, G. (2011). Levels of Analysis in Environmental Design. In G. Cranz & E. Pavlides (Eds.), *Environmental Research: The Body, the City, and the Buildings in Between* (Preliminary edition, pp. 541-548). University Readers, Inc./Cognella.
- Cranz, G., Lindsay, G., Morhayim, L., & Lin, A. (2014). Communicating Sustainability: A Postoccupancy Evaluation of the David Brower Center. *Environment and Behavior*, 46(7), 826-847. <https://doi.org/10.1177/0013916513475449>
- Crinson, M. (2005). *Urban memory. History and amnesia in the modern city*. London, New York: Routledge.
- Davidson, C. (1996). ANY (story). *Lotus international*, 92, 92-95.
- Davis, J. L. (2020). *How Artifacts Afford: The Power and Politics of Everyday Things*. Cambridge, US: MIT Press.
- Del Campo, M. & Leach, N. (eds.) (2022). Machine Hallucinations: Architecture and Artificial Intelligence. *Architectural Design*, 92(3), Special Issue.
- Deregibus, C. (2015). Storie di ordinaria decostruzione. La controfirma dell'architettura. *aut aut*, 368, 159-174.
- Deregibus, C. (2016). *Intention and Responsibility. Ethical Consistency in Contemporary Architecture*. Milano: IPOC.
- Deregibus, C. (2020). Radical Contingency. Strategy and Tactics in Architectural Design. *Ardeth*, 6, 205-218.
- Deregibus, C. (2021). Unexpected made natural. Turning the project into a tactical tool. In Milocco Borlini M. & Califano A. (a cura di), *Urban Corporis X - Unexpected* (180-189). Conegliano: Anteferma.

- Deregibus, C. & Giustiniano, A. (2020). La forma delle forme. Il progetto dell'architettura tra necessità e possibilità. In A. Alison (a cura di), *Scenari. Aesthetics and Architecture*, 12, 55-73.
- Deregibus, C. & Giustiniano, A. (2021). Progetto e ricerca della forma. Dall'aleatorio ai campi di validità. *Philosophy Kitchen*, 14, 55-70.
- Derrida, J. (2008). *Adesso l'architettura*. Milano: Scheiwiller.
- Desouki, M. et al. (2023). Revolutionary Artificial Intelligence Architectural design solutions; is it an opportunity or a threat?. *Mansoura Engineering Journal*. 48(6),1-11.
- Dorfles, G. (1984). *Architetture ambigue. Dal neo-barocco al postmoderno*. Bari: Dedalo.
- Duconseille, F., & Saner, R. (2020). Creative Placemaking for Inclusive Urban Landscapes. *The Journal of Arts Management, Law, and Society*, 50, 137-154.
- Eisenman, P. (1970). Building in Meaning. Book Review: Meaning in Architecture, edited by Charles Jencks and George Baird. *Architectural Forum*, 133, 88-90.
- Epstein Jones, D. (2024). Do you feel anything yet? Or, turning in to the real promise of the purple. In J. F. Kerestes, E. Poustinchi & V. Vahdat, *A Purple Architecture. Design in the Age of the Physical-Virtual Continuum* (236-245). Pittsburgh: ETCPress.
- Fitzsimmons, E. G. (2019, May 6). Another Way the Subway Fails Riders: Broken Escalators. *The New York Times*. <https://www.nytimes.com/2019/05/06/nyregion/mta-escalators-broken-subways.html>
- Foucault, M. (1977). *Discipline and Punish: The Birth of the Prison*. New York: Vintage Books.
- Fraser, A. (2006). Isn't This a Wonderful Place? (A Tour of a Tour of the Guggenheim Bilbao). In I. Karp, C. A. Kratz, L. Szwaja, & T. Ybarra-Frausto (Eds.), *Museum Frictions: Public Cultures/Global Transformations* (pp. 135-160). Duke University Press.
- Freidrichs, C. (Director). (2012, September 18). *The Pruitt-Igoe Myth* [Documentary]. Unicorn Stencil. <http://www.pruitt-igoe.com/index.html>
- Frichot, H. (2016). *How to Make Yourself a Feminist Design Power Tool* (Critical ed. edition). Baunach: AADR.
- Frichot, H., Gabrielsson, C., & Runting, H. (2017). Architecture and feminisms: Ecologies, economies, technologies. In *Architecture and Feminisms*. New York: Routledge.
- Friedman, J. (1992). The past in the future: history and the politics of identity. *American Anthropologist*, 94(2), 837-859.
- Gaffikin, F., & Sterrett, K. (2006). New visions for old cities: The role of visioning in planning. *Planning Theory & Practice*, 7(2), 159-178.
- Geddes, P. (1915). *Cities in Evolution*. London: Williams & Norgate.
- Goffman, E. (1959). *The Presentation of Self in Everyday Life*. New York: Anchor Books.
- Green, R. (1999). Meaning and form in community perception of town character. *Journal of Environmental Psychology*, 19(4), 311-329.
- Gregotti, V. (1966). *Il territorio dell'architettura*. Milano: Feltrinelli.
- Guy, S. & Farmer, G. (2001). Reinterpreting Sustainable Architecture: The Place of Technology. *Journal of Architectural Education*, 54(3), 140-148.
- Habraken, N. J. (1986). Towards a new professional role. *Design Studies*, 9(3), 139-143.
- Hayles, N. K. (2017). *Unthought: The Power of the Cognitive Nonconscious*. Chicago: University of Chicago Press.
- Hays, K. M. (1998). *Architecture Theory Since 1968*. Cambridge, US: MIT Press.
- Hays, K. M. (2010). *Architecture's Desire: Reading the Late Avant-Garde*. Cambridge, US: MIT Press
- Heidegger, M. (1977). The Question Concerning Technology. In D. Farrell Krell (ed.), *Martin Heidegger: Basic Writings (287-317)*. New York: Harper & Row [original edition, Pfullingen: Günther Neske Verlag, 1954].
- Herzog & de Meuron. (2007). *226 National Stadium*. Herzog & de Meuron. <https://www.herzogdeuron.com/projects/226-national-stadium/>
- Heylighen, A. (2015). Enacting the Socio-Material: Matter and Meaning Reconfigured through Disability Experience. In G. Lindsay & L. Morhayim (Eds.), *Revisiting "Social Factors": Advancing Research into People and Place*. Cambridge Scholars Publishing. 74-92.
- Heynen, H. & Wright, G. (2012). Introduction: Shifting Paradigms and Concerns. In *The SAGE Handbook of Architectural Theory*, London, UK: SAGE.
- Illich, I. (1973). *Tools for Conviviality*. New York: Harper & Row.
- Imrie, R. (2012). Universalism, universal design and equitable access to the built environment. *Disability and Rehabilitation*, 34(10), 873-882. <https://doi.org/10.3109/09638288.2011.624250>
- Jencks, C. (1969a). *Preface*. In C. Jencks & G. Baird (ed.s), *Meaning in architecture (7-8)*. London, UK: Barrie & Jenkins.
- Jencks, C. (1969b). *Semiology and architecture*. In C. Jencks & G. Baird (ed.s), *Meaning in architecture (11-25)*. London, UK: Barrie & Jenkins.
- Jencks, C. (2005). *The iconic building* (1st ed). New York: Rizzoli.
- Jencks, C. & Baird, G. (ed.s.) (1969). *Meaning in Architecture*. London, UK: Barrie & Jenkins.
- Jones, P. (2009). Putting Architecture in its Social Place: A Cultural Political Economy of Architecture. *Urban Studies*, 46(12), 2519-2536.
- Jullien, F. (2004). *A Treatise on Efficacy: Between Western and Chinese Thinking*. Honolulu: University of Hawai'i Press.

- Jullien, F. (2017). *L'invention de l'idéal et le destin de l'Europe*. Paris: Gallimard.
- Karim, F. (2018). *The Routledge Companion to Architecture and Social Engagement*. New York: Routledge.
- Kaunitz Yeung Architecture. (2024). *Yutjuwala Djiwarr Aged Care*. Kaunitz Yeung Architecture. <https://kaunitzyeung.com/project/yutjuwala-djiwarr-aged-care/>
- Kim, J. (2024, March 20). Opinion | New York's Subway Is Still Not Safe, but Not for the Reason You Think. *The New York Times*. <https://www.nytimes.com/2024/03/20/opinion/nyc-subway-safety-accessible.html>
- Koolhaas, R. (1978). *Delirious New York: A retro-active manifesto for Manhattan*. Oxford University Press.
- Kostof, S. (1991). *The City Shaped: Urban Patterns and Meanings Through History*. London: Thames & Hudson.
- Lamirande, M. (2022). Aspects of Designing Inclusively from Practitioner Perspectives. *Architecture*, 2(3), 497-517.
- Leach, N. (2021). *Architecture in the Age of Artificial Intelligence*. London: Bloomsbury.
- Lefebvre, H. (1991). *The Production of Space*. Oxford & Cambridge: Blackwell.
- Lindsay, G. (2013). *The Denver Art Museum and the Bilbao Effect*. Berkeley: University of California.
- Lindsay, G. (2016). *The User Perspective on Twenty-First-Century Art Museums* (Reprint edition). New York: Routledge.
- Lindsay, G., & Sawyer, M. (2022a). A constellation of stars: What a local newspaper talks about when it talks about star architecture. *European Planning Studies*, 30(1), 66-84.
- Lindsay, G., & Sawyer, M. (2022b). "You must go here": Architecture, yelp and the tourist gaze. *Archnet-IJAR: International Journal of Architectural Research, ahead-of-print*(ahead-of-print).
- Logan, J. R., & Molotch, H. L. (1987). *Urban Fortunes: The Political Economy of Place*. Berkeley: University of California Press.
- Mallgrave, H. (2005). *Modern Architectural Theory: An Historical Survey, 1673–1968*. Cambridge, UK: Cambridge University Press.
- Mallgrave, H. F. & Goodman, D. (2011). *An introduction to architectural theory: 1968 to the present*. Chichester: Wiley-Blackwell.
- Markova, I. et al. (2007). *Dialogue in Focus Groups: Exploring Socially Shared Knowledge*. London: Equinox.
- Martin, L. (2002). *The Search for a Theory in Architecture: Anglo-American Debates, 1957–1976*. PhD Thesis, Princeton University, 2002.
- Massey, D. (1994). *Space, Place and Gender*. Minneapolis: University of Minnesota Press.
- May, J. (2019). *Signal, Image, Architecture*. New York: Columbia University Press.
- Mbembé, J.A. & Nuttall, S. (2004). Writing the world from an African metropolis. *Public Culture*, 16(3), 347-372.
- Moneo, R. (1978). On typology. *Oppositions*, 13, 22-45.
- Moneo, R. (1985). La vida de los edificios. Las ampliaciones de la Mezquita de Córdoba. *Arquitectura*, 256, 104-115.
- Nesbitt, K. (1996). *Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory 1965– 1995*. New York, US: Princeton Architectural Press.
- Norberg-Schulz, C. (1976). The phenomenon of place. *Architectural Association Quarterly*, 4, 414-427.
- Okakura, K. (1906). *The Book of Tea*. New York: Putnam's.
- Paci, E. (1961). *Tempo e verità nella fenomenologia di Husserl*. Roma-Bari: Laterza.
- Page, M. (2001). *The Creative Destruction of Manhattan, 1900-1940*. University of Chicago Press. <https://press.uchicago.edu/ucp/books/book/chicago/C/bo3634906.html>
- Pallasmaa, J. (1996). *The Eyes of the Skin. Architecture and the Senses*. New York: John Wiley.
- Patterson, M. (2012). The Role of the Public Institution in Iconic Architectural Development. *Urban Studies*, 49(15), 3289-3305.
- Persson, H. et al. (2015). Universal design, inclusive design, accessible design, design for all: different concepts – one goal? On the concept of accessibility – historical, methodological and philosophical aspects. *Universal Access in the Information Society*, 14(4), 505-526.
- Pieterse, E. (2011). Grasping the unknowable: coming to grips with African urbanisms. *Social Dynamics*, 37(1), 5-23.
- Plaza, B. (2006). The Return on Investment of the Guggenheim Museum Bilbao. *International Journal of Urban and Regional Research*, 30(2), 452-467.
- Rowe, C. (1994). *The Architecture of Good Intentions. Towards a Possible Retrospect*. London: Academy.
- Sawyer, M., & Lindsay, G. (2024). Architecture as Infrastructure for Gazing. *Tourism Culture & Communication*, 24(3), 159-174. <https://doi.org/10.3727/109830422X16705422650409>
- Sawyer, M., Lindsay, G., & Alaily-Mattar, N. (2023). "Google for President": Power and the Mediated Construction of an Unbuilt Big Tech Headquarters Project. *Architectural Theory Review*, 27(1), 136–151.
- Schneider, B. (1999). *Daniel Libeskind, Jewish Museum Berlin: Between the lines*. Prestel.
- Schumacher, P. (2012). *The Autopoiesis of Architecture, Volume II: A New Agenda for Architecture*. Chichester, UK: John Wiley & Sons.

- Selasi, T. (2014). Don't ask where I'm from, ask where I'm a local. *TED Global*, October 2014. https://www.ted.com/talks/taiye_selasi_don_t_ask_where_i_m_from_ask_where_i_m_a_local?language=en
- Shelby, J., Lindsay, G., & Derr, C. (2022). Contested identities, contested building: Planning for a glocal future. *Archnet-IJAR: International Journal of Architectural Research*, 16(3), 671-687.
- Shinohara, K. (1970). *Housing Theory*. Tokyo: Kajima Publishing.
- Simone, A. (2022). No common cause? The spaces of urban collective identity. *Urban Geography*, 43(6), 895-903.
- Sklair, L. (2005). The Transnational Capitalist Class and Contemporary Architecture in Globalizing Cities. *International Journal of Urban and Regional Research*, 29(3), 485-500.
- Steen, A. P. (2015). *The figures of Charles Jencks, "semiology and architecture"*. PhD Thesis, The University of Queensland, 2015.
- Studio Libeskind. (2024). *Royal Ontario Museum; Toronto, Canada*. Studio Libeskind. <https://libeskind.com/work/royal-ontario-museum/>
- Toth, J.P., & Hunt, R.R. (1999). Not One Versus Many, but Zero Versus Any: Structure and Function in the Context of the Multiple Memory Systems Debate. In J.K. Foster & M. Jelicic (eds.), *Memory: Systems, Process, or Function?* (232-272). Oxford: Oxford University Press.
- Veselova, E., & Gaziulusoy, İ. (2022). Bioinclusive Collaborative and Participatory Design: A Conceptual Framework and a Research Agenda. *Design and Culture*, 14(2), 149-183. <https://doi.org/10.1080/17547075.2021.2019455>
- Wainwright, O. (2023). It's already way beyond what humans can do: will AI wipe out architects?. *The Guardian*, 07/08/2023. <https://www.theguardian.com/artanddesign/2023/aug/07/ai-architects-revolutionising-corbusier-architecture>
- Watson, V. (2003). Conflicting rationalities: implications for planning theory and ethics. *Planning Theory & Practise*, 4(4), 395-407.
- Wilson, B. (2017). The Longest Distance Between Two Points (629, Act 3). (2017, October 20). In *This American Life*. WBEZ. <https://www.thisamericanlife.org/629/expect-delays/act-three-1>
- Zallio, M. & Clarkson, P.J. (2021). Inclusion, diversity, equity and accessibility in the built environment: A study of architectural design practice. *Building and Environment*, 206, 108.352.