Learning from World Architecture Festival 2015: Transitional opportunities and teaching in the new normal

Constance Lau

University of Westminster

ABSTRACT

This paper explores the potential concealed in the gaps of the current architectural education structure through participation in the 2015 World Architecture Festival Student Charrettes. Central to the discussion and integral to the working process is the role of dialogue that emphasises individual learning, and the cultivation of an open system that encourages students to assume authorship, question and shape the outcomes of design teaching. Consequently, this non-linear and non-hierarchical rhizomic approach to communicating and learning is discussed alongside attitudes to alternative design education and advocates the transformation of latent transitional moments into notable opportunities in the new normal.

Dialogue, multiple interpretations and Open Systems

This paper explores the existing opportunities latent in the gaps of the current established architectural education structure through reflection on participation at the 2015 World Architecture Festival (WAF) Live Student Charrettes. The charrette discussed here was one of seven key events headlining the Festival and our combined team of students from the University of Westminster (UoW), London, UK and the National University of Singapore (NUS) was one of seven shortlisted to participate in the event from a total of seventeen international entries.[1] This was an invaluable opportunity to further my design studio's research interests in the multiplicity of interpretations and narratives as explored through the techniques of montage and Umberto Eco's *The Open Work*.[2] Central to the teaching methodology applied and adapted throughout the charrette that materialised at WAF, is the role of dialogue with an emphasis on individual learning and generating work that is 'questioning and incomplete'.[3] Partaking in the Festival was catalytic for developing a response teaching the key tenets of which this paper seeks to outline as revealing of the opportunities emerging from architectural education's period of transition throughout the COVID-19 pandemic, which has been defined by a displacement from the physical sites of both teaching and architecture. This paper foregrounds questions of displacement, participation and multivocality in architectural education as places themselves, of latent possibilities for the response to the post-pandemic new normal. Drawing from Giles Deleuze and Felix Guattari's *A Thousand Plateaus: Capitalism and Schizophrenia*,[4] the essay offers a rhizomic unfolding of interpretations, by myself and my students, placed alongside each other: of the WAF event experience, of conventional architectural education and its spatial attachments, and, lastly, of our speculative post-pandemic future.

My discussion is punctuated by and intertwined with three students' accounts, which are presented here in full, to ensure that my deductions concerning displacement, personal experiences and learning are still located within the context of their voices. The significance of each narrative in this open-ended multi-voiced dialogue is, thus, developed to the extent that my authorship fades. Within this textual montage, a colour-coding system is used in their presentation to convey the qualities of multiple interpretations in relation to discussions of polyphony and authorship across all three accounts: blue refers to notions of displacement, brown refers to the fragmented and rhizomic aspects of the experience and green refers to personal interpretations of the events. The design of these three reflective statements addresses the notion of polyphony, especially with regards to the importance and influence of the participants' voices. Hence the eventual open-ended multi-voiced composition is dually assembled to facilitate expression of the different experiences and opinions while still located within the discussions in the main paper. This further enhances the rhizomic qualities of the multi-faceted network of descriptions that are foregrounded.

World Architecture Festival 2015

The Festival was part of a year-long series of events celebrating Singapore's fiftieth birthday and half a century of independence. The main theme '50:50, Looking Forward, Looking Back' and the correlated charrette title 'Anticipating the Unexpected' were devised to dually reflect upon the architecture of the past fifty years, and speculate in relation to the next fifty. An accommodating strategy that celebrated all the different aspects and qualities of the factors, people and places integral to the charrette was adopted from the moment the brief was received in May, to when the students left Singapore in November.[5] Hence the different facets of this rhizomic experience are assembled from the official three day duration of the event located within the diverse happenings in the Festival, all further embedded within the flurry of activities in Singapore and the two months in the UK leading up to the event. The configuration of the continuous work-in-progress process enabled the participants to shape the eventual outcomes. Five years on, these qualities still resonate and are unreservedly expressed by the students, demonstrating the value of an education that extends beyond established confines.

Participation started in August with the submission of a competition brief and the final shortlisted teams were notified about a month later. The ongoing work had to be reargued and adapted almost two months later to accommodate additional design instructions handed out prior to the official start of the Festival.[6] The participating team of fourteen, comprised of six students from UoW and eight from NUS.[7] Nine site interventions were proposed within the masterplan of the Central Business District (CBD) in Singapore. The London students focused on historical and conservation issues and especially the way colonial buildings have been adapted to suit current uses and habitation, while the local students explored the effects of the government's changing authoritative stance through soft power in architecture. The structuring of the initial brief facilitated first encounter with displacement as most of the London team were working on buildings they had not visited, knowing that their decisions and speculative proposals will be subjected to prompt revisions on site. This manner of working advocated the development of explicit ways of approaching the differences between researching works of architecture remotely, as opposed to through immediate personal experiences.

This also meant that teamwork was *de rigueur,* as London relied on Singapore for additional site information and legwork for photography and library requests. Concurrently, London managed the layouts, archiving and the structuring of material. The London and Singapore students operated in different countries during this segment of the working process. Hence responses to all correspondences and requests were woven around different curricula, schedules and time zones. The title was eventually refined to Singapore Pte Ltd with the city presented as a speculative *memento mori*. This combined final proposal highlighted Singapore's willingness for perpetual growth and development, expressed and exaggerated through

specific examples of distinction: the biggest airport, deepest caverns, most expansive wetlands and tallest skyscraper. While the satire was not lost on the students, upon arrival, after a high intensity whirlwind tour of the city while severely jetlagged and fuelled by local food, the visiting party were baffled and impressed in equal measures by the stark contrast between the older, traditional conservation areas and the new contemporary structures of the city's architecture. Especially as these buildings of drastically differing scales are positioned within touching distances. Thus, they took to this suggestion wholeheartedly, whereas the local students were more circumspect in their approaches. These attitudes were also reflected in design discussions with the local students advocating for better conservation laws and slower development and the London students were more complimentary towards the iconic skyline and mega-scale works by world renowned architects.

Multivocality and Participation

The word 'polyphony' is used by Mikhail Bakhtin to describe a multi-character approach to novel writing whereby the text is structured as a means of interaction among different voices.[8] This idea of active dialogue and multiple perspectives enables meaning to be derived from interactions amongst the characters and consequently between the author, the work, and the reader.[9] Comparably, the numerous stances of dialogue inherent in my teaching provide a means to connect the design brief, students' personal interests and the eventual output of architecture. My studio methodology is structured to facilitate individual interpretations through the development of narratives that express a range of readings and responses pertaining to different design sources. Hence the notion of multiple interpretations is explored through the architectural narrative and used to construct a dialogue with the audience and/or user. The students' design authorship furthers this practice by means of precise decisions that stage the works differently, question known conventions and encourage user involvement, resulting in the creation of new meanings and different readings of the proposals.

The technique of montage further exploits the interpretative qualities of appropriation found in Eco's concept of the 'open work', where organisational tactics are devised to facilitate the completion of the creative work through user interventions.[10] In Eco's terms, the author presents the workings and components of a tool-kit and the poetics emerge then as the user conceives personal modes of interpretations. The ensuing network of opportunities is complex, variable and composed of a 'vast aggregation of units of meaning among which an infinite variety of connections can be made'.[11] Transposing and applying this multi-voiced approach to design teaching allows for the deconstruction of the assumed authority of the teacher and transforms the meaning of the work as well as conventional ideas associated with architectural education. In this perspective, students are no longer passive participants but actively involved agents in the curation of their own education.

The critique of conventions entailed in this approach of multivocality and shared authorship, is in this paper extended to the linear and rigid structure and accreditation of the architectural educational system administered jointly by the Royal Institute of British Architects (RIBA) and Architects' Registration Board (ARB).[12] The linearity that these systems impose is in essence antithetical to the plurality and multiplicity of the design process, and by extent its education. Towards understanding this, it is useful to consider another post-structuralist concept, the 'rhizome' as conceived by Deleuze and Guattari, challenges the hierarchical systems prevalent in arborescent structures, dominated by binary relations and pre-established paths that are defined by fixed sets of points and positions. The proposed alternative system of the rhizome is 'open and connectable in all of its dimensions', 'susceptible to constant modification' and can be 'reworked by an individual, group, or social formation'.[13] Consequently, these qualities can be manifested as 'a work of art' and/or 'constructed as a political action or as a mediation'.[14] This 'open system' of non-linear structures accommodates seemingly random 'disciplines from science, mathematics and the humanities' and the eventual composition is expressed as 'a network of 'plateaus' each operating independently at different intensities.[15] Significantly, 'one of the most important characteristics of the rhizome is that it always has multiple entryways', 'no beginning or end' and the plateaus located at the concentrated mid-points.[16]

In architectural education competence in the different disciplines is not attained in a linear manner, even within the existing chronological hierarchical governing systems. Hence, dialogue as a unifying tool can be further adapted to organically accommodate the different needs and interests of the students within the extensive educational framework. This approach is less about a production line with fixed goals and more a process of learning where every step is considered critically and carefully. Each task is considered as a collaborative problem-solving process that reveals the latent transitional opportunities between the different 'plateaus', or components in the curriculum (Fig. 1). In these visual descriptions, the coloured patches represent the different course components, regulated by the existing stratified framework of architectural education. This rigid top-down hierarchical structure has fixed 'gaps' and depicts a similar curriculum for everyone within the horizontal bands, set against a vertical axis where accreditation occurs at fixed chronological points. The elimination of this linear arrangement encourages more fluid relationships between the components that can be connected by different learning routes and exposes the latent transitional opportunities in the 'gaps'. These routes assist in identifying individual needs and the integrated flexibility further enables asynchronous learning opportunities. Exploiting this understanding of customised learning further enables multi-directional configurations that facilitate unscripted interactions within the transitional spaces. This journey that has no predetermined start-finish positions is conducive to self-directed learning and optimises the transitional opportunities while exposing the inherent rhizomic network.
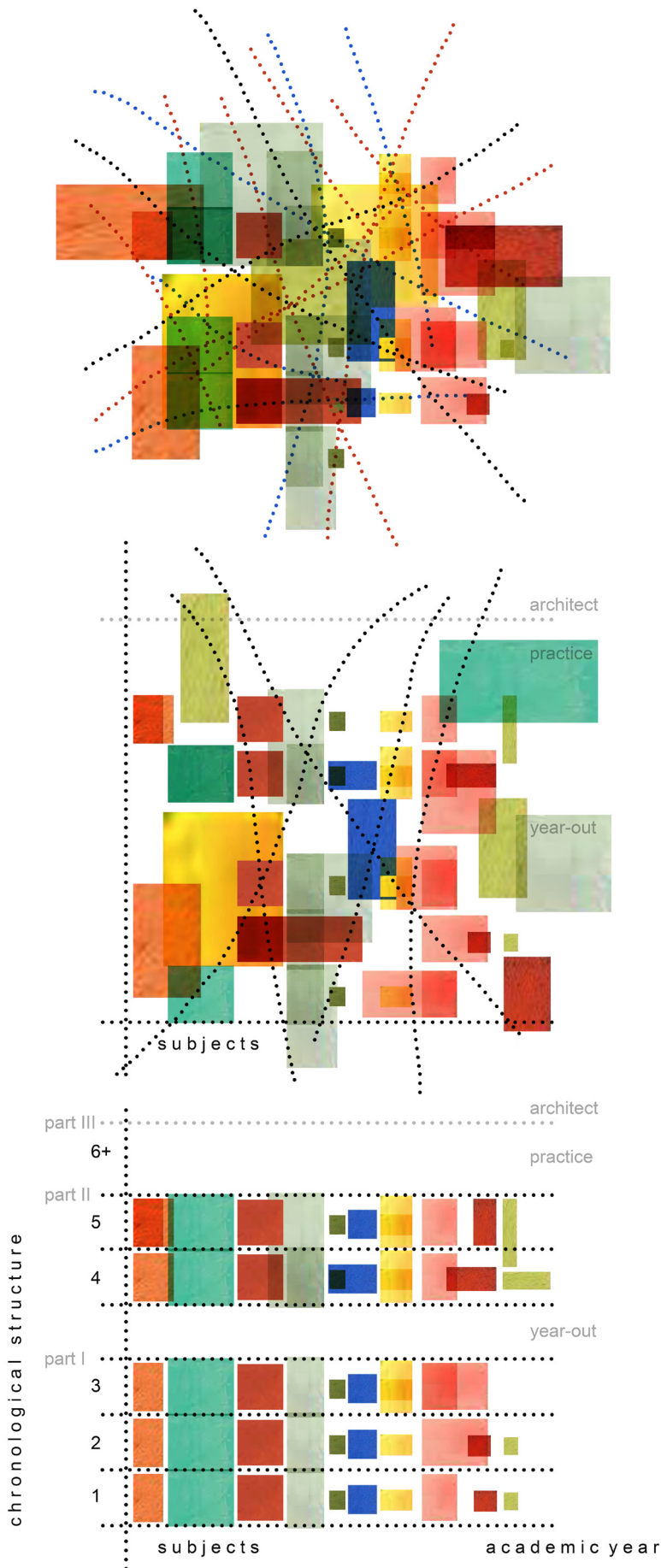
Figure 1:
Transitional opportunities in architectural education. The colours represent the different course components, regulated by the existing stratified framework of architectural education. The removal of this structure encourages more fluid relationships between these components, connected by different learning routes and exposes the 'gaps' and/or transitional moments. Exploiting this understanding further enables multi-directional configurations that facilitates unscripted interactions in the transitional spaces (Constance Lau, 2021).

To think back on the experience of that 2015 Singapore project and trip has always been 'funny' for me, in the sense of curious, peculiar: an experience that could be defined as unique.

To design generally implies that you follow quite a specific route: you visit a site, learn about it, research and then develop a proposal.
In the 50.50 Singapore project nothing was as linear, the process was subverted and we found ourselves amateur experts of a Country we had never visited.

We drew buildings we had never seen, read articles about events and based ourselves on assumptions we formed via second hand experiences.
[Rebecca Billi, 7 September 2020, Part I]

Looking Back/Looking Forward: Singapore 50:50, Part I

In works of architecture, the openness of the work to be completed by the user is generally inevitable and are apparent through issues of use and habitation. To avoid the argument of multiple interpretations being an accidental and existing by-product of architecture, design authorship can ensure that the occurrence of different readings shifts from an assumption to a working focus.[17] In design practice, the notion of multiple interpretations and different readings also stems from the underlying argument that, as Yeoryia Manolopoulou suggests, 'there is always a history of drawings, objects and buildings within and against which an architectural work can be seen'.[18] Here, this also implies that in order for the users' impact to be a conscious consequence, the construction of the design strategy, similar to Eco's aforementioned tool-kit, needs to be deliberate and integrated from the outset. Hence the additional consideration of ideas and conversations outside the immediate field of architecture is implemented to knowingly generate design work and further the possibilities and outcomes of multiple interpretations. The integration of these carefully chosen fragments of multidisciplinary research material addresses the aforementioned notion of 'polyphony' (from Greek *poly*, meaning many and *phone*, meaning voice) and in design practice can refer 'to a relational activity between different actions'.[19] Manolopoulou's reading and understanding of polyphony and especially the idea of relational activities was integral to the WAF charrette from start to finish. The mosaic of activities that included designing and presenting projects on the fly, site and sight-seeing visits as cultural experiences, local culinary adventures, as well as continuously communicating with the NUS students and WAF organisers, demonstrates that optimal design teaching is not about setting an agenda that prioritises certain assumed pursuits like prescribed studio teaching, design presentations and site studies over others. An open, accommodating, and flexible approach is required from the onset to capitalise on the special environments as they present themselves. Studio teaching acknowledges that design practice is not a static course of action but a continuous development throughout the project as new conditions

and circumstances arise. This ethos that transpired across countries and educational systems was also evident in the students' reflections that spoke less of the Festival and its directly associated tasks, than of the participatory experience as a whole. Hence the deliberate use of the word 'participatory' as opposed to 'participation', which implies qualities of openness, opportunities and involvement. This is best described through the students' unedited personal reflective statements.

To speak of the 50.50 Singapore project is to speak of what it meant to be there in that moment together with the preparation that came before, in London. It is impossible to detach the two as no project exists by itself in the design project. Especially when in university (it can be a very different question if we were to speak about work) projects are thoroughly connected to the context in which they were developed.

To simply research about Singapore without being able to go there and be faced with the right and wrongs that can come from 'a priori' research would have meaning to lose an important side of the process of this specific project.

We ended up walking through, speaking through, designing, eating and at times even sleeping through Singapore. Never feeling like we were visiting, but more like finally 'meeting' the country. To then confront our outside perceptions of Singapore and its identity through collaborative design with the local students added yet another layer to the project. Design became a way of sharing knowledge, another form of communication and once again our impressions were examined and explored.

Regardless of whether we were right or wrong – which is generally not the point in this sort of academic exchange – we could understand where we stood and where the differences could be, we shared and learned through what was our shared language and our guide in Singapore at the time – design.
[Rebecca Billi, 7 September 2020]

Architectural Practice, the Open Work and the Rhizome

In the practice of architecture, the idea that there is a singular claim to authorship is therefore misleading. The notion of authorship has always been ambiguous and the meaning changes at different stages of the project. Buildings are made by many people and inherently used and appropriated by different people in numerous ways. Hence the role of authorship contests the straightforward argument that buildings are conceived, constructed and attributed to a single architect and/or a singular source and makes the idea of a single claim to authorship off- and on-site questionable.[20] Industry can learn from these conversations concerning transitional opportunities and the delayering of educational frameworks to create new and more

open systems that address the unprecedented post-pandemic world. In *A Thousand Plateaus*, the properties of change and unity intrinsic to the notion of assemblage are utilised to create new concepts and connections 'set within the context of fundamental continuity'.[21] This argument for the introduction of 'new' things as opposed to merely fitting things into 'pre-existing forms' is evident in the opening plateau of Deleuze and Guattari's volume, titled 'Rhizome'.[22] This chapter is conceived to question the very notion of a book, not in the sense of reproducing something that already exists, 'but a book that creates something new and is itself something new'.[23] More importantly, it provides readers with 'a way to begin creating their own concepts'.[24] As Andrew Marzoni highlights, the advent of the 'rhizome' and the determination to create something different that essentially 'is itself something new' were 'fundamental to early theorisations of the internet and digital culture'.[25] This is the digital culture that will dominate and become a substantial part of the post-pandemic architectural education landscape, and is already entrenched in the lives of this generation of students. However, it is also what made this paper possible by means of patiently trawling through massive networks of emails, videos and photographs to locate dates as well as piece together events and itineraries from correspondences. Regardless of whether these were official or casual communications, all these fragments contributed to this reconstruction. Significantly, they assume the position of 'voices' and this particular reconstruction offers only one account. Similar to the students' reflections, a different author navigating this network of resources will provide another reading.

In the last decade or so, debates regarding the limitations of conventional systems and manners of qualification have led to discussions in conferences, publications and the advent of new experimental models in architecture schools. These have also demonstrated that there is no singular solution 'alternative' or normative to architectural education, as the different types of global challenges faced by students in architectural academia vary tremendously. While this complex situation lends itself to different approaches and interpretations, one collective argument concerns the balance and emphasis awarded to the individual portfolio against the more generic paper qualifications. In terms of its value to the student, 'the portfolio often succeeds in communicating the achievements and orientations of a student'.[26] If the idea that portfolio experiences are highly valued and students' capabilities are best expressed through the 'nature and quality of projects they develop within their studies', then 'one should question the role of a diploma if it is no longer sufficient to express the resulting skills of a candidate'.[27] This mindset that prioritises the educational portfolio as a driving factor was evident from the inception of Singapore 50:50. Participation was above the demands of the normal curriculum and spanned over two academic semesters. The London students understood from the onset that the effort and time invested had absolutely no bearing on their academic grades and would even involve clashes with key assessment dates in their existing schedules. Nonetheless they were enthusiastic about the additional experiences and knowledge to

be gained. This aspect is outstandingly apparent even now, in the reflective accounts.

This multi-directional juxtaposition onto the existing educational framework included the manner design teaching was devised to enable students from all levels to participate in the Singapore 50:50 charrette. The presence of students across all stages and points in their architectural education once again emphasised the importance of transverse working processes that accommodate meaningful decisions made by students and teachers. In this way, at almost every point in this charrette journey, we exploited the opportunities to challenge and innovate within general assumptions and existing structures.

Thinking back to the WAF 2015 in Singapore, I realised that for me personally, was more than just an opportunity to experience well designed architecture and meet some extremely inspiring teachers and students from NUS. I came to understand that as architects/designers we cannot isolate ourselves from how culture, day to day life, people's gestures, habits and customs actually impact us in our design process. I was totally immersed and captivated by the cultural richness of the country and the sincere willingness of the people I met to share their knowledge with us.

I felt deeply inspired by the whole adventure that WAF brought, from us having the opportunity to visit and work at NUS and get a glimpse of what is to experience an architecture university in Singapore, to our day working at MBS and to visit Singapore. The architecture gave a feeling of an "everything is possible if you just believe", because although it had a bold attitude to design, felt very approachable and almost obvious that it should be proposed the way it is.
[Larisa Bulibasa, 22 July 2020]

Nomadic education and the loss of space

The pre-pandemic distinction between a professional degree and an architectural education requires clearer distinctions. The first generally involves an understanding of the university as an institution with physical presence, hierarchy, a clear accepted syllabus, accreditation, and distinctive teaching methodologies that are further located in recognised spaces like studios, workshops and auditoria. These attributes are assumed necessary for a formally recognised qualification that is judged to be of higher value and these preconceived ideas need to shift in order for the value of education to be predominantly based on quality. Needless to say, a critical revamp of this previously unquestioned model that was dismantled overnight is due. The pandemic displacement of education, defined as a system and/or an experience, has at present seen some merely incremental changes, such as offering the same subjects but delivered online. Video conferencing tools are presently considered as replacements for the unfeasible but generally

preferred in-person teaching, instead of new ways to optimise delivery through digital media. Crucially, traditional hybrid notions of blended and/or flipped learning need to be re-examined. While some aspects regard finding the right balance between online, in-person, synchronous and asynchronous teaching, most others need to be reinvented as opposed to just updated. Simply put, the development of new templates of innovative educational tools to address the ongoing and post-pandemic needs of architectural educational is urgently required.

An alternative education implies fundamental structural changes and one of these would include acknowledging the fact that schools are spatially designed for social interactions as opposed to distancing. Current measures and solutions are at best adaptations to accommodate this fundamental flaw and existing spatial templates for schools need to be rethought. This issue of space and curriculum has previously been challenged through nomadic approaches to education. An example of this can be seen in The Minerva Project (2012); a fully online virtual university that enables year groups to spend semesters all over the world.[28] This, in essence, includes altering the recruitment model for both students and staff with the basic understanding that neither will have to be based in one country, or place.[29] The Free School of Architecture (FSA), focused on horizontally organised student-teacher-led forms of architectural pedagogy to encourage 'critical thinking and the free flow of ideas'.[30] Following its debut at the Container Yard in Los Angeles, ambitions for a more far-reaching distributed approach to encourage global networking, currently envisage all future discussions to be online. Hence spatial requirements simply become an 'adjunct issue'.[31] The emphasis is that FSA should 'ultimately be understood as a kind of working process or work in progress rather than a finished concept' where temporality and change are driving factors.[32] Other instances of interdisciplinary collaborations, non-accreditation and self-directed peer-to-peer learning include The Urban School Rhur, in Germany and The School of the Alternative in North Carolina, formerly Black Mountain School, USA.[33]

We landed in a country we knew nothing about and everything about at the same time.

We had been reading for months and drawing for just as long and yet we had no idea of the reality of things. To design is also to learn about a place, not to be there it means that you are never completely right in your claims, in the sense that the hands on experience and the most basic reactions to something are lacking. To be able to go beyond this and enrich the design process through actually being in Singapore was the great merit of the project. While at the same time subverting the linearity of the design process: you generally see a place, react instinctively to it, then start researching and enriching your opinion and knowledge. We did the opposite: we formed an opinion before being able to react to the space. We all had learned things – some things we actually did learn, and some things we just assumed we did – and had the chance to evaluate and discover more than

the images of newspapers and the books and the drawings we had done.

Avoiding any unnecessary pandemic rhetoric, or any comments on how easy it was back then to travel back and forth, to say that the experience would have been the same without the possibility to be there, in Singapore, in that exact moment and time, it would be to lie.
The place, the food, the people, the context - they are all elements that made that time what it was.
It is almost difficult to recollect linearly the things we did or what we saw, the fact that trying to do so in the past months turned out very challenging proved just how intertwined everything was and felt.
It definitely was a crazy time.
We've been looking back at it - I have been looking back at it - and still the question that arises is always: "Were we seriously there only that short amount of time??".

Eight days felt like eighteen but they could have been three or twenty: the views, the places, the food, the context - it's all mixed together to constitute the memory of an experience rather than a series of events.

When preparing the project in university in London, nobody would have expected those days in Singapore to be what they'd end up being.
We visited (many places), we ate (a lot), we drew (intensively), some times we slept (very little and in some unexpected context as well).

It was an overall wholesome journey, to the point that it would probably feel strange to go back to Singapore - not that I would never go again nor did I not enjoy the city - still, it is more the fact that going back would simply be different.
The memory I have of Singapore is so strong that to replicate it would be impossible, it would be an other place without that company, pressure of time and of the project.
[Rebecca Billi, 7 September 2020, Part II]

26 October 2015:
London, After hours discussions at the UoW reception area.
Figure 2:
Mervin Loh, Victoria Thong, Larisa Bulibasa, Constance Lau.

2 November 2015:
Singapore, NUS architectural
studios.
Figure 3:
Jia How Law presenting.
Figure 4:
Iga Martynow presenting.

A method to madness: an adventure in cultural richness
Vividly alive in my memory, an event such as the World Architecture Festival could be perceived as an exciting trip only - but nothing would be further from the truth!

The approach to the competition was - in my opinion - unique from its very onset. As the only 'joint' team, we began our separate preparation months before the WAF Festival.
With the help and guidance from our mentor, Constance Lau, we learned about Singapore's colonial history and complex cultural makeup by re-imagining its iconic structures 50 years into the future. My own project looked at the future of Singapore's international icon, Marina Bay Sands Hotel, re-imagining the building as a regular housing estate.
Although time and distance prevented us from close engagement with our Singapore counterparts, our 'London' group met regularly to discuss the progress of our individual investigations.
In November, our trio departed for Singapore with the laptops still open and running. Amidst work on our final presentation, we landed in the country that was a subject of our months-long and in-depth study to finally see it with our own eyes. Arriving a few days before us, Constance wanted to ensure that we got a chance to not only visit our case studies in person, but also encounter the true cultural fabric of the city before we embarked on the competition. Upon later reflection, I can see how unique - bordering on mad! - was our 'sightseeing'.

Sleep deprived and jet-lagged, our brains concocted the differing smells, sounds, sights and sensations into a single, sensory-rich and unpunctuated experience. We moved from one colourful quarter to another, changing environments and flavours, from traditional to modern, from the local scale to a global one. To us, the city not only stood in contrast to the 'European' canons that we came to know back home, but contained further differences between each and one of its areas, rendering the most culturally rich city that I have seen thus far.

The buildings known to us through careful theoretical (though sterile) study came alive amidst the humidity and heat, where we stood surrounded by the splendid

greenery with a lingering aftertaste of chicken rice and sambal. The vivid colours of Gardens by the Bay (centre stage of a late-night light show) were complimented by the taste of an even more-intensely coloured Bandung; after a short but unavoidable nap in a cable car, we found ourselves enjoying a 1 am cocktail surrounded by the half-empty stalls of the eerily-staged Sentosa Island.

Too tired to think twice, I tasted a fish eye before being led through the hustle and bustle of the Indian quarter; relaxed at a hidden mixology bar in the lead up to dinner on the streets of the Muslim neighbourhood; fought for Gula Melaka in a tucked-way Ice cream shop off Chinatown; and praised the traditionally-made Satay in the shadows of the financial district.

[Iga Martynow, 12 September 2020]

Looking Back/Looking Forward: Singapore 50:50, part II

In the context of the WAF charrette, these nomadic notions of transience concerning learning, time and place were assumed as the students and tutors did not meet until a few days before the actual start of the charrette, demonstrating that design teaching was not limited by geography. Discussions took place after hours, across different time zones to accommodate schedules through all modes of communication from hard copies to digital. In-person meetings when necessary, took place in makeshift transient places ranging from studios, refectories and reception areas, to a borrowed office, and the final charrette corner in the Marina Bay Sands Expositions and Convention Hall (a transformable warehouse where WAF was held). In short, basically anywhere with tables, chairs and good internet connection. This nomadic response to physical space emphasises the fact that the focus remained on the qualities of the exchanges and the physical spaces were of no concern (Figs. 2-12). Fundamentally, these discussions advocate for different relationships to be formed between the course, knowledge dissemination and participation. New opportunities will emerge through these transactions and working with issues of curriculum, space and time as separate operations. The resulting strategies are not finite but a problem-solving dialogic framework that allows for learning through creation and experimentation. Engagement is transformative with everyone involved prescribing the new modes of production to pose anew ideas of design practice and education.

Intently or not, the variance of our individual projects and approaches to the competition brief was directly reflected and supported by the even greater complexity and cultural makeup surrounding us in Singapore. There was a richness and intensity to the experience that (to me) came to symbolise the very essence of the place I was trying to understand.

Whereas all of my friends that visited Singapore as regular tourists were rather disenchanted with the city (experiencing it as a 'Westerner' with a 'touristic' attitude), our WAF trio expressed nothing but awe, swearing to return in the

future. Our mentor has shown us the city through the eyes of the local - and we could not help but be enchanted by what we saw.

It is with that attitude that we met our Singapore's counterparts and embarked on a joint project. It was evident that the proposals developed in readiness for the festival were very much different and separate from one to another. However, both Lilian (the mentor and tutor from Singapore) as well as Constance, quickly created an environment where cooperation became the natural order of the day. In stark contrast to what we were doing in the lead up to the WAF, the team spirit came alive in no time: guided by Constance and Lillian, we automatically combined forces and tackled the competition brief in near-unison manner.

I often forget how discussions with others and away from one's usual environment provoke thoughts that one would not have while at home and by oneself. With so much of university design concentrated on theoretical proposals in faraway locations (and with students briefly visiting their site to familiarise themselves with immediate context only) this trip was an invaluable lesson in the importance of experiencing the local culture and customs that reflect on the urban landscape. Furthermore, the mix of local and international perspectives, so expertly facilitated by our tutors, attempted to bridge the gap between the two viewpoints to create a more rounded argument and a more appropriate proposal.

It was clear to all that our final project differed greatly from all other that were presented at the festival. In my opinion, only our team was so positioned as to even understand the project's specific relevance to Singapore! To this day, I believe that we have gained a deeper understanding of the city and country, facilitated by our distinctively intense experience of the place and our subject matter. Is this the only way a foreigner can design for places that they are foreign to? Most likely, this intense and unusual approach is not the only effective one - but there sure is a logic and method to such madness.
[Iga Martynow, 12 September 2020]

The polemical, inventive and creative functions of architectural education

In this instance, a constructive distinction between education and teaching also needs to be established. Fundamentally, teaching is not simply about 'transferring information, but creating an atmosphere of mystery and imagination and discovery'. More importantly, a teacher 'is anyone who holds her or himself accountable for finding potential in people and processes'.[34] One often assumed, but under explored fact is that the 'people' we refer to here (that is, the majority of the students), are millennials belonging to Generation Z who were born into the digital era and therefore find multi-tasking across several media platforms natural. This was very apparent already in 2015, during the charrette preparation as students' simultaneously and seamlessly navigated multiple online interfaces while working with their counterparts across the globe. Meaningful dialogue was spread across a range of media and platforms and in order to keep abreast, my involvement in this event was in fact the moment that finally propelled my acquisition of a smart phone. Consequently, assumptions that these informal networking systems are merely supporting tools to formal methods of learning are put into question because in the case of the charrette for instance, these proved to be the driving force throughout the coordination of the event. To say the least, this effortless ability to utilise 'displaced' digital resources whereby information, goods and services are gathered from different places and countries was already apparent pre-pandemic and must now be capitalised and extended to education. Recognising these skills as positive assets is important and, accordingly, limiting teaching to fixed curricula within pre-determined spaces is not conducive. Hence it is probably fair to say that the full potential of this generation has not been fully utilised in existing approaches to architectural education.

Similarly, the current commentary favouring in-person over online teaching is based on experience, familiarity and skills honed over decades of tutorials and refining studio culture. Contrary to this, by the time of starting to write this paper, we had only had four months of full online, at times ad-hoc teaching, with little to no preparation and/or suitable equipment and

platforms to deliver material. Hence many of the comparisons made between the two contexts of teaching are biased and unfair, especially when made by people who have spent disproportionately less or little time teaching online previously. Ten months in, the worsening pandemic has stalled expectations of a foreseeable return to previous arrangements. Maybe the new generations of tutors, born into the digital age and schooled during the pandemic will be more innovative in rebalancing this argument with strategies and tools for the new normal.

In addition to the alternative approaches raised, there is also the probability that informal communication networks comprising of bodies of information that operate within their own disciplines, and unofficial methods of knowledge dissemination are already in force. At the expense of not fitting into existing pre-determined and rigid structures, the latent qualities in these practices are overlooked. The fact that these practices appear to lack intention is also where the potency of their input resides, especially with process driven methodologies such as problem-solving through critical thinking where unpredictable outcomes are objectives. These apparent but at present transitional opportunities simply need to be emphasised, differently integrated and brought to the forefront of teaching and learning. Participation in the charrette has shown that time and space could be substantially freed up in existing curriculums for 'alternative' development activities. Distance and displacement have further augmented the programmatic overlaps and layering of processes, inevitably creating additional but unintended rhizomic arrangements within the already existing arrangements. Hence polemical, inventive and creative responses whereby, polemical suggests adopting a critical opposing position, inventive refers to the addition of material that is deemed missing from the field, and creative indicates the development of new concepts that are used to evaluate the creation of design work, can be referenced constructively.[35] Collectively, the essence of these functions can be used to approach new arguments for architectural education in the new normal. In other words, from space to learning structure, the idea that students are invited to question the design brief is once again extended to encourage the questioning of the academic system that their education is located within and based upon.

Looking Back/Looking Forward: 2020 Hindsight

A request for material was put out at the end of June 2020 when the beginnings of this paper were being formulated. Participation in the event was simply about the experience and there was never any intention for any formalised reports or assessments. This is most evident in the informal qualities of the conversations and images sent by the students that were mostly recorded on personal devices. While incomplete, these provide clear insights into the prevalent fragmented and informal attributes that were imperative to this learning process and experience.

The mechanics of the current situation have broadly revealed that different approaches to flexible working can become a larger aspect of education and physical presence is not entirely essential. Thus, in addition to exploiting the opportunities latent within education and the digital abilities of the students, what we must ask is how do we, as teachers and educators approach our chosen professions differently. To start, learning is not a product but a fluid process that adapts to societal changes including beliefs, behaviours and attitudes. This means transitioning from a one-size-fits-all approach and standardised testing or in the case of design teaching, rigid assessment structures and portfolio requirements, to more collaborative interdisciplinary approaches that are personalised and can accommodate the different ways students learn. Some of these systemic assumptions like equal access to an all-encompassing and balanced education were simmering pre-pandemic and matters like race, status and financial inequality have become more critical as inadvertent consequences of the crisis. Alternative approaches to architectural education like the RIBA studio and The London School of Architecture (LSA) aspire to integrate the learning experience in practice through enabling students to study while working full-time.[36] These academia and practice integrated syllabuses with more affordable fee structures aim to create a more inclusive profession that is prepared for impending economic realities. Jonathan Massey's discussion of similar issues in the architectural education system in the USA raises key issues that are pertinent to the UK.[37] This starts with altering aspects of the curriculum that foster assumptions regarding the practice of architecture being a 'gentleman's profession' and hence the revised agenda must 'foster awareness of architecture's relevance to matters of common concern'.[38] Other suggestions include introducing this particular field of study to potential future architects 'from underrepresented backgrounds' early in their educational trajectory through conferences and workshops.[39]

5 November 2015:
The completed prints arrive the evening before the final presentation
Figure 8:
Constance Lau, Jia How Law, Rebecca Billi, Iga Martynow, Larisa Bulibasa, Jing Min Tan.
Figure 9:
(back) Constance Lau, Jia How Law, Rebecca Billi, Jing Min Tan, Shaunice Ten,
Jing Xiang Tan, Bok Guan Yeow
(front) Larisa Bulibasa, Iga Martynow, Yu Chuan Song.

This shifting role of the teacher from instructor to mentor underscores the understanding that success is no longer limited to a linear career ladder but the ability to do good work on one's own terms; an imperative since everyone is differently affected by the pandemic. Similar to the non-linear processes entailed in design development, Lydia Lim's discussion of Adam Poswolsky's 'lily pad' proposes the understanding of the professional career as a network, within which a vocation is perceived as a lifelong experiment of 'inter-connecting leaps' between opportunities for growth and self-development.[40] For educators, this means that they need to be aware of the issues that resonate with this generation, evaluate what the new multiple roles required include and take it upon themselves to upgrade and update existing skillsets in order to remain relevant in their profession.

Post-pandemic, revised strategies concerning teaching and feedback processes need to be structured to support increased asynchronous and virtual learning. These include design briefs that are conceived to unfold differently in response to the tools available in unpredictable circumstances, foregrounding the forming of reciprocal relationships, developing interactive strategies, reiterating important issues through follow-up notes with positive affirmations to maintain continuity. In Donald Schon's 'The Dialogue between Coach and Student', Tolstoy's teacher of reading is referenced in relation to design teaching where 'a good design coach has at his disposal and is capable of inventing on the spot many strategies of instructing, questioning, and describing – all aimed at responding to the difficulties and potentials of a particular student who is trying to do something'.[41] To 'reignite creativity, innovation, and learning', ideas of engagement need to be re-examined in order to develop a robust personal system that helps both students and teachers improve regardless of how displaced, or far outside the known boundaries this falls.[42]

Catalyst pedagogies such as nomadic responses to sites of education and architecture and participatory rhizomic structures of meaning and communicating, saw us learning from the flexibility afforded by the way the WAF charrette was run and recognising that design practice is not a static course of action, but a continuous development, within which new conditions and circumstances may surface. Throughout the charrette, the notion of displacement was continuously shifting and by, extent shifting the design process; the London students started by designing on sites in Singapore, arrived to test and reargue their displaced propositions, that altered yet again in response to the final instructions. The resulting presentation was a montage of dialogues and displaced experiences, resulting from both virtual and in-person conversations that very much exemplified the belief that experiences of architecture are ongoing theoretical and physical responses that encourage lateral thinking.

In the UK, ongoing discussions have questioned the out-dated route of the Part I undergraduate degree as devised to filter students into the

Part II Masters, as opposed to a more open education that includes other disciplines.[43] Instead the first degree could be designed to be interdisciplinary and accommodate expansions into different creative fields, digressing from the linear model of the degree as a step towards the title of the 'architect'. Alternatively, if the degree conforms to a more rigid structure, then surely there can be allowances for Part II to diverge and be radically different. Hindsight in 2020 recognises that the capacity for a course to adapt efficiently is fundamental in the current and post-pandemic context when costs, the lengthy duration to qualify as an 'architect' and a deep protracted recession are prohibitive factors. In this context, the changes proposed here might also ensure that full-time architectural education does not eventually become obsolete.

The career of a multi-tasking but still rather singular role of an architect has and will further become multiple careers in the new normal and education needs to address this. For instance, securing work and raising funds through networking and advertising would require new digital and media skills to keep up to date with relevant platforms. The ability to address labour and material shortages in the foreseeable future due to travel restrictions and limitations imposed by Brexit will also be necessary. In addressing interdisciplinary approaches that embrace multiple perspectives, self-sufficiency in tandem with learning collaborative skillsets required to lead and/or support ensuing new arrangements are vital. This has also changed my attitude towards education. While my teaching methodologies used to focus on the different ways to describe architecture, I now include discussions about different ways to be an architect. Through dialogue in the design process, and especially the interdisciplinary nature of my approach to studio teaching, I engage with students' interest outside the field of architecture and demonstrate how these can be applied to their studio work. In locating transitional opportunities, I use the analogy about reading a book as a challenge and 'prying open the vacant spaces', in order for new connections to be made.[44] This adaptation results in the understanding that the undergraduate degree in architecture is not exclusive, but highly inclusive and will open many doors in the creative fields.

6 November 2015:
Singapore Pte. Ltd. The finishing touches and final presentation
Figure 10:
Jing Xiang Tan and Iga Martynow.
Figure 11:
Larisa Bulibasa and Qian Rou Tan.

Figure 12:
Last charrette memento: 'Not all
those who wander are lost':
Iga Martynow, Rebecca Billi,
Larisa Bulibasa, Constance Lau,
Jing Xiang Tan, Yu Chuan Song,
Shaunice Ten, Jia How Law and
Jing Xiang Tan.

The success of the WAF experience can be defined as a microcosm of the architecture world that integrated in no specific order, education, practice and life as interconnected networks. This is evident in the collaborative efforts of in-person and virtual means with the NUS staff, students, the other student charrette teams, the WAF organisers, architects and attendees. This idea of the 'proto-practice' can be adopted and adapted by architecture schools, where educational structures become an 'orchestrated network' of tutors, consultants, different disciplines and other local and international institutions.[45] These are not satellite activities, peripheric possibilities and/or add-ons but key aspects of the core curriculum that facilitate dialogue and cross-learning. Fundamentally the idea of what is education needs to be altered by first enabling the student to take the position of knowledge. Within the proposed fractal rhizomic arrangement, it is still important to ensure continuity and as tutors, this means the skill to be able to impart confidence, to help a student find his and/or her own place in the dialogue within the complicated structures of education and industry without either the system or one's ego dictating a particular route. As mentioned, the work put into the WAF charrette had absolutely no bearing on the academic grades of the students within the education system, yet the experience and knowledge gained were immeasurable. Throughout, we all learnt to constantly negotiate with the expectations of the situation and the limitations under which we all had to perform.

It was clear then that the students were never looking for material rewards and this mindset still holds five years on as their reflective accounts allude to this adventure as beautiful memories. They have never questioned the formal merits and now that they are on the cusp of completing their architectural education and/or have qualified as architects, only they can gauge the impact that this experience had on their individual architectural journeys.

Nevertheless, when contacted for this paper, one unanimous observation was the fact that it took a pandemic to provide the obvious opportunity to regroup and document that moment in time for posterity. Fortuitous or otherwise, I am grateful to everyone who contributed in one way or another. The WAF charrette has encapsulated the rhizomic qualities of multiple routes embedded with pockets of activities operating independently. Like a book that enables readers to create their own concepts, the charrette enabled participants to shape its outcomes, weaving their contexts together in a productive, creative dialogue. This enlightening experience of the architectural studio as multivocal, open work, provided us all with new skills for a lifetime and lessons for the displaced but rhizomic possibility of a new normal.

REFERENCES

1 My deepest gratitude to Associate Professor Dr Lilian Chee who co-headed the combined team and oversaw the NUS students. While the reflective arguments in this paper mainly reference the UK's Higher Education (HE) and RIBA/ARB systems, the contributions of Dr Chee and her students were integral to the work and an invaluable aspect of the experience.

2 Umberto Eco, *The Open Work,* trans. by Anna Cancogni (Cambridge: Harvard University Press, 1989). First published in Italian 1962. Eco's concept of 'openness' explores the capacity for user intervention to shape the reading of the work. The creation of multiple interpretations and new meanings by the user is necessary in order for the work to be deemed complete.

3 Jonathan Hill, 'Dialogical Designs', in *Dialogical Designs*, ed. by Constance Lau (Milton Keynes: Lightning Source, 2016), p. 7. Examples of how the construction of individual narratives as ongoing dialogues in architectural design as articulated through my studio's design projects are also evident in this publication.

4 Gilles Deleuze and Felix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. by Brian Massumi (Minneapolis: University of Minnesota Press).

5 Unless otherwise indicated, all the dates regarding activities, events and correspondences took place in 2015. A detailed documentation of the parallel experiences can be found on the Instagram account @waf2015_london.singapore.

6 Additional information can be found in the World Architecture Festival website <https://www.worldarchitecturefestival.com/waf-student-charrette> [Accessed 2 September 2020].

7 The participating students were, from UoW: Rebecca Billi, Larisa Bulibasa, Mervin Loh, Iga Martynow, Sear Nee Ng, Victoria Thong; from NUS: Jia How Law, Yu Chuan Song, Jing Min Tan, Jing Xiang Tan, Qian Rou Tan, Shaunice Ten, Wei Chuan Yang, Bok Guan Yeow.

8 Mikhail Bakhtin, *The Dialogic Imagination*, ed. by Michael Holquist, trans. by Caryl Emerson and Michael Holquist (Austin: University of Texas Press, 1981).

9 This idea of the polyphonic novel was developed in relation to Fyodor Dostoevsky's writings. The concept of polyphony is borrowed from music and literally means multiple voices. A key feature sees 'the narrator renouncing the right to the last word and granting full and equal authority to the word of the characters'. Simon Dentith, *Bakhtin Thought: An Introductory Reader* (London and New York: Routledge, 1995), pp. 36-40; Bakhtin, p. xxix.

10 Eco, pp. 3; 84-86.

11 Ibid., p. xxii.

12 The profession's RIBA and ARB criteria for joint validation stipulates that design work must fill at least half the course. At UoW, design work accounts for at least 60% of the eventual degree. The journey from undergraduate degree to obtaining the professional qualification and subsequent title of 'architect' takes approximately six to eight years. Additional information, 'Pathways to qualify as an architect' can be found on the RIBA website. <https://www.architecture.com/education-cpd-and-careers/how-to-become-an-architect#:~:text=You%20are%20eligible%20for%20free,you%20are%20working%20in%20practice.> [accessed 26 August 2020].

13 Deleuze and Guattari, pp. 13-4.

14 Ibid., p. 14.

15 Brian Massumi, 'Translator's Foreword: Pleasures of Philosophy' in *A Thousand Plateaus*, pp. ix, xiv. The use of the term 'open system' is further noted in 'interview with Gilles Deleuze, *Libération*, October 23, 1980, p. 17'.

16 Deleuze and Guattari, pp. 14; 27-8.

17 Constance Lau, 'Montage and Multiple Interpretations', in *Dialogical Designs*, 282-292, p. 288.

18 Yeoryia Manolopoulou, *Architectures of Chance* (Surrey: Ashgate Publishing Ltd., 2013), p. 124. Manolopoulou's work highlights the presence of 'chance' in different creative fields and especially the aleatoric arts, in relation to design practice and authorship. Optimising the notion of unpredictability results in the formulation of innovative design strategies and exposes the overlaps between architecture and selected disciplines through discussions concerning 'aesthetic experience and critical method'.

19 Ibid. In regards to polyphony, see also Bakhtin.

20 Lau; Ibid., p. 289.

21 Brent Adkins, *Deleuze and Guattari's A Thousand Plateaus: A Critical Introduction and Guide* (Edinburgh University Press, 2015), pp. 10; 12. <https://www.jstor.org/stable/10.3366/j.ctt1g0b18p> [Accessed 26 August 2020]. Adkins notes Deleuze's response, when asked in an interview about the unity of *A Thousand Plateaus*: 'I think it is the idea of an assemblage'.

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24 Ibid., p. 22.

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27 Ibid.; Will Hunter, 'Alternative Routes for Architecture' <https://www.architectural-review.com/today/alternative-routes-for-architecture> [Accessed 26 August 2020].

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32 Ibid.; Mackenzie Goldberg 'Checking Back in With the Free School of Architecture, its First Year now Complete' <https://archinect.com/features/article/150036928/checking-back-in-with-the-free-school-of-architecture-its-first-year-now-complete> [accessed 2 September 2020]. A personal and insightful personal account is documented in Tessa Forde, 'Starting a Free School of Architecture', Charrette, 6.1, (2020), 121-43.

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