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Framing Indeterminacy

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Abstract

This paper presents and discusses design studio outcomes developed in response to a studio brief linked to the *Fun Palace Futures* initiative of the Royal British Institute of British Architects (RIBA) in honour of architect Cedric Price and artist Joan Littlewood. The studio brief was collaboratively developed by the authors. Its core question was: How could the thoughts that guided the development and design of the Fun Palace – a project that was never built but is still today cited as a model for thinking flexible and open architecture – be re-interpreted and renewed for the future? This line of thinking guided the initial and experimental research phase, during which students developed an understanding of what indeterminacy is or could be. The paper shows that through the translation of some of the essential principles of the *Fun Palace* project into pedagogical instruments, students were enabled to approach the questions of indeterminacy in an open and innovative manner. The paper argues that the use of a variety of media, which often went far beyond the conventional architectural pallet, and the introduction of media shifts were crucial in assisting the students in developing their own tools for creating a new kind of open and flexible architecture. The paper presents this pedagogic approach. We show that the conditions of indeterminacy, uncertainty, chance and change, hold potential for framing the design and creation of a new kind of dynamic architecture, and for initiating experimental architectural thinking in a design studio setting.

Keywords: indeterminacy, media shifts, translations and re-translations, experimentation architectural pedagogy, new architecture for participation and exchange

The place is a constantly changing experiment in which the old human categories are forgotten, e.g. brilliant, superior, stupid, dull. Here each person can discover in himself new skills and increase his enjoyment of life.

(Draft of Fun Palace Booklet, Price and Littlewood 1968)

Introduction

More than 50 years after the *Fun Palace* entered the architectural scene in forms of publications, the project by Joan Littlewood and Cedric Price is still cited as a model for thinking flexible and open architecture (Figure 1). The project has recently experienced a strong revival in the United Kingdom as a framework for collaborative community events. Within this context, in 2016, the RIBA launched an initiative to rethink the architecture of the *Fun Palace* for the future. The authors responded to this challenge by developing a brief that focussed on the possibility of the architecture to frame indeterminacy. What does

indeterminacy in the context of architecture mean? Does it mean openness to change, potential to create new experiences or to shift views? Does it mean flexibility to adapt, to evolve, to stretch the limits beyond the familiar, beyond the controlled?

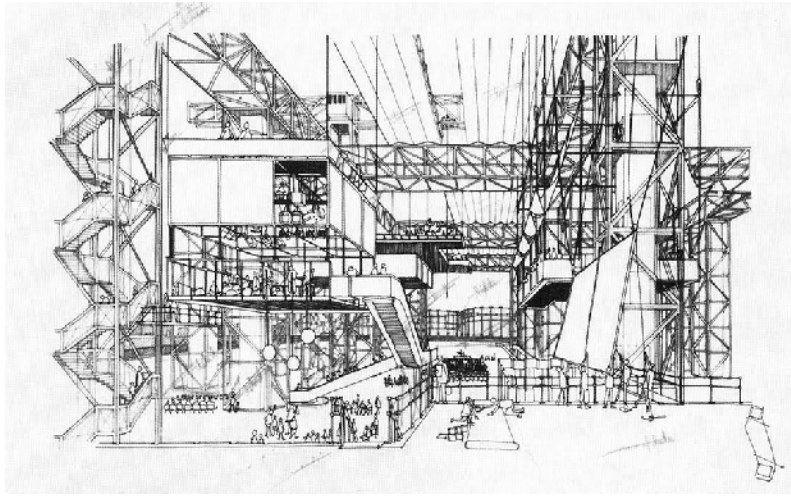


Figure 1: Cedric Price, *Fun Palace*, interior perspective, 1964. Source: Cedric Price Archive at the CCA (The Canadian Centre for Architecture), Montreal.

Cedric Price's thinking on indeterminacy was actualized in many projects. In 1966, he published the idea of a National School Plan that suggested that the limitations of the UK architectural education could be overcome if architectural education followed the model of a responsive network in which students and tutors engage (1966). The AA implemented this idea in their Polyark project of the 1970s – a nomadic school of architecture operated from a double-decker bus. In 2010 and 2013, the nomadic collaborative school's idea was revisited in the Polyark 2 and 3 projects connecting ten and fourteen schools, respectively. In 2016, following the RIBA initiative, Polyark 4 intended to connect more than 30 schools collaborating on rethinking Cedric Price's Fun Palace idea for the future. The framework is entitled *Fun Palace Futures – Polyark 4*.

As brief 'Framing Indeterminacy' followed the invitation by the RIBA to schools of architecture worldwide for participation in the '*Polyark 4/Fun Palace Futures*' project, the students and tutors engaged in this brief were part of the wider and international network of schools of architecture. Within that set-up, the XJTLU team engaged in exchanges with the student/teacher teams of Northumbria University and the University of Architecture and Urbanism Ion Mincu, Bucharest. The task of the students at XJTLU was to develop projects for a specific site in Shanghai, which included mobile cultural exchange units that could be sent off to the other teams and sites.

The outline of the brief

Shanghai, with its history of the foreign settlements and its present that is marked by migrants from all over China, provided a compelling scenery for thinking a new architecture for fun, culture and exchange as an incubator for participation that reconfigures spaces to places. The students were asked to consider the sequence of events on the stage of this new architecture, to reflect the desires and necessities of those taking part, and to take into account that these

desires and necessities can only partially – if at all – be directed, predicted, controlled or designed.

The conditions of indeterminacy, uncertainty, chance, and change established a challenging framework for designing and creating a new kind of dynamic architecture. Considering Chinese aesthetics and the history of participatory art in China with viewers as participants in the work, the brief suggested, could further assist rethinking questions of openness and participation. The students were encouraged to engage in thinking multiple viewpoints in relation to narratives of place, and new possibilities for creating interfaces that allow for a form of participation that turns spaces into places and makes users inhabitants. The brief followed basic premises of the *Fun Palace* programme. Since no one can know in advance the shifting needs and desires of a project's users, and indeed, the future direction of any society, as remarked by Price, the *Fun Palace* was designed to be re-adaptable to a fluid programme (Price and Littlewood 1968). Students were asked to address the brief's key questions and develop architectural projects of participation and exchange that included both fixed and mobile parts. The mobile exchange units would be exemplarily sent off to the teams working in Bucharest and Newcastle.

The given site is on the Huangpu River's west bank, around 800 metres southeast of the historical Bund, and close to the Old City. It stretches for 40 metres alongside the river. In its width, it extends around 50 metres over land and water. The site marks the end of the developments under construction in 2017 and extending the Bund to the southeast. Students could choose to situate their building, or set of buildings, anywhere on the site. They might have been built in the water, or on land, or connected land and water. The gross floor area of the project was limited to 3000 to 5000 square metres. Students were asked to develop architectural projects that reflect openness and indeterminacy and rethink the Huangpu river west bank as a place of exchange and participation.

Programmes were to be conceived as somewhat fluid. The brief suggested that the new architecture to be developed could be an architecture in which the relation of space and time and atmospheres of indeterminacy can be researched, created, performed and exhibited, and that it must integrate an idea of participation and exchange. As mentioned above, the students were also encouraged to incorporate a mobile component, i.e., to design a part of the architecture (or a set of parts) so that it can be shipped away, launched to water or air, or transferred to another place in some other way.

Design process

Once we consider architecture to be time based and enmeshed with the way that people perceive and use it, we find ourselves short of reliable conceptual tools that can be used to understand our craft. As an event or series of events in time, we can consider architecture as a performance containing both human and non-human changing protagonists.

(Gage 2008: 14)

The students' research became a means to develop strategies for addressing complex architectural tasks. Questions of participation in Chinese traditional art served as one of the backbones for rethinking openness within the Chinese context. The students were encouraged to explore and work with different media to present a coherent narrative that links research and design effectively. While the research process differed for each student, it always focussed on the following key questions:

- How open can or should an architectural framework be?
- How could architecture respond to the unpredictable of processes of participation?

- What part should architecture play within the set stage?
- How can we frame indeterminacy?

These questions and thoughts guided the initial and experimental research phase. The focus was on engaging with the past and present of Shanghai Huangpu through maps, reports and a site visit, as well as with experimental and conceptual approaches to the brief's theme. As the students first had to develop an understanding of what indeterminacy is or could be, the initial research phase was dedicated to 'capturing indeterminacy'. The subsequent design process followed the initial experimental phase through a series of re-translations that finally became architecture.

Capturing indeterminacy

Students' work: Case studies

In light of recent developments in architecture that prioritize form as image, the brief suggested to re-consider openness, participation and performance as fundamental questions of architecture. A lecture covering questions of participation in Chinese traditional art was provided as an entry to re-thinking openness within the Chinese context.

In a first step, the students selected an artwork related to the theme of the brief – a film, a play, a poem, a performance act or others – for a translation exercise into spatial concepts presented in drawings, conceptual models and/or in other media. The students were permitted to choose any artwork in which they saw the principles of indeterminacy at work. Some students chose works or art by Western artists, and some chose works of art by Chinese or other Asian artists. Through translation and shift in media, the students discovered principles of indeterminacy and possibilities for how these principles could become spatial. By doing so, the students developed new tools to create a new kind of open architecture.

Case study 1: *Urban Theatre* by Shao Fuwei (邵富伟)

Student Shao Fuwei (邵富伟), for instance, traced indeterminacy among the lines of a love poem written by a renowned twentieth-century Chinese poet Bian Zhilin (卞之琳). He translated the poem called 'Fragment' (1935) in a sequence of diagrams that considered the shifting of the roles between a subject and an object. Who is being observed, and by whom? Who is spectator and who is participant (Figures 2 and 3)?

Shao Fuwei pursued these questions through the exploration of the relationship between an artwork and a scientific experiment. He juxtaposed Marina Abramovic's *Rhythm 0* (1974) and *The Stanford University Experiment* (1971). The fundamental questions for him were as follows: is an artwork nothing else but an artwork? Is a scientific experiment nothing else but a scientific experiment? Under which circumstances can a scientific experiment become an artwork and vice versa (Figure 4)? Through the translation of the two works, Shao Fuwei outlined that the essential difference between the two works is 'intention'. He developed a powerful tool that could blur the difference between the two – the shifts of viewpoints. The development of this tool was essential for the further conceptualization and framing of the architectural work entitled: *The Urban Theatre* (Figure 5).



Fragment
When you watch the scenery from the bridge,
The sightseer watches you from the balcony.
The bright moon adorns your window,
While you adorn another's dream.

Figure 2: Lines of a poem 'Fragment', Bian Zhilin (卞之琳), 1935.



Figure 3: Translation of a poem, 'Fragment', into a diagram that outlines the shifts of roles and viewpoints. Bian Zhilin, 1935.

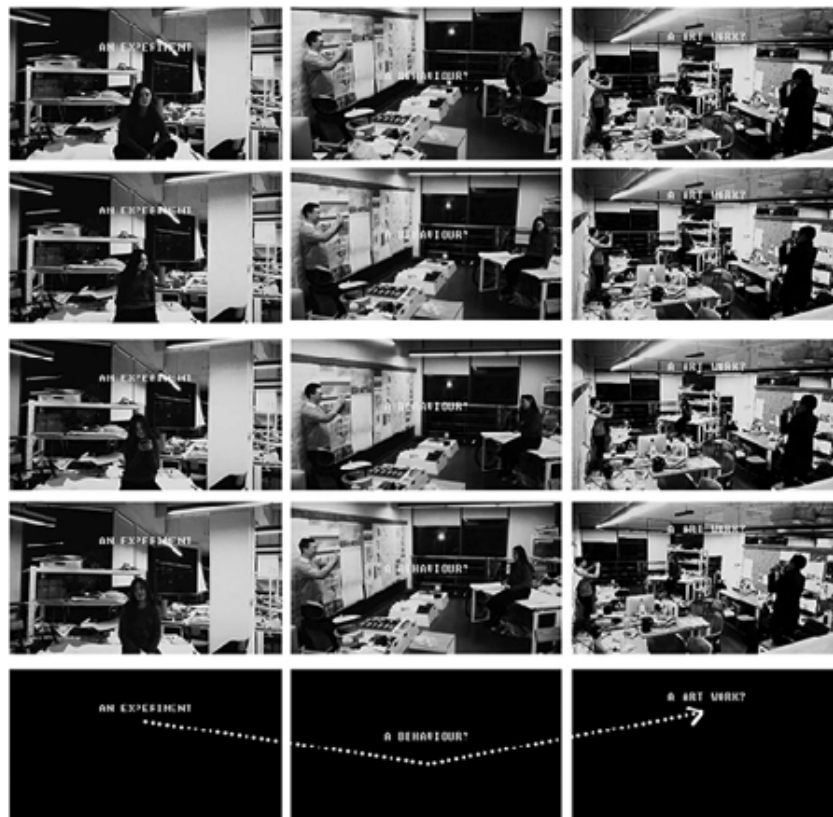


Figure 4: Exploration of the artwork–scientific experiment relationship, diagrams by student Shao Fuwei.

Shao Fuwei outlines his particular approach to a new kind of participatory and open architecture in the lines that follow:

Spaces designed by us as architects always end up with specific forms, programs and materials. Compositional approaches to the design of architecture with a focus on function, form and material tend to determine the meaning of space. They carry the risk of depriving space of its vitality and limiting the possibilities for future development. While we could attempt to reject control in the process of designing to grant space for users to develop their own spaces, the renunciation of control in the design process is a design decision, and the result will be an arbitrariness that is essentially defined. We do not seem to be able to escape notions of control. If the rejection of control does not lead to openness, how could we design it? How could we activate and promote social interaction and adapt to the shifting cultural and social context? And how could we design indeterminate architecture? The proposal suggests a new approach to an architecture of indeterminacy. It creates spaces with multiple layers and hierarchies. Frames mark the possibilities for shifts of views, and at the same time, they provide a stage for all the activities typically contained in the city. As we are always also on stage and 'in play' activities are never fully defined. The dynamics of these interactions also initiate new activities and new understandings. We might be reading in a library, or having our hair cut in a barbershop, but we might never know whether not in fact we play Romeo and Juliet, with the bookshelves and the hairdresser's chair being props in a performance. We are actors in an urban theatre that always renews itself.

(Shao 2017)



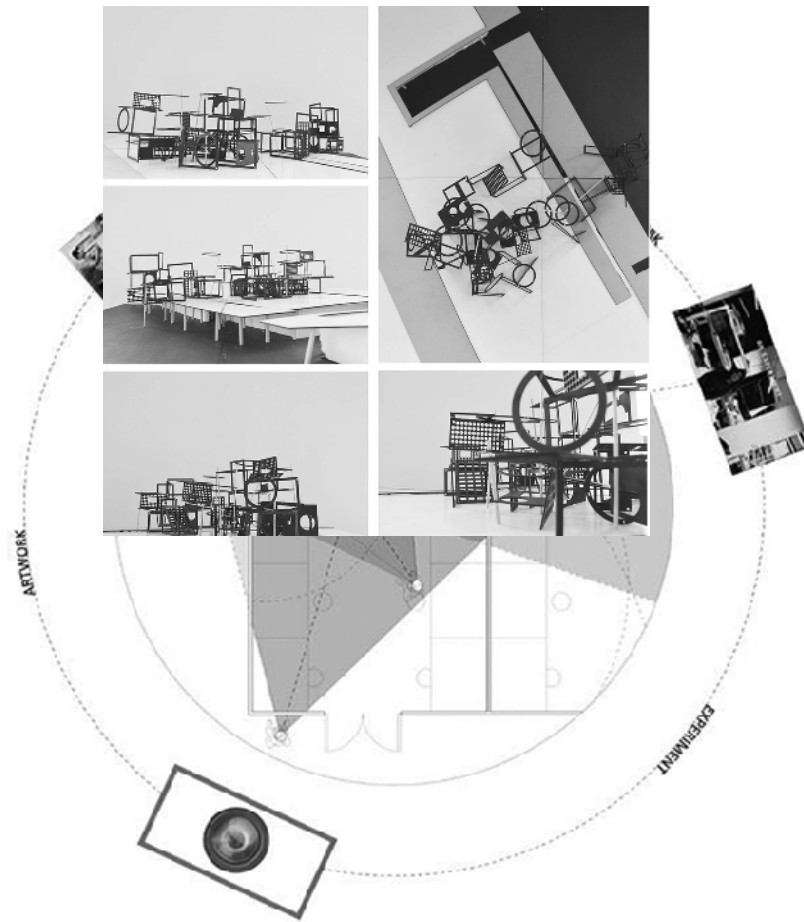


Figure 5a and b: Exploration of the artwork–scientific experiment relationship, diagrams by student Shao Fuwei.

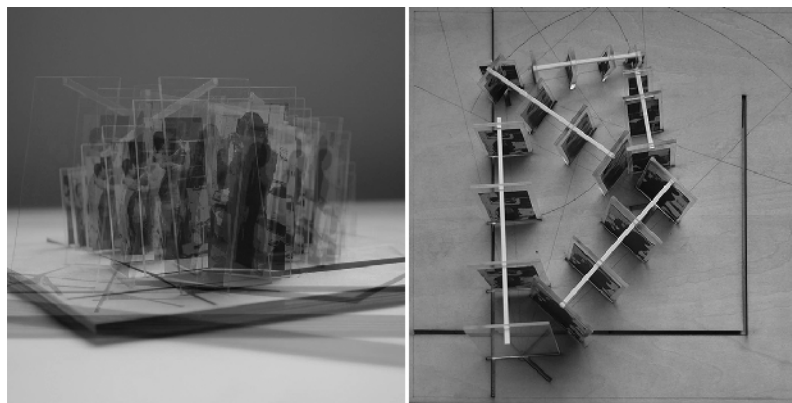


Figure 6: Concept model – relation of characters in film. Frontal and plan view.

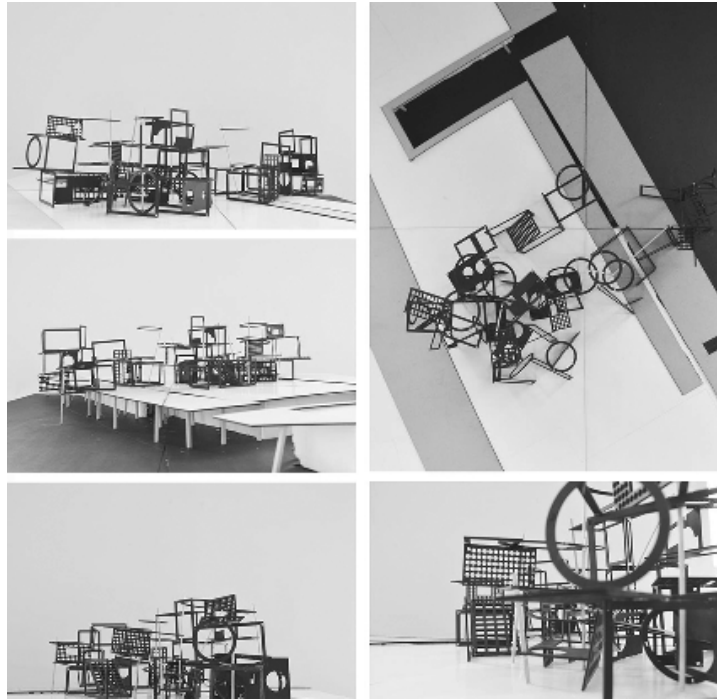


Figure 7: Concept model interaction on the site.

In the next step, by shifting media again to a set of physical concept models, and by re-translation of the reflections created in the form of a video, Shao Fuwei inscribed these ideas into space and initiated a particular spatial language for emerging architectural structures (Figures 6 and 7).

Case study 2: *Landscape of desires* by Ding Xiao (丁笑)

Student Ding Xiao (丁笑) began her search for indeterminacy with the work *Mediations* by Gary Hill from 1986 (Figure 8). A voice speaks through a speaker. A hand filled with sand enters the picture and slowly releases sand onto a speaker. Every nuance of speech vibrates the speaker's cone, bouncing the grains of sand into the air.

The hand allows more and more sand to trickle onto the loudspeaker until the cone is no longer visible. The timbre of the voice crackles and is radically muffled. When the speaker is completely buried, the voice sounds distant but remarkably clear. Gary Hill on *Mediations*, 1986

(Quasha and Stein 2009)

Ding Xiao first observed the rhythm of the sound getting materialized, gaining texture and visibility. She translated these aspects into a series of models experimenting with different ways of sound notation (Figures 9 and 10). She explains the operation: *'pick pieces of voice 'in the sand' and then translate the sound wave according to the movement in the speaker'* (Ding 2017). Ding Xiao further focused on the movement and patterns of the sand and re-translated the work, now speaking her own text in Chinese. She used no speakers. The landscape was formed by the hand gestures that released the sand in a dialogue with the sound of the voice and the meaning of the words (Figure 11).

The indestructible forms and rotations of the eternal ether, on the other hand, are at home in the spaces above the moon. The strangeness of the human situation stems from the fact that mortals, despite their condemnation to heaviness, exist as denizens of both spaces. Each individual consciousness bears the faultiness of those old tremors of separation after which the intact supra-lunar spheres broke away from the corrupt zones beneath the moon. This banishment from perfection left every sub-lunar object with cracks, scars and irregularities.

(Sloterdijk 2013: 13–26)

With *The Wandering Star* by Sloterdijk providing theoretical support, Ding Xiao continued to employ sand as a medium for mapping out desires and dreams of the Shanghainese and the wanderers. She performed the act of informing the sand with her own words, this time in Chinese. While she spoke out desires, dreams, events and encounters that she envisioned would happen in her emerging proposal, she worked out the typology of specific elements that her moon-like landscape in becoming comprised of (Figures 11 and 12). She defined cracks as places of desires for the homeland or homesickness, holes as passages of dreams, valleys of hopes and so on (Ding 2017).

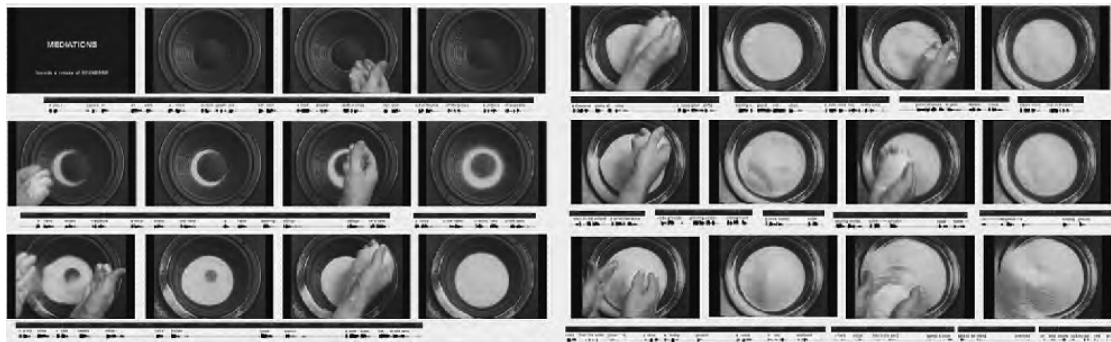


Figure 8: Gary Hill's *Mediations*, 1986. Video (colour, stereo sound). Original format: U-matic, running time: 4:17 mins. © 1986 Gary Hill.

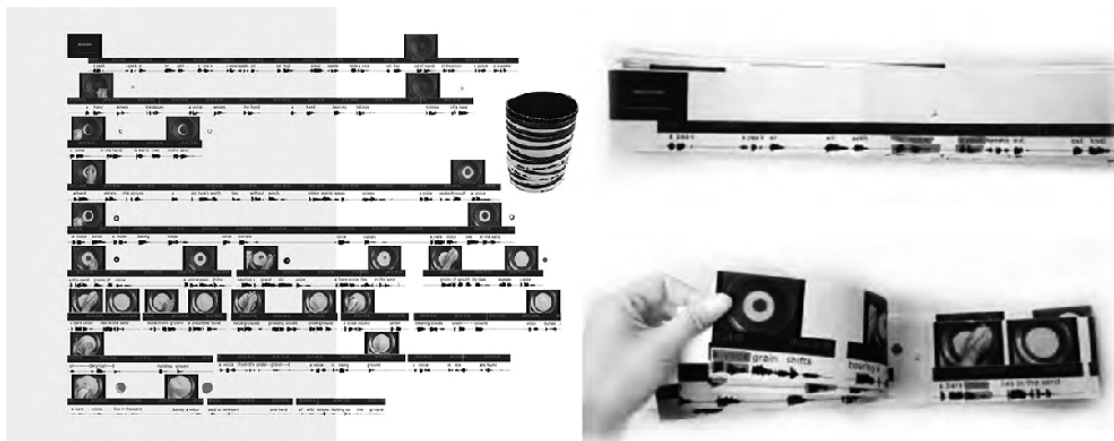


Figure 9: Sound notation, *Model 1*.

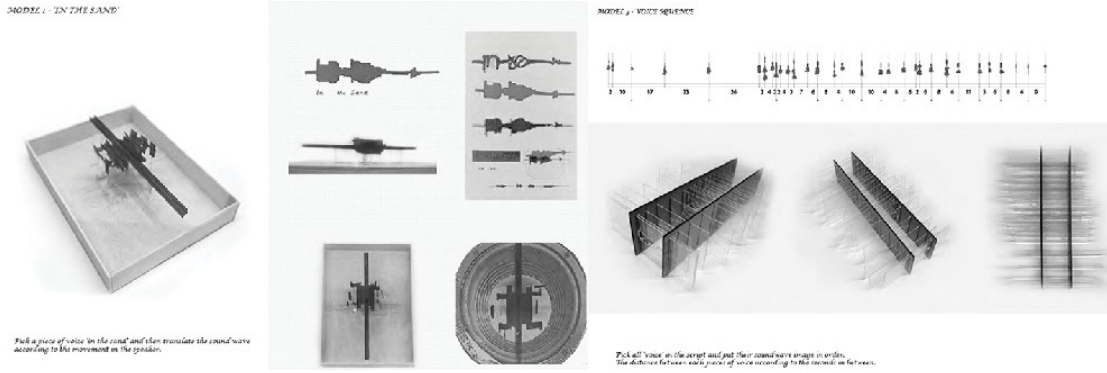


Figure 10: Sound notation, Model 2.

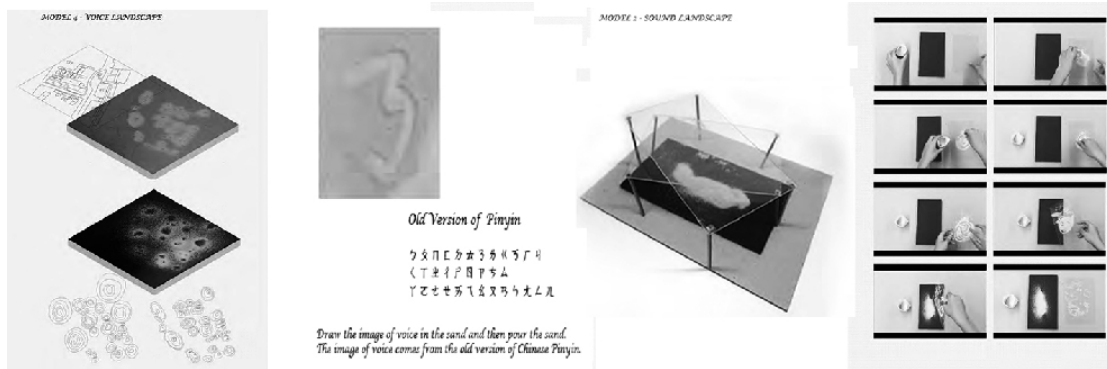


Figure 11: Sand-scaping experiments: voice-hand dialogue.

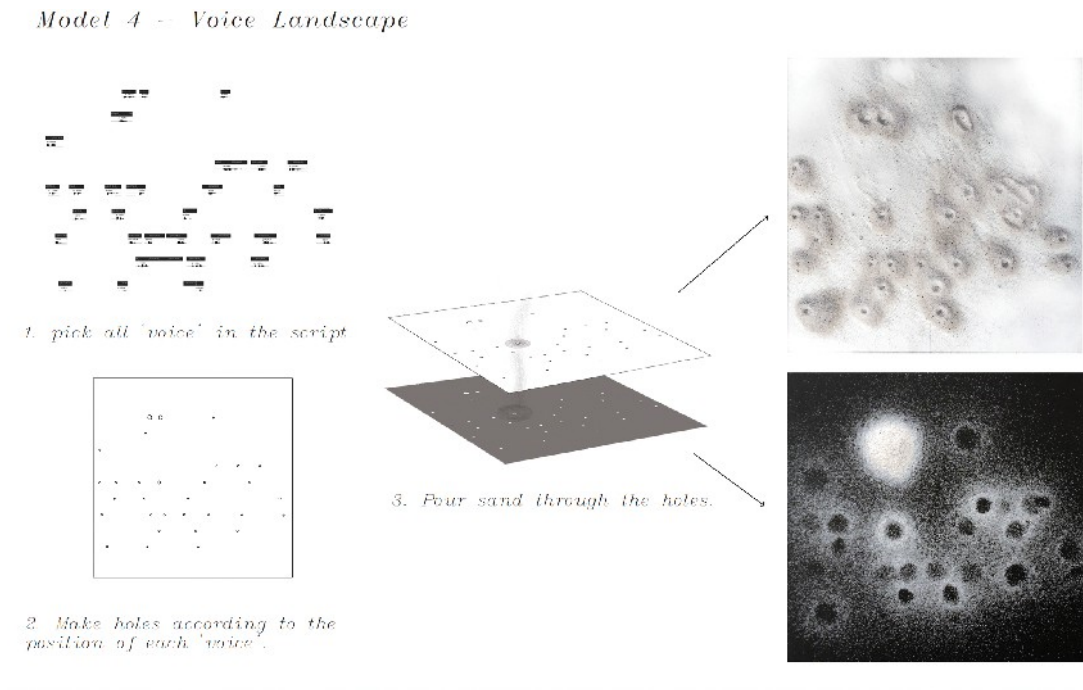


Figure 12: Sand-scaping experiments: voice-driven scripted cardboard with punch holes.

Ding Xiao re-translated the first-voice-driven sand-scaping experiments into a new series of performative models using a selection of materials. They differed in structural and material properties allowing her to question the latitudes and constraints of her approach. She created a series of sand sieves and filter-like devices that made the sand fall, land, and behave differently. These sieving devices ranged from scripted cardboards with punch holes for sand to fall through to hanging metal chain models that were more receptive than the voice-hand dialogue, and thus noted events in the sand in less predictable ways (Figures 12 and 13).

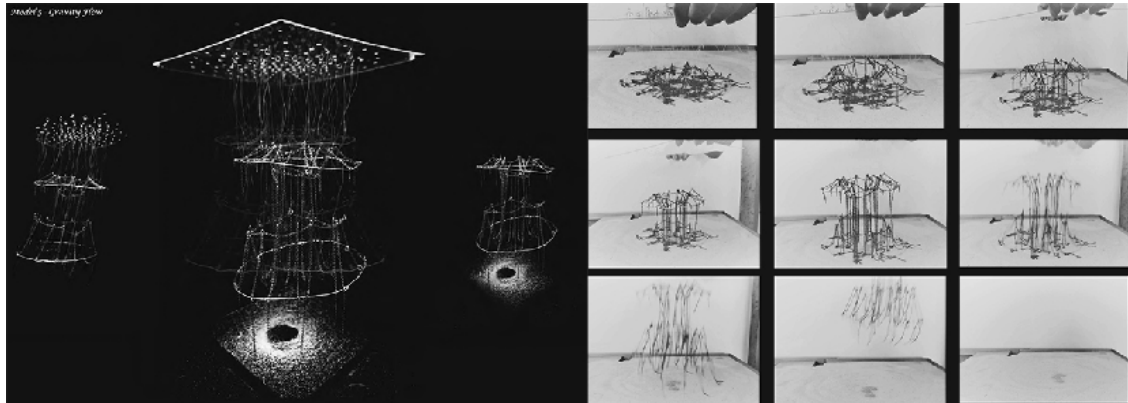


Figure 13: Sand-scaping experiments: hanging metal chain models.

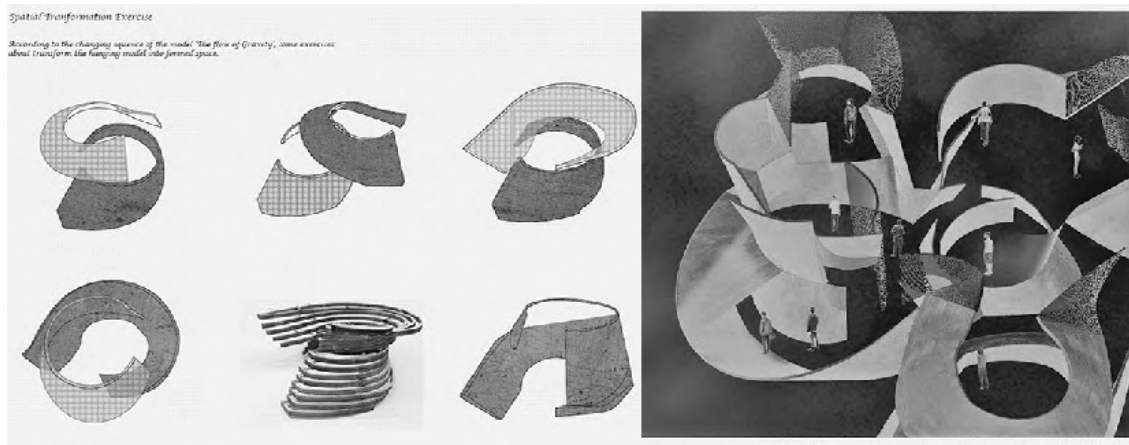


Figure 14: Typology of assembling elements for the Landscape of Desires – study models.

By shifting again to another media, working with digital modelling in parallel to laser-cut wooden models, Ding Xiao formulated her own architectural voice. The alphabet for her *Landscape of Desires* emerged from the sand elements she previously identified – cracks, holes, slopes, hills – that she then re-translated into structures that permitted for the anticipated scenarios to play out (Figure 14).

Conclusion

The pedagogic approach presented here postulates that some of the essential principles of the *Fun Palace*, such as the conditions of indeterminacy, uncertainty, chance and change, hold

potential for framing the design and creation of a new kind of dynamic architecture, as well as for initiating experimental architectural thinking in a design studio setting. The article shows how media shifts and the use of a variety of media, often beyond the conventional architectural pallet, allowed students to develop their own tools for creating a new kind of open and flexible architecture. The experimental approach to the design process enabled the students to develop new scenarios and frameworks for participation and exchange.

Students were intentionally encouraged to seek indeterminacy in areas of creative production other than architecture to assist detachment from the seductive mechanical aesthetics of the Fun Palace (Figure 1). It was important to prevent the overpowering influence of its iconic imagery as a point of departure for the students' design conceptualization. The students had to learn to see beyond the particular formal appearance of the Fun Palace. They learned about the possibilities of other lessons and stories that it could tell, understanding that the Fun Palace's formal set-up was to serve merely as an infrastructure '*on which its interactive and fluid program could play out*' (Mathews 2011). According to Mathews, the infatuation with the Fun Palace's imagery is a trap that designers easily fall into. The Fun Palace was so widely admired at the time that many were drawn into imitating its formal language. Mathews states that this was the case with architecture students, the core members of the avant-garde Archigram group, but also with the designers of the Centre George Pompidou in Paris, for which the Fun Palace clearly served as a model of high-tech formal thinking (2011).

In conclusion, the applied pedagogic approach outlined in this paper resulted in innovative design concepts and unique responses that go beyond the above cases indicated by Mathews. Despite being designed in and for a very different time and place, the students' proposals stayed true to what the Fun Palace essentially is about: '*a socially interactive machine, highly adaptable to the shifting cultural and social conditions of its time and place*' (Mathews 2005). This is possibly the most significant result of the outlined pedagogic approach.

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