InterOne

Tools for Architecture

THE AGE OF HEDONISM

In the age of hedonism, the human mind is the ultimate design object. *Intermediate 1: Tools for Architecture* works towards a new design discipline where foundations are laid by algorithms and voice recognition before being dug by piling rigs. After three hundred years of dominance, humanism[1] –which sanctifies human life– has given rise to hedonic psychology, the economy of happiness, and experience-led design. We live in an era in which the wellbeing, safekeeping, and evolution of the human mind have become our primary *foci*; the pursuit of pleasure is increasingly formed in the infinite scrolls and plains of the virtual rather than in the carnality of nightclubs or far-away beaches. In this new world the role of architecture is changing. If the new site is indeed the mind, then site *research* must take us into the realms of human psychology and behaviour.

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[1] Humanism; a philosophical and ethical stance started with the Age of Enlightenment (early 18th century) in Europe and followed the scientific revolution a hundred years earlier.
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Image Caption: Flatland: A Romance of Many Dimensions. Edwin Abbott Abbott, first published in 1884 by Seeley & Co. of London.

The Virtual is Not New

The human brain has the capacity to create and conceive of virtual and imagined realities. This makes it the most powerful organ that we know of, and enables large numbers of strangers to cooperate and collaborate with one another to form societies.

The diverse pool of virtual worlds that humankind invented has provoked a broad range of behavioural patterns. These are the basic components of the various operating systems for society: what we call cultures.

Technically, the capacity for virtual realms to exist is determined by the medium through which they can be transferred between individuals, and the most prominent medium of our

time is the Internet. Tracing the events that led to the development of the Internet takes us far beyond the concerns of the digital or electronic, past the printing press and all the way back to the beginning of the cognitive revolution somewhere between 70,000 and 30,000 years ago. It was around this time that legends, myths and gods were formed as fictions, thanks to our ability to construct narratives and to *imagine* the virtual.

Humans are social animals and verbal language made it possible to organise socially into large groups. These groups were bound by the collective virtual concepts. The first examples were simply gossip, which facilitated the exchange of information about each other to each other, while larger groups in cities (and eventually states and empires) needed more complex ideas to sustain their norms and values. These often took the form of monotheistic religions and political ideologies: the first known all-encompassing virtual realities.

As distances grew, virtual content required new and improved mediums through which to travel. The symbols of the spoken word became visual through scriptures, mathematics, and coding. The early cave paintings that represented virtually the dangers 'outside' transformed into sculpture, photography, and television. Our cognitive ability to create and absorb virtual matter increased in parallel to the technological evolutions that carried it, building to the creation of a virtual network spanning the earth and beyond, in which ideas, artifacts, and worlds are now linked together and accessible to all through the universal domain of the Internet.

Architecture Across Realities

Architecture is the practice of world-making. The idea of making buildings emerged to provide alternative realms to what we call the outdoors. The ornament, the fresco, the wallpaper and, now, the screen, are all literal augmentations of the great abstraction machine - a building. Buildings brim with components that sensorially communicate with and stimulate our minds into alternative, all-encompassing worlds. But such worlds are not experienced in isolation; they exist in relation to the outdoors. At its most basic, a building must make sense as an interface between the inside and the outside. This relationship demands of architecture to be a practice that operates across realms: indoors and outdoors, as well as in physical and virtual domains.

Ideologies Are No More

Buildings embody constellations of ideas and, as such, must make sense as a whole and help us to construct sense beyond them. In times past, sense was brought into buildings through narratives stemming from religious and political ideologies. Buildings have represented gateways to heaven, embodied empires, or provided layouts for life on the basis of political principles. Today, we find ourselves at a moment in which ideological superstructures are so volatile and fleeting that they can no longer be set in stone. Buildings must look for sense within architecture itself, rather than seeking other narratives. The experience of space is the driving force of architecture today.

Experience is Universal

A widely-held misconception exists to the effect that each person will have a different and completely unique experience of space when, in fact, an experience of space is not something relative, for the most part. Instead an experience of space is something objective. It is objective in the sense of a subjective universality[2].

The architectural theorist Markus Breitschmid and the architect Valerio Olgiati argue in *Non-Referential Architecture* that experience of space can be considered objective only in the sense that it is perceived equally by all. This aligns with recent cognitive studies, in which a basis for understanding human perception of the built environment is being established. If experience is universal, it can be the sense-making element in a building and the force fuelling the design of spaces. The intention of the architect should be to construct experience and, through it, to reconstruct our most basic routines.

How We Ended Up Here

The cumulative effect of architecture during the last two centuries has been like that of a general lobotomy performed on society at large, obliterating vast areas of social experience. It is employed more and more as a preventive measure; an agency for peace, security and segregation which, by its very nature, limits the 89 degree horizon of experience -

[2] Breitschmid M., Olgiati, V. *Non-Referential Architecture*. 2018

reducing noise-transmission, differentiating movement patterns, suppressing smells, stemming vandalism, cutting down the accumulation of dirt, impeding the spread of disease, veiling embarrassment, closeting indecency and abolishing the unnecessary; incidentally reducing daily life to a private shadow-play[3].

Robin Evans called for an architecture arising out of the deep fascination that draws people towards others, denouncing the isolating character of modern buildings and their dead-end rooms. Concurrently, new forms of gathering provided by the Internet –in the form of various social media platforms– are generally blamed for isolating users from the physical world. However, one could argue that *we*, as a society, have turned to the virtual in search for what our rooms and corridors fail to offer: spaces that recognise the needs and desires of the human mind or, as he put it, passion, carnality and sociality.

What To Do About It

A new kind of architecture will emerge from the blending of the different realms in which we, today, dwell. Fuelled by experience as purpose, this architecture calls for a new form of practice that recognises human cognition and perception, and takes responsibility for how the rooms we inhabit –be they physical, virtual, or a mixture of the two– shape our lives in the most fundamental of ways.

[3] Evans R. *Figures Doors and Passages. Translations From Drawing to Building (extract)*. 1978

Image Caption: Virgil Finlay. *Pygmalion's Spectacles,* by Stanley G. Weinbaum, Fantastic Story Magazine 55-Spring, Pp.40-41.

BRIEF OUTLINE

Phase 1 - Scenes from everyday life
During the first term we will develop short films portraying routines from everyday life, looking carefully at the physical and virtual rooms in which they play out and speculating on what they might become in coming decades.

Phase 2 - Maps of perception
Towards the end of the first term we will state our experiential intent in maps that gather and interrelate our studies of human cognition affected by the *built* environment together with new ingredients from the spatial experiences we aim to create.

Phase 3 - Systems for experience
The second term will be dedicated to designing tools to make architectural experiences with. These tools might concern the physical, the virtual or both; they might, for example, be compositional rules, form-generating processes, architectural elements, spatial toolkits or means of perception. They will be designed and tested through concrete examples, although they will be delivered as open tools for anyone to design with.

Phase 4 - Modes of representation
The third term will have the sole focus of developing the piece of representation most suited to each project. Whether it is analogue or digital, large or small, physical or virtual, is to be determined by each student.

TECHNICAL STUDIES

Inter.One will follow the schedule for TS3 Option Two, which means that the final submission for TS3 falls in term three after easter break.

Following on two successful years of strong collaborations with the TS3 tutor team, resulting in TS3 high passes every year, Inter.One will continue to develop our methods for blending the unit agenda with technical studies. Third years will develop an agenda and research topic in the end of term one and will be required to have a detailed table of contents for their TS books in place in the beginning of term two.

Inter.One sees TS3 not as a separate exercise but as the project itself. Every advancement in the project is part of TS3, and vice versa. Therefore the topic for your TS3 is highly personal and a direct result of the interests concerning your project. In Inter.One a successful TS3 does not rely on pre-set investigative methods, instead every project finds its own path and outputs.

TRIPS

Symposium at ArkDes
Stockholm, Sweden.
Oct-27th to Nov-3rd.
During the open week in term 1 we will travel to Stockholm where we will host a symposium in collaboration with James Taylor-Foster: writer, critic and curator of contemporary architecture and design at ArkDes, the Swedish centre for architecture and design.

Symposium in Urtijëi,
Alpine South Tyrol, Italy.
Feb-2nd to Feb-9th.
During the second open week of the year in term two will travel to the mountainous region of Südtirol (South Tyrol) in northern Italy, where we will host our second symposium of the year together with Matthias Moroder: architect, critic and curator and director of Magazin Gallery in Vienna.

FORMAT

Student-led critique sessions
During the first term we will have a series of critique sessions led by students alone, in addition to the usual juries with external guests. These sessions are meant to stimulate a sharing and debate culture within the group, as well as let students exercise their critical skills and agility to take in ideas and deliver feedback.

Student to student tutoring
During the second term we will establish a student-to-student tutoring system within the unit, whereby each student becomes third tutor to another, committed to tutorials, following up on feedback and progress and so learning from how to manage progress and foresee issues and paths of development for someone else's project. Learning how to guide a project and yet take the back seat, learning to think strategically and how to teach and let learn.

WORKSHOPS

Several workshops will take place throughout the year with our collaborators (below), focussed on modelling, representation methods and tools, filmmaking, film editing, script writing, video editing, VR films, content curation and writing.

COLLABORATIONS

James taylor Foster, curator at ArkDes, Stockholm.
Matthias Moroder, director at Magazin, Vienna.
William Hamilton, director at Mimerse, Stockholm
Jennifer Rainsford, filmmaker, Berlin
United Assembly Unit, art & technology studio, London

SCHEDULE

TERM 1

WEEK 1
Thu   Sep-27 | First meeting

WEEK 2
Mon   Oct-1 | Group Session
Tue   Oct-2 | Tutorials
Fri   Oct-5 | Workshop

WEEK 3
Mon   Oct-8 | Tutorials
Tue   Oct-9 | Tutorials

WEEK 4
Mon   Oct-15 | Workshop
Tue   Oct-16 | Tutorials
Fri   Oct-19 | Jury

WEEK 5
Mon   Oct-22 | Tutorials
Tue   Oct-23 | Tutorials

WEEK 6
Mon   Oct-29 | Stockholm
Tue   Oct-30 | Stockholm
Wed   Oct-31 | Stockholm
Thu   Nov-1 | Stockholm
Fri   Nov-2 | Stockholm

WEEK 7
Mon   Nov-5 | Tutorials
Tue   Nov-6 | Tutorials

WEEK 8
Mon   Nov-12 | Group Session
Tue   Nov-13 | Tutorials
Fri   Nov-16 | Jury

WEEK 9
Mon   Nov-19 | Tutorials
Tue   Nov-20 | Tutorials

WEEK 10
Mon   Nov-26 | Group Session
Tue   Nov-27 | Tutorials
Fri   Nov-30 | PinUp

WEEK 11
Mon   Dec-3 | Tutorials
Tue   Dec-4 | Tutorials

WEEK 12
Mon   Dec-10 | Tutorials
Tue   Dec-11 | Tutorials
Fri   Dec-14 | FInal Jury

TERM 2

WEEK 1
Mon   Jan-7 | Group Session
Tue   Jan-8 | Tutorials
Fri   Jan-11 | Group Session

WEEK 2
Mon   Jan-14 | Tutorials
Tue   Jan-15 | Tutorials

WEEK 3
Mon   Jan-21 | Tutorials
Tue   Jan-22 | Tutorials
Fri   Jan-25 | Jury

WEEK 4
Mon   Jan-28 | Tutorials
Tue   Jan-29 | Tutorials

WEEK 5
Mon   Feb-4 | Urtijëi
Tue   Feb-5 | Urtijëi
Wed   Feb-6 | Urtijëi
Thu   Feb-7 | Urtijëi
Fri   Feb-8 | Urtijëi

WEEK 6
Mon   Feb-11 | Group Session
Tue   Feb-12 | Tutorials
Fri   Feb-15 | PinUp

WEEK 7
Mon   Feb-18 | Tutorials
Tue   Feb-19 | Tutorials

WEEK 8
Mon   Feb-25 | Tutorials
Tue   Feb-26 | Tutorials

WEEK 9
Mon   Mar-4 | Tutorials
Tue   Mar-5 | Tutorials
Fri   Mar-8 | TS3 Interim

WEEK 10
Mon   Mar-11 | Y2 Previews
                  Y3 Tutorials
Tue   Mar-12 | Y2 Previews
                  Y3 Tutorials

WEEK 11
Mon   Mar-18 | Y3 Previews
Tue   Mar-19 | Y3 Previews
Fri   Mar-22 | Debrief

TERM 3

WEEK 1
Mon   Apr-22 | Group Session
Tue   Apr-23 | Tutorials
Fri   Apr-26 | Group Session

WEEK 2
Mon   Apr-29 | Tutorials
Tue   Apr-30 | Tutorials

WEEK 3
Mon   May-6 | Tutorials
Tue   May-7 | Tutorials
Fri   May-10 | PinUp

WEEK 4
Mon   May-13 | Tutorials
Tue   May-14 | Tutorials

WEEK 5
Mon   May-20 | Tutorials
Tue   May-21 | Tutorials
Fri   May-24 | Jury

WEEK 6
Mon   May-27 |
Tue   May-28 | Tutorials

WEEK 7
Mon   Jun-3 | Y2 Final Tables
                  Y3 Tutorials
Tue   Jun-4 | Y2 Final Tables
                  Y3 Tutorials

WEEK 8
Mon   Jun-10 | Y3 Final Tables
Tue   Jun-11 | Y3 Final Tables
Fri   Jun-14 |

WEEK 9
Mon   Jun-17 | Tutorials Y3
Tue   Jun-18 | Y3 RIBA Part1
Fri   Jun-21 |

For a detailed schedule please visit:

goo.gl/xoFc4u

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Wölfflin, Heinrich. Prolegomena to a Psychology of Architecture. 1886

Gombrich, Ernst. Art and Illusion. 1960

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Gregory, Richard. Eye and the brain: the psychology of seeing. 1966

Hall, Edward T. The Hidden Dimension. 1966

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Pallasmaa, Juhani. The Eyes of the Skin: Architecture and the Senses. 1996

Evans, Robin. Translations from drawing to building. 1997

Frank, Isabelle. The Theory of Decorative Art, 1750-1940. 2000

Grosz, Elizabeth. Architecture from the Outside, Essays on Virtual and Real Space. 2001

Solso, Robert L.. Psychology of art and the evolution of the conscious brain. 2003

Latour, Bruno. A Cautious Prometheus? A Few Steps Toward a Philosophy of Design. 2008

Mark. Grimshaw. The Oxford Handbook of Virtuality 2013

Sussman, Ann. Cognitive Architecture: Designing for How We Respond to the Built Environment. 2014

Robinson, Sarah. Mind in Architecture: Neuroscience, Embodiment, and the Future of Design. 2015

Urist, Jacoba. The Psychological Cost of Boring Buildings. 2016

Colomina, Beatriz & Wigley, Mark. Are We Human?: The Archeology of Design. 2016

Williams Goldhagen, Sarah. Welcome to Your World: How the Built Environment Shapes Our Lives. 2017

Carpo, Mario. The Second Digital Turn: Design Beyond Intelligence. 2017

Lanier, Jaron. Dawn of the New Everything: A Journey Through Virtual Reality. 2017

Breitschmid Markus, Olgiati, Valerio. Non-Referential Architecture. 2018

PODCASTS

VOICES OF VR Episodes

#657: Using Neuroscience Theory for Experiential Design + The Nature of Consciousness

#34: Ebbe Altberg, CEO of Linden Lab, on Second Life insights on virtual world identity, economies, governance, culture, the Metaverse, and making it easier to build & discover experiences

#360: Open vs Closed Metaverse: Project Sansar & The New Experiential Age

#600: Jaron Lanier's Journey into VR: "Dawn of the New Everything"

#639: AR as the Democratization of Architecture, Hands-On Spatial Computing, & Leap Motion's North Star AR HMD

#173: Philip Rosedale on creating the metaverse by linking virtual worlds together with High Fidelity

#533: High Fidelity is Architecting for VR Privacy with Self-Sovereign Identity

THE EZRA KLEIN SHOW Episodes

You will love this conversation with Jaron Lanier, but I can't describe it

LECTURES

The riddle of experience vs. memory. *Daniel Kahneman*

The Making of an Ambient World: The Future of XR is Now. *Hugo Swart*

How We Need to Remake the Internet. *Jaron Lanier*

How Language Shape the Way We Think. *Lera Boroditsky*

The Second Digital Turn. *Mario Carpo*

Can We Build AI Without Losing Control Over it? *Sam Harris*

TUTORS

Lara Lesmes and Fredrik Hellberg are both graduates from the Architectural Association in London. They founded Space Popular in Bangkok in 2013 and have been based in London since 2016. The practice works at multiple scales: from furniture and interior design to architecture, and the design of virtual worlds. The duo have extensive teaching experience at INDA (Bangkok) and the AA and have lectured and participated as visiting critics internationally. Beyond their academic experience, Space Popular has ongoing and realised built projects and exhibitions in Europe and Asia, as well as exhibitions in museums and galleries worldwide.

www.spacepopular.com