

Everything Must Scale (4) Shape Evading Shapes A Rapidly Deployable Epidemiology Clinic

Phases 1, 2, 3

Studio Day One - Become familiar with the below and be prepared to join a conversation to launch the studio -

- George Kubler's *The Shape of Time*.
- Become familiar with the overall syllabus.
- COVID 19 clinics as deployed in emergencies around the world – what stands out to you?
- Governmental Agencies addressing COVID-19. (UNH / WHO / +)
- Think about scale and advanced manufacturing – how would you work to build rapidly – what does this mean or entail?

We will then begin with Phase 1 and Phase 2 at mid-week.

..... Phase 1 The Clinic and Society

Step One: Shared Research: How are clinics organized? How are they are funded, operated and designed in these eras. How do they relate to expected goals for future employment, citizenship, income or wealth?

Primary Reading: Michel Foucault, The Birth of the Clinic.

As an introduction to the Foucault text we will begin with a 1974 review of the book as published by Christopher Lasch in **The New York Times**, on February 24, 1974.

<https://www.nytimes.com/1974/02/24/archives/the-birth-of-the-clinic-an-archaeology-of-medical-perception-by.html>

"In the years immediately preceding and during the French Revolution, according to Foucault, men began to assign to medicine a central role in the reconstitution of society. A growing interest in epidemics and their prevention had focused attention on the connection between health and social conditions, giving rise to the hope that the Société Royale de Médecine, chartered in, 1778 and charged, among other things, with the study of epidemics, would diffuse throughout society a generalized medical consciousness."

In August, 1791, the "Gothic universities and aristocratic academies" were closed in order to open the learned professions to competition, experiment and the unobstructed flow of ideas. The immediate result, so far as medicine was concerned, was an influx of poorly trained doctors, some of them outright charlatans. The problem was to reconstitute the profession and establish some uniform means of certification without re-establishing the closed corporations of the old regime—to "require proof of capacity." in the words of a contemporary, without "re-establishing guild-masterships," in short to reconcile the rights of individual liberty with those of public safety."

"The solution was found to lie in a new institution, the clinic — more precisely, in a restructuring of an older institution so thorough that the result was wholly original. The clinic dated from the late 17th century. It was a means of teaching, of demonstrating medical principles by enabling students to observe their workings in specific cases, selected to illustrate those principles in action. Faced with the crisis of certification in the 1790's and faced with the fact that the closing of the universities had forced many doctors, in effect, to teach themselves medicine in the hospitals, reformers began to realize that the clinic could be used not to demonstrate old truths but to discover new ones."

The Birth of The Clinic, By Christopher Lasch, The New York Times, Feb. 24, 1974

Optional recent Source: Beatriz Colomina, **X-Ray Architecture** – see: <https://vimeo.com/148216834>

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Phase 2 Transcribe: Architecture is the Lesson and the Experience (of a clinic)

Primary Readings: Brian Kane, *Sound Unseen: Acousmatic Sound in Theory and Practice*, Yale University Press.

Source: <https://www.amazon.com/Sound-Unseen-Acousmatic-Theory-Practice/dp/0190632216>

Primary Readings: Franz Liszt. *The Piano Transcriptions of Franz Liszt*, by Philip Friedheim. *Studies in Romanticism*, Vol. 1, No. 2. (Winter, 1962), pp. 83-96. Published by: The Johns Hopkins University Press

Stable URL: <https://www.jstor.org/stable/25599545>

"Whoever attempts to determine the complete extent of Liszt's piano music faces a number of problems from the very beginning. Although Humphrey Searle has painstakingly compiled a catalogue of all the works of this composer, Liszt's habit of revising his earlier music and transcribing his own vocal and instrumental works for piano makes it extremely difficult to isolate the number of separate compositions. The problem is augmented by the numerous piano arrangements of music of other composers. Since these works range from literal transcriptions, as in the keyboard version of Weber's *Oberon* overture, to ostensibly original compositions, as in the Hungarian rhapsodies, it is very hard to decide where copying ends and creativity."

What can we learn by drawing, transcribing earlier aspects of the architectural work that might inform a clinic?
This roster of case studies can be expanded with discussion – we will discuss these as we introduce the studio phase.

Through a process of transcription analyze the works to show how they may become a form of education. Perceivable and a form of knowledge.

Transcribe a work of architecture and then use this knowledge to enact an experimentation: 1). Measure: Force (FEA); Force (thermal); Force (Scalar); Force (Vectorial). 2). Reverse the key theorem and principle that motivates the above works.

What is transcription: reading - Franz Liszt.

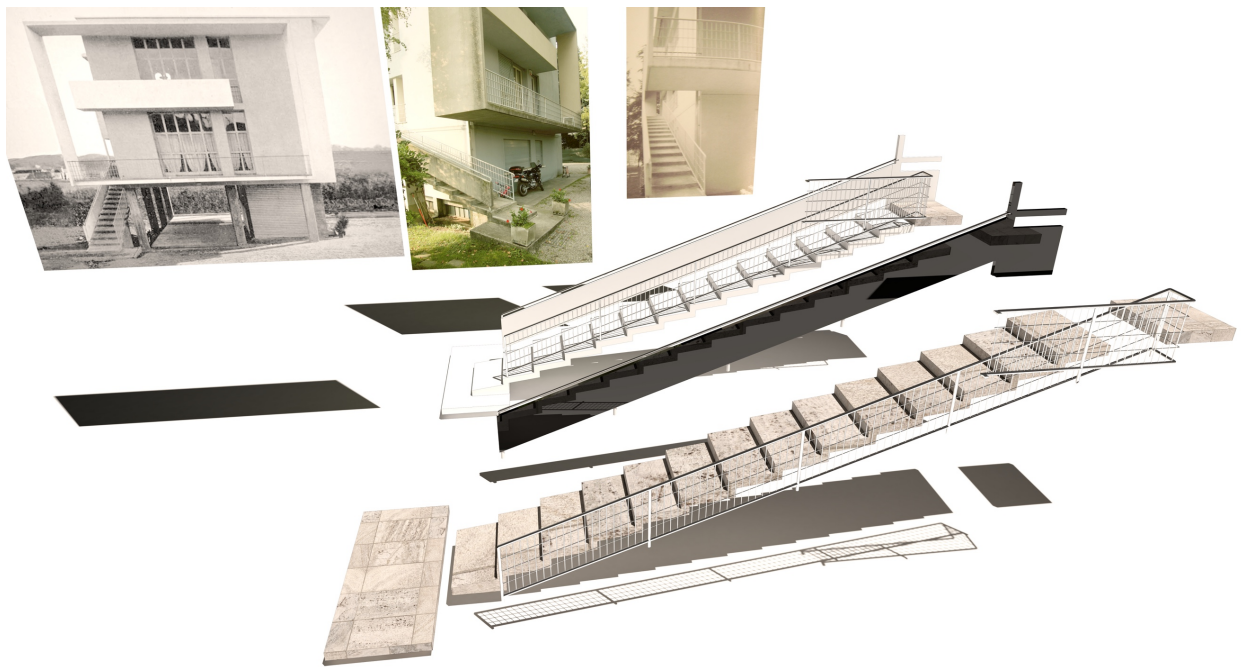
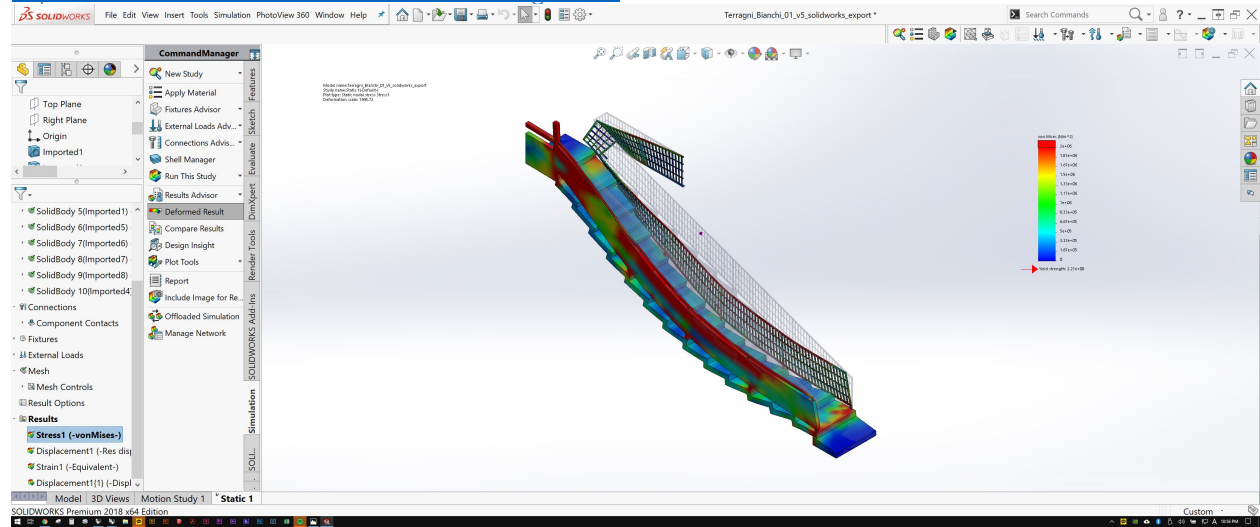
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Stable URL:
<https://www.jstor.org/stable/25599545>

Transcribe **BOM**

- Space / Volume – as geometry. As form or flow.
- Light – as time or as volume + (work with rigor using lighting simulation and actual models)
- Structural Mechanics – as enclosure or mathematics via dimension or wonder about dimension and capacity.

<http://www.visibleweather.com/home/westbundshanghai.html>



FEA: Structural Mechanics – A handrail – for a human's touch – becomes an accomplice in structural integrity. Giuseppe Terragni, Villa Bianchi. Milan, Italy.

On Air Pressure in Architecture: Viscosity of Space: Robert Slutzky on Le Corbusier (precursor to negative pressure rooms)
- Mill Owners Building vs. The Toledo Glass Pavilion.

On the Architecture and Health - The Psycho / Physio- logical House (architecture and mental and physiological health)
- Richard Neutra Health House

- The Neutra Health House is well known; Sylvia Lavin's scholarship opens Neutra's architecture to a psychoanalytic realm of study. <https://mitpress.mit.edu/books/form-follows-libido>

The Architectural and Human Body - Pressure / Light without Emission / Chiaroscuro Sfumato with mass.

- The Bye House

- New York Times Building. See <https://facades.lbl.gov/newyorktimes/newyorktimes.htm>

Ceramics and architecture at the turn of the last century (cleanliness and architecture).

- Mies Van Der Rohe, Villa Tugendhat

Compression without tension: Using simulated microscopic modeling (FEA) one visualizes molecular behavior material.

- Henri Labrouste, Bibliothèque Sainte-Geneviève

Extension: Without Mass / Centrifugal and Centripetal Space at Once. (a non-containing of the body).

- Theo Van Doesburg - De Stijl

- + + + Hospital Rooms, Sanitariums, Everyday Clinics and Examination Rooms.

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Phase 3 Shape Evading Shapes: the Rapidly Deployable Clinic

- Primary Reading: The Shape of Time, George Kubler
- Prototype a new A Rapidly Deployable Epidemiology Clinic
- Protocols and Time
- Bill of Materials / The factory is the place.

Urban Place

- High Density and Cocoon

Mobile Clinic WHO

<https://www.who.int/emergencies/partners/mobile-clinics>

Aspects of the Clinic shared with RP/ V B-D studio:

- **A Community Room** in a building – isolated in the room cocoon rather than in your small apartment.
- A Community Room that also have a shower – emergency use adds shower to toilet.

Our posture - Who is the architect and what are the limits of influence on their work?

In Lisa Uddin's writing on the artist Noah Purifoy Uddin analyzes the context within which the art world received Purifoy's 1960's works. Emerging in an era that had contemporaries such as Frank Gehry in architecture or Robert Rauschenberg in art Purifoy was seen as an artist in a Dada vein or a then contemporary term "junk art" or "junk modernism". The working in and with cast offs from a mainstream society. Uddin gives a much deeper context to the exact world Purifoy inhabited and shows it as distinct from that of the mainstream art world - Purifoy was working in the post-riot Watts neighborhood of Los Angeles where he was both a resident and witness to the violence of rioting, but also the loss and segregation. He was an art teacher - an activist using art as a social language. He also worked in the aerospace industrial realm of Southern California - at Douglas Aircraft. where he worked on metal and air frames. In Uddin's text you begin to see how the broad grain of social and art denominators barely touch the actual grain of life and in Purifoy's case his art comes to life in new ways. It allows you to see an unacknowledged realm of creation and creators but also a zone of human life that was previously averaged out as like its seemingly similar and more predominant neighboring practices. As the studio enters into work on sites and place Purifoy and others whose lives bridge the industrial and its prevalent practices meet the handmade, the human made and the frame of mind and need of specific people and place. We can open this more broadly but the key question is to see the grain of human life and creativity more precisely. Where are you in this matrix?

"The designation of junk modernism approaches what waste thinker Brian Thill names as "the derelict": "that immense underclass of things that have much more quickly or surreptitiously [than ruins] fallen outside of visibility and desire in our time: the indifferent, the lost, the wayward, the leaking, the ugly, the truly abject and unwanted— all the meddlesome waste caught between the things we've built up in our minds as meaningful and majestic."7 Rather than reifying the violent connection between a junk so described and African Americans from South Central Los Angeles, I consider how this community of color was able to with-stand procedures of dereliction that yoked normative architectural modernism to whiteness and ravaged urban sites and objects to blackness. These were the same confluences that fed a logic of looming extinction for people who could not or would not buy into midcentury prosperity and mass consumption. And they are confluences that, more broadly, have helped posit nonhuman waste and "wasted humans" as mounting and interchangeable byproducts of the Good Life."

"To support his studies, Purifoy found part- time employment, including night shifts at the Douglas Aircraft defense plant, one of four major companies in the region's booming aviation industry. There he operated a shearing machine that cut metal into templates, connecting him to a staple material in the architecture of both aircraft and modern houses.14 His subsequent job as a window trimmer found him at Cannell and Chaffin Interior Designs on Wilshire Boulevard, an LA- based firm with a distinguished clientele and an establishment take on the California modern look. Interiors staged for the company's Oasis Model House circa 1954, for example, featured a moderate use of low- profile wood furnishings and floating shelves, but took more liberties with open- space living areas and industrial touches such as a built- in heat lamp over the kitchen counter."

Source: Lisa Uddin, "And Thus Not Glowing Brightly Noah Purifoy's Junk Modernism" in Race and Modern Architecture: A Critical History from the Enlightenment to the Present. Irene Cheng, Charles L. David, Mabel O. Wilson, eds., Pittsburgh, Pa.: University of Pittsburgh Press, 2020. P. 308

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Phase 4 Prototype a new A Rapidly Deployable Epidemiology Clinic

POST MID TERM

Wednesday November 4 – Joint Studio with Plunz / Body-Lawson

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Step 1: Please create draft outline of a Bill of Materials (BOM) for your work. This means to list and define the materials in your design including a first draft of their weights and volumes.

Step 2: During this phase of our studio you are asked to consider and show how your work would evolve based on its location in place.

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We will plan to site the work in Beirut, Lebanon and will coordinate with the Plunz / Body-Lawson studio at GSAPP who have been focused on issues of Beirut in a spectrum from urban design to health and infrastructure. We will open this phase of work with a joint studio session and a lecture by representatives from the World Health Organization.

It is important to note – your work would in the end be installed in many places worldwide. We are thus asking – what does one ask of Beirut in this equation. At the moment the work is relatively site-less if we consider it as of a specific place. The tectonics et al of your work are not site-less and these imply place by way of labor and tooling etc.

The studio calls for a “rapidly deployable clinic” – this phase of work is not the actual clinic but instead the design of the clinic. As such you are asked to consider – what role does a city or a site play in the design. While we are focused on Beirut this may well be for any city in the world. What aspects of a city or site need to be taken in account? Key issues one can assume are:

1) Climate, 2) Siting (foundations), 3) Access to site, 4). Access to infrastructure (can something be delivered), 5) Place and History (of architecture, or___), 6. Cultural History and People, 7) Materials and Means (assembly, construction, manufacturing), 8) and political climate.

The above is not exhaustive but there are common concerns for a dichotomy of place and place-less-ness. Automobile companies and others all address this but so too for many building materials IF not building forms and histories.

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1. How does a prototype address specifics of place?

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2. A prototype can address wider social and cultural if not political circumstance:

Cities since the 1970's have largely been seen under a lens of globalization. A new economic ordering of national economies that imbricates each nation's economy inextricably to others. Our studio will discuss this in a lecture as we introduce this new phase of work. One result of this is a similarity between nation's economies – labor or work or jobs are bound to other nations in the form of imports and exports but more so a product is likely tied to other nation's by way of supply chains and materials. The social quality of life in one country is bound to others. Your work from architectural form to history but also to materials, manufacturing and means – is already addressing this question. Now we consider site and place of installation and need.

THE SHAPE OF TIME

REMARKS ON THE HISTORY OF THINGS

Page I

Let us suppose that the idea of art can be expanded to embrace the whole range of man-made things, including all tools and writing in addition to the useless, beautiful, and poetic things of the world. By this view the universe of man-made things simply coincides with the history of art. It then becomes an urgent requirement to devise better ways of considering everything men have made. This we may achieve sooner by proceeding from art rather than from use, for if we depart from use alone, all useless things are overlooked, but if we take the desirableness of things as our point of departure, then useful objects are properly seen as things we value more or less dearly.

Such things mark the passage of time with far greater accuracy than we know, and they fill time with shapes of a limited variety.

Page I 7

Actuality is when the lighthouse is dark between flashes: it is the instant between the ticks of the watch: it is a void interval slipping forever through time: the rupture between past and future: the gap at the poles of the revolving magnetic field, infinitesimally small but ultimately real. It is the interchronic pause when nothing is happening. It is the void between events. Yet the instant of actuality is all we ever can know directly. The rest of time emerges only in signals relayed to us at this instant by innumerable stages and by unexpected bearers. These signals are like kinetic energy stored until the moment of notice when the mass descends along some portion of its path to the center of the gravitational system. One may ask why these old signals are not actual. The nature of a signal is that its message is neither here nor now, but there and then. If it is a signal it is a past action, no longer embraced by the "now" of present being. The perception of a signal happens "now," but its impulse and its transmission happened "then." In any event, the present instant is the plane upon which the signals of all being are projected.

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The history of things is about material presences which are far more tangible than the ghostly evocations of civil history. The figures and shapes described by the history of things are moreover so distinctive that one asks whether artifacts do not possess a specific sort of duration, occupying time differently from the animal beings of biology and the natural materials of physics.

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In and out of the scene, in and out of character

Method Acting - A technique of acting in which an actor aspires to complete emotional identification with a part, based on the system evolved by Stanislavsky and brought into prominence in the US in the 1930s. Method acting was developed in institutions such as the Actors' Studio in New York City, notably by Elia Kazan and Lee Strasberg, and is particularly associated with actors such as Marlon Brando and Dustin Hoffman.

<https://www.indiewire.com/gallery/christian-bale-most-shocking-physical-transformations/screen-shot-2018-10-03-at-2-14-24-pm/>



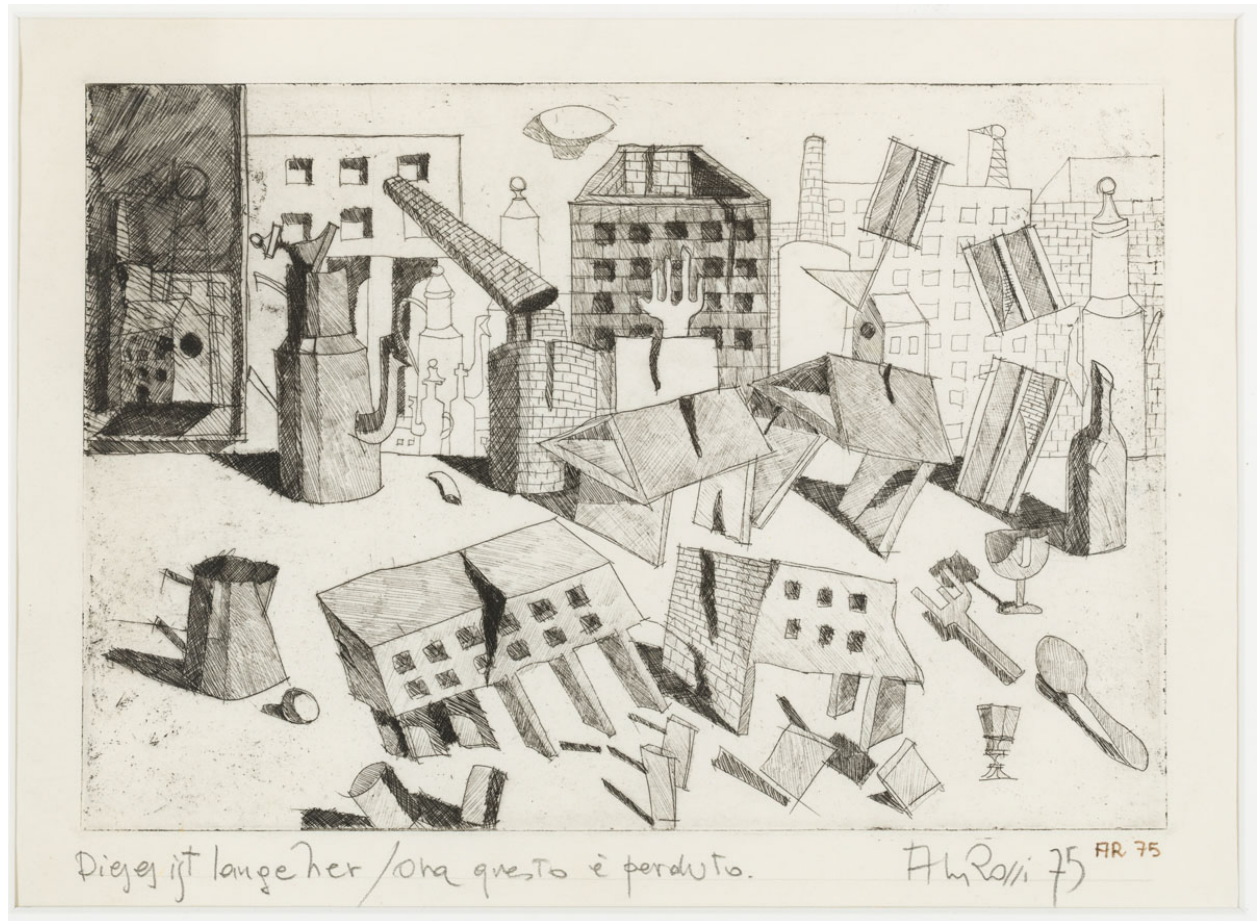
Dogville / Year: 2003

Director: Lars von Trier / Writer: Lars von Trier

Soundtrack: Antoni Vivaldi

Cast: Nicole Kidman, Harriet Andersson, Lauren Bacall, Jean Marc-Barr, Paul Bettany, Blair Brown, James Caan, Patricia Clarkson, Jeremy Davies, Ben Gazzara, Philip Baker Hall, John Hurt

https://www.archdaily.com/375095/films-and-architecture-dogville?ad_medium=gallery



"Aldo Rossi: La Finestra del Poeta"

February 29 – March 23, 2016

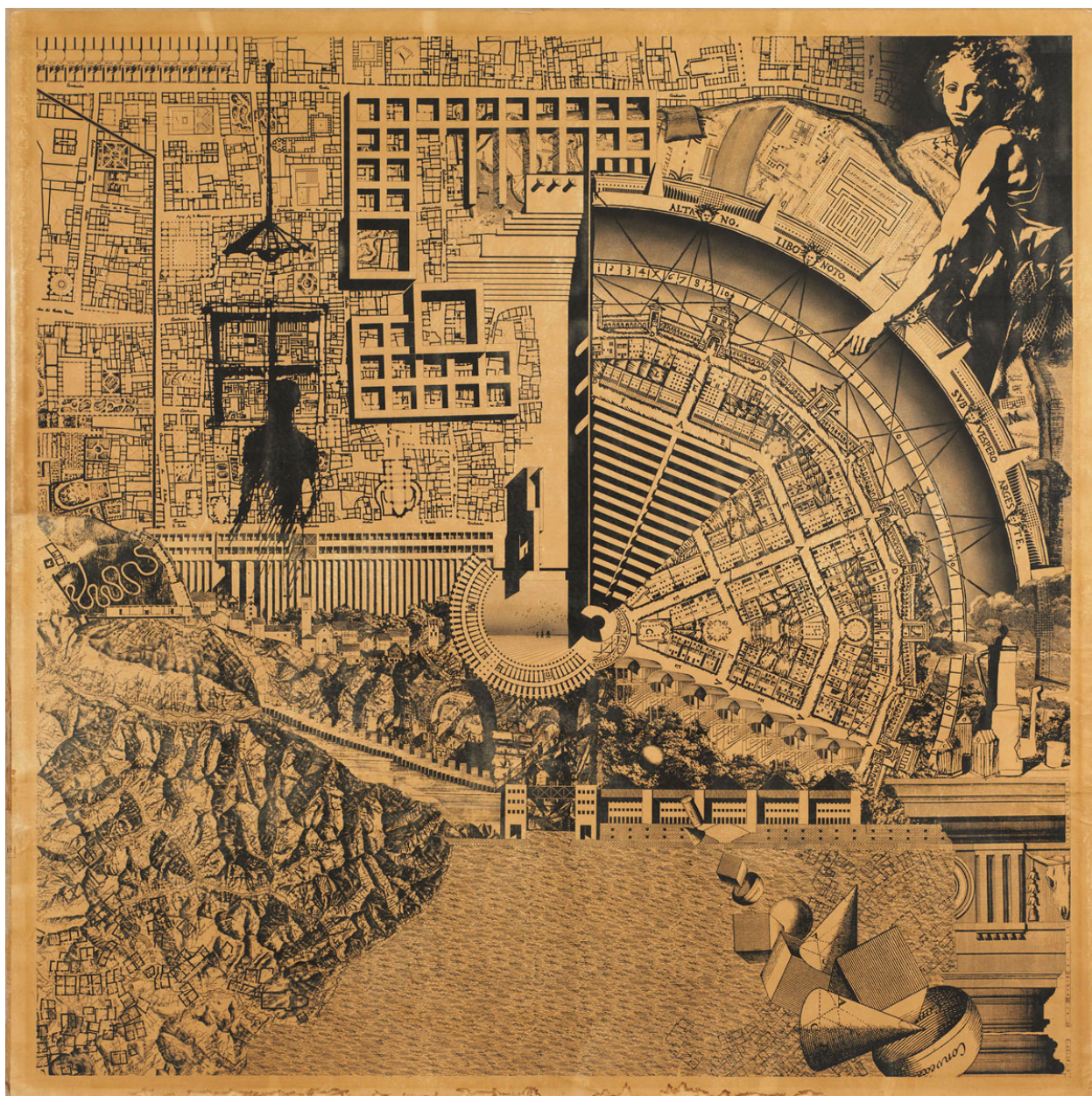
Archizoom

EPFL – ENAC School

SG 1211 (SG Building)

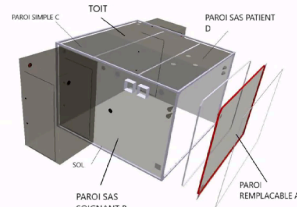
1015 Lausanne–Switzerland

<https://www.bmiaa.com/aldo-rossi-la-finistra-del-poeta-at-epfl-lausanne/>

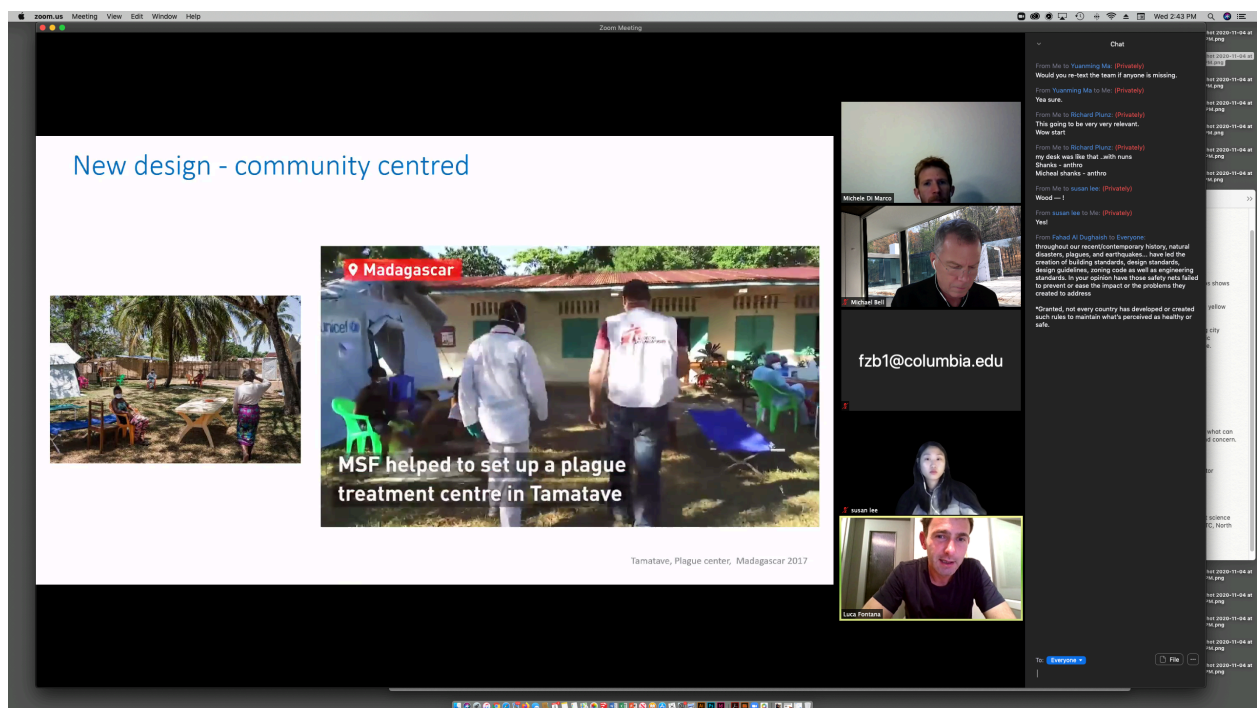
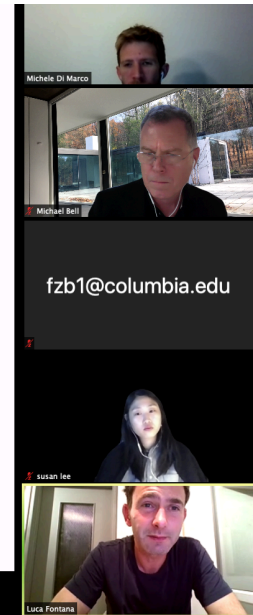


Aldo Rossi, Bruno Reichlin, Fabio Reinhart, Eraldo Consolascio, La città analoga, 1976, private collection © Eredi Aldo Rossi

New design and innovative items



Katwa ETC, North Kivu, D.R.Congo, 2019



Supply Chain and Climate

What does Lebanon and the region offer for supplies and supply chain? What does the region offer on climate and renewable energy. Connections to water or electricity.

<https://oec.world/>
<https://oec.world/en/profile/country/lbn>

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Research

The studio is asked to become familiar with these key essays – See files on Courseworks - see links in folder “Sites – Conflict”

Cities and fragmentation in the aftermath of globalization -

Essay - *Terrain Vague*, Ignasi de Solà-Morales Rubió

https://courseworks2.columbia.edu/files/9118956/download?download_frd=1

Essay - *City of Quartz*, Mike Davis

https://courseworks2.columbia.edu/files/9118964/download?download_frd=1

Cities and Conflict – Development and Progress.

Book - Hiba Bou Akar, *For the War Yet To Come, Planning Beirut's Frontiers*. (Available Columbia Library for free)

Lectures -

<https://www.facebook.com/IMESatGWU/videos/hiba-bou-akar-for-the-war-yet-to-come-planning-beiruts-frontiers/448111355730809/>

<https://www.youtube.com/watch?v=Rn0jXYVCDOs>

<https://www.youtube.com/watch?v=Rn0jXYVCDOs>

1998 – K. Michael Hays. *Introduction to Architecture, Theory, Since 1968*. Columbia Books on Architecture and MIT Press.

“For architecture theory during the past quarter of a century seems to have been produced and read mostly by individuals nurtured on popular culture, schooled on contradiction and paradox, and instilled with the belief that things can be changed, that theory can and must make a difference. **Highly competent cultural consumers all, these are individuals with some remaining faith in an engaged resistance to “the system” yet still able to be titillated by the ecstatic surrender of the architectural subject to the very forces that threaten its demise.** But the almost manic mood swings of those of us who do theory, between exhilaration and contempt for **the absolute ease with which signs can be redistributed, the blending of euphoria and bleakness with regard to commercial culture, and the desires and pleasures of things, images, and events, which we ingest, it sometimes seems, through almost mindless consumption—all these cannot, I suggest, be dismissed off hand.** They are but a reaction formation against what history has dealt us—a totally reified life—and they are but one side of a demand for something different, the other side of which is theory itself.

Hays writing often traces the last century and the rise of an urban subject in the context of deeply mediatic and industrial and capital driven systems – a person who is constructed more than self-aware or capable. Education is a means to alter this equation – that is, to see one's own prerogatives and decisions but Hays often makes us aware of Georg Simmel and his 1903 text “The Metropolis and Mental Life”. A critical text that shows a person for whom anxiety is a standard experience and a block to knowing if not freeing the self.

1903 – Georg Simmel, *The Metropolis and Mental Life*

Perhaps less conscious than in practical activity and in the obscure complex of feelings which flow from him, he is reduced to a negligible quantity. He becomes a single cog as over against the vast overwhelming organization of things and forces which gradually take out of his hands everything connected with progress, spirituality and value. The operation of these forces results in the transformation of the latter from a subjective form into one of purely objective existence. It need only be pointed out that the metropolis is the proper arena for this type of culture which has outgrown every personal element. Here in buildings and in educational institutions, in the wonders and comforts of space-conquering technique, in the formations of social life and in the concrete institutions of the State is to be found such a tremendous richness of crystalizing, de-personalized cultural accomplishments that the personality can, so to speak, scarcely maintain itself in the fact of it. From one angle life is made infinitely more easy in the sense that stimulations, interests, and the taking up of time and attention, present themselves from all sides and carry it in a stream which scarcely requires any individual efforts for its ongoing. But from another angle, life is composed more and more of these impersonal cultural elements and existing goods and values which seek to suppress peculiar personal interests and incomparabilities.

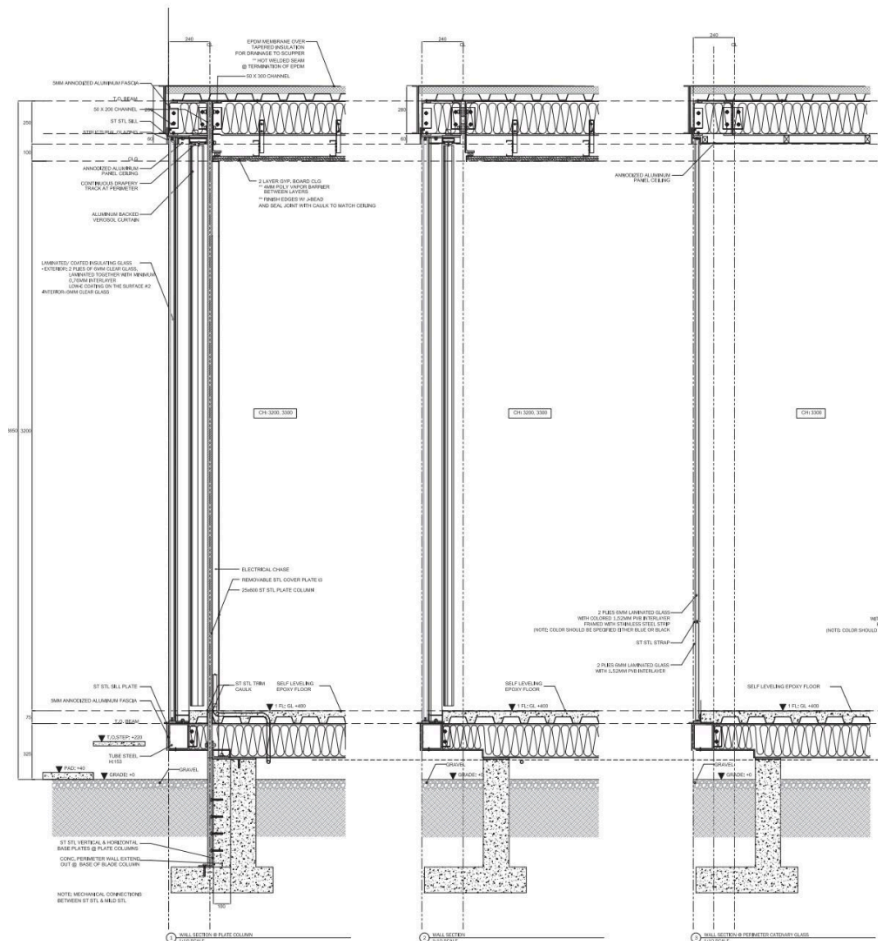
1967 – Guy Debord, *The Society of the Spectacle*

“The spectacle presents itself simultaneously as society itself, as a part of society, and as a means of unification. As a part of society, it is ostensibly the focal point of all vision and all consciousness: But due to the very fact that this sector is separate, it is in reality the domain of delusion and false consciousness: the unification it achieves is nothing but an official language of universal separation.” Page 2.

1997 on 1918 – *The Deadliest Virus Ever Known*, Malcolm Gladwell

“From the ad-hoc morgue in the Longyearbyen cemetery, the samples will be flown to a BSL-4 facility—4 is the highest level of biological containment—either in England or at the United States Army's infectious-disease research facility, at Fort Detrick, Maryland. There's a small possibility that what scientists will find is a live virus—a virus that, once thawed, could be as deadly and infectious as it was in 1918. If they don't, the hope is that they'll at least be able to recover the virus's genetic footprint—what scientists call RNA residue. Samples of the virus will then be sent to laboratories around the world. Its genetic code will be sequenced and compared with every major sample of the flu virus on file in the world's virological centers.”

https://www.newyorker.com/magazine/1997/09/29/the-dead-zone?source=EDT_NYR_EDIT_NEWSLETTER_0_imagenewsletter_Classics_ZZ&utm_campaign=aud-dev&utm_source=nl&utm_brand=tny&utm_mailing=TNY_Classics_Sunday_031820&utm_medium=email&bxid=5be9efef24c17c6adf0b7766&cndid=16951844&mbid=CRMNYR062419&utm_term=TNY_SundayArchive



Structural plate, is co-planar to enclosing laminated IGU. The angle of the sun reveals and conceals the structure. The structure and optical work are coordinated – simultaneous. Michael Bell, Shanghai. Westbund.

<http://www.visibleweather.com/home/westbundshanghai.html>