This unit will explore alternative models of high-rise constructions for Bogotá by deeply engaging with the city’s infrastructure, context and public services. Students will work on a high-rise mixed-used building located along the recently planned metro line – connected to the well-known Transmilenio system – using a reference 10,000m² footprint area and maximum height of 150m to match the both average area of a city block and the average high-rise building height. Continuing the legacy of radical public urban proposals in both Bogotá and Medellín, students will test the incorporation of public programmes clustered around housing units to service a minimum of 5,000 users, thus multiplying the existing city density by ten.

By seeking different ways of subverting the typically privatised character of high-rise buildings and investigating the potential of their civic role within the city – their engagement with context and ability to support innovative collective ways of living – this year’s brief will open up our imaginations to the future of vertical living. Projects will be developed based on the Intermediate 8 academic structure – material, formal and urban investigations will be conducted throughout the year with an emphasis on model-making as a design tool. Comparative analysis and research between the verticalisation processes of London and Bogotá will be addressed to engage with a more transversal critical conversation on our cities today.
Unit Work

In Inter Unit 8 we believe that the work of an architect is fundamentally intellectual. This does not mean that architects could not need to master certain techniques in order articulate their own ideas properly, but these techniques have to be subordinated to intellectual and conceptual preoccupations which guide them. Following this principle, Inter Unit 8 proposes an intermediate year work based on a compelling argument related to political, socio-political and cultural questions able to give certain guidance to the design work throughout different stages. Thus the unit-work will be phased according to a learning process using different tools and skills to acquire a complex understanding of the mediation between socio-politics, cultural matters and architecture.

This academic year Inter Unit 8 work will be focus on designing a range of proposals for a large scale high-rise building in the city of Bogotá (Colombia). Each proposal will be supported by rigorous socio-cultural, urban, spatial and material investigations developed through different small briefs distributed along the first two terms. A prolific production of drawings, images, texts and material tests will be encouraged, but only in relation to precise and sophisticated individual arguments. During the second and third term proposals will be interrogated according to different concepts and requirements, including those registered during the field trip to Bogotá (Colombia). Finally, at the end of the year, the work will be edited in a vertical A2 portfolio, which will prove the ability to consistently relate theoretical enquiries with each design solution. In addition, some models and two smaller documents summarizing unit trip observations and housing research will complete unit portfolio.

Workshops and Seminars

In the first two terms a series of seminars and talks, which will cover different theories on fundamental elements to spatially organize a high-rise, the urban history of Bogotá and some recent ideas on housing. There will be two short workshops to learn specific representational and design techniques, such as Rhino and Grasshopper.

Tutorials

Mondays or Tuesdays, and Fridays. Any enquire to: interunit8@gmail.com Schedule will be announced in https://politicsverticaliving.wordpress.com/
History and Theory

Students joining Unit 8 should have a strong interest in cultural, urban and architectural theories, aiming to translate this into specific design proposals. Ideas and theories employed in philosophy, literature, art and architecture are considered fundamental for design development, driving the unit work both materially and conceptually. Students are encouraged to combine HTS with their own unit research and to find a common conceptual grounding for both. A series of specific seminars related to the unit interests will be taught by unit tutors and different scholar invited.

Design Portfolio

Students are expected to collect all design material of the year into an vertical A2 portfolio. Both a smaller portfolio or a video summarizing the unit trip observations, some models and a report on housing and ways of living will be also demanded. This is intended to work as an on-going process of collection of all sources of investigation/inspiration to be shown the end of the year. Portfolio checks will occur at the end of each term by unit tutors. The laying out of folios and booklets is seriously considered by the unit, as they are a fundamental part to communicate individual arguments and ideas. Students will be expected to master specific software such as In-design and Photoshop for this purpose.
Visits

Specific visits to exemplary buildings in Bogotá and Medellín (Colombia) will be arranged at the end of Term 1. During these visits we will pay particular attention to high-rise examples with a large proportion of housing, such as Rogelio Salmona’s Park towers, Batacá tower - the second tallest tower in Latinoamerica- and latest Rogers-Mazantti’s Atrio tower. We will also visit some recent architectural examples and radical public urban proposals in both Bogotá and Medellín, and some of their informal settlements and formal housing examples. After unit trip, students will elaborate some analytical drawings of the architectural examples visited. Depending on the work progress and reviews, a second non-compulsory visit to housing examples in Spain will be organized in the Second Term.

Technical Studies - ONLY THIRD YEARS

Working on a large building in a small footprint suggest a TS investigation on the following topics: structure and material construction. In previous years successful TS work at Inter Unit 8 has been related to both. Inter 8 understands the TS investigation as an integral part of the design process, that is indeed based on a certain material quality intended to be built. Technical research should be documented and collected in order to support concepts and build viable technical solutions underpinning the main design project. We will follow TS Option 2 that entails submission in the first week of Term 3. Further information on the TS is given in the Appendix.
Week 1 - PRESENTATION
INTERVIEWS - FIRST MEETING

Weeks 2-4 - SHAPE & MATERIAL

As a starting point the unit will explore through models the initial shape of 1 Ha plan (10,000m²) high-rise building. This will be first developed in a purely intuitive manner. Different materials, such as paper, cardboard, cloth, foam, cables, wood and metal sticks, will be initially use to have a range of schematic shapes that will be later used to define formal ideas. Students are invited to feel comfortable with these materials, and learn rules and modeling criteria out of their manipulation.

After a critical analysis of these first models to find their intrinsic principles, a 1:250 scale model of the hyperbuilding will be individually constructed. In this second stage, we will experiment with other stiffer materials such as wood, metal, stone, terracota and plaster, discovering other possibilities for hyperbuilding schematic designs.

Reference Books:
Weeks 5-8 FORM

Undertaking critical studies on bigness and large-scale formal proposals to understand their spatial organisations.

FINDING FORMAL PRINCIPLES

Following the definition process of individual proposals, various analysis of large scale high-rise buildings’ spatial organizations will be conducted. General aspects defining these different examples form, such as free section, voids, modularity, porosity and circulation, will be explored by diagrams. As we are working with a building typology with a big presence in the city, we will review those texts reflecting on bigness, such as the well known reflection by Rem Koolhaas.

Seminar: Bigness

Workshop: Rhino/Grasshopper (tbc)

DEFINING FORMAL INTRICANCY

Consequent findings of previous exercise will be later applied to initial high-rise proposals. Here we will study diagrammatically various spatial organizations of medium and small scale buildings to find new compositional solutions for a high-rise building. The initial proposals will evolve through different compositional iterations.

Seminar: The Sphere and the Labyrinth.

Readings:
Weeks 9-11 FIELD

A research on Colombian socio-cultural, political and economic issues as well as Bogota city physical form will inform aspects of the high-rise building brief and its relation to the city. This investigation will be conducted before and during the unit trip and summarized in a collection of maps, diagrams, photographs and video fragments.

ANALYZE BOGOTA URBAN FABRIC

Before deepening into material aspects of the block the unit should be familiarize with the different formal aspects of Bogota city. In groups, the unit will create an archive of drawings in different scales with information about the urban grain, voids, density and urban form of the area defined by the new Bogota metro line. Readings on Bogota city history will be also conducted to understand the evolution of its urban fabric.

Seminar: Bogota urban history and contemporary configuration (date tbc)
Readings:

UNDERSTANDING NEOLIBERALISM

The second exploration will consist in a twofold investigation. Neoliberal reforms implemented in the first 2000s decade and their consequences in the city as well as Bogota and Medellin’s majors civic and infrastructural initiatives will be discussed. New high-rise developments in the Colombian capital will be critically analyzed establishing a comparison with recent desification in height of London’s skyline. Critical sessions reviewing specific texts and documentaries will be part of the unit agenda.

Readings:
FINDING OUT ABOUT SOCIO-CULTURE ASPECTS and ways of living

The second part will be an investigation of the different cultural customs and spatial characteristics where everyday life takes place. An examination of Colombian way of living will be expressed by different analytical diagrams and information maps that will be completed after the unit trip.

Reference books:

Along this exploratory process students will be exposed to cultural, intellectual and artistic references generating a specific unit inspirational atmosphere.

Readings:
- Sergio Cabrera, : La estrategia del Caracol, 1996 (film).
At the end of the First Term we will travel for 10-11 days to Bogota, capital city of Colombia, where we will visit some inspiring buildings, such as high-rise and civic buildings- and neighbourhoods of the city. Architectural examples by well known architect Rogelio Salmona will be also visited, such as the Park Towers. Urban initiatives such as the Transmilenio and Parks “for learning to live” will be part of the itinerary to understand city's transformation by public infrastructures.

We will also do a small visit to insightful latest building examples and urban initiatives in the slums of Medellín city, such as the Metrocable, the Botanic Garden by former AA student Ana Elvira Vélez, the Spanish Library and the Aquatic Centre by Paisajes Emergentes.
Reference Books:

- Mosaico Colombia: De Bogotá a Medellín, un país que renace, Arquitectura Viva, n.138.

This trip will help to complete the initial reflections on how citizens’ everyday life activities construct politics in this city. The collection of specific information by interviews, photographs, maps, drawings and visits during the unit trip to Lima will complete the first hypothesis elaborated in London. All documents produce during and after the trip will be compile in a small booklet or/and video. A conclusion from this portfolio will help later to define both the location for each building proposal within the corridor of the new metro line plan and its programmatic content.

Attention: If any student at the unit would not be able to travel to Colombia, we would elaborate a strategy with this student to continue developing the proposal.
Creative industry tower in Lima by Clara Schwartz
TERM 2

Weeks 1-5 PROGRAMME

First Term high-rise building proposals will be explored and tested focusing on their programmatic definition. Two main questions -the consequences of placing proposals on site and the definition of different programmes (civic and housing) inserted- will be reviewed considering the research done during the unit trip.

PROGRAMMATIC INSERTIONS

A plot for individual proposals location will be selected within the urban corridor running across the new Metro Line of Bogota. First Term urban analysis catalogue and research done during the unit trip will help to take each individual decision. The capability of programmatic anchors in specific locations to engage with the city public space will be put into question. All proposal together will reconfigure the urban configuration of Bogota city.

Readings
- Amanda Reeser Lawrence (ed.): RE: Programming, Praxis 8, New York:, 2007
PROGRAMMATIC COMPOSITIONS

First term research into political, socio-cultural and economic aspects of Lima city will inform the programmatic brief of each proposals. Responding to the conflict generated by private investments and public governmental strategies in Colombian context the high-rise proposals will include two main programmatic parts - housing and various civic programmes. A specific investigation on housing and different ways of living, as they relate to both informal and formal vertical structures, will be done before composing the entrails of the hyper-building. All documents will be compiled in a small portfolio.

Seminar The habitat in Bogota.

Readings:

Week 5- MID-TERM JURY (TBC)
Weeks 5-8 ENCOUNTERING THE GROUND

Building on the discussion on formal aspects, the politics generated by the hyperbuilding in the city fabric and will be reassessed. Following this reflection, the encountering of the building with the ground will be a key question to be evaluated.

The placement of the hyperbuilding in its particular location will bring the context forward as a sharpener of first formal organizations helping the progress of design definition. Building designs will be interrogated regarding their relationships with its immediate context and the passer-by. The permeability and accessibility of the hyperbuildings in relation to the rest of the city will be questioned. The results will be expressed through iterations, scenarios and two dimensional drawings.

Weeks 9-11 REVIEWS

Week 8 - TS3 INTERIM JURY OPTION 2 - Third year students will present their work on TS for final refinement and feedback to prepare the final submission.

Week 9 - Monday 13th and Tuesday 14th of March - SECOND YEAR PREVIEWS
Week 10 - Monday 20th & Tuesday 21st of March - THIRD YEAR PREVIEWS
Week 11 - END OF THE SECOND TERM JURY (date tbc)

- Possible non-compulsory trip to Spain for sight-seeing some housing building and high-rise building examples. This trip depends on the unit work progress at this date.
Golden work by Colombian Artist Olga de Amaral
TERM 3

After reviewing all different components of the block design, the unit will be focused on finding the limits of student’s designs in the third term. This will include a more detailed conception of the internal spaces created, their multilayered variables and sensual perception, and a more clear definition of the materiality role in the proposal.

Weeks 1-3 INSIDE-OUT, OUTSIDE-IN

A high-rise building always presents the challenge of defining its relation to the context in which it is located. The richness of its live inside is always difficult to read from outside and its visual relation with the outside is a privilege for its inhabitants. Both key questions will be addressed at this stage of the academic year, using the graphic representation to explore them.

TRANSITS

First studies on interior connections between programmes and different levels of privacy will be done. Each proposal will be questioned through an efficient system of relations in its interior that will be consistent with the political argument developed. The results will be expressed through sections and conceptual drawings exploring relationships established between different space.

Readings:
RESPONSIVENESS

Responsiveness of buildings design to its users will be explored through different scenarios inside, out and inside/out by employing atmospheric drawings, such as perspectives and rendering stills. These images will include the immediate context of Bogota’s urban fabric and interior space created. These scenarios are also an opportunity to work with different building users, interior environments and the impact of circulation main trajectories. Past and present, collapsing of different social classes and intersection to private/public spaces will be expressed.

WEEK 4-5 DETAILED MATERIALITY

Continuing with the work previous terms, the unit will finally explore through detailed models the material definition of hyperbuildings at closer scales. Throughout this phase, concepts will acquire a more accurate material expression. Creative explorations on material and construction possibilities draw on the richness of local culture as an alternative to global mainstream mass production will be considered within the unit. Third years will integrate appropriately their technical studies and material decisions within hyper-building designs.

References:
**FINAL REVIEWS**

A2 portfolios including all work produced throughout the entire year will be reviewed internally and organized according to individual conceptual arguments. Layout for the Portfolio should be defined with a printed test and models finished for the End of the Year Jury. This Jury, in table format, will be the last opportunity to present whole year work before the final tables.

**Week 1 - TS3 FINAL SUBMISSION OPTION 2**

**Week 5 - END OF YEAR JURY (date tbc)**

**Week 7 - Monday 5th & Tuesday 6th June - 2nd year END OF YEAR REVIEWS**

**Week 8 - Monday 12th & Tuesday 13th June - 3rd year PART 1 FINAL CHECK**

**Week 9 - Tuesday 20st of June - AA INTERMEDIATE EXAMINATION RIBA**

- Friday 23rd of June - OPENING OF THE EXHIBITION

**SCHEDULE**

<table>
<thead>
<tr>
<th>TERM 1</th>
<th>MATERIAL</th>
<th>FORM</th>
<th>FIELD</th>
<th>PROGRAMME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weeks 2-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weeks 5-8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weeks 9-12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weeks 11-12</td>
<td></td>
<td></td>
<td></td>
<td>UNIT TRIP</td>
</tr>
<tr>
<td>TERM 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weeks 1-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weeks 5-8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weeks 8-11</td>
<td></td>
<td></td>
<td></td>
<td>Reviews</td>
</tr>
<tr>
<td>TERM 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weeks 1-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weeks 4-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weeks 7-9</td>
<td></td>
<td></td>
<td></td>
<td>Reviews</td>
</tr>
</tbody>
</table>

**UNIT TUTORS**

**Francisco González de Canales** studied Architecture at ETSA Seville, ETSA Barcelona and Harvard University, and worked for Foster + Partners and Rafael Moneo. He is co-director of Canales & Lombardero and has lectured in England, Chile, Mexico, Spain and the US. Among his recent publications are First Works (2009), Experiments with life itself (2012), Rafael Moneo: A Theoretical Reflection through the Professional Practice (2013) and Rafael Moneo: Building, Teaching and Writing (2015).

**Nuria Alvarez Lombardero** studied Architecture and Urbanism at ETSA Madrid and the AA, and worked for Machado & Silvetti Associates in Boston. She is co-director of Canales & Lombardero and has previously taught at the University of Cambridge, TEC Monterrey and the University of Seville. After finishing her PhD on the dissolution of boundaries traced by modern urban planning, she has published different articles in international magazines, being her book Arquitectas: Redefining the Practice awarded in the XIII Spanish Bienal of Urbanism and Architecture. Both Nuria and Francisco have been teaching Intermediate Unit 8 and directed the initiative Politic of Fabrication at the AA since 2009.
UNIT BIBLIOGRAPHY

MATERIAL & SHAPE
Lucie-Smith, Edward; Moyano Ortiz, Juan Carlos; Pau-Llosa, Ricardo; Moyer, Twylene; Collectif: Olga de Amaral : Le manteau de la mémoire, Somogy éditions d’art, 2013.

ON LATIN-AMERICAN ARCHITECTURE

BOGOTA CITY
Arango Cardinal, Silvia: Bogotá y la Sabana: guía de arquitectura y paisaje = an architectural and landscape guide, Junta de Andalucía, Consejería de Obras Públicas y Vivienda, 2012.

PROGRAMME
Bredenoord, Jan; Van Lindert, Paul; Smets, Peer (Ed.): Affordable Housing in the Urban Global South: Seeking Sustainable Solutions, London: Routledge, 2014

RESEARCH FIELD
Installation at 8th International Istanbul Biennial by Colombian artist Doris Salcedo
Inter Unit 8 explores the role of large city building structures in the context of the rapid social and economic changes experimented in Latin-American metropolises. In particular, we are interested in exploring the tension and negotiation between high-rise buildings and city urban fabric, permanence and change, public and private, or in other words, between the stability of governmental policies and the instability of economic processes. This exploration implies a level of sophistication in the possibilities of stability and responsiveness of the building which requires a certain technical resolution.

This year the unit will work on individual high-rise mixed-use building design proposals that will contain both civic programmes and housing units for 5,000 users in a footprint of not more than one hectare (10,000 m2) and a maximum height of 150m. This condition suggests a possible TS exploration of large vertical structures. As the unit brief is also concern about material questions, TS research can be focus on material and construction possibilities drawn from the richness of local culture, and also on new environmental possibilities related to them.

STUDENT’S WORK
Students’ work for TS has been structure in different stages along the three terms. These stages run parallel to the development of the design. Students will start to define their TS research topic by the first week of the second term, when designs are developed enough and transformation, adaptation, and change is requested according to the unit brief. Once the topic has been proposed and defined, most of the work for the TS will be developed through the term with assistance of the TS tutors. Students will analyze the fundamental aspects of their technical interest, select and analyzed relevant case studies, apply their research to the design development, experiment with different possibilities working with models, mockups and simulations.

TUTORIALS
TS tutorials should be established by the academic coordinator with TS tutors. We strongly recommend all students to book in advance and use these tutorials intensively for the development of their designs. These sessions, as indicated from Ts Technical Master, are not teaching sessions but an opportunity for the students to be helped to discover the potentials of their projects. One or two sessions with an expert from outside the school will be appointed in the second term according to the students’ needs.
TERM 1

Week 9 - First meeting with TS tutors to understand the TS work dynamic and development.

Week 10 - Special contribution of TS tutors in End of the First term Jury

TERM 2

WEEKS 1-2 DEFINITION
Coherent description of the TS theme according to the development of the design deciding between structural innovations or vertical interfaces definition.

WEEKS 3-4 COMPREHENSION
Analysis of the fundamental aspects implied and selection and analysis of relevant case studies with the guidance of TS tutors.

WEEKS 5-6 EXPERIMENTATION
Experimentation with different possibilities and hypothesis as part of the design exploration in its technical aspects

WEEKS 7-8 APPLICATION
Translation of the acquired knowledge to the reinforcement and development of the unit design

Week 8 TS3 INTERIM JURY OPTION 2

WEEKS 9-11 REVISION
Assimilation of the criticism derived from the interim, improving the necessary aspect for the development of the TS

TERM 3

WEEK 1 CONCLUSIONS
Gathering of information and clear presentation of the results

Weeks 1 TS3 FINAL SUBMISSION OPTION 2

Weeks 2 High Pass panel and exhibition

TS BIBLIOGRAPHY

Asterios Agkathidis: Modular structures in design and architecture. Amsterdam : BIS Publishers, 2009

Philip Beesley: Hylozoic ground: liminal responsive architecture, Riverside Architectural Press, 2010


Makowski, Z. S.: Steel space structures, Michael Joseph, 1964