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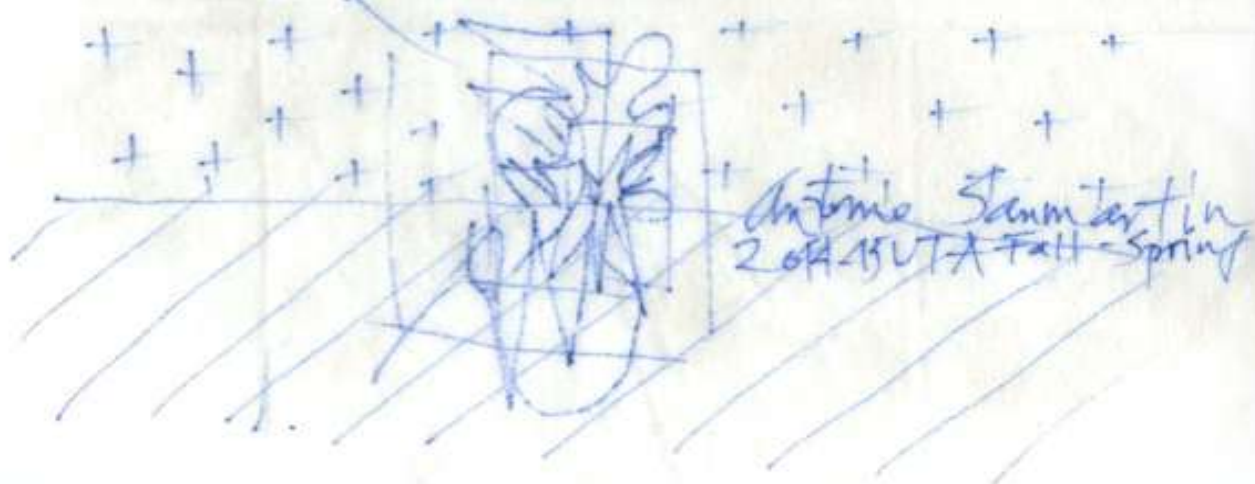
CARPAzines

College of Architecture Planning and Public Affairs  
University of Texas at Arlington

01



A DESIGN STUDIO IS AN "INSTANT" THAT LASTS A SEMESTRE BUILDING  
PRECISE ARCHITECTURES BETWEEN THE KNOWN AND THE UNKNOWN  
FOR BOTH, THE STUDENTS & PROFS AND THE LEARNING INSTITUTION.



Autumn Semester '14  
2014-15 UTA Fall - Spring

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*Antonio Sanmartín Advanced Graduate Studio, Mexico City*

*From the myth to the megalopolis by Louise Noelle*

*Antonio San Martin Advanced Graduate Studio, Mexico City*

*New mixed use development in China by LaguardaLow Architects*

*Social and media links*

# 01

## COURSE DESCRIPTION

***Antonio Sanmartín Advanced Graduate Studio,  
Mexico City***

MEXICO DATA AGENCY AND INCUBATOR - Lost Steps Space facilities on/over/under/around the new Chapultepec Zocalo **MeDAIChZo**

**Location:** Chapultepec, Mexico City (Mexico)

**Area:** 11-12 Acres

**Professor:** Antonio Sanmartín, Barcelona (Spain)

**Advisors:** Brad Bell (UTA FabLab)

Eduardo Cadaval (Mexico City expert)

J Kunkel (UTA Structures/Building systems)

CAPPAzine01 opens a collection of printed and e-book publications dedicated to the studio work in the College of Architecture, Planning and Urban Affairs at UTA. Every issue includes the studio proposal, the student work, an academic contribution by an expert or scholar and a work or project by a DFW architectural office.

These three edges may well show simultaneously the academic and the professional contexts as they are exposed to the student work while developing a sequence of tasks and explorations.

The challenge of teaching an Advanced Studio in UTA is very specific despite the global nature of architectural high education. Specially when conducted by Visiting Faculty, the studio addresses the expectations of a contemporary student requiring a "curriculum that will prepare them for design challenges in an increasingly complex and demanding world where cooperation and communication are essential to success. Not only will the future designer require heightened sensitivity of the built form, but extensive knowledge of emerging strategies in the fields of city planning, urban design and landscape architecture. The School actively promotes an agenda that will allow students to interface with the latest technology, work closely with local communities to solve real design problems, and tailor their education to their individual goals so that they can meet these challenges head-on"

The Studio works, manufactures and develops architectures resulting from knowledge both proper and improper to the discipline. "Universes" to found, redo, review, compare and make the specific architectures from each student. The procedure does not separate between invention and development. The project is a form of knowledge whose musculature is tuned during the course, progressing simultaneously and confirming their results by analogy between the productions of all students.

A studio project is a chronicle of a process and has to contain all of its production in response to a sequence of tasks in a weekly traceable 17 weeks path.



Architecture is/as transcription: memory and experience, projection, intelligibility, impression or metaphor operates at the base of a transcription that becomes the architecture. A discontinuous reality is the site for the "transfer" (phase change) between the order of things and the order of ideas. This transfer were addition, subtraction, mutation, synthesis,...occurs, is a form of cooking necessitated of some fire, or a memory of it. As stated by LW, "we use the word "space" in a way similar to when we call a room a space. However, visual space only refers to a geometry, one that is a portion of the grammar of our language".

Academic activity does not operate in the real world but in an equivalent or tantamount reality.

To broaden and make more intense the start of a practice, and attempt a position attentive to all forms of knowledge, opportunities and agents surrounding architecture, is another objective hidden under the syllabus of the studio.

The surface and starting catalysts of an "able to be flooded and drained" (Venice is also a site for flooding and drainage) 10 Ha. public space (20 Acres), a Supercomputer facility, an Incubator for start-up companies spaces and facilities and a "lost steps space" are the program brief of the public Agency. A universe for collective and personal expertise. The studio sets up a future possibility, able to articulate and formulate any matter that has to do with architecture, be it a landscape, a system, a shape, a form, a construction, to resolve accurately the movement of transformations ranging from things to ideas and ideas to things.

Mexico city, has a specific geographical condition and a contemporary radical pulse.

The CHAPULTEPEC area houses city and local infrastructures and are a question under construction.

México city was built on the lake/lagoon Texcoco in the área "Mexico Ciudad Futura" by Alberto Callach describes this condition in historical and speculative detail. Unseen but real as all the other components and vector of the city we find today, water was there and studio does not ignore it.

The studio explores the cross roads between the creation of an exemplary/contemporary public space design model, the transformation of a big piece of urban infrastructure, and smart cities research. The students may also join the ongoing public discussion among citizens and politicians and may propose alternative solutions. The studio will work over, under, at both sides of abandoned or under construction infrastructures sites. The studio is the opportunity to rethink how the new infrastructures of the city could dialogue with the existing old city and create a new image of its "psycho-geographical" landscape. Will pursue a transfer between diverse types of knowledge and sensibilities related infrastructures beyond energy balance, structural strains, engineering standards and social behaviours. The design of "Living Infrastructures" may require advanced teaching and learning.

Today, there is a renewal of the challenges of incorporating new nano, micro and macro infrastructures in an unfinished city. Local administrations are willing to develop a research context for Smart Cities. The SITE solutions and alternatives are under a huge public discussion between citizen and politicians and we are ready to join in with our collective know-how. Testing technologies: Nano, Micro & Macro: The project must work in different scales at the same time, fleeing from the classic method "from big scale to detail". Rather we propose to loop the project several times increasing the complexity and putting all the data in a box at the same time, despite possible contradictions. Advanced software and FabLab tasks. The mutation of each project over time will be guided by progressive personal expertise in several issues close to the environmental sciences and digital process. Every step of the sequence is also a change in scale, material, exploration and format. All work produced weekly is already part of the mid and the final results. No reworking at the "end".

A quadruple start-off task:

A\_21 grams of your last project. (Wire frame model).

B\_Site generic variables maps and specific. (Statistics, data maps, cartography, historical documents,...)

C\_Personal variable maps by collecting data, "surveying" in google or in local www

D\_Selection of UTA research groups issues being currently investigated.

A-referential, Productive, Public and Sharable, Sequential, Technically wise and able, Bold, Intelligible are some of the fields and conditions the studio walks over. A full trace of almost everything proposed and produced during the Fall of 2014 Studio follows this introduction.

This option studio shared the area of Chapultepec with another undergraduate studio conducted by Professor Pia Sarpaneva, who's enthusiasm for Mexico's present and past inundated (flooded) the research and agenda. The field trip to Mexico DF once the projects were moving ahead became a first test of the architectures for Chapultepec.

Bijan Youssefzadeh, the program director always supporting the aims and procedures of the studio despite sometimes placing the very dedicated UTA student off their comfort zones.

As Ralph Hawkins Visiting Associate Professor I am thankful to the his funding that made possible this opportunity.

Nan Ellin, as founding Dean of the new College of Architecture, Planning and Public Affairs, CAPPA, witnessed the results and gave name to this small publication.

A thanks to all UTA faculty new friends for their warm and care are also included here.

Finally, this studio is a modest contribution to spread and build Trust and No fear for architecture.

Antonio Sanmartín.

Barcelona-Arlington 2014-15.

04/22 - STILL IMAGES  
December 03, 2014





## ...64 steps for "Architecture as/is Transcription at UTA"



64. Final review is a celebration!!!!. Congrats to all!!!!

63. W15. Advise/Help/Encouragement/"Anims"/...

62. Tasks W14. Desks crits Monday 24Nov2014 and/or office advice on Tuesday 25Nov2014 for

\_ Site Model

\_ Animation 2 includes 2/3 images-frames (INT-EXT) with full definition.

\_ Chronicle draft.

61. **Studio Publication:** Meeting with two volunteers or two students selected by the class.

60. In favor of Public Space – Article by Manuel Sola Moral

59. **Guest Critics.**

Bijan Youssefzadeh (Program Director), Elena Rocchi (Visiting Clinical Professor at ASU and Fellow at Taliesin West), John Chow (Visiting Professor), John Maruszczak (Tenure Professor at ASU) have confirmed their availability.

58. **Documents Due for Final Review 4Dec2014 from 13pm to 18pm at Max Sullivan Gallery.**

01/22 Chronicle. Written in present tense. Describes all tasks of the studio ordered from the last to previous. Extension: 800/100 words. (1 page 8x11 maximum)

02/22 Personal and Technical Dossier. Includes all tasks. Printed in 8x11 and binded.

03/22 Site Model Building and Public Space Scale 1"-32'.

04/22 Animation 2 (Includes 2/3 Still images)

05/22 Site Plan Scale 1"-32'

06/22 Lost Steps Space-Digital Workflows. Energy Test. Architecture transcribes Energy. (.dwg dinA1)

07/22 Model Structural Entity with Description of Construction-Detail Sections and Counter sections (Scale 1"-4')

08/22 All printed boards (24x36 or 22x34) presented in the week reviews. Stapled from most recent to first.

09/22 Plans and Sections V2 (1/16)

10/22 6/9 Int-Ext Images

11/22 Geometry of Structure

12/22 Plans and Sections V1

13/22 Animation 1

14/22 Model V1 "Mexico Data Agency-Incubator-"Lost steps space" facilities on the new Chapultepec Zocalo" scale 1/32)

15/22 "Mezclador" of A+B+C: "Cut-outs"

16/22 Model of Task D.(UTA Research group item)

17/22 Model of Task C (Site Personal Variable) (Task G)

18/22 Drawing of Task A (21 grams last project) (Task E) `

19/22 DWG Transcription UTA Research group item (Task D)



20/22 DWG Personal Variable. (Task C)

21/22 DWG all Generic Site Variables. (Task B)

22/22 Wire Frame model of previous studio project 21 grams ("soul") (Task A)

Include in the Dossier the Plans

and/or sections of the selected previous studio Project.

All print documents are due at portrait 17x22 size. All documents are to have the number. Detail Section and counter sections are to be printed at 22xN

Models will show a tag or adhesive

All documents will be collected up before 12pm on December 2nd to be all pinned up by order of presentation.

All documents, as presented for the final review will be graded one by one.

to be printed at 22xN Models will show a tag or adhesive

All documents will be collected up before 12pm on December 2nd to be all pinned up by order of presentation.

All documents, as presented for the final review will be graded one by one.

#### 57. Tasks for W13:

\_Site Plan 1"32' (same scale as the group model. Describe the insertion of the building (MeDAIChaZo) in Chapultepec and the characteristics of the new Chapultepec Zocalo. Includes the description of the all sidewalks as defined in the group model, all pedestrian access. Shows the location, relationship with the future Zocalo, to the architectural context and to present and potential urban life of Chapultepec. Due at 17pm Friday 21Nov2014 Alejandro Borges will be the Guest Critic.

\_Complete and finish the cut out model of the Details Section and Counter sections at 1"-4' scale that holds and supports the size and scope of the architecture of the "Lost Steps Space". This model is also part of the required documents for the Final Review.

\_Start construction of 1"-32' Site and Building Model to be placed over the Group Model.

**56. Thanks to Professor Brad Bell and Assistants** for their participation and advice for the Definition/Description/Invention of the "Lost Steps Space".

**55. Student Work Publication.** Since almost all work produced has been traced, a modest and inexpensive publication may be of interest. Who and how we can be in charge of it. A draft of the publication can be discussed and prepared before the Final

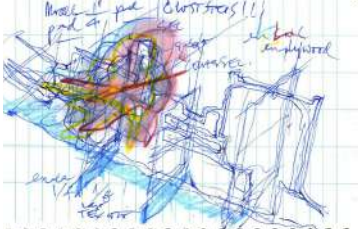
Review and once collected all material, it may be printed before Spring 2015 semester starts.

**54.W12 Tasks:** Definition/Description/Invention of the "Lost Steps Space"

This task is a joint venture between the Chapultepec Studio and the Digital Lab.

It is defined as follows:





Pedagogical Overview: Digital Workflows: 1 week duration  
Associate Prof Brad Bell – Visiting Prof Antonio Sanmartin

1) Co-Authoring Principle: Computational Design has brought about a fundamental shift in the extension of the tools used by the designer. From mundane repetition to intricate algorithms, there is a new spectrum of methodology available by which the designer may leverage a digital toolset to assist in the design process - beyond representation. While a hierarchy can be maintained, in that the designer controls the highest level of design authority, the computational design approach facilitates a capacity to relinquish - intentionally and with specificity - authorship of the design sequence over to the development of parametric development of the software. Specialty scripts and plug-ins have only further accentuated this capacity over the past several years.

2) Optimization vs. Generation vs. Simulation: There are now many different ways we can think about implementing the digital toolset available too us as designers when considering the co-authoring principle. Optimization, generation and simulation all offer slightly different methodologies and outcomes for how one would chose a software and what the expectations would be as a result of that selection. Ultimately it is about data flow management and how the designer choses to access the process in both a creative and logistical manner. While never

a. Optimization: The use of software for the refinement of preconceived intentions regarding geometry

b. Generation: The integration of software (typically utilizing algorithms) for the purpose of spatial and formal development.

c. Simulation: The use of software for testing fitness, or effectiveness of design outcome. Can be environmental (sound, thermal) or structural (FEA, CFD)

3) Strategic Implementation: Regardless of the methodology chosen, a strategic logic for implementation is fundamental to navigating the design process. Without this there can either be a) a misunderstanding of the selection of software b) an arbitrariness or subjectiveness to the geometry created or c) a 'false positive' about data created. Specifically, as students are working with within the framework of translation, a clear understanding of 'how', 'what', and 'why' should be understood in order to find intentionality in the use of the software.

4) Tactical methodology: The application of strategy comes through precise tactical approaches. There are many different ways this can be directed according to strategic implimentation, but the bottom line is that the clearer the correlation between the strategy and the resulting tactics then the more direct and thus effective the translation will become in the design process. The following tactics are for formal manipulation of geometry and illustrate a short list of possibilities – concept + tool, that can serve as a means to understand this point.



- Iterative difference i.e. cluster, hive, swarm (Paneling)
- Smoothing (sweeping and lofting)
- Serial Section (lofting)
- Isotropic balance i.e. bilateral symmetry (surface mirror, merge)
- Parametric data flow (grasshopper intro)

Thus, given the location of the initial geometry for the “Lost Steps Space” for every project, a specific digital tool may contribute to complete its definition, form, performative possibilities (related to sound, light, energy, etc. ...) and eventual fabrication criteria. Also, the contact and or extension between the building and the Lost Step Space are to be proposed.

The cut out model of the Details Section and Counter sections at 1”-4’ scale hold and support the size and scope of the architecture of the “Lost Steps Space”.

Analogic and or manual definition is also an option.

Plans and Sections of the the México Data Agency, Incubator & “Lost Steps Space” Building on the new Chapultepec Zocalo, will include the resulting description of the “Lost Steps Space”.

The “Lost Step Space or Room”, in italian “Sala de Pasi Perduti” has been defined by Marco Macri as:

“The Lost Step Space or Room is the place that serves as a gateway between matter and spirit. This gateway to the “ physical Temple “ Freemasons , in the act of leaving out the metal , is preparing to achieve balance and peace within and without. Through this peace, the turbulent vortex of the five senses subsides and ceases to bombard information , mediated by emotions, the left brain ; in the weakening of the aforementioned brain activity is reached that state we can define external silence . From the exterior silence we access gradually to a state of total calm is called inner silence . In this new provision of all our equipment we begin to experience the insights that come from our right brain : we begin to feel “ the sound of silence .”

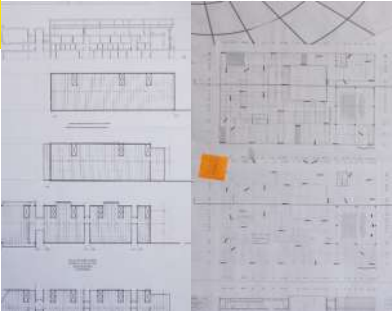
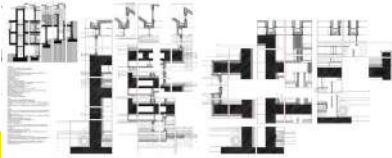
We are ready “now “ to access the inside of the physics of the space.”

#### 54. W11 task adjustments.

As result of group discussions and feedback, W11 tasks includes:

\_ Revision and completion of Detail Sections and Counter Sections scale 1”-4’ (Correspond to document 08of22 in the Final Review Draft List. Detail Section is to be printed i=at 1”4’ scale and at 8x11 reduction to be part of the Project Dossier.

\_ Plans and Sections scale 1/16. They include the description of elements of construction defined in the Detail Sections. Drawing the architecture of the México Data Agency, Incubator & “Lost Steps Space” Building on the new Chapultepec Zocalo is drawing in plan and section at 1”-16’ scale the information found in the Detail Sections.



It is not a mere reduction of the information displayed in the Detail Section. The different layers of every surface or the dimension of the components are to explain the spatial qualities of the different parts and functions of the building and the public space.

\_ Model that results from Cut-out in MDF or Plywood of Detail Sections and Counter Section, Scale 1"/4', is part of W12.

**53. W11 Agenda includes also ASG Lecture: Architecture as/is Transcription.**

**52. Tasks for W11:**

\_ Group Model. Fully finished. (All high raise buildings in Avda Reforma and other areas completed)

\_ Plans and Sections V2. Include info from construction description in Detail Sections. Scale 1"/16'.

\_ Model that results from Cut-out in MDF or Plywood of Detail Sections and Counter Section. Scale 1"/4'

**51. Mid Term Grades and comments:**

\_ Will be given in personal meetings during Tuesday 4Nov and Wednesday 5Nov according to a sign-up list.

\_ Assessment and grade will only be given upon delivery of a full copy of the personal and technical dossier. Includes all documents produced from W1. Includes good images of all models produced from W1. Includes all other drawings, sketches, references,... Has to be well edited. Includes all technical information related to the definition and the construction of the building and public space.

**50. Deliverables of Task W10. Detail Section. 1"4'.**

W10 Review will be substituted by the delivery of a 11x17 (or extended size) print of Detail Section.

Includes:

\_ Main section and counter sections (transversal to the main section).

\_ Legend of materials and its correspondence on the sections.

\_ Key plan drawing were main sections, counter sections and building "stripe" are located.

The printed Detail Section will be collected at 18pm on Friday 31Oct2014.

**49. Studio Space:**

All models, drawings, documents and other items are to be kept safe and well for consultation at any time.

**48. Tasks for W10:**

Detail Section Structural Entity / Description of Construction-Detail Sections and Counter sections (.dwg)

Energy Test. Architecture transcribes Energy. (.dwg dinA1)

47. Group model. To be finished Monday 27Oct2014. Includes:

\_ CNC cut out of Paseo Interior (Alejandro)

\_ All buildings as assigned by Alaa



- \_ Corrugated cardboard to level with Pia's Sarpaneva Group Model.
- \_ Blue/Green Painted of 2x4 base sections.

#### 45. Several Reminders:

- \_ All materials produced in every week are to be kept for the final review.
- \_ All 22x34 plots are to be kept and stapled in order from the most recent to the oldest.

\_ Personal and Technical Dossier: (8 1/2 x11) Includes all documents produced from W1. Includes good images of all models produced from W1. Includes all other drawings, sketches, references,... Has to be well edited. Includes all technical information related to the definition and the construction of the building and public space.

#### 44. Task for W9:

\_ 2ndIntermediate Review:6/9 Int-Ext Images/Geometry of Structure V2/ Plans and Sections V2 (1/16) / Technical Dossier. Guest Critic: Bang Dang

#### 43.Tasks/Agenda for W8.

\_ Monday 6Oct2014

#14,00 to 14,15pm: Update of Group model construction

#14,15pm to 16pm: Review of Plans and Sections

#16,00pm to 18,00pm: Lecture by Gabriela Carrillo and Mauricio Rocha.

After Lecture: Rearrangement of studio space.

\_ Wednesday 8Oct2014: Geometry of the Structure Desk Crits.

\_ Friday 10Oct2014: W7 Review. Guest Critic: Jerald Kunkle.

#### 42. Update W7 Agenda.

\_ Wednesday 8Oct2014:

.W6 Review(plans and sections 1/16) will continue. Dennis Chiesa will join us at the second half of the session.

.Complete and updated Dossier 8x11 is mandatory.

.Group Model. JPG photomap files (includes hatch on sidewalks) are to be ready for printing and taping on CNC milled model base. Support Structure drawing prepared by Cameron should also be ready to start construction.

.Rearrangement of Studio Space after W6Review.

\_ Friday 10Oct2014:

. Geometry Structure (Item 40 of Syllabus) Desk Crits.

.Group Model Base Assemblage and building Options

#### 41. Agenda for W7:

\_ Monday 6Oct2014

#14,00 to 14,15pm: Update of Group model construction

#14,15pm to 16pm: Review of Plans and Sections

#16,00pm to 18,00pm: Lecture by Gabriela Carrillo and Mauricio Rocha.

After Lecture: Rearrangement of studio space.

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#### 40. Tasks W7. Geometry of the Structure.

Describes the perimeter, the voids of every plane and the supporting elements. Distances between columns, walls and beams. Includes notes on the different structural materials. Scale of the drawings, 1/16.

**39. W6 Review Guest:** Dennis Chiesa.

**38. W6 Review** was cancelled and rescheduled for Monday 6Oct2014. UTA campus closed after Thursday storms.

**37. Upload Animations** V1 to Google Drive studio folder and to a YouTube Channel.

Tag them: SanmartinUTAstudioAnimation1\_Last Name

**36. Tasks W6: Plans and Sections** scale 1"/16'. Derived from 3D model (with info from and/or previous dwg drawings of previous tasks). Every plan and every section has to include:

- \_Section/Plan of geometry all elements from the 3D model.(Thicker line)
- \_Drawing of geometry of all elements from the 3Dmodel in front or down projection (thin line) and above or behind projection in dashed lines.
- \_Description of one or two functional conditions for every space of the program brief.

- \_Surface legend and key plan to locate sections and key section to locate plans.

**\_Complete Dossier!!!.**

#### 35. Group Model:

- \_Workshop adviser will provide aprox. budget for 1/32 scale model.

- \_2 Model Samples of area agreed at 1/32 and 1/64 to be built by each studio (Pia Sarpaneva's and ASG's).

**34. Thanks to Prof. Joshua Nason comments.** Helped to move ahead. Joshua will nominate W6 guest critic.

**33.** Please, following Pia Sarpanevas's advise, check this video: <https://www.youtube.com/watch?v=k2vD5mhBGCg>

**32. Group Model:** Start of construction and base. Includes coordination with Pia Sarpaneva's Studio.

**31. Office hours reminder.** As you know I will be in my office every day of the week 10am 19pm (except seminar class hours).

**30. MeDAIChaZo Program Brief Draft to be completed after student's research:**

a\_CHAPULTEPEC Zocalo:

Total max: 1.000.000sqf. Every project will find final size.

Mostly a "hard" Surface able for all sorts of public and civic and cultural activities, group gatherings, demonstrations, festivals, events,...Is a new "zocalo". Aprox. 1/3 of total surface shaded (canopies, shelters, shadings...) The Barcelona Forum 2004 Area or the Dallas Klyde Warren Park are similar cases.

b. MeDAIChaZo Agency Building:

Total max: 60.000sqf aprox.





#### **b.1. Supercomputer/Data areas: 25.000sqf:**

- \_ Servers Area: 10.000sqf aprox. See technical conditions for hight, floors, ...
  - \_ Storage and Mechanical rooms: 8.000sqf aprox.
  - \_ Offices: 3.000sqf aprox.
  - \_ Labs: 2.500sqf.
  - \_ Restaurant/Cafeteria: 1.500sqf
  - \_ 100 parking spaces not included in the 60.000sqf.
- See Google Data Centers Videos.

#### **b.2. Chapultepec Incubator: 20.000sqf**

- \_ General Shared Areas: 5.000sqf. Includes, lobby, services, library, IT Area, storages, restrooms,...
- \_ Conference room for 400seats: 4.000sqf.
- \_ 30 Rental spaces small size units: 100sqf each
- \_ 20 Rental spaces medium size units: 200sqf each
- \_ 10 Rental spaces large size: 300sqf each.

All spaces are to be occupied by start-up companies for no longer than 3years.

Incubator is to facilitate sinergia between start-up micro companies and advise in future development.

See Barcelona Activa web and other metroplex similar cases.

#### **b.3. Lost steps space: 5.000sqf aprox.**

- \_ Is part of the MeDAIChaZo Agency Building. Has no program, is an enclosed space.

May be reactive and/or performative space that changes according to light, energy, people, sound, ...

#### **29. Agenda W5.**

- \_ Monday 22Sep2014. Desk crits of Animation and Site Model. Animation should included first attempt in building spatial organization within the given wireframe geometries derived from draft animation and site model.

**28.** Thanks to John Chow comments in the "draft review of the draft animation and site model.

**27.** All models and drawings produced from W1 are to be kept for the final review. They are part of the required materials. No drawing rolls. Also they all have to be dated.

#### **26. Agenda W4.**

- \_ Monday 15Sep2014: Complete Personal Dossier 8x11 includes revised Option 1 and 2. Desk Crits. Sections are to describe all information of existing site conditions in the 24x36 board at 1/32 scale overlayed on the plan of proposal. Site conditions are to be printed in one colour. Proposal in Black and Gray lines and other possible colours. Dossier includes all images of "paper cut-outs" on the site photomap.

- \_ Wednesday 17Sep2014: Frist attempt for task K and L. Desk Crits

- \_ Friday 19Sep2014: Review of Task K and L Draft.



## 25. Tasks W4/W5.

\_Personal Dossier. Includes images from Animation and Site Model.

\_Task K: Site model of selected proposal for the MeDAIChaZo Agency and public space. Scale 1/32. Materials and techniques specific for every student (Acrylic, Bass wood, 3D printing, silicone, paper, cardboard, feltro, canvas, nontessue tissue,...)

\_Task L: 1 minute Animation of proposal as is. Geometry of all elements and spaces as defined in Task I revised after components in W3 Review.

Review of both tasks will be on Friday 26Sep2014.

Draft of both tasks is due Friday 19Sep2014

\_Group Model. Start of construction and base. Includes coordination with Pia Sarpaneva Studio

\_Research and definition of Supercomputer and Incubator program brief.

\_Map of possible activities for 1.000.000sqf Chapultepec Zocalo.

24.Thanks to John Maruszzak encouraging participation and comments for W3 Review. Joshua Nason is the next guest critic suggested by John Maruszzak.

23. Group Model. Review of 4 options/size/cost/...for Monday 8Sep2014

22. Other required complementary tasks:

Print revised task E, print images of model of task F and G in 81/2x11. Keep all docs, sketches, notes with a binding clip and ordered from most recent backwards. Is the personal&technical Dossier/Book.

21. Program Brief draft for the "Mexico Data Agency- Incubator-Lost steps space facilities on/over/under/around the new Chapultepec Zocalo" (MeDAIChaZo)

I\_ 1.000.000sqf infrastructural surface for a public space able for all activities, actions, events, in Chapultepec

II\_ 50.000sqf aprox. mixed building with tree programs:

II.a. Areas to house the Supercomputer Servers and required servant spaces for the Mexico Data Agency: 25.000sqf aprox

II.b. Areas to house the spaces for start-up companies. (See Barcelona Activa). 15.000sqf aprox.

II.c "Lost steps space". 5.000

A more precise program brief will be settled in studio discussions.

20. Guest Critics Week 3. Steve Quevedo suggested John Maruszzak.

Thanks to Steve Quevedo for his insights during W2 review.

19. Tasks for W3: Management (Additions, combinations, subtractions, multiplications, divisions, ...) of all architectures resulting from every transcription to assess site and program for the Chapultepec public space and the (MeDAIChaZo) building.

Task I: Draw Plans/Sections/Elevations in .dwg of task F, Model of Personal Variable. Same scale of the model.

The drawing is to describe the thickness and geometry of the different



materials used in the construction of the model. Has to be precise and include all elements of the model, all components of the model as is!.

Task J: : Draw Plans/Sections/Elevations in .dwg of task G, Model of Process/ Issue from UTA research groups. Same scale of the model. The drawing is to describe the thickness and geometry of the different materials used in the construction of the model. Has to be precise and include all elements of the model, all components of the model as is!.

Task K: Print in transparent paper tree versions of task E (model of 21grms of last project) in tree sizes to be sited over the Chapultepec photomap and generic variable drawings at 1/32 scale. Each one of this tree prints is to correspond to:

- \_1.000 000sqf public surface at 1/32 scale.
- \_50.000sf for the Mexico Data-Incubator-Lost Steps at 1/32 scale
- \_5.000sqf version of drawing of 21grms model at 1/32 scale.

Task L: Print in transparent paper tree versions of Task I (drawing of the model of personal site variable) in three sizes to be sited over the Chapultepec photomap and generic variable drawings at 1/32 scale. Each one of this tree prints is to correspond to:

- \_1.000 000sqf public surface at 1/32 scale.
- \_50.000sf for the Mexico Data-Incubator-Lost Steps at 1/32 scale
- \_5.000sqf version of drawing of 21grms model at 1/32 scale.

Task M: Print in transparent paper tree versions of task G (drawing of the model of item from UTA research groups) in tree sizes to be sited over the Chapultepec photomap and generic variable drawings at 1/32 scale. Each one of this tree prints is to correspond to:

- \_1.000 000sqf public surface at 1/32 scale.
- \_50.000sf for the Mexico Data-Incubator-Lost Steps at 1/32 scale
- \_5.000sqf version of drawing of 21grms model at 1/32 scale.

In total 9 prints.

18. México City Field Trip 16-17-18-19 October draft ARCH5670 ARCH5594  
*MEXICO CITY FIELD TRIP 16-17-18-19 October*

*Mexico City, has a specific geographical condition and a contemporary radical pulse. The area of San Miguel de Chapultepec houses city and local infrastructures that are a currently under discussion and re-development.*

*México City was built on the lake Texcoco. "Mexico Ciudad Futura" by Alberto Kalach describes this condition in historical and speculative detail. Unseen but real as all the other current components and vectors of the city, water was present and is acknowledged in the studio work.*

*Students in ARCH5594 are working to develop an architecture resulting from the abstract relations related to special sequences for the stripe between the streets*

*General Pedro Antonio de los Santos/Avenida Chapultepec and Jose Vasconcelos/Circuito Bicentenario.*



*Students in ARCH5670 are addressing the chances for an enormous public space and a mixed-use building for Chapultepec between the urban tissue and the park by practising architectural transcriptions.*

*The Field Trip is both a survey and an action associated to the project each student is developing.*

**17. Guest Critic for W2:** Pia Sarpaneva suggested Steve Quevedo.

**16. Other required complementary tasks:**

\_ Print task A,B,C,D in 81/2x11. Keep all docs, sketches, notes with a binding clip and ordered from most recent backwards. Is the personal&technical Dossier/Book.

**15. Tasks for Week 2:**

\_ Improve/revise tasks A,B,C and D from W1 according to comments from Review W1.

\_ Task E: Take images in plan and elevation of wire frame model (task A) and draw it "as is" in .dwg or Rhino or...

\_ Task F: Transcribe and Build the model of task C. Same scale/same size as the drawing. This task can be produced in any technique, from very manual to Fab Lab. All information and codes drawn in the task are to be used, transcribed and built in the physical model.

\_ Task G: Transcribe and Build the model of task D. Same scale/same size as the drawing. This task can be produced in any technique, from very manual to Fab Lab. All information and codes drawn in the task are to be used, transcribed and built in the physical model.

**12. Agenda for week 1:**

(ASG will be available in studio or in office 10am to 6pm every day)

\_ Monday 25Ag2014: Review of all info for tasks B,C,D and delivery of Task A

\_ Wednesday 27Ag2014: Desk crits

\_ Friday 29Ag2014: W1 pin up and Review.

Every Friday Week Review a UTA-Architecture faculty will be invited guest critic. W1 Review: Prof. Pia Sarpaneva.

**11. UTA Research groups list of "issues-concepts-processes":**

Every student select 2 possible "issues-concepts-processes" and bring the description from the corresponding UTA research group and the Wikipedia definition. 6/7 different item will be selected.

**10. CHAPULTEPEC area (around metro station) SITE INFORMATION.**

Find all info in .dwg, .pdf,... and print it at scale 1/2000 or 1/1000 metric or equivalent in inches/feet.

Group A - TOPOGRAPHY: Afia A, Alaa A, Tommi

Group B - VEGETATION: Santos C, Robert C, A Aldo G

Group C – INFRASTRUCTURES (all kind of): Meghain W, Shiuani P, Valon M

Group D – GEOLOGY: Tania S, Cameron H, Duane F

Group E – BUILDING INFO: Alex Q, Francisco I, Samantha D, Elmira A

Group F – BID DATA info: Samantha D, Tania S

### **9. Mexico City Field Trip Itinerary and proceedings.**

\_Dates: TbD but aprox 18-19-20-21Sep2014

\_Site Visits/Accions on site: TbD

\_Lectures: TbD

\_Flight Tickets: TdB

\_Accommodation: TbD

\_City Info: TbB

\_List of Students: Most students showed interest in joining the trip

### **8.Tasks W1(25-29Ag2014):**

A quadruple start-off task:

A:21 grams of your last project. Wire frame model.

B:Site generic variable maps. To be proposed by every student (Topography, geology, transit, density, statistics, data maps, cartography, historical documents, surveying ....(dinA1 .dwg) C:/Site specific/personal variable maps by collecting/finding/exploring data and collecting diverse information we may understand how we to the current situation. (dinA1 .dwg)

D: Transcription (one per every two students) of a Selection of UTA research groups issues being currently investigated. (.dwg din A1)

### **7.Tasks Group Model W1:**

Info/data for group model in 3 different materials Scale 1/1000. Budget, List of issues, concepts, processes on research at UTA research groups

### **6. Evaluation Process.**

### **5. Students list**

### **4 .Refs.**

\_Philippe Rham, Catherine Mosbach, Philippe Rahm, "Seeking New Paradigms in Landscape Architecture"

First Prize: "Atmospheres of Well-Being" by

\_Alberto Kalach, "Ciudad Futura"

\_Stoner, Jill "Towards a Minor Architecture" MIT Press, 2012.

\_Torres Nadal, J.M. "Plataforma de innovación y servicios arquitectónicos sostenibles para la provincia de Alicante. La innovación es un eco de nosotros mismos"

\_García, Mark "The diagrams of architecture" AD reader, 2010.

\_Diderot y otros "Diderot encyclopedia. The complete Illustrations 1762-1777" Harry N. Abrams, 1978

- John Maeda, "The ten laws of Simplicity", 2006 | ISBN: 1429412926- Bruno Latour, "Aramis or he love of technology". Transl by Catherine Porter. Harvard U. Press, 1996

- Rem Koolhaas, "Mutations". Actar 2001. ISBN-13 978-8495273512

- The Endless City, Ricky Burdett and Dejan Sudjic, eds. (London: Phaidon, 2007).

- Reyner Banham, The Architecture of the Well-tempered Environment (Second Edition, Chicago, University of Chicago Press, 1984).

- Mike Davis, Evil Paradises: Dreamworlds of Neoliberalism (New York: The New Press, 2007).

- Mike Davis, Planet of Slums (New York: Verso, 2006).

- Jared Diamond, Collapse: How Societies Choose to Fail or Succeed (New York: Viking Press, 2005).

-Jacques Ferrier,"The Sensual City: The Artificial Enabling the Sensual" in the Harvard Design Magazine, Spring/Summer 2009, #30.

- Thomas L. Friedman, "Hot, Flat, and Crowded 2.0" (New York: Picador, 2009).

- Lisa Heschong, "Thermal Delight in Architecture" (Cambridge: MIT Press, - Mike Davis, Planet of Slums (New York: Verso, 2006).



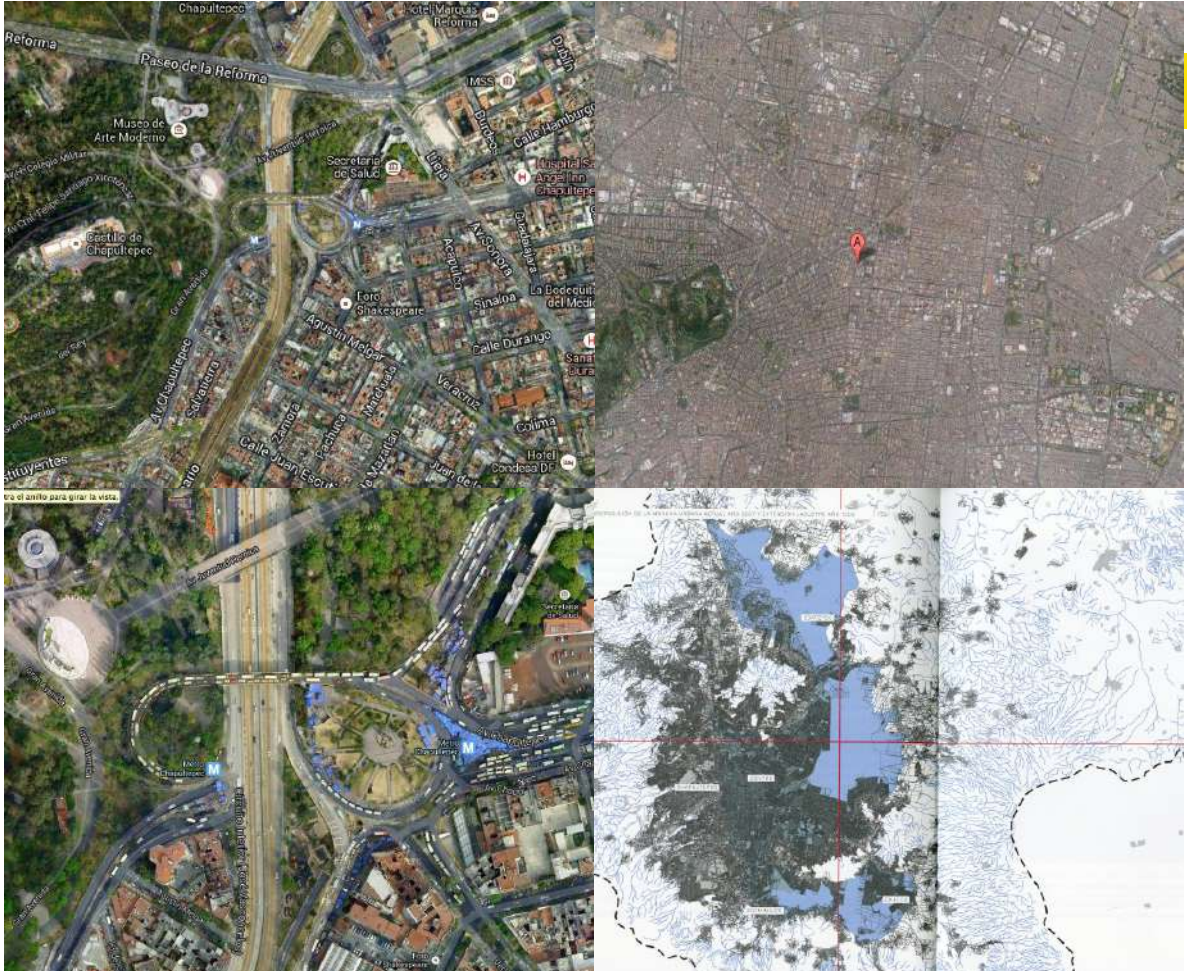
- Jared Diamond, Collapse: How Societies Choose to Fail or Succeed (New York: Viking Press, 2005).
- Jacques Ferrier, "The Sensual City: The Artificial Enabling the Sensual" in the Harvard Design Magazine, Spring/Summer 2009, #30.
- Thomas L. Friedman, "Hot, Flat, and Crowded 2.0" (New York: Picador, 2009).
- Lisa Hescong, "Thermal Delight in Architecture" (Cambridge: MIT Press, 1985).
- Tony Judt, "Europe vs. America", The New York Review of Books, February 10, 2005.
- Rem Koolhaas, "Junk Space", in Content (Köln: Taschen, 2004).
- Madrazo, L. (ed.). "Barcelona Reflections", Barcelona, 2009.
- Marshall, T. (ed.). "Transforming Barcelona". London, 2004.
- Mohsen Mostafavi, ed., "Ecologica'l Urbanism", (Baden: Harvard University GSD, Lars Müller Publishers, 2010).
- Peter Newman, Timothy Beatley, Heather Boyer, "Resilient Cities: Responding to Peak Oil and Climate Change" (Washington DC: Island Press, 2009).
- Phillip Oswalt, ed., "Shrinking Cities Volume 1: International Research" (Ostfildern-Ruit, Germany: Hatje Cantz Verlag, 2005).
- Peter Owen, "Green Metropolis" (New York: Riverhead Books, 2009).
- Mike Davis, Evil Paradises: Dreamworlds of Neoliberalism (New York: The New Press, 2007).

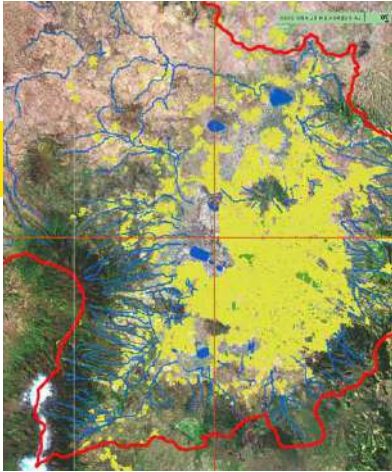
### 3. When/How

An instant that last a Fall: 16W, 16 Tasks, no REWORKING.

Ag	M	T	W	Th	F	
				21	22 (W00)	Studio Presentation / Group Model 2/3 v. dif. materials ie: Acrylic, Cardboard, Foam 1:1000 all with cut-out of site
	25	26	27	28	29 (W01)	Tasks/Transcription A, B, C & D (.dwg, print dinA1)
Sep	1	2	3	4	5 (W02)	Advise form UTA FabLab Instructor
	8	9	10	11	12 (W03)	Physical Models Tasks A, B, C
	15	16	17	18	19 (W04)	Advise form UTA FabLab Instructor
	22	23	24	25	26 (W05)	"Mesclador" of A+B+C: Plans & sections V1 (dinA1) Physical & Digital
	29	30	1	2	3 (W06)	"Site Actions" for Field trip.
Oct	5	6	7	8	9 (W07)	Draft Model 1/32, Draft Animation, Personal Dossier.
	13	14	15	16	17 (W08)	Brief/Activities Maps/Record of Actions (.dwg dinA1)
	20	21	22	23	24 (W09)	1" Intermediate Review. Animation 1/Model Proposal/Dossier
	27	28	29	30	31 (W10)	Plans and Sections V1 (.dwg dinA1)
						Plans and Sections Review
						Group Model Tasks: Print Photomap, Build Base,...Start making buildings,...
						Mexico DF Field Trip.
						Geometry of Structure (Wire frame model)/Selection of Structural
						Bay-Entity. Advising from structures UTA instructor
						2" Intermediate Review: 6/9 Int-Ext Images/Geometry of Structure V2/
						/ Technical Dossier /
						Detail Section from Structural Entity / Description of
						Construction-Detail Sections and Counter sections (.dwg) Scale 1/4
						Energy Test. Architecture transcribes Energy. (.dwg dinA1)
Nov	3	4	5	6	7 (W11)	Plans and Sections V2 (1/16)
	10	11	12	13	14 (W12)	Model of Detail Section Structural Entity / Description of
	17	18	19	20	21 (W13)	Construction-Detail Sections and Counter sections (.dwg) Scale 1/4
	24	25	26	27	28 (W14)	Energy Test. Architecture transcribes Energy. (.dwg dinA1)
						Lost Steps Space-Digital Workflows
						Site Plan / Site Model /
						Site model of proposal for all site group models.
						Animation 2 (Includes 2/3 still images)
						Editing/2&3D Reprint/Recollect models/Images of models
						/Edit/Animations
Dec	1	2	3	4	5 (W15)	Chronical / Final Review / Personal Dossier (A4) ?All models/
	8	9	10	11	12 (W16)	All printed drawings/... (updated, anti-chronicle, photos of models,

## 2.Where. México DF Sites: \_CHAPULTEPEC





## 0. General Data

ARCH 5670 Graduate Design Studio Section 1 MWF 2-6 PM Room XXX  
INSTRUCTORS Antonio Sanmartín Office 418 Ph 682 936 0217

E-mail [azcon@coac.net](mailto:azcon@coac.net) Office hours MWF 1-2 PM FORMAT Lecture 1 Hours/  
Lab 11 Hours per week OFFERED Fall 2014

REQUIRED PREREQUISITES Graduate Standing Other links:

### COURSE DESCRIPTION:

#### 1. Course Description

The Studio works, manufactures and develops architectures resulting from knowledge both proper and improper to the discipline. "Universes" to found, redo, review, compare and make the specific architectures from each student.

The procedure does not separate between invention and development. The project is a form of knowledge whose musculature is tuned during the course, progressing simultaneously and confirming their results by analogy between the productions of all students.

A studio project is a chronicle of a process and has to contain all of its production in response to a sequence of tasks in a weekly traceable 17 weeks path.

Architecture is/as transcription: memory and experience, projection, intelligibility, impression or metaphor operates at the base of a transcription that becomes the architecture. A discontinuous reality is the site for the "transfer" (phase change) between the order of things and the order of ideas. This transfer were addition, subtraction, mutation, synthesis,...occurs, is a form of cooking necessitated of some fire, or a memory of it. As stated by LW, "we use the word "space" in a way similar to when we call a room a space. However, visual space only refers to a geometry, one that is a portion of the grammar of our language".

Academic activity does not operate in the real world but in an equivalent or tantamount reality.

To broaden and make more intense the start of a practice, and attempt a position attentive to all forms of knowledge, opportunities and agents surrounding architecture, is another objective hidden under the syllabus of the studio.

The surface and starting catalyst of an "able to be flooded and drained" – Venice is a well known case- public space between 4/5 Ha. (11/12 Acres), a Supercomputer facility, an Incubator for start-up companies spaces and facilities and a "lost steps space" are the program brief of the public Agency. The studio sets up a future possibility, able to articulate and formulate any matter that has to do with architecture, be it a landscape, a system, a shape, a form, a construction, to resolve accurately the movement of transformations ranging from things to ideas and ideas to things.

Mexico city, has a specific geographical condition and a contemporary





radical pulse.

The area of CHAPULTEPEC house city and local infrastructures and are a question under construction.

México city was built on the lake/lagoon Texcoco in the área “Mexico Ciudad Futura” by Alberto Callach describes this condition in historical and speculative detail. Unseen but real as all the other components and vector of the city we find today, water was there and studio does not ignore it.

The studio explores the cross roads between the creation of an exemplary/contemporary public space design model, the transformation of a big piece of urban infrastructure, and smart cities research. The students may also join the ongoing public discussion among citizens and politicians and may propose alternative solutions. The studio will work over, under, at both sides of abandoned or under construction infrastructures sites.

A quadruple start-off task:

A\_21 grams of your last project. (Wire frame model).

B\_Site generic variables maps and specific. (Statistics, data maps, cartography, historical documents,...

C\_Personal variable maps by collecting data, “surveying” in google or in local www

D\_Selection of UTA research groups issues being currently investigated.

\*Venice is also a site for flooding and drainage.

UT Arlington Graduate Studio

Academic Director:



Visiting Associate Profesor: Antonio Sanmartín- aSZ assistant: Carla Figueras/  
Other Advisors: Brad Bell (UTA FabLab), Eduardo Cadaval (MexicoCITY expert), J Kunkel-M Mehta (UTA Structures/Building Sist)

Teaching Assistants: TbD

Time/Location:

Ref.: W14 ARCH5670 ASG fall 2014, Section 1

Fall Semester 2014

**Mexico City Infrastructural Agencies: Architecture is/as transcription.**

**Mexico**  
**CIUDAD**  
**FUTURA,**

Edición: Alberto Kalach

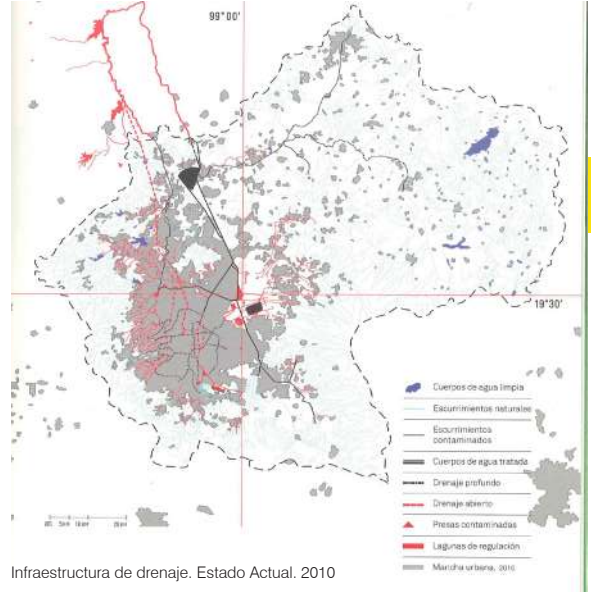


Las Calzadas. 2000 // Alberto Kalach

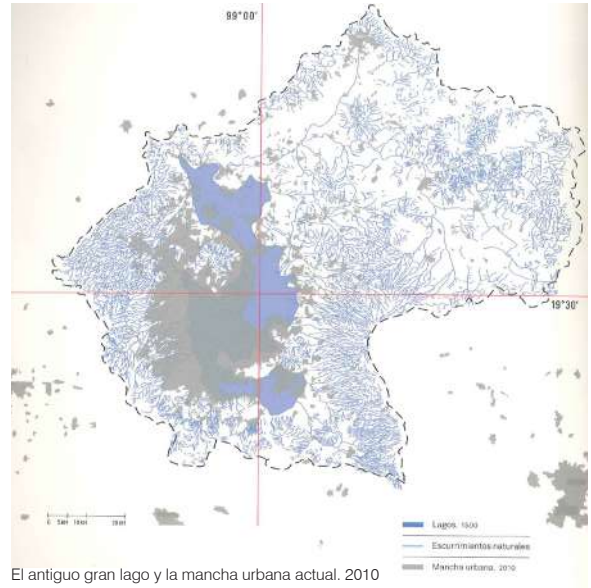


Forma y levantamiento de la ciudad de México 1628 / Juan Gómez de Trasmonte





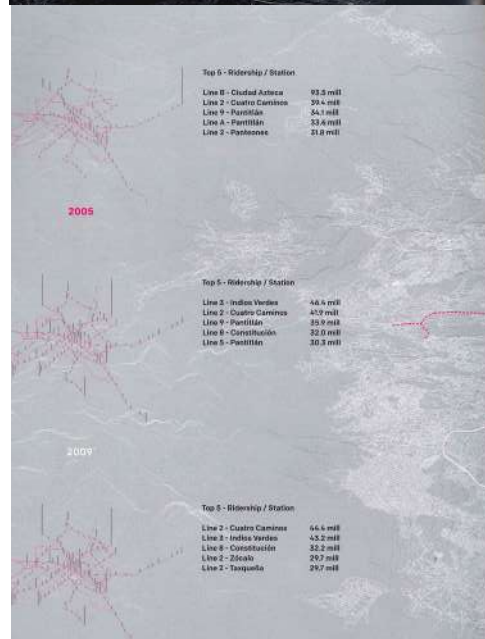
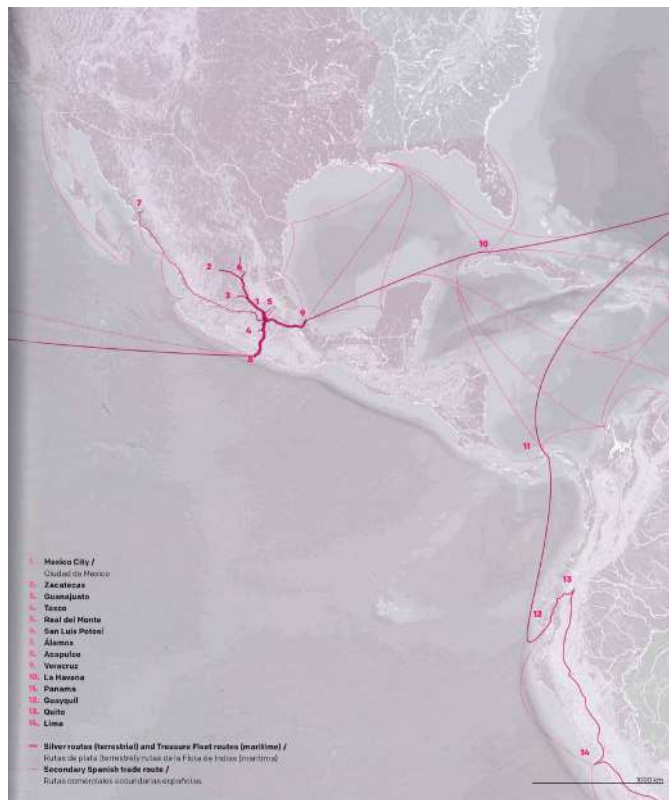
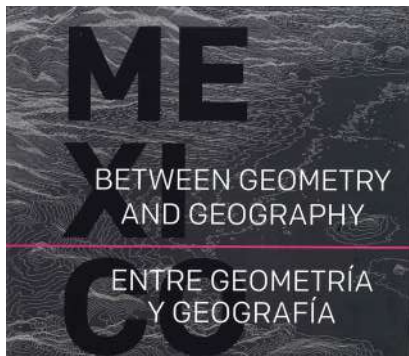
Infraestructura de drenaje. Estado Actual. 2010



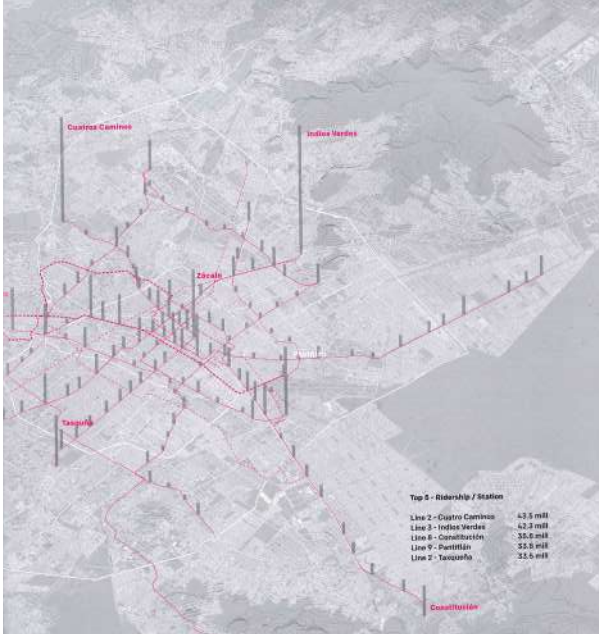
El antiguo gran lago y la mancha urbana actual. 2010

# Mexico, BETWEEN GEOMETRY AND GEOGRAPHY

Felipe Correa  
Carlos Garcíavelez Alfaro







# 02

## MEXICO CITY

*From the myth to the megalopolis by Louise Noelle*

La ciudad de México se encuentra en una cuenca a 2,200 metros de altitud, delimitada por una serie de sierras de origen volcánico, donde destacan, imponentes, el Popocatepetl y el Iztlacihuatl. Se trata de un valle lacustre, en el que se vierten una serie de ríos y arroyos, y que originalmente conformaban los lagos de Chalco, Xochimilco, Xaltocan y Zumpango, interconectados entre sí. Esta condición geográfica es la que propició el mito fundacional de esta urbe.<sup>1</sup>

Los primeros asentamientos en este valle, datan del siglo XIII AC., y para el siglo IV AC. existen ya importantes centros ceremoniales como Cuicuilco, además de diversas poblaciones menores, basadas en el desarrollo de la agricultura. Sin embargo fue la llegada de los aztecas la que transformó radicalmente el equilibrio habitacional de la zona, al crear en 1325 la ciudad de Tenochtitlan. Efectivamente, este pueblo nómada, eminentemente guerrero, provenía del norte de Mesoamérica y buscaba un sitio para asentarse, siguiendo una profecía: la tierra prometida sería aquella donde encontrarán un águila comiendo una serpiente. Este hecho singular se dio en una isla, que pasó a ser con el tiempo un importante centro ceremonial y la capital de todo un imperio.

The City of Mexico is located in a valley at an altitude of 2,200 meters (approx. 7,200 ft.), delimited by a series of mountain ranges of volcanic origin, with the Popocatepetl and Iztlacihuatl outstanding imposingly. It consists of a lacustrine valley, into which a series of rivers and streams flow, and that originally conformed that lakes of Chalco, Xochimilco, Xaltocan and Zumpango, all interconnected. The foundational myth of this metropolis derives from this geographical condition.<sup>1</sup>

The first settlements on this area date from the XIIIth Century BC and important ceremonial centers such as Cuicuilco already existed by the IV Century BC., in addition to several villages dependant on agriculture. However, the dwelling stability of the area was radically transformed with the arrival of the Aztecs and their foundation, in 1324, of the city of Tenochtitlan. Actually, this predominantly warring nomad population, came from the north of Mesoamerica and were in search of a site to settle, as result of a prophecy: the promised land was to be where they would find an eagle eating a serpent. This peculiar event occurred on an island, that in time was to be an important ceremonial center and the capital of a complete empire.

En 1521, a la llegada de los españoles bajo la égida de Hernán Cortés, la gran Tenochtitlan fue descrita con asombro por Bernal Díaz del Castillo, como una ciudad ordenada y de gran riqueza, con amplias calzadas que la ligaban a las riberas del lago.<sup>2</sup> El propio Cortés escribió sus impresiones sobre la importancia del asentamiento, que hablan de su asombro: “Esta gran ciudad de Temixtitán esta fundada en esta laguna salada... Tiene cuatro entradas, todas de calzada hecha a mano, tan ancha como dos lanzas de jinetes. Es tan grande como Sevilla o Córdoba... Tiene esta ciudad muchas plazas, donde hay continuos mercados... (y) otra plaza tan grande como dos veces la ciudad de Salamanca, toda cerrada de portales alrededor donde hay cotidianamente arriba de sesenta mil ánimas...”<sup>3</sup>

Los conquistadores instalaron en ese sitio la capital del Virreinato de la Nueva España, aprovechando y sobreponiéndose a la estructura urbana existente; para ello la corona española envió una Cédula Real de fundación, que determinó la nueva traza urbana en damero.<sup>4</sup> Al parecer el proyecto fue llevado a cabo por Alonso García Bravo,

In 1521, at the arrival of the Spaniards under the command of Hernán Cortés, the great Tenochtitlan was described with amazement by Bernal Diaz del Castillo, as an orderly city of great richness with ample causeways connected to the shores of the lake.<sup>2</sup> Cortés himself recorded his own impressions regarding the importance of this settlement, from which I have gathered a few phrases that reflect his amazement: “This great city of Temixtitlan is founded on a salt-water lagoon... It has four entrances, all with hand made causeways as wide as two horseman lances. It is as big as Seville or Córdoba... This city has many squares, where there are continuous markets... (and) another square as big as twice the size of the city of Salamanca, all enclosed by surrounding arcades where more than sixty thousand souls gather daily....”<sup>3</sup>

At this site, the conquerors established the capital of the Viceroyalty of New Spain taking advantage of the exiting materials and work force, and superimposing the existing urban outline with checkerboard pattern. Apparently the project was carried out by Alonso García Bravo who applied an outline of rectangular street blocks in a proportion of two by five, with the purpose of reducing the area of the streets with respect to that of the properties, in consideration of the insular condition of the settlement.<sup>4</sup> Thus, at the outcome of the XVIth Century, the viceregal city offered the visitor a very different aspect from that of Aztecs.

This situation gave way to a series of problems endorsed by the peculiar site in which Mexico was located. In effect, the city-island had communication problems with the borders of the lake, due to the unstableness of the artificial embankments, suffering at the same time for the lack of both urban and agricultural lands. However, it had even two greater inconveniences originated by a defective drainage of the lacustrine area as well as by the sinking of structures. By the year 1680 it suffered a serious flood that forced the Viceroy to move provisionally to Coyoacán, afflicting the recently created city, not only with a series of sanitary problems, but also for the





quién adoptó un trazo de manzanas rectangulares con una proporción de dos por cinco, en aras de disminuir la superficie de las vialidades con respecto a la de los predios, en atención a la condición insular de la población.<sup>5</sup> Así las cosas, al despuntar el siglo XVII la ciudad virreinal ofrecía al visitante un aspecto muy diferente al de la ciudad azteca.

Esta situación dio pie a una serie de problemas que conllevaba el singular sitio en que estaba emplazada. Efectivamente, la ciudad-isla tenía problemas de comunicación con las riberas del lago, a causa de la inestabilidad de los terraplenes artificiales, a la vez que padecía una falta de tierras tanto urbanas como agrarias. Sin embargo, tenía dos inconvenientes aún mayores provenientes por una parte del deficiente desagüe de la zona lacustre, y por la otra del hundimiento de las estructuras en el suelo fangoso. Para 1626 padeció una larga inundación, que forzó al Virrey a mudarse provisionalmente a Coyoacán, afectando a la ciudad recién creada, no solo con una serie de problemas de orden sanitario, sino por el daño que resintieron muchas de las construcciones. Si esta precaria condición del drenaje del valle ha podido subsanarse, el hundimiento de las estructuras es un problema que no parece ofrecer una solución definitiva.

Durante el periodo virreinal, paulatinamente la ciudad se pobló, contando con numerosas edificaciones tanto religiosas como civiles de gran calidad arquitectónica y constructiva; estas estructuras se localizaron en la zona más consolidada del islote, un territorio que hoy en día se equipara con el llamado Centro Histórico. Por otra parte, gradualmente se fue desecando el lago, con una serie de trabajos para facilitar la salida de las aguas; esto conllevó a la necesaria sustitución de los canales que llevaban hasta el corazón mismo de la población todo tipo de productos agrícolas, provenientes de la zona de Xochimilco. Resulta interesante comprender que en las postrimerías del Virreinato,

damage suffered by many of the constructions. Inasmuch as the sinking of structures is concerned, this is a problem that has not yet had a definite solution.

During the viceregal period, the city gradually began to become populated, now with countless religious and civil buildings of great architectural and constructive quality. The lake also began to be drained gradually, with a series of works to expedite the exit of the waters; this led to the substitution of the channels that carried, to the very heart of the city, all sorts of agricultural products. By 1803, when Baron Alexander von Humboldt visited New Spain during his voyage to America, he defined its capital as "The city of palaces", in reference to the magnificence of its architecture.

A noteworthy change occurred with the advent of the Independence and the victory of the Liberals that led to the 1859 Reform Laws, that promoted the dismantling of the great convent complexes and the subdivision of these properties; furthermore, the type of governmental administration, eminently centralized, favored the growth of the capital city. Also about this time, the new country's incipient economy favored the extensive growth of the metropolis; new developments began to appear, communicated by ample avenues, outstanding among which was the Paseo de la Reforma.<sup>5</sup> We must add that, since then, urban development has taken place in a segregated manner, in accordance with the economic capacity of its future owners: popular developments emerged towards the north with unstable dwellings, while to the west, privileged classes were occupying great mansions or residences of high quality.

The period designated by historians as "The porfirian peace" (Paz Porfiriana) extends for over three decades ranging from the end of the XIXth century to the beginning of the XXth, and corresponds to the period when General Porfirio Díaz occupied the presidency of the Mexican Republic. Due to the political stability and the

cuando en 1803 el Barón Alexander von Humboldt, en su recorrido por América visitó la Nueva España, definió a su capital como “La ciudad de los palacios”, en atención a la magnificencia de su arquitectura.

En ese momento, la ciudad presentaba el perfil urbano que se ha conservado hasta hoy en día. En efecto, las calles eran prácticamente las que existen en la actualidad, a pesar de la ampliación del territorio desecado y construido. En particular se debe anotar la creación de la Alameda, situada a un costado de la vialidad que en un principio unía al islote con Tacuba, y que había sido remozada en el siglo XVIII. También se debe anotar que a finales de ese siglo se reordenó la Plaza de Armas, frente a la Catedral y el Palacio virreinal, desalojando el Paríen localizado en la parte poniente; para esta ocasión se contó con un diseño urbano del director de Arquitectura de la Academia de Bellas Artes, Antonio González Velásquez y la estatua ecuestre de Carlos IV, obra de Manuel Tolsá, fue colocada al centro.

Un cambio importante se dio con el advenimiento de la Independencia y el triunfo de los liberales, que llevó a la promulgación de las Leyes de Reforma de 1859, provocando el desmantelamiento de los grandes conjuntos conventuales y la subdivisión de sus predios; de esta manera, algunas edificaciones se perdieron y otras más cambiaron de giro. Además, el tipo de administración gubernamental eminentemente centralista, favoreció el crecimiento de la ciudad capital. Fue también por esa época que la economía incipiente de nuevo país propició el que esta metrópoli comenzara a ampliarse.

El periodo designado por los historiadores como “La paz porfiriana”, se extiende a lo largo de más de tres décadas que ocupan el final del siglo XIX y el principio del XX, y corresponde a la época en que el general Porfirio Díaz ocupó la presidencia de la República Mexicana. Esta época, debido a su estabilidad política y la consiguiente prosperidad económica, vio una importante expansión de la ciudad de México, con el consiguiente establecimiento de una infraestructura urbana, donde el alumbrado público a base de luminar

consequent economic prosperity, this period witnessed an important expansion of Mexico City, with the corresponding establishment of an urban sub-structure, where public illumination by means of electric lighting assumes a preponderant role. By 1911, with the outcome of the Mexican Revolution, begins a rural exodus towards the cities in search of security and work opportunities, specially towards the Capital.

However, it was only until the middle of the XXth century when the economic boom fostered by the Second World War that Mexico City experienced a staggering growth, that turned out to be chaotic and uncontrollable. The development of some new residential areas, among which the Jradines del Pedregal de San Angel<sup>6</sup> was outstanding, were offset by countless irregular settlements; however, at that time the city only had three million inhabitants. But from thereon, the irrepressible increase of population compelled Ernesto Uruchurto, Mayor in 1964, to forbid new developments in the city. This decision produced an even greater disorder in urban development, deviating suburbs towards the bordering municipalities in the neighboring State of Mexico and producing a limitless increase of the urban spread. At present, sixteen of these municipalities harbor more than half of the population, of what can be referred to as a megalopolis.<sup>7</sup> This problematic situation due to the great percentage of illegal settlements, is magnified by the lack of basic services such as water, lighting and sewerage, aggravated by a very inefficient traffic system.

Thus, Mexico City and the metropolitan area offer great attraction for its inhabitants and visitors, but also posses serious problems to its authorities. To this must be added a particular circumstance, that of having been declared Patrimony of Humanity by UNESCO in 1987. But let us proceed by parts and carefully revise the present situation, in the light of the origins previously described as well in the present social-political context.

A point that requires to be analyzed is precisely the urban space of the first settlements, that is known as the

ías eléctricas toma un lugar preponderante. Es en este momento en que, en las inmediaciones del Zócalo, se inicia la construcción de los grandes almacenes que darán un toque distintivo de modernidad cosmopolita a la zona.

Para la década de los treinta la Plaza de la Constitución verá cambios importantes, ya que por una parte se construye una amplia vialidad que desemboca frente a la catedral, la Avenida 20 de Noviembre. Por la otra, los edificios que la circundan sufrieron cambios sustantivos, iniciando con el Palacio Nacional,<sup>7</sup> que vio en 1926 la construcción de un segundo piso, cuyo autor fue Augusto Petriccioli quien diseñó el exterior dentro de un estilo neocolonial; esta propuesta sirvió de modelo para la remodelación uniformizada de las fachadas de todos los edificios, además de la construcción un edificio gemelo del antiguo Ayuntamiento, a cargo de Federico Mariscal Fernando Beltrán y Puga.

Sin embargo es tan solo a mediados del siglo XX en que el auge económico auspiciado por la Segunda Guerra Mundial, que la ciudad de México se abre a un crecimiento vertiginoso, que llegará a ser caótico e incontrolado. Es en este momento que, con la construcción de la Ciudad Universitaria de la UNAM al sur de la ciudad de México, 1950-52, que se dio el primer gran éxodo de los habitantes de la zona central; cabe agregar que esta zona que se conoce como Centro Histórico, fue declarada en Patrimonio de la Humanidad por la UNESCO en 1987.

El la actualidad se puede decir que, en esta zona, más del 60% de las edificaciones pertenecen al siglo XX, donde es factible apreciar las diversas maneras que tuvieron arquitectos e ingenieros para insertarse en el tejido existente;<sup>8</sup> sin embargo, el Centro Histórico ha conservado un elevado número de fábricas coloniales y se han rescatado recientemente parte los restos del Templo Mayor de los aztecas,<sup>9</sup>

Historical Center, and that was declared a patrimonial site. At present, it consists of an area where

more than 60% of the constructions belong to the past century, where it is possible to appreciate the different manners by which architects and engineers were able to insert themselves into the existing maze;<sup>8</sup> however, it has preserved a significant number of colonial edifices and recently rescued the remains of the Main Temple of the Aztecs,<sup>9</sup> that now lends it a singular urban quality. Besides, in the past half century this area has suffered important changes in its social conformation, since with the creation of the University City in 1954, the students abandoned their usual quarters and the old schools closed their doors. Some time later, after the 1985 earthquake, a good number of businessmen decided to abandon an area of high seismic risk and establish their new offices at the western part of the city, specially at the new Santa Fe development; by 1990, the Stock Exchange was also looking for a new site outside the central nucleus, as had also done some Banking institutions.<sup>10</sup> To all this must be added the poor condition of the subsoil in the ancient lacustrine surface; the sinking of the structures aggravates dwelling conditions and complicates new constructions.<sup>11</sup>

The result of all these actions together with a series of populist inclined local governments, caused this area to remain practically without inhabitants, where only an organized trade still remains, loosing ground every day faced to the informal trade that invades sidewalks and streets. The present administration has made a particular effort to regenerate the existing buildings of the Historical Center, seeking at the same time to build dwellings for clients of different economic status. On the other hand it has promoted the construction of buildings for a new line of businesses and services, such as high class hotels and government offices.<sup>12</sup>

Another fundamental problem of this megalopolis has

que le prestan una calidad urbana singular, amen de haber cambiado el perfil noreste del Zócalo. Esta área central ha sufrido además importantes cambios en su conformación social en el último medio siglo, ya que como se dijo los estudiantes abandonaron el barrio estudiantil a mediados de siglo; poco después, con el terremoto de 1985, un buen número de empresarios decidieron dejar una zona de alto riesgo sísmico y establecer sus nuevas oficinas al poniente de la ciudad, especialmente en el nuevo desarrollo de Santa Fe; para 1990 la Bolsa de Valores también busca una nueva sede fuera del núcleo central, al igual que lo habían hecho algunas instituciones Bancarias.<sup>10</sup> A todo esto hay que agregar la condición precaria del subsuelo en la antigua superficie lacustre; los hundimientos de las estructuras agravan las condiciones de habitabilidad y dificultan las nuevas construcciones.<sup>11</sup>

been urban development without planning and control, and a lack of continuity of the plans, as well as the fact of belonging to two administrative authorities: the Government of the Federal District and the Government of the State of Mexico.<sup>13</sup> This circumstance has redounded in a boundless growth, in many cases without the proper substructure and, in many cases, with considerable faults as far as thoroughfares is concerned.

To this must be added what today is the worry of many great cities, the supply of water and the disposal of sewerage. In the first instance, it must be noted that a greater part of this vital liquid is extracted from the urban subsoil that accelerates the sinking of the lacustrine area. Of which we have talked about; however, this is not enough to supply more than twenty million inhabitants; so since 1951, an hydraulic engineering feat was accomplished, in order to bring the water of the Lerma River to the capital city.<sup>14</sup> Several years later, the thirsty city demanded new actions to increase and to bring a great volume, this time from the Cutzamala system.

Insofar as the recurrent sewerage problem, several palliative actions had been undertaken throughout centuries.<sup>15</sup> A definite solution was only obtained in 1975, with the construction of the "Deep Drainage" (Drenaje profundo); however, this unusual engineering work involved certain problems, such as drying-up the Valley of Mexico's water mantles, and thereby increasing the sinking of the central area, now at the rate of more than twenty centimeters yearly.

Pollution is a complicated matter to be solved, and this at different levels. In the first instance is the difficulty to obtain good air quality, taking into consideration both the altitude of the city, as well as its geographic situation, where the surrounding mountains do not allow the exit of contaminated gases. To this must be added one of the main world-wide conflicts represented by the disposal of garbage, with the corresponding complications with reference to soil and water mantel contamination.

It is necessary also to approach the communication problem and the inefficiency of public transport. Mexico City initiated a belated construction of an underground





El resultado de todas estas acciones fue el que esta zona quedara prácticamente sin habitantes, donde solo ha permanecido un comercio organizado que pierde

cada día terreno ante el comercio informal que invade aceras y vialidades. En la actual administración se ha hecho un esfuerzo particular por regenerar las edificaciones existentes en el Centro Histórico, a la vez que se busca construir viviendas para clientes de diverso carácter económico. Por otra parte, se ha propiciado la creación de edificios con nuevos giros, como hoteles de gran clase, museos y oficinas gubernamentales.<sup>12</sup>

Por ello es posible concluir con unas líneas escritas por Teodoro González de León quien dice: “La ciudades se deben al azar, el diseño, el tiempo y la memoria. En otras palabras: son obra de la gente, regulada por el gobierno, modificada por el tiempo y preservada por la memoria. La buenas ciudades resultan de un equilibrio entre estos cuatro factores.”<sup>13</sup> Agregando los conceptos alentadores de Carlos Tejeda: “México es un ejemplo notable de esa capacidad de adaptación y transformación...”<sup>14</sup>

transport system, the Metro, inaugurating the first line in 1969; at present it has eleven lines available, which by all means are insufficient, thereby understandable is the considerable use of private motor vehicles. To this must be added the fact that almost the majority of inhabitants study or work in locations distant from their homes, which seriously clogs-up certain roadways at rush hours.

Finally, we can also establish that of the main requirements of the population, health, education and housing, only the latter still reports great deficiencies. Notwithstanding that Article 123 of the Constitution of the Mexican United States, establishes the obligation of the owners to provide housing to their workers, it was not until the beginning of the 1970's that a solution to the lack of suitable dwellings for the popular classes was afforded, through the creation of a workers housing fund organization, the Instituto del Fondo de la Vivienda para los Trabajadores, INFONAVIT;<sup>16</sup> furthermore, although there have been some interesting examples, much that has been constructed lately lacks constructive and architectonic quality.

Summing it up, the diagnosis of this macro-encephalic city is hardly encouraging, aside from errors and omissions committed, as well as the lack of continuity by the authorities in successful programs. However, we must point out a series of recent positive actions where the active participation of citizens acquires great significance. For the time being, campaigns are underway to make them conscious of the problems involved in water supply and re-cycling of garbage, among others; it has to be noted here the considerable effort undertaken on the subject of pollution, where the transfer of industries to more adequate places, and the motor vehicle verification have produced good results. On the other hand, an arduous effort is being made in construction of minimum dwellings as well as in providing substructure in marginal areas, in an attempt to provide housing space for most of the inhabitants of the metropolitan area. To this must be added the architectonic quality of a good number of recent works, where a conscience on the subject of

1. Esta propuesta de un mito fundacional puede relacionarse con la que Joseph Rykwert expone en su libro *La idea de ciudad*, Ediciones Sígueme, Salamanca, 2002, publicado originalmente como *The Idea of a Town*, en 1976.
2. Se ha llegado a calcular que contaba con 300 000 habitantes.
3. Hernán Cortés, *Cartas de Relación*, publicada en *Lecturas Históricas Mexicanas*, Ernesto de la Torre Villar Comp., UNAM, México, 1994. Págs. 174-175.
4. La condición urbana similar de las ciudades Latinoamericanas basadas en este tipo de decretos reales, así como en las "Ordenanzas de Descubrimiento, Nueva Población y Pacificación de las Indias" de Felipe en 1573, está recogida en Louise Noelle, "The Latin American Historic Cities within the Perspective of the Recommendation on the Historic Urban Landscape", en prensa.
5. Ver Manuel Sánchez de Carmona, *Traza y Plaza de la Ciudad de México*, UAM, México, 1990.
6. Actualmente es la Plaza de la Constitución, pero se la conoce como Zócalo, por haber tenido durante largo tiempo un basamento en el que nunca se colocó un proyectado Monumento a la Independencia.
7. El antiguo Palacio Virreynal.
8. Ver Rodolfo Santa María, *Arquitectura del siglo XX en el centro histórico de la ciudad de México*, UAM-Xochimilco, México, 2005.
9. Estos trabajo se realizaron entre 1979 y 1982.
10. En 1990 Juan José Díaz Infante construye la nueva Bolsa de Valores sobre el Paseo de la Reforma; desde 1976 Augusto H. Álvarez y Juan Sordo Madaleno habían construido el nuevo Centro Operativo Bancomer en las inmediaciones de Coyoacán.
11. Uno de los casos más conocidos es el de los hundimientos diferenciales de la Catedral Metropolitana y su audaz reestructuración.
12. Es el caso del Gran Hotel de la Ciudad de México, que ocupa lo que fura el almacén El Centro Mercantil, el Sheraton de Pascal Arquitectos y recientemente el Hotel Downtown de Cherem y Serrano, así como del vecino conjunto Plaza Juárez de Legorreta + Legorreta, donde se localiza la nueva Secretaría de Relaciones Exteriores y los Tribunales de lo Familiar, así como el Museo Memoria y Tolerancia de Arditi Arquitectos.
13. Tornado del Discurso de Ingreso al Colegio Nacional, en 1989.
14. Carlos Tejeda, "Planeación urbana y responsabilidades políticas", *Megalópolis. La modernización de la ciudad de México en el siglo XX*, UNAM-Instituto Goethe, 2006. Pág. 273.

1. This proposal of a foundational myth can be related to the one Joseph Rykwert exposes in his book *The idea of the ciudad*, Ediciones Sígueme, Salamanca 2002, originally published in 1976 as *The Idea of a town*.
2. It is estimated to have had 300.000 inhabitants.
3. Hernán Cortés, *Cartas de Relación*, published in *Lecturas Históricas Mexicanas*, Ernesto de la Torre Villar Comp., UNAM, Mexico, 1994, pp 174-175.
4. Ref. to Manuel Sánchez de Carmona, *Traza y Plaza de la Ciudad de México*, UAM, Mexico, 1990
5. Ref. to Carlos Martínez Assad, *La patria en el Paseo de la Reforma*, UNAM-FCE, Mexico 2006.
6. This important development owes in part its fame to the design by Luis Barragán. Louise Noelle, Luis Barragán. Búsqueda y creatividad. UNAM, Mexico, 1996.
7. The city has approximately 9 million inhabitants, while the State of Mexico has 12 million.
8. Ref. to Rodolfo Santa María, *Arquitectura del siglo XX en el centro histórico de la ciudad de México*, UAM-Xochimilco, 2005.
9. In 1990 Juan José Díaz Infante built the new Stock Exchange on Paseo de la Reforma; Augusto H. Álvarez and Juan Sordo Madaleno had constructed the Bancomer Operative Center in the vicinity of Coyoacán, in 1976.
10. One of the most known cases was the differential sinkings of the Metropolitan Cathedral and its audacious reconstruction.
11. It is the case of the Sheraton Hotel by Pascal Arquitectos, 2002, and the Plaza Juárez complex by Legorreta + Legorreta, 2006. where the new Foreign Affairs Department and the Familiar Court are located.
12. The First Urban Development Plan of the Federal District was approved in 1979.
13. Ref. to Louise Noelle, "Integración plástica y funcionalismo. El Edificio del Cárcamo del Sistema Hidráulico Lerma y Ricardo Rivas", *Anales del Instituto de Investigaciones Estéticas*, No. 78, México 2001. It is worth mentioning that both in the Lerma and Cutzamala basins these actions had negative effects.
14. Es el caso del ingeniero Roberto Gayol quien a principios del siglo XX tuvo una intervención polémica en el sistema de alcantarillado. Recordemos que Henrico Martínez, o Heinrich Martín, fue el primero en realizar obras tendientes a desaguar el valle a partir de 1607.
15. We can mention among others the housing units of Iztacalco by Francisco Serrano,
16. Juan Francisco Serrano and Imanol Ordoika, El Rosario by Gustavo Eichelmann and Gonzalo Gómez Palacio, and La Patera by Teodoro González de León and Abraham Zabłudovsky.
17. Worth mentioning is the Ecological Park of Xochimilco, 1990-1993, by the Grupo de Diseño Urbano headed by Mario Schjetnan.
18. Taken from his Admittance Speech at the Colegio Nacional, in 1989.
19. Carlos Tejeda, "Planeación urbana y responsabilidades políticas", *Megalópolis. La modernización de la ciudad de México en el siglo XX*, UNAM-Instituto Goethe, 2006, p.273.

sustainability is present; likewise, some of the works corresponding to landscape architecture are encouraging proposals for the inhabitants of this great conglomerate.<sup>17</sup> The megalopolis is a reality and its condition cannot be reverted, so that it is fundamental in these, as in the case of Mexico, to awaken consciousness in its problems, in search of feasible solutions. For cities that have not reached this difficult position, it may be advisable to attend state policies that allow preserving population indexes within acceptable limits, always better than to take care afterwards of solving different inconveniences.

I will like to conclude this presentation with the words of Teodoro González de León who wrote: "Cities are due to chance, design, time and memory. In other words: they are the work of people, regulated by the government, modified by time and preserved by memory. Good cities are the result of a balance between these four factors."<sup>18</sup> Adding the encouraging concepts of Carlos Tejeda: "Mexico is a noteworthy example of that adaptation and transformation capacity."<sup>19</sup>

# 03

## STUDIO WORK

*Antonio San Martin Advanced Graduate Studio,  
Mexico City*

1. Samantha Doergue
2. Tommi Salmi
3. Afia Afrin
4. Alexandre Quintanilla
5. Valon maloku
6. Elmira Ariavand
7. Duane Ford
8. Meghain Wolf
9. Aldo Guerra
10. Alaa Alzaitann
11. Robert Casasus
12. Santos Catalán
13. Tania Sabillon
14. Shivani Patel
15. Francisco Ibarra
16. Cameron Haddok





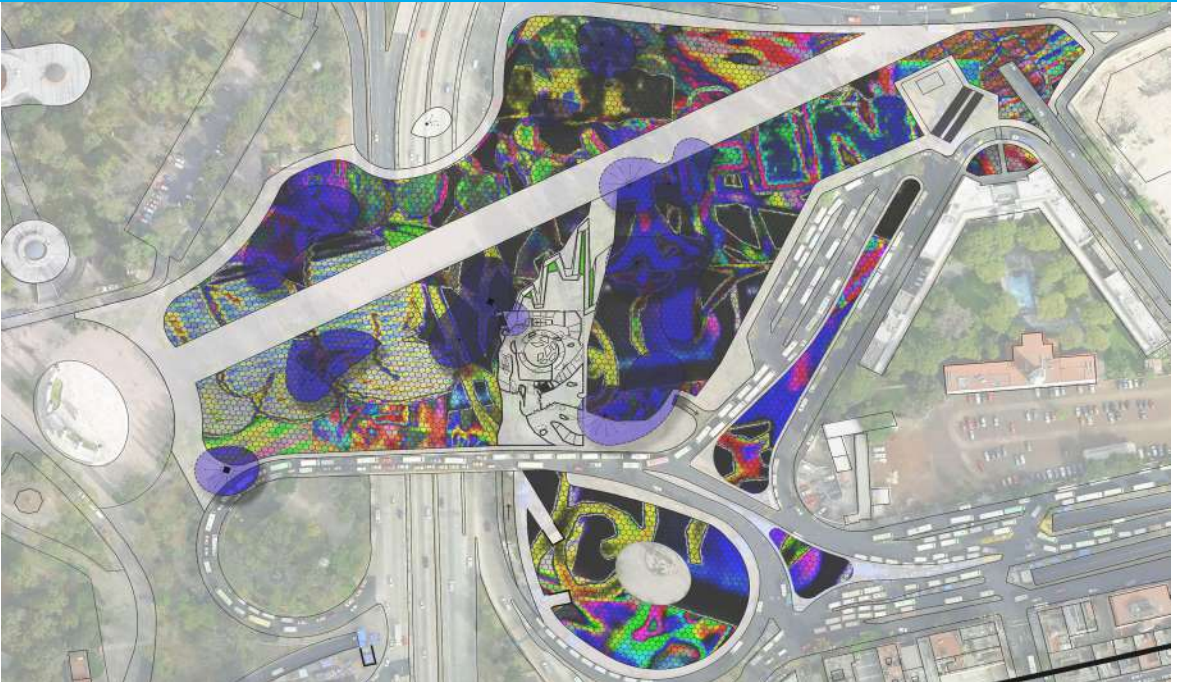
The plaza surface has been slightly re-worked from previous design. Sidewalks now border every edge of the new plaza surface. The existing pedestrian bridge remains and /now, the existing pavers from the bridge meet the new sidewalks that border the plaza. More surface is continues into the market areas directly south and southeast of the bus station and the Reforma overpass of Melchor Ocampo Highway.

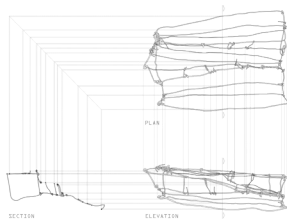
The surface of the plaza is hexagonal modules (9x9 feet). There are jointures within those modules, dividing the colored ceramic surface. The colors and shades correspond to a personal variable map. The personal variable chosen is called "sites for Collective Expression". The area around the site is mapped for areas that the city dwellers used for non-formal types of communication. These types included posters, stickers, graffiti, banners, fliers, and so on. These images, layered, scaled and saturated, transposed into the colorful walking surface. The shade structures over the plaza are abstractions of the measuring system used in the personal variable map. The map measured levels of intelligibility in vectors and spots. The spots became the supports for the shade structures and the vectors became secondary supports of the structure. The surface of the shade structures are paneled photovoltaics.

The three story building sits on the southeast corner of the new plaza. The longer elevation runs parallel to the highway below. The two lower levels are sunken into the plaza. The first level is dedicated to the incubator space, exhibition space, café and meeting rooms. The second level, below, is dedicated to the big data center, where the servers are housed. Also, more meeting spaces and offices are on this level. The third is a parking garage and open plaza that connects to the Chapultepec markets south. The form of the building was derived from UTA's research about photothermal therapy. The building in plan, is an abstraction of a section of skin and the large cylindrical volume is the cancerous infection. The skin cells formed into skylights, or tube-like volumes that pierce through the whole building, providing light to the third floor, below. Where skylights or tubes didn't make sense, the skin cell shapes became uniquely shaped acoustical panels that float within. The cancerous cylindrical volume is a courtyard with spiraled ramps around, connecting the plaza from below to the roof of building. The cylindrical volume also holds "The Lost Steps Space". The Lost Steps is a tectonic landscape to be walked on and around. It was derived from a previous wire frame model called "21 grams". The 21 grams was a abstraction of a previous project done in Seattle, Washington. Along with being an unprogrammed space, the Lost Steps with the circumscribed ramps, provide a linkage for the makeshift Chapultepec markets to the south of the bordering underpass to connect to the new plaza.

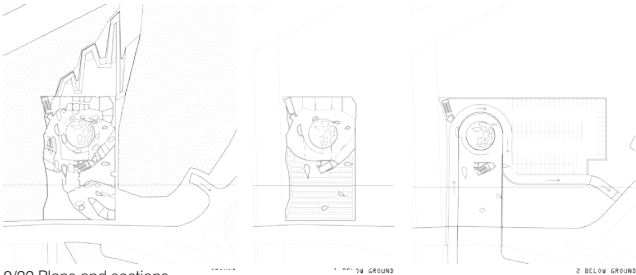
A CNC machine was used to mill out 2in. MDF board of a section of the building taken through the lost steps space. Laser cut pieces and smaller pieces of basswood are glued on MDF base to add further detail to the section. The Lost Steps Space is 3D printed with ABS plastic. The software, called Revit, was used to create the shapes of the Lost Steps structure.

## Samantha Doergue

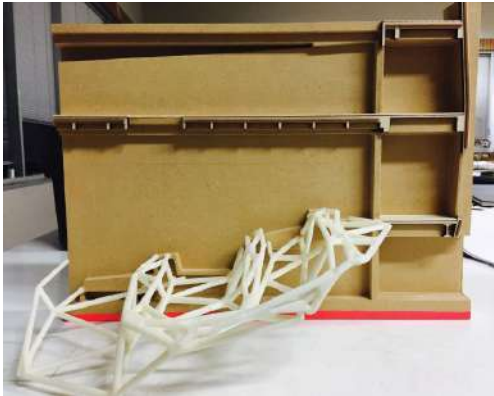




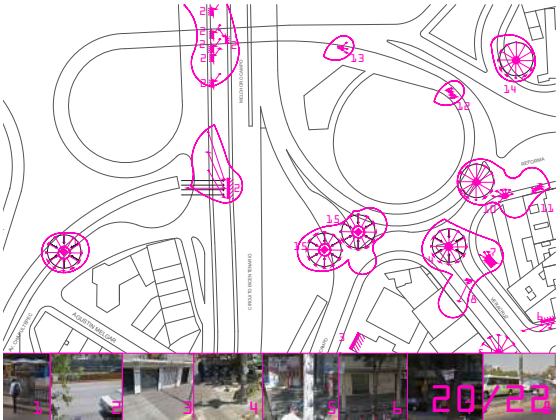
18/22 Drawing of 21 grams model



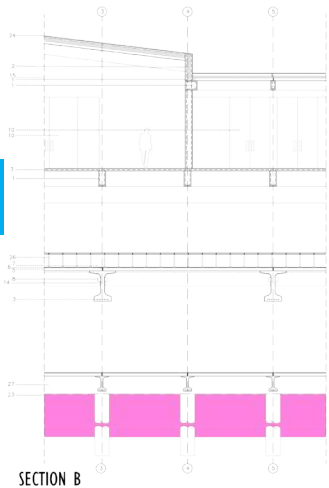
9/22 Plans and sections



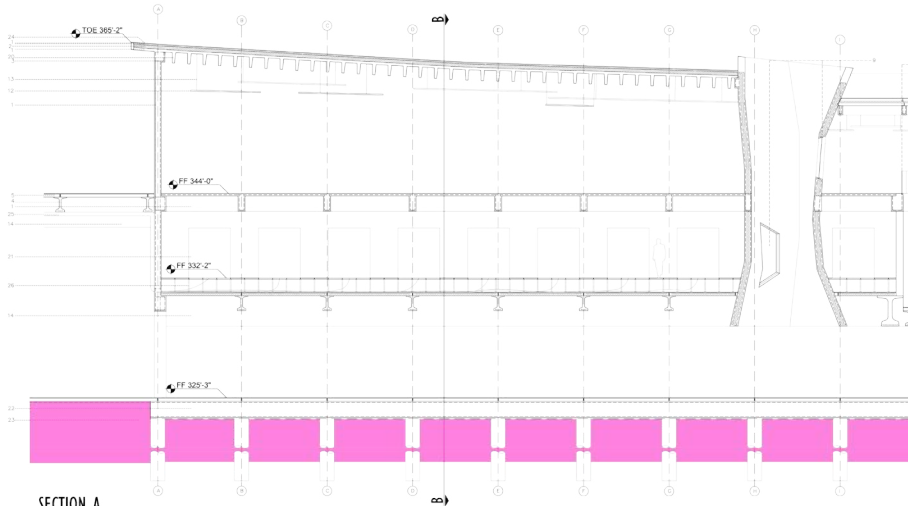
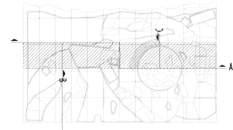
7/22 Model Structural Entity



20/22 Drawing of personal variable



SECTION B

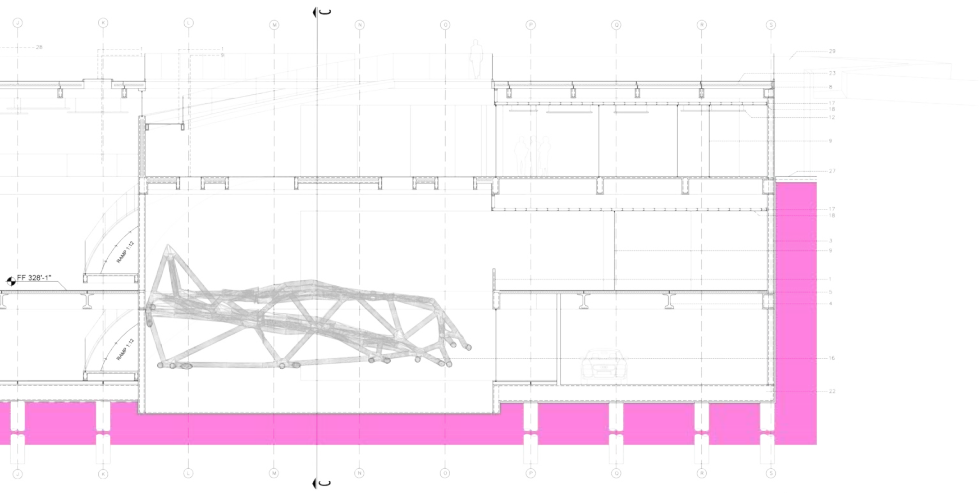


SECTION A

1. normal weight concrete / 150 lb per sq ft
2. insulation / 4" polyiso / R24 (min)
3. reinforcement / 60,000 ksi steel bars
4. precast beam / 2'-1 1/2" x 1'-10 1/2" post-tensioned 60,000 ksi steel cables
5. hollowcore precast floor / 12'-0" x 12'-2" normal weight concrete
6. concrete topping / fine or no aggregates, self-consolidating / surface to be polished
7. key pin / steel 40,000ksi

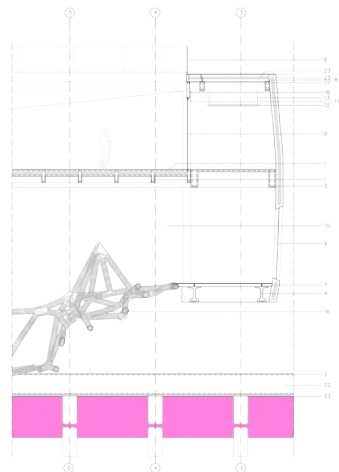
8. angle / 4"x4" 60,000 ksi steel angle
9. structural glass / 1/2" with 12" toughened fins
10. glass door / 1/2" structural glass to match glass wall
11. glass clip / 2" extruded aluminum channel
12. acoustic panel 2" deep stretched fabric over acoustical fiberglass boards / minimum NRC of 0.10
13. cable support / 1/4" steel cable and pin mount
14. super structure precast beam 4'-3 1/2" x 3'-8 1/2" post-tensioned 60,000 ksi steel cables

15. concrete bearing wall / 12" board formed poured in place normal weight concrete / two rows #7 steel reinforcement @ 8" o.c. / 4" polyiso boards centered in sections where needed
16. 21 girts / steel frame & decking with concrete topping glass and frame as vertical elements
17. cold-formed structural steel / 5 1/2" x 1 1/2" / 43 mils (18ga 53ksi) steel CPMO
18. gxyboard / 1/2" fiberglass sheet attached 8" o.c.
19. glass pocket / 1" notched in concrete slab / rubber gasket



1. stop, gaskets, polyethylene silicon sealant bead  
 20. pan-xist system  
 21. servers/7'-0" x 6'-0" ea./ 250 lbs per square foot floor loading  
 22. structural raft/3'-0" dia. normal weight concrete, 3,000 psi & 60,000 psi steel reinforcement  
 23. vapor barrier/2mils  
 24. copolished / 4 mm heat-treated  
 25. pvc conduit / 6" ø  
 26. lat. dusttube raised floor system/ 22" pedestals w/ 2" floor tiles

27. structural slab, outdoor pavement  
 28. glass and steel ramp / 5' wide/1:12 ramp  
 29. reinforced concrete ramp/ width varies/ 1:12 ramp



SECTION C



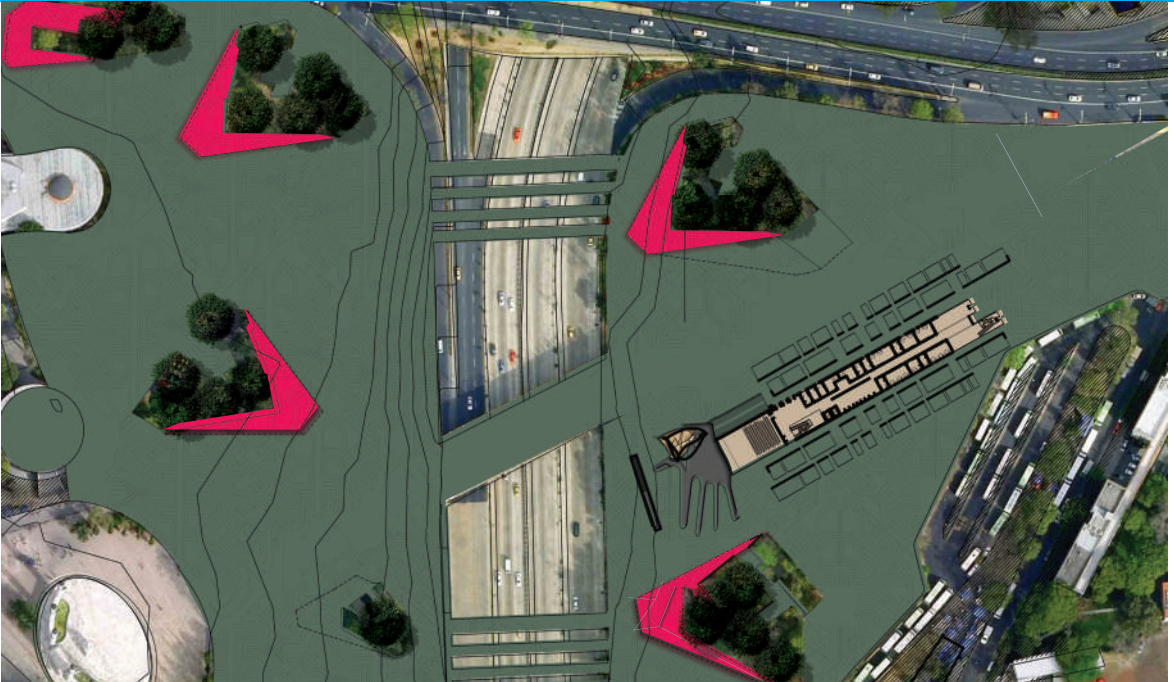
1/22 Chronicle

Chapultepec Incubator and Supercomputer; a medium scale building project that includes a million square foot public plaza, a place for startup companies to rent out space and a place to store a new supercomputer. It is located on the north east corner of Chapultepec park. The incubator and supercomputer building is a series of bar shaped two and three story office buildings. The incubator is above ground as it is a place for human activity and the servers of the supercomputer are underground but light is given through skylights and a large size courtyard.

An alternative space in the courtyard is a Lost Steps Place an area that has no program a place where the mind can empty and where people can meet. the form of the place is devised through 21 grams of the soul of my previous tower. The plaza is a new element to México city where their last public square the zocalo has grown too small. the Chapultepec plaza is twice the size of the zocalo and is located next to a main bus terminal and near local markets and merchants. The plaza is terminated on both sides by national monuments and is connector over the Melchor Campo, the plaza surface is made from stone with a pattern that is a reference to a computer motherboard.

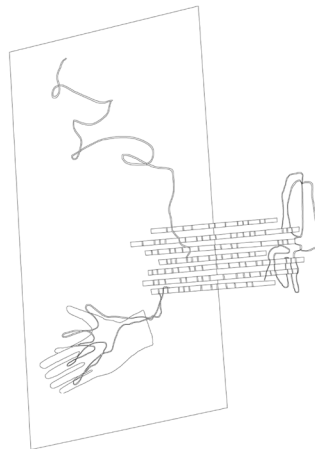
The process to get to the final project took fourteen weeks with the last week being devoted to the site plan that included final placement of the building and its courtyard. Week 13 was finalizing of the section of the building and building model in one fourth scale. The week prior to that was creation of the lost steps place in physical format either using 3d model view and technical dossier on what materials the building is made from and how they would be drawn in the section. Week 11 and 10 were working out the detail section and counter section of the building and producing both a model and drawing in one-fourth scale. Prior to that was a week devoted to the technical dossier and creating 3d views of what the building and surrounding space might look like with their materials. Week 8 was the site visit to Mexico City in collaboration with the studio Pia Sarpaneva. Week 7 had to deal with the geometry of structure on the building. The first six weeks were a series of studies and research on both the site and what is happening research wise in UTA. That UTA research, neuroprosthetics was then transcribed into a drawing that led to a model that eventually led to the design of the building. Our first project was a wire model of the 21 grams of the soul of the previous project that laid the foundation for this project and the semester.

## Tommi Salmi

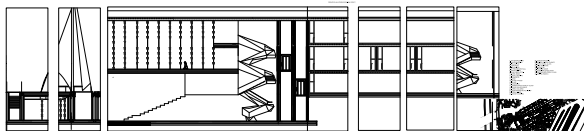




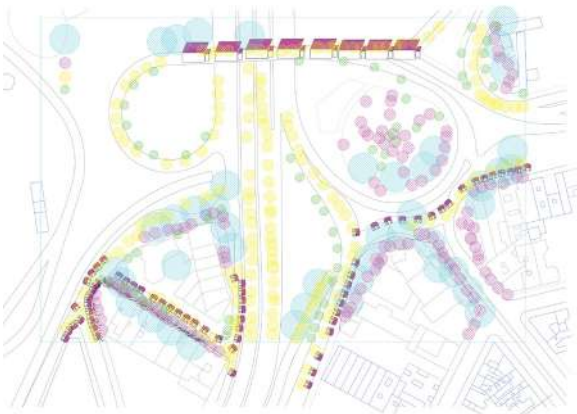
9/22 Plans and sections



17/22 Drawing of the UTA research item



8/22 Sectional structural



20/22 Drawing of personal variable

1/22 Chronicle

MeDAIChazO Agency Building is a multi-programmed 10 story tower. The building is divided in two programs. Supercomputer/Data Servers and Chapultepec Incubator. The super computer/ Data Server section include 25,000sqf of data servers, mechanical rooms, labs, offices and restaurant. The incubator section is 20,000sqf of small, medium and large rental spaces, library, IT area, storage and an auditorium.

The project also has a 1,000,000sqf of public space, "Chapultepec Zocalo" The public space is mostly a "hard" surface. There are gardens throughout the plaza with transplanted Chapultepec trees, which provides abundance of shade in the mostly hard surface. The public space is open for all types civic and cultural activities. The enormous public space accommodates festivals, events, group gatherings. The public space has a super canopy that allows for markets and people to gather under giving them shade and shelter.

The structure of the building consists of load bearing concrete walls up to level 4 which the exterior super maze structure attaches to. This allows level 5 to be free of any structure as the maze acts as an exoskeleton super structure. From level 6 to 10 the building is made of steel structure.

The public space is a transcription of UTA Research Lab BIO-MEMS drawing. Bio-mems are implantable microchips that can be put inside any object, animal, people, etc. It can be put inside your mail or put inside your body to collect data. The bio-mem gathers information and then sends out the network which is then collected by a receiver.

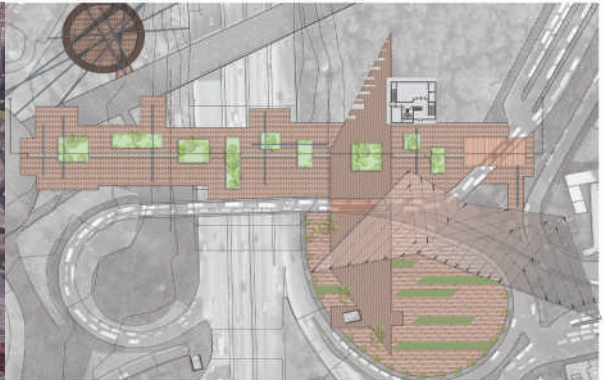
The exterior perforated maze superstructure of the tower is a transcription of my personal variable drawing of "secretness". The drawing maps the secrecy of various places like restaurants, shopping, entertainment and quiet areas in Chapultepec. The unit of measurement is the size of the mazes which shows how many people know about the place. The bigger the secret of the place, the bigger the size of the maze. The size of the maze varies depending on how well the place is known or used.

The Lost Steps element of the building has no program. It is avoid from level 6 through 10 of the tower. the Lost Steps Space is transcribed from the 21 grams drawing. 21 grams drawing is of the wireframe model which is the soul of my last project. The organic shaped lost steps element is made with timber. It goes through the floor plates as it's also supported with cables/wires. The full height of the lost steps void enables unique circulation for the building occupants, improves the flow of air and provides increased interior day lighting.

## Afia Afrin



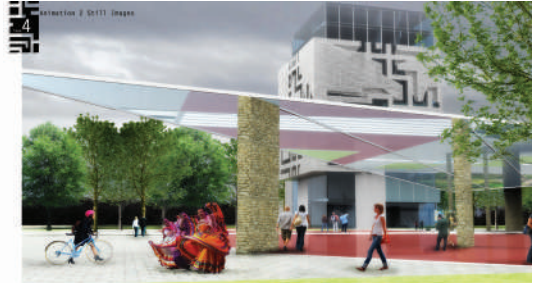
3/22 Site plan Model



5/22 Site Plan

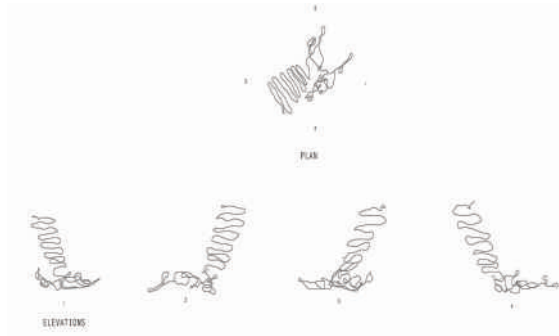


9/22 Plans

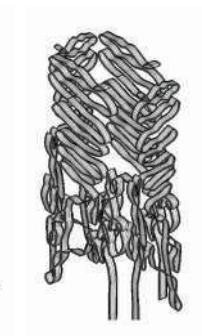


10/22 renderings

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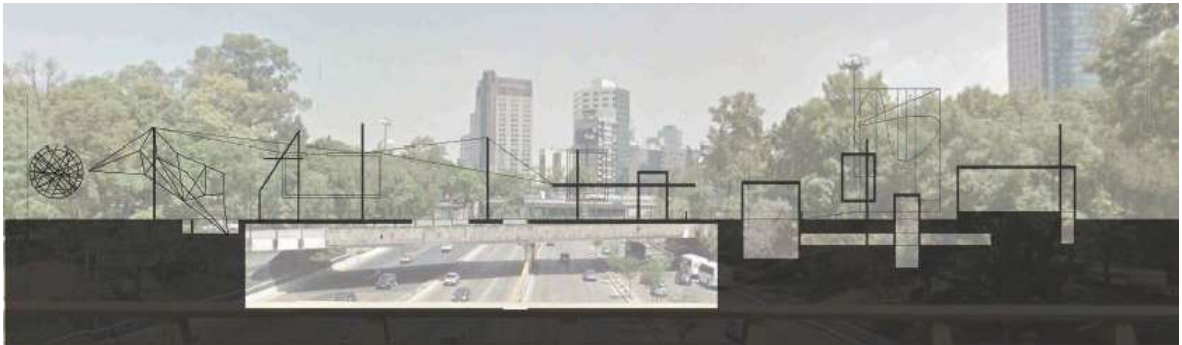


18/22 Drawing of 21 Grams model

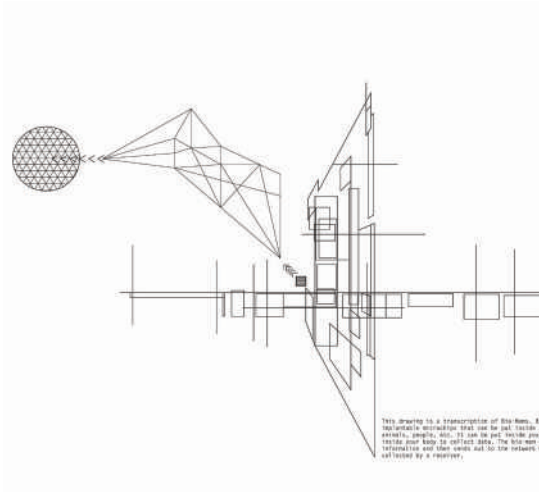


6/22 Lost Steps

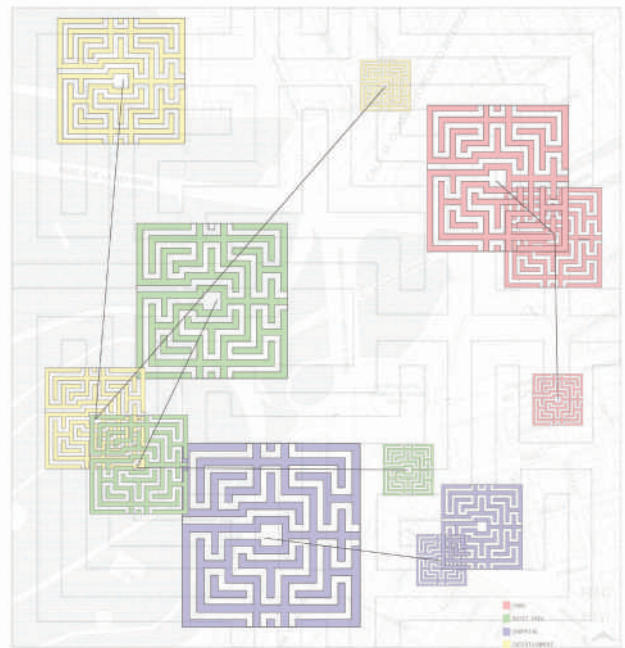




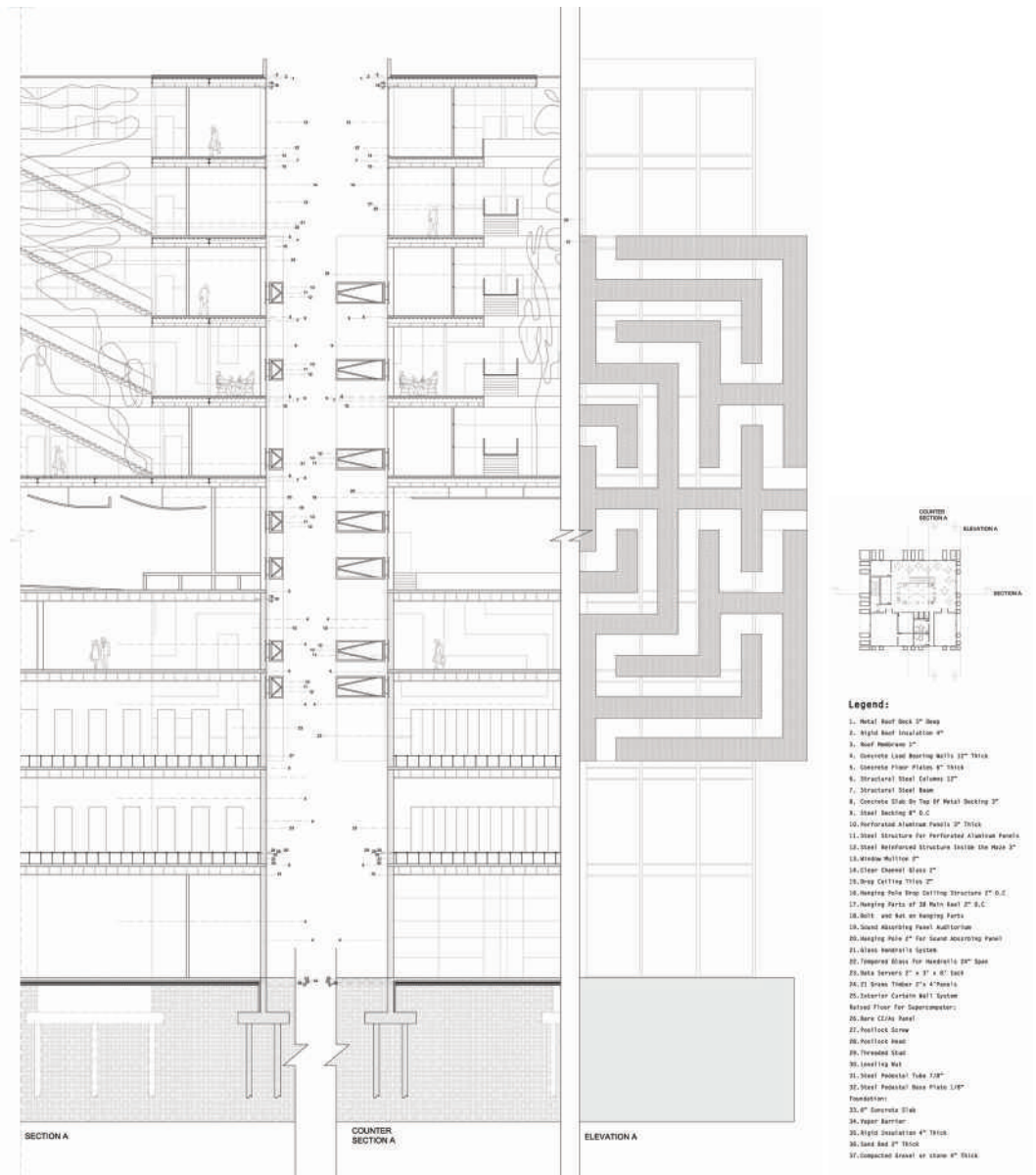
9/22 Plans



19/22 Drawing of the UTA research item



20/22 Drawing of the personal variable



1/22 Chronicle

The Chapultepec Plaza and Tower is comprised of a 55,000sqf building sitting within a 1,200,000sqf space. located on the eastern portion of Mexico City's Chapultepec Park, former site of the great Aztec city Tenochtitlan, the Plaza offers a large public space in which people can gather for any purpose, either to hold events such as fairs, or to exercise their right to demonstrate, in effect, creating a second socalo. Chapultepec Tower is an 8 story building on the southwest side of Chapultepec Plaza, adjacent to a bus station. It is a building that houses incubator offices for startup companies, a server and computer lab center, and an assembly space that can seat 400. Additionally, the building houses a 5,00 sqf Lost Steps Space-a program- less area for the occupants to wander into a contemplate light sound and form.

The design of this building makes use of a variety of digital and physical models, as well as transcription methods. The main model of the building and site, made using wood, polylactic acid plastic, x-board, and cardboard, display the scale and intent of the project. An array of scribbled lines on the surface of the plaza, separate the different paths parallel the Reforma Avenue- Castle Chapultepec axis. These joints are made of aluminum and follow a precise transcription that will later be described. The model also shows the building on the site, Chapultepec tower, with its unique structural system 3D printed precisely. Further describing the site is an animated video communicating and polarizing distinctions between the landscape, the context and the site which lies on the edge between the city and park. The building and the density city are clearly shown in models and drawings transcribe and study the mass, scale and characteristics of the building and plaza, such as a structural section drawings and models that analyze the structure of the tower and the Lost Steps.

Drawing on the contextual nature of the site, Chapultepec Plaza stems from a transcription of the resilience of the context's ground materials such as grass, gravel, pavement, etc. This transcription is the bases of the plaza design, with slight adjustments made in a similar manner, but this one stemming from a drawing of research on Polymers currently being done at the UTA. A section drawing of the model of the drawing of Polymers became the starting point for the design of the Lost Steps. Lastly, the building design originates from a wire-frame model in which the soul, the essence, or the 21 grams of a past studio-based design project.

## Alexandre Quintanilla

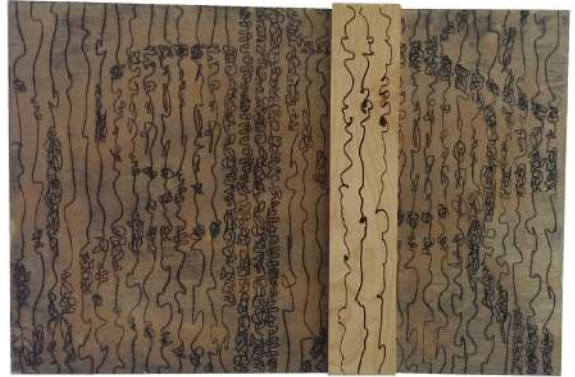


5/22 Site Plan

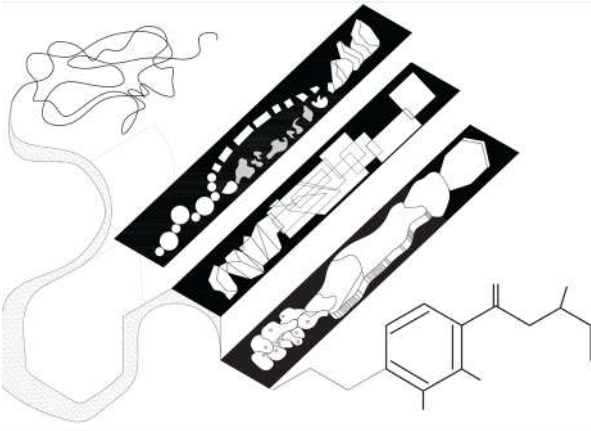




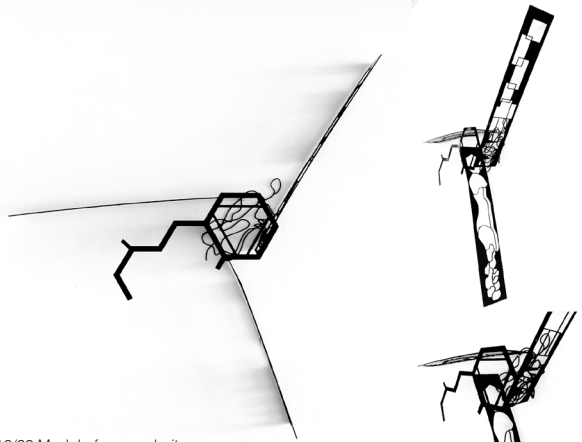
15/22 Cut-outs



17/22 Model of the personal variable

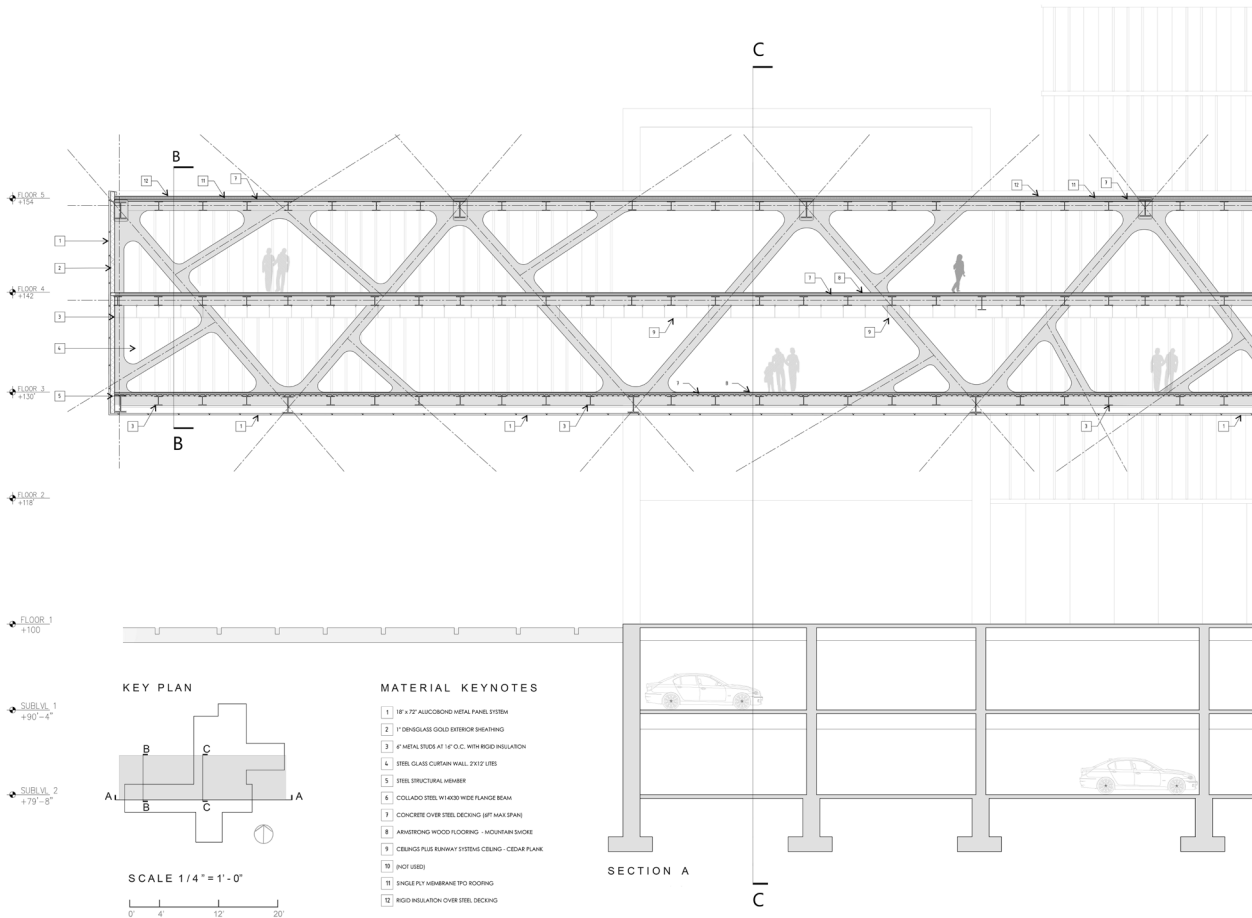


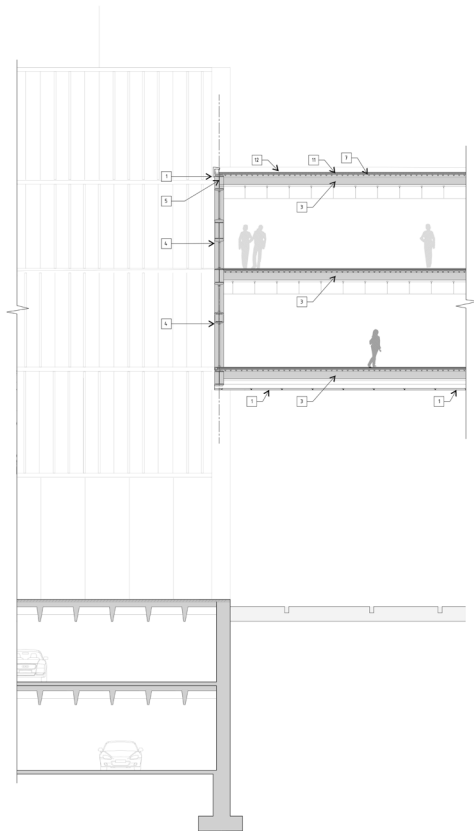
19/22 drawing of UTA Research item



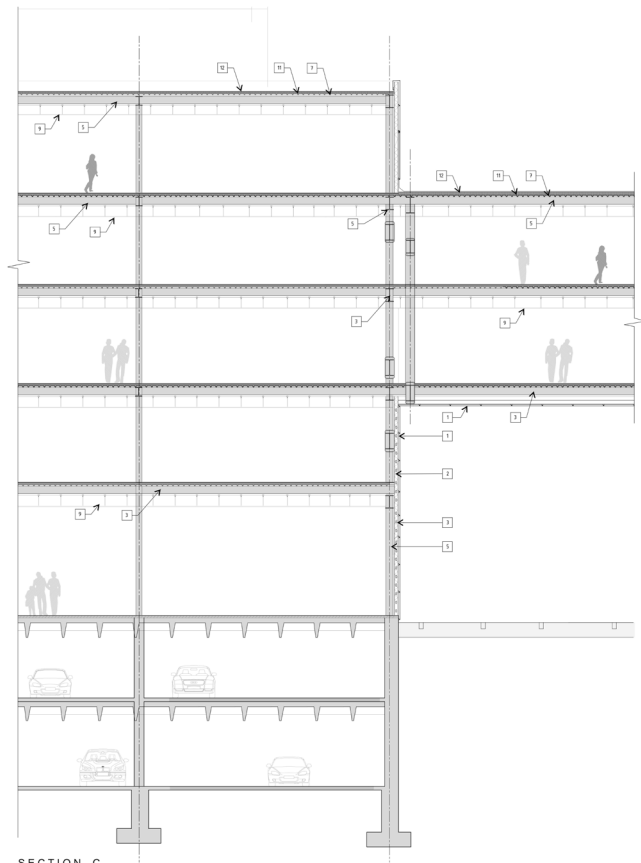
16/22 Model of research item







SECTION B



SECTION C

1/22 Chronicle

The Chapultapec Plaza and Data center is located deep within the urban region of the Chapultapec park in Mexico City. This proposal extends out to Reforma Street with a 60,000 square foot building that sits parallel to a 70,000 square foot public plaza and is attached to a 5,000 square foot Lost Steps Space. The plaza offers a variety of spaces which can be used for just about any outdoor programs, from public gatherings to essentially the Chapultapec Zocalo.

The building which consists of a data center came about from the personal variable section which becomes the long narrow design of the building. Sitting between the plaza and the bus stop it gives a easy accessible route to the public. The large void towards the center of the building helps establish the different programs taking place within to the right is the supercomputer data center, and to the left are rental incubator offices, both sharing a cafe/restaurant and a library.

The design of the public plaza came from the UTA research topic, aeroelasticity. Canopies resemble the flutter flow of an airplane wing where the spaces under it are to be kept open for any kind of program needed. The ground coverings consist of gravel, grass and pavement which then extend through the void in the building allowing for public access from both ends.

There then comes the Lost Steps Space which is a product of the last project that I worked on. A 21 grams model was made then from that came the circular ramp seen in the animations and sections. This space from the top also has an excellent view of the city. The Lost Steps are to be left with no specific program, where the users can experience it how ever they please to do so.

This entire project complements the site to create a space that is unlike any other in the area at the time. A public plaza, building and a space without program too create Chapultapec Zocalo.

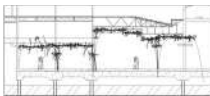
## Valon Maluku



5/22 Site Plan model



5/22 Site Plan



Lost steps is derived from the 21 frame model. The last form is abstract through different column of the 21 frame drawing.



First model



Second Model

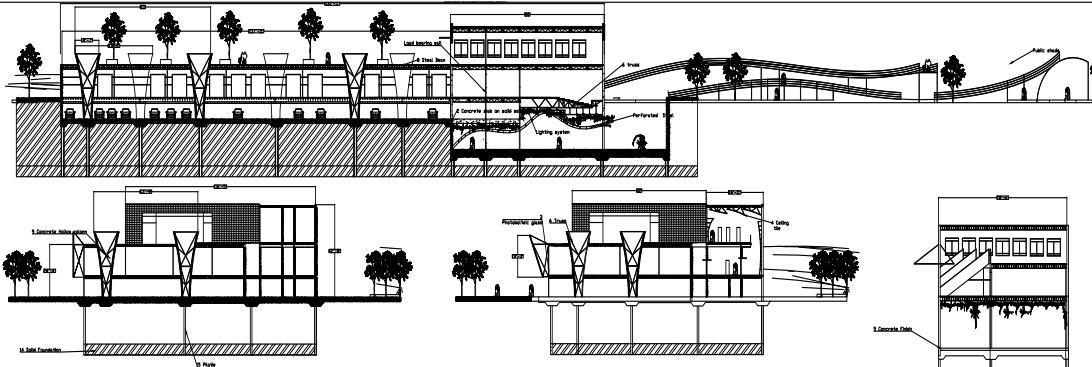


Final Form of the Lost Steps

06/22 Lost Steps Space-Digital Workflow

Valon Maloku  
Arch 5670 Fall 14

6/22 Lost Steps



8/22 Sectional Structural



## 1/22 Chronicle

This project is about the park by the name of Chapultepec which is located in Mexico city .Chapultepec, more commonly called the "Bosque de Chapultepec" (Chapultepec Forest) in Mexico City, is one of the largest city parks in the Western Hemisphere, measuring in total just over 686 hectares (1,695 acres). Centered on a rock formation called Chapultepec Hill, one of the park's main functions is to be an ecological space in the vast megalopolis. It is considered the first and most important of Mexico City's "lungs" . In the first day of studio august 26th all the class get introduced to the site of Chapultepec and the instructor Antonio sanmartin explained the requirements as 4 parts which they'll consider all the design , the requirements are 21 grams ( soul of previous project ) , UTA research group, Personal variable, Generic variable.

- 21 gram (soul of previous project) : According to this task students should think about their previous project and find the main idea and the concept of the project and make a wireframe of it with wire .My previous project was about child care and the main concept was being playful so I have tried to show this idea by wire .

- UTA research group: Based on this task students supposed to being divided into different group and search about the UTA research groups and find out about the newest result of research , then make use of that research and make an idea .

- Personal variable: According to this task each student should find a variable about Mexico city and the area of Chapultepec and doing the research about it then should try to convert the research drawing in the way that show the idea . based on this assignment i did my research on wind porosity which comes from which direction ? and with what speed ? and how it change during the day and night .

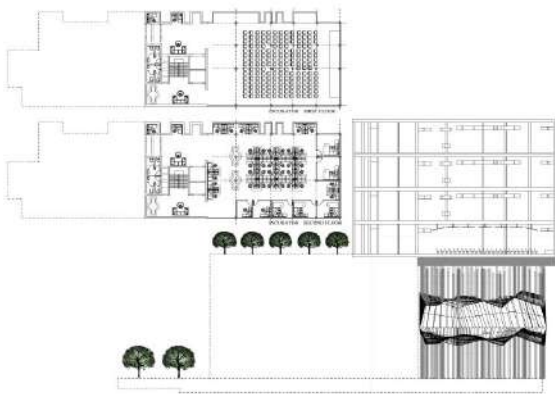
- Generic variable: The idea of generic variable comes from different part of urban planning such as building and density , topography , vegetation... , so students have been devided to different groups and each group worked on one generic variable ,based on this task my group chose the building and density and we drew the buildings plan , define the hight of the buildings and their functions.

According to the next week assignment we supposed to work on different accomplishments based on the things that we have researched , first drawing the AutoCAD version of the research and then trying to find the function , in the forward weeks students supposed to combine the functions and the research together , this time students should give specific functions to each area based on the new requirements which was the incubator and supercomputer , so the design should be applied on an other level , after the buildings and the spaces have been defined it was the right time to define the structure of the buildings , so several weeks students should work on the structure of buildings based on their functions and by the next week they should make it more advance , the nest step was giving the definition to the lost steps and define the structure of it , so students should start to work with advance software like rhino to design the lost steps , and as the last result students should combine the structure of the buildings and the lost steps based on their design.

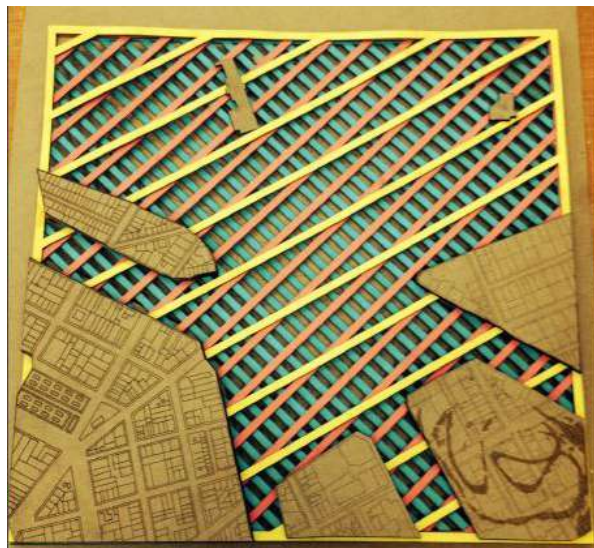
## Elmira Ariavand



3/22 Site Plan Model



9/22 Plans and sections



17/22 model of personal variable



10/22 Renderings



15/22 Cut-outs

1/22 Chronicle

The Chapultepec Plaza and Agency building is a key addition located in the heart of Chapultepec Park, Mexico City. Aligned on axis with Reforma St., this design is comprised of a 60,000sqf building which houses a supercomputer and data center and the Chapultepec business incubator. The urban plaza renders a large, "hard" surface area, fit for multiple functions taking precedent from the zocalo. This roughly 800,000 sqf public space serves as a connection between the Chapultepec bus station, Reforma St. and Chapultepec Park.

More specifically, the agency building is a 6 story structure adjacent to the Chapultepec metro station which makes a bold urban move by elevating the building one story into the air to make a distinct connection to the plaza. This connection serves as an open air walkthrough ground level which ties into the pedestrian path and the proposed plaza. The building design is derived from a 21 grams model or the "soul" of one of my previous projects. This previous project sought to take two separate entities and find a way to seamlessly merge them together. This concept also made its way into the design by designating and splitting the building into two halves. The data center and the business incubator. Some program found inside of the building is an IT center, labs, supercomputer/servers area, a cafe/restaurant accompanied by an outdoor, cantilevered terrace, a library and a "lost steps space".

The public plaza was directly a transcription of the research variable which sought to understand the idea of aerodynamic heating, the process of heating to an aircraft via the change in speeds and convection current of the surrounding air. This surface exhibits a mixture of pavements, gravel, native Chapultepec trees, and canopies which aid in shading the public plaza.

The Lost Steps Space located inside the data center half of the building, is simply a space with no program. This space was transcribed from a section of my personal variable model which emphasized and mapped out value of "sound of taste". This space occupies a void which extends from the 5th to the 6th floor. It has its own structure which is utilized to support a set of stairs, walkway and canopy associated with the space.

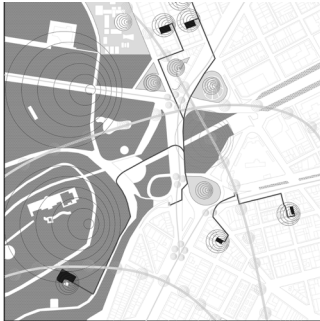
These 3 elements combine to make a special, urban element located in an area which invites the public to utilize the space. It has connections to the highway, the Reforma St. axis and numerous other pathways. This plaza helps in providing an area which people could gather and socialize with one another in a safe, urban environment.

Duane Ford



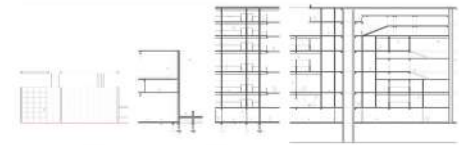
3/22 Site Plan Model



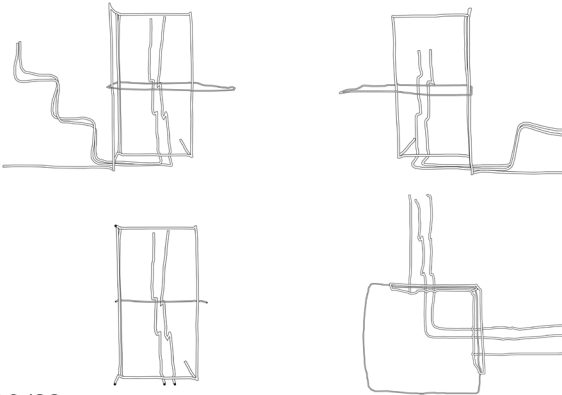


20/22 Drawing of personal variable item

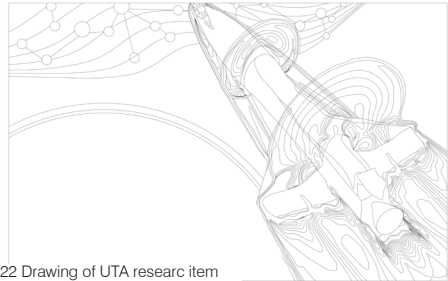
SOUND TASTE	
MOST DESIRABLE - LEAST DESIRABLE	
	SOUND OF MISDEEDS/INSTRUMENTS
	SOUND OF NATURE
	SOUND OF SATCHERING
	GROUND TRAFFIC
	AERIAL MOVEMENT



9/22 sections



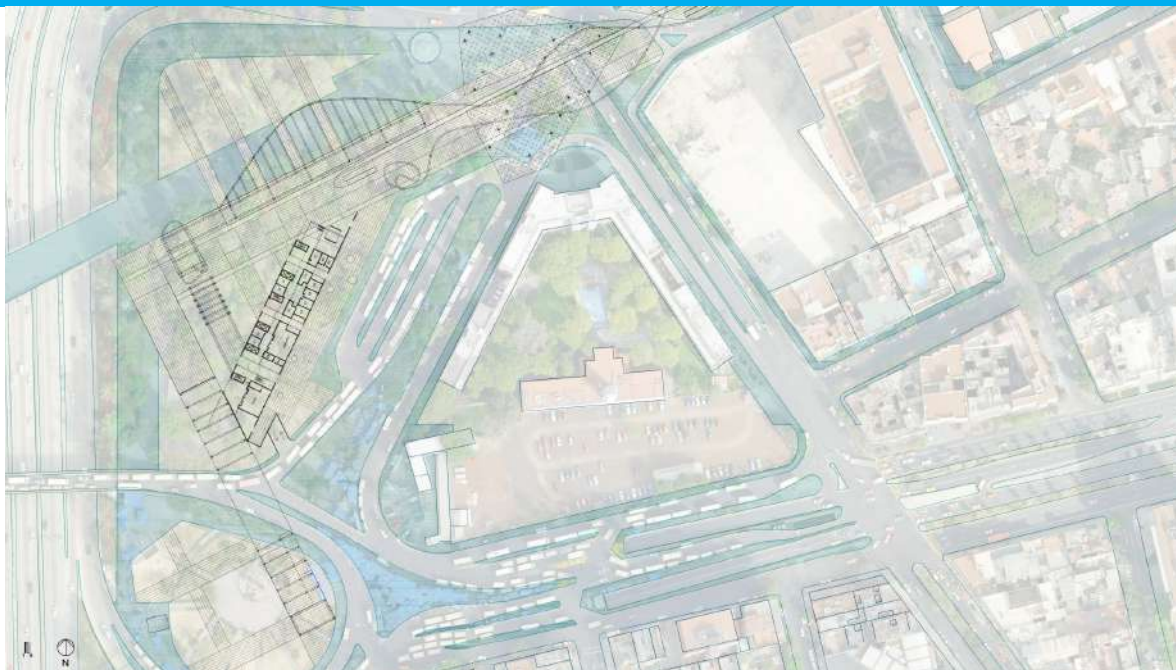
18/22 Drawing of 21 grams model

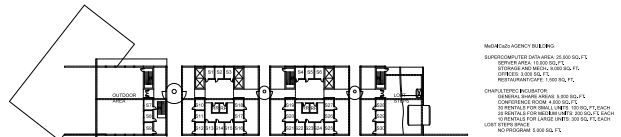
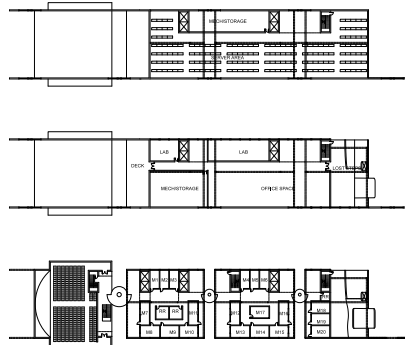
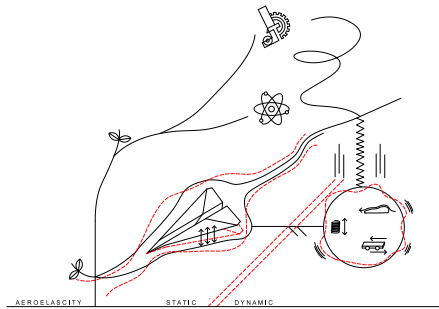


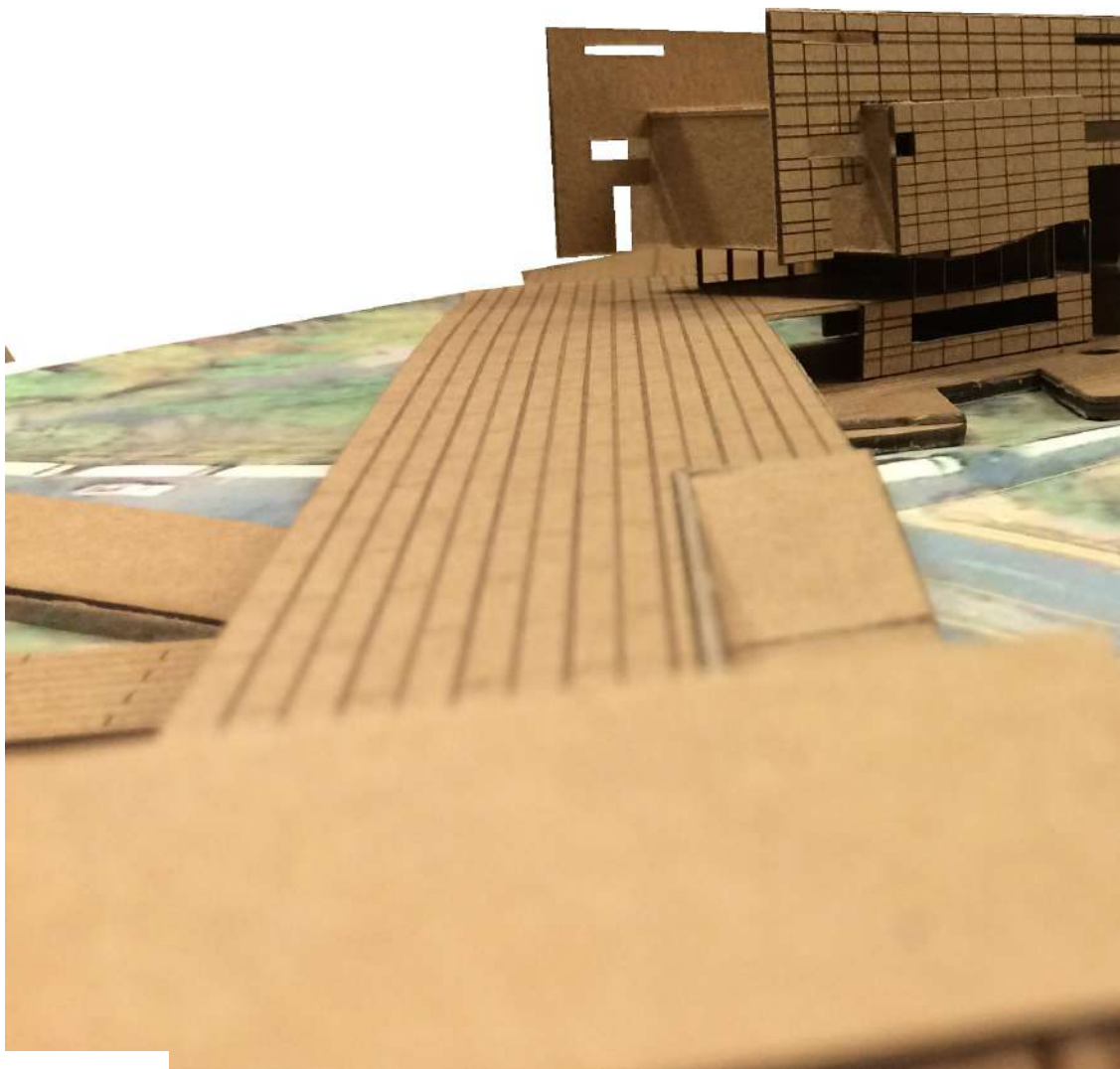
19/22 Drawing of UTA research item

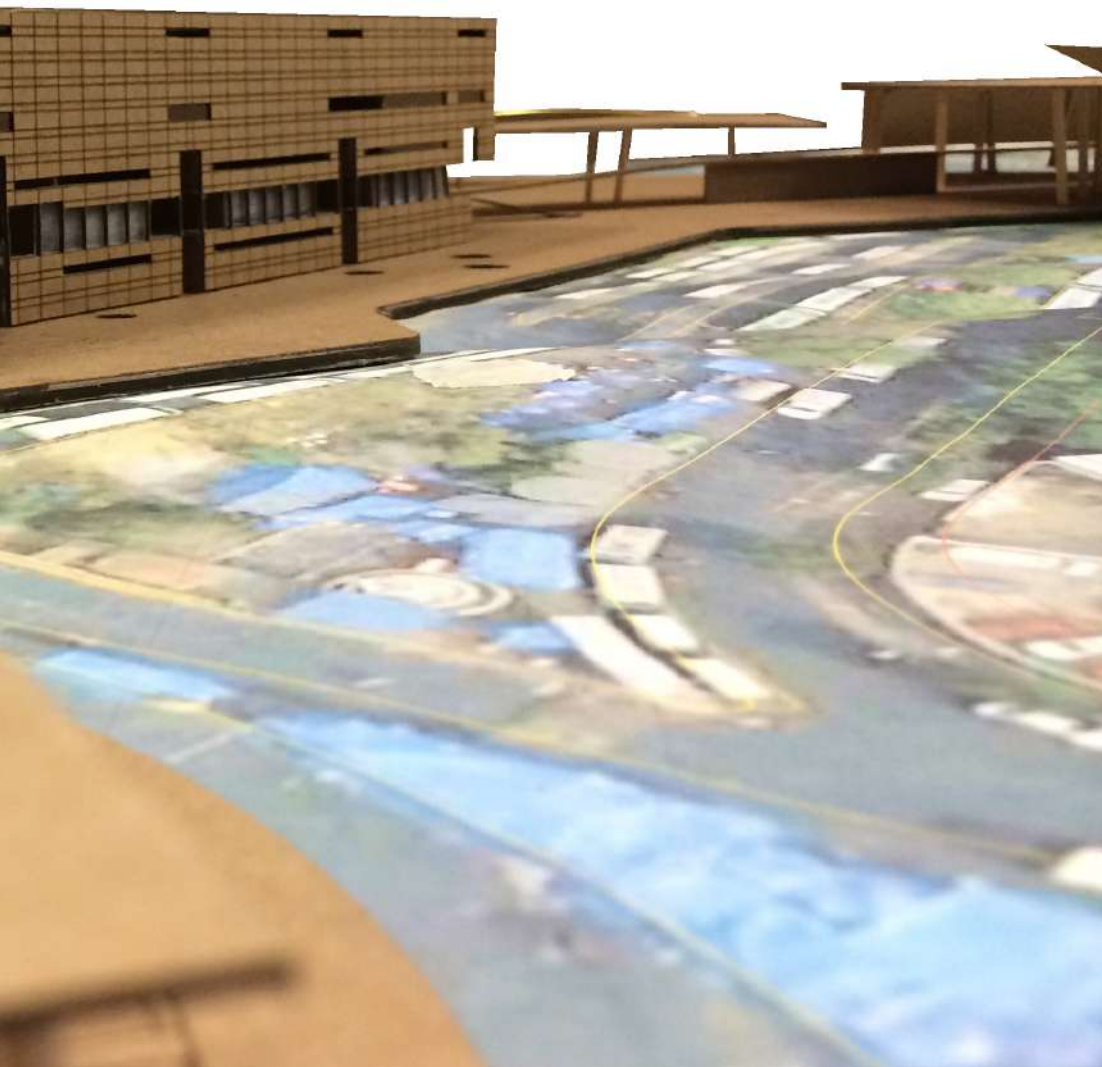


## Meghain Wolf









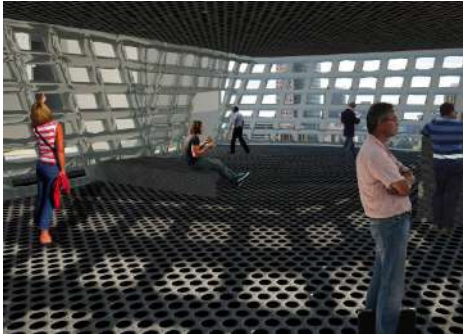


1/22 Chronicle The Plaza Cópula is situated in a green area between the Chapultepec Park and the urban city of Mexico. The Plaza Cópula works as a transition from the natural area that is preserved in Chapultepec and the busy urban live of Mexico, creating a green space with the use of local trees such as the Ahuehuete and the Sequoia, the plaza also makes an adjustment to the existing path toward the monument of Niños Heroes, which leads to Paseo de la Reforma, at the same time, this path is considered as the path to a transition that goes through the plaza, making plaza a gateway of two zones. The design of the plaza comes from the research study of heating aerodynamics which is a mass going at a certain velocity through air in space changing the temperature around it. The Canopy in the plaza is used as the mass from the research denition, the actual air is used as layers of contour to change the elevation of the ground upward from the city (east) to the park (west), this way the visitors have a more clear view of the Chapultepec Park. The canopy is created of small circular shade canopies of various sizes, these small canopies of green perforated metal serve not only as shade but also as a symbol of the trees that were replaced in the site, encouraging other projects to consider the preservation of trees. The reaction of the change in temperature creates a chance to use as a body of water as memorial to the Lake of Texcoco that was once there. The pavement of the plaza is made volcanic rock tiles, the same used for the Palace of Chapultepec, a local material in Mexico City. Within the plaza the building is located in the northeast area of the plaza, near the bus stop for easy access. The building itself is composed of diferent small structures which contains a supercomputer, incubator and other programming necessary to create a uniform building. The design of the building's skin is a concrete structure, however, is not simply used as in conventional architecture to express the volume or the massiveness of the walls. More than being merely a pattern or a structure, this building instead acquires a new dimension relating to the notion of surface. The origin of this design is acquired from the study of the materials with in the site. A study of the microscopic structure of each material (grass, concrete, asphalt and stone) is used to create a model to express the relation of materials, but other materials are used in the model study to show the materials that exists on the site, such as; sponge, styrofoam, dense foam and dried styrofoam, this materials are used as actual materials for the site. The microscopic of each material from the model expresses the design of each building's skin, showing a relation from each building to the dierence of hardness in the material. The concrete structure of the building built as a reinforced concrete cast in place with a high level of slump. All the programming is connected the circulation, a single long corridor with structure of concrete decking and square steel columns. To access each space, a glass covered bridge is used bridge is used. The horizontal circulation structure is covered with tapered glass with the vertical circulation attached to the structure on the east side of the circulation structure. The detail section study served to show the relation of the structure's mass prole to the actual site map, some of the curves from the prole where obtained from the site's streets and ramps, as a result, the structures from each building shares a relation to the structures next to it. At south end of the building on the third oor the access of the lost steps is located, a mass that based on the use of the 21 grams project, and the rst project of the semester, this task is from a previous project formed out of wire.

## Aldo Guerra



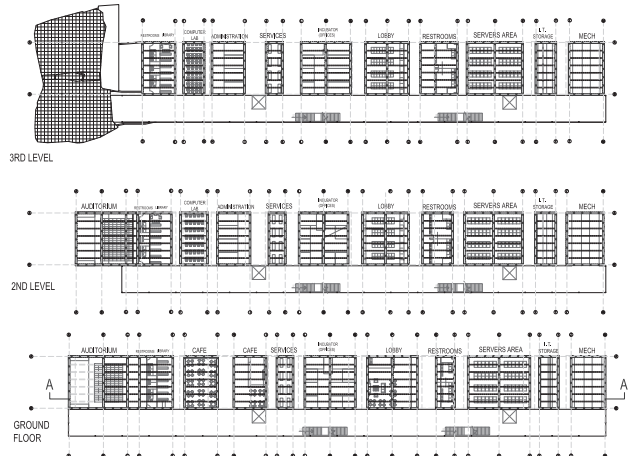
3/22 Site Plan Model



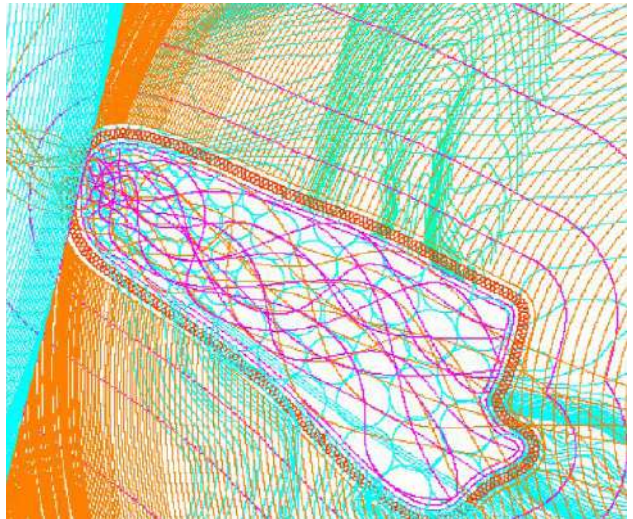
10/22 Renderings



22/22 21 grams model



11/22 Geometry of structure



19/22 Drawing of the UTA research element



Public spaces are where most transformative changes happen in cities. In fact, Cities are fundamentally all about the people; and where people go and meet is the core of what makes a city work. Therefore, what is significantly more important than buildings in cities are public spaces in between them. The Chapultepec public space is an infrastructural surface able for all activities, actions, and events that occurs in Chapultepec. The project is creating a new zocalo in Chapultepec near to where the Mexico Data agency will be built.

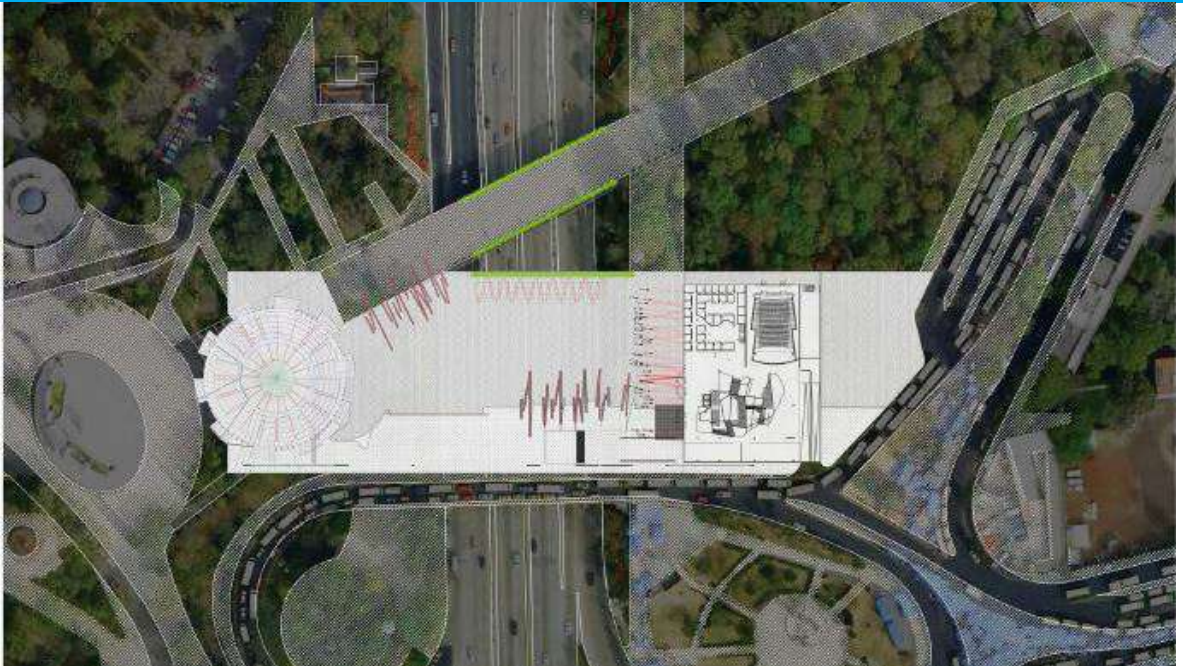
The site, or the public space, as well as the building which holds business incubators , supper computers entity, and a lost step space, a space that has no function; they use all the architectural information resulting from all transcriptions. The public space is occupying the space over a major highway in Chapultepec (Circuito Bicentenario) adjacent to street bridge. It extends from the west side of the highway near the monument of the six soldiers (Monumento A Los Ninos Heroes) to the east side of the highway and able to hold about 1 million people.

The design of the site uses a drawing of a previous task as a base for the site strategy. This task is the drawing of a transcription of a UTA research group 'term' which is a BIOMEMS, an abbreviation of Biological micro-electromechanical system. The proses is as follows; A transcription of the definition of this term by a drawing was a also transcribed to a model using basic material and the transcribed back to a drawing which is superimposed on top of the site map as a study to figure out the strategy of the site.

In a similar way, the design of the building uses the information derived from a drawing of the personal variable task. The personal variable here is the Underneath. It is a personal scale unit used to measure the site; a personal measuring unit that consist of many historical layers of the city since Mexico was city on water till the present.

A drawing of the model of the personal variable is also superimposed along with other drawing to form a complete understanding for the project to be designed. In side that building, the lost step space is found by the void that has been created by carving out the outline of the historical Mexico City on water. The lost step void space is supported by temper beams that were also derived from one of the road net in histor

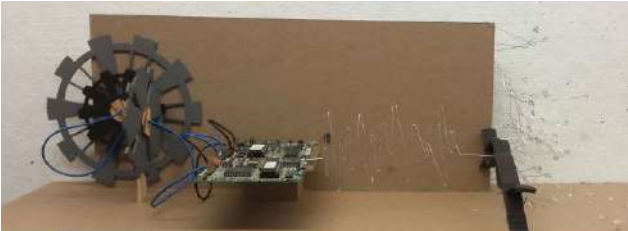
## Alaa Alzaitann



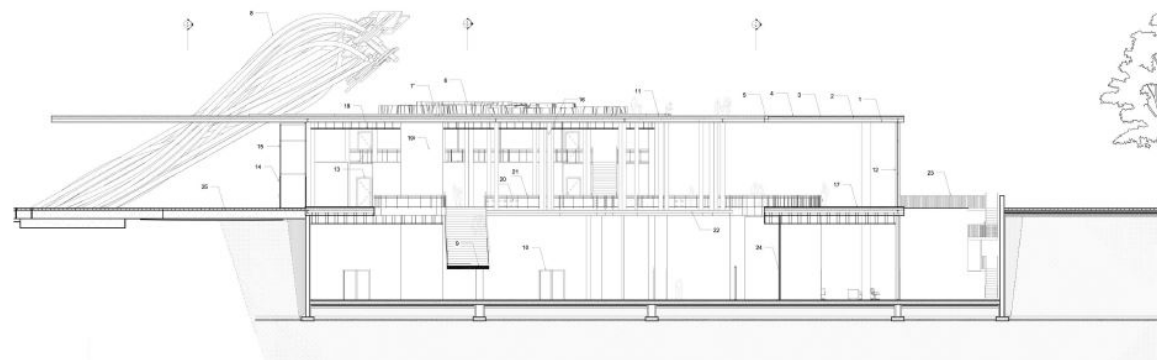
3/22 Site Plan Model



10/22 Renderings

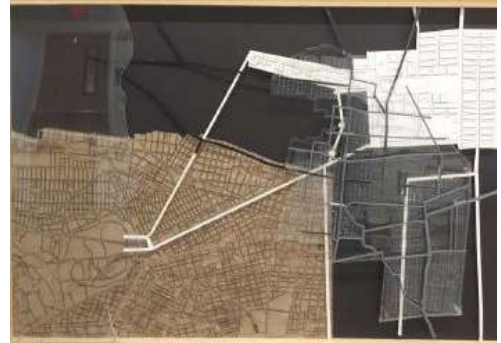
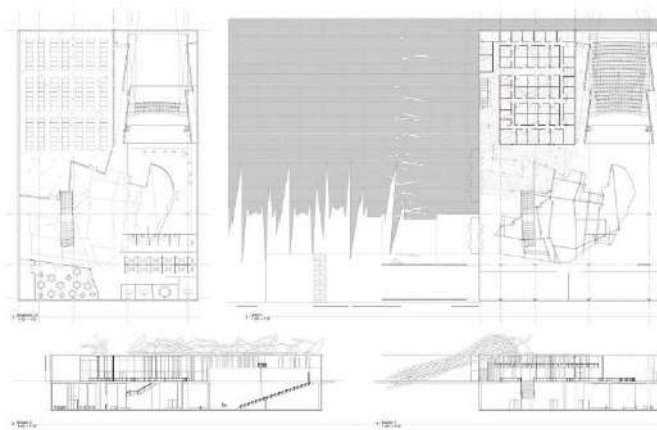


16/22 Model of UTA research item

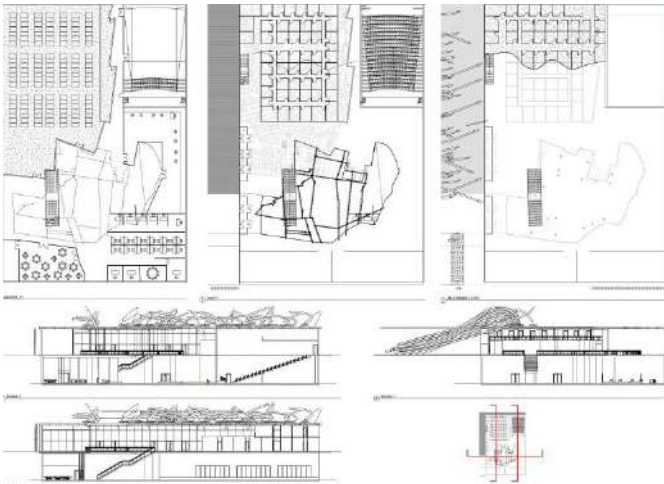


8/22 Sectional structural

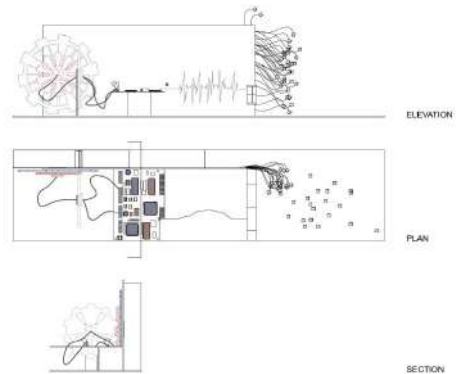




16/22 Model of UTA research item



9/22 Plans and sections

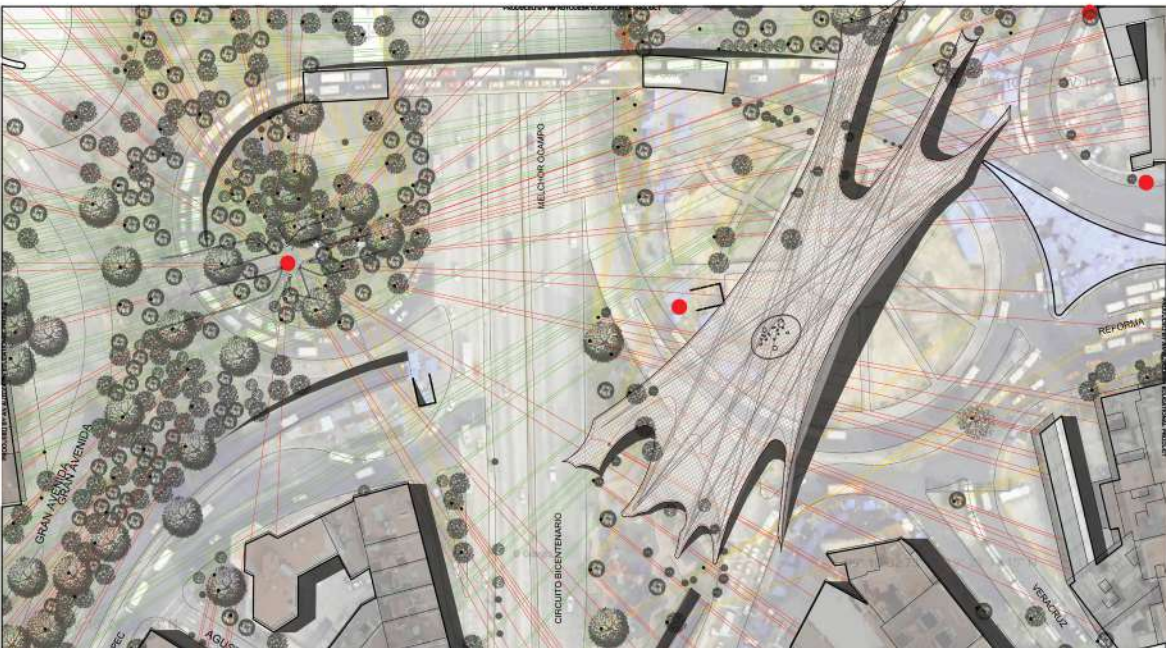


19/22 Drawing of UTA research item



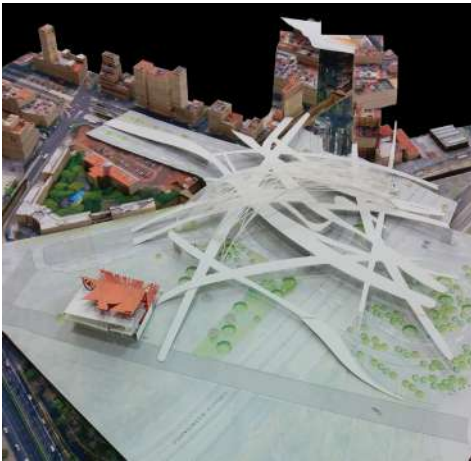
7/22 Model of structural entity

Robert Casarus

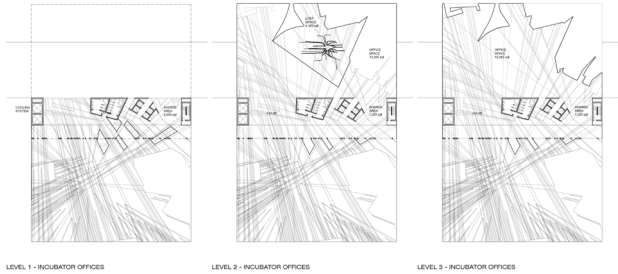


3/22 Site Plan Model





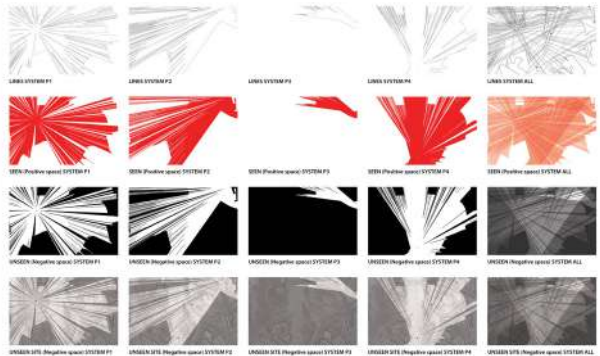
15/22 Cut-outs



9/22 Plans

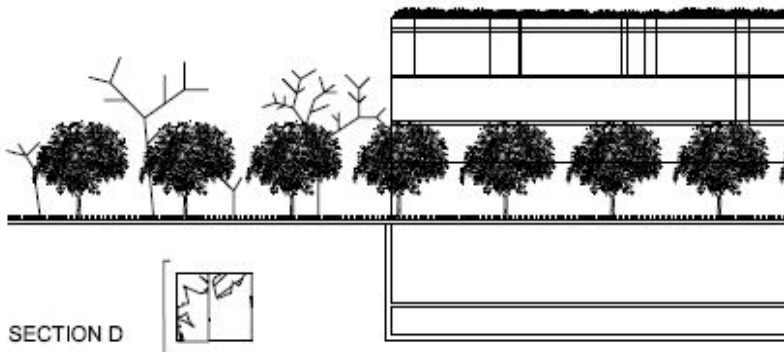
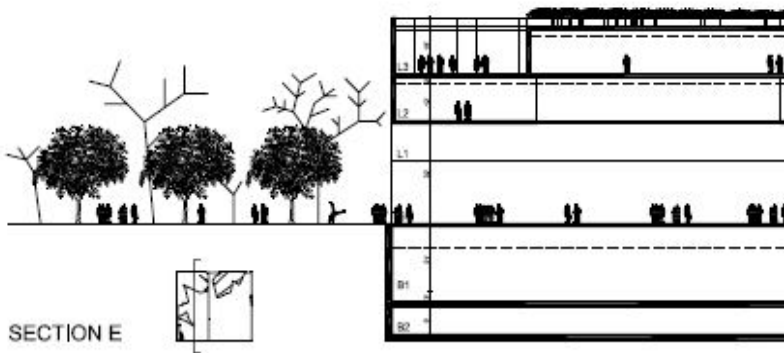
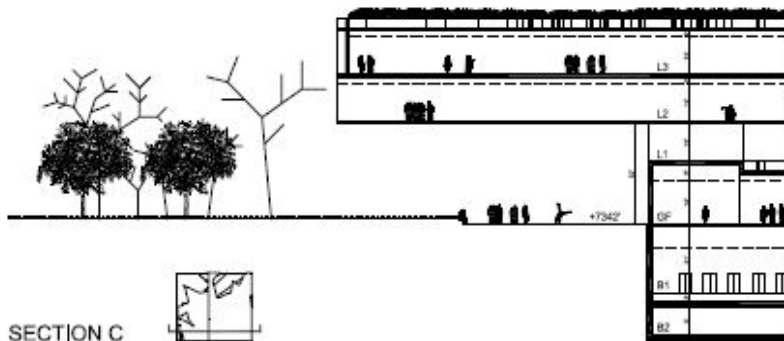


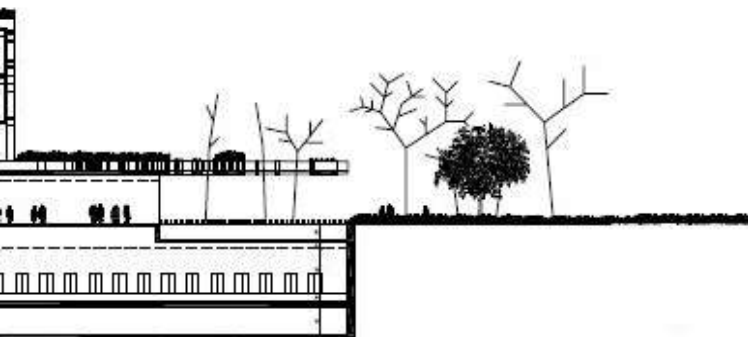
17/22 Model of the UTA research item



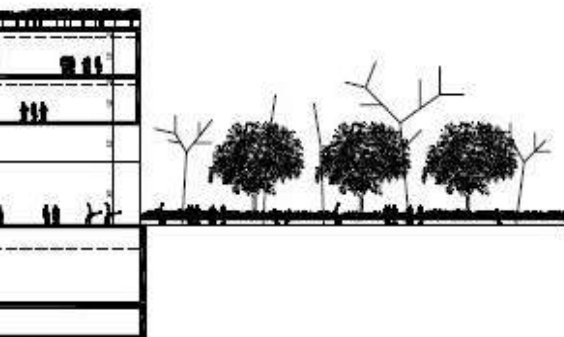
20/22 Drawing of personal variable



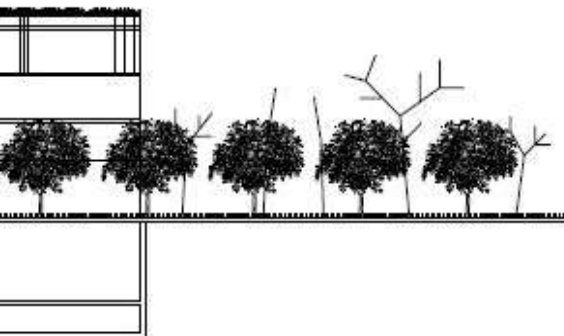




**Sections C**  
scale 1/16"



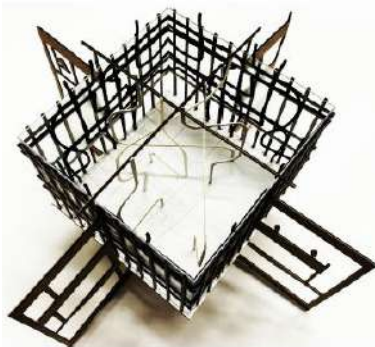
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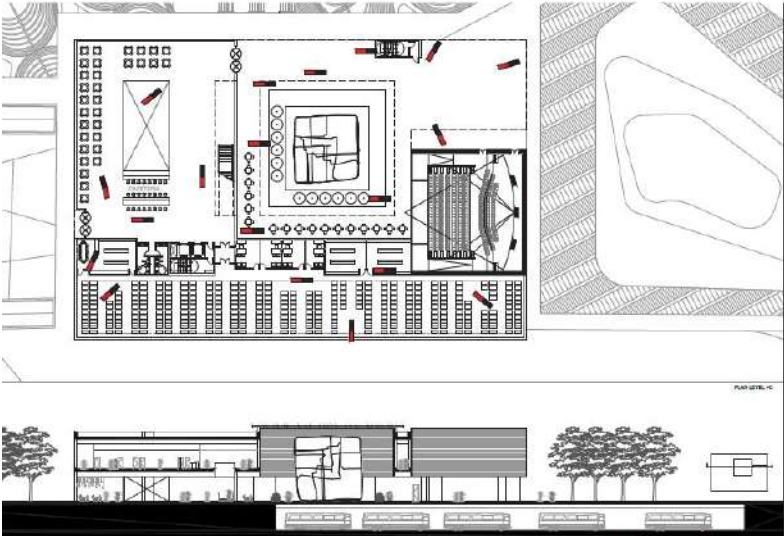
**Sections D**  
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## Santos Catalan





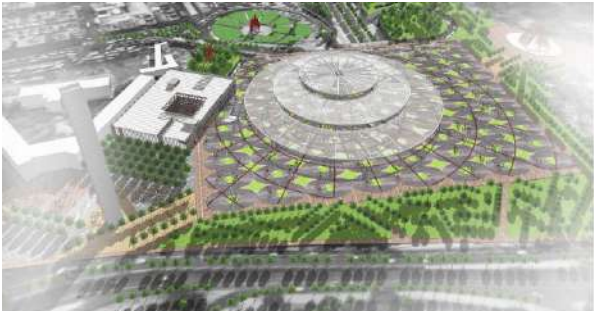
7/22 Model Structural Entity



9/22 Plans and sections

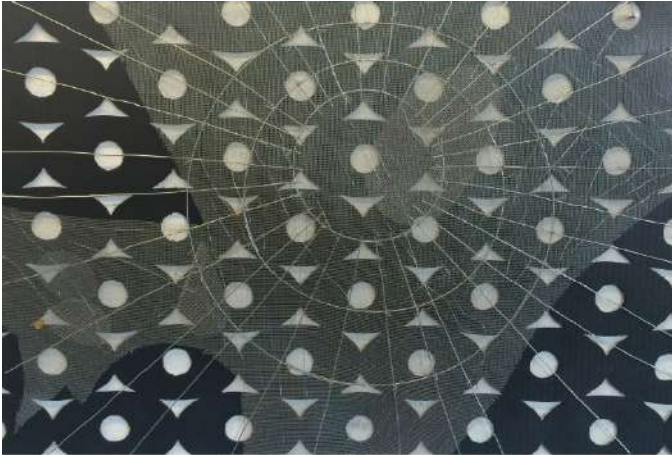


10/22 Renderings

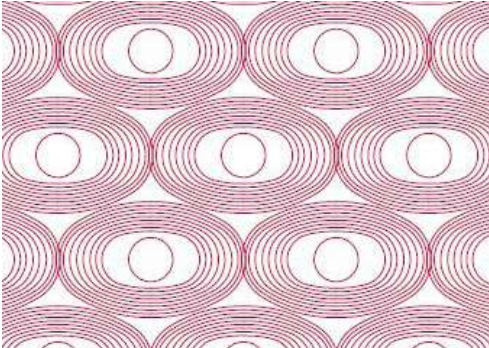


10/22 Renderings

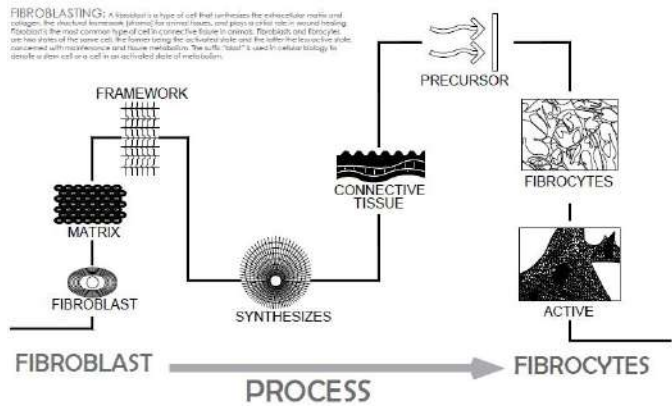




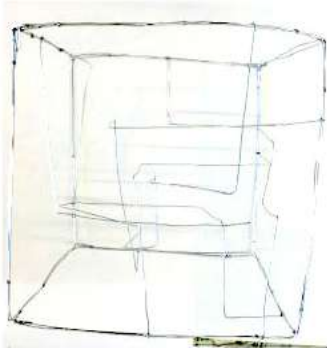
16/22 Model of UTA research item



19/22 Drawing of UTA research item



19/22 Drawing of UTA research item



22/22 21 grams model

**EDGE CONCERN:** EDGE IS DEFINED AS THE OUTSIDE LIMIT OF AN OBJECT, AREA, MASS, OR SURFACE; A PLACE OR PART OF A THING THAT MARKS THE END OF SOMETHING.



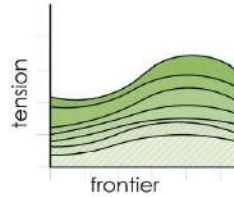
20/22 Drawing of personal variable

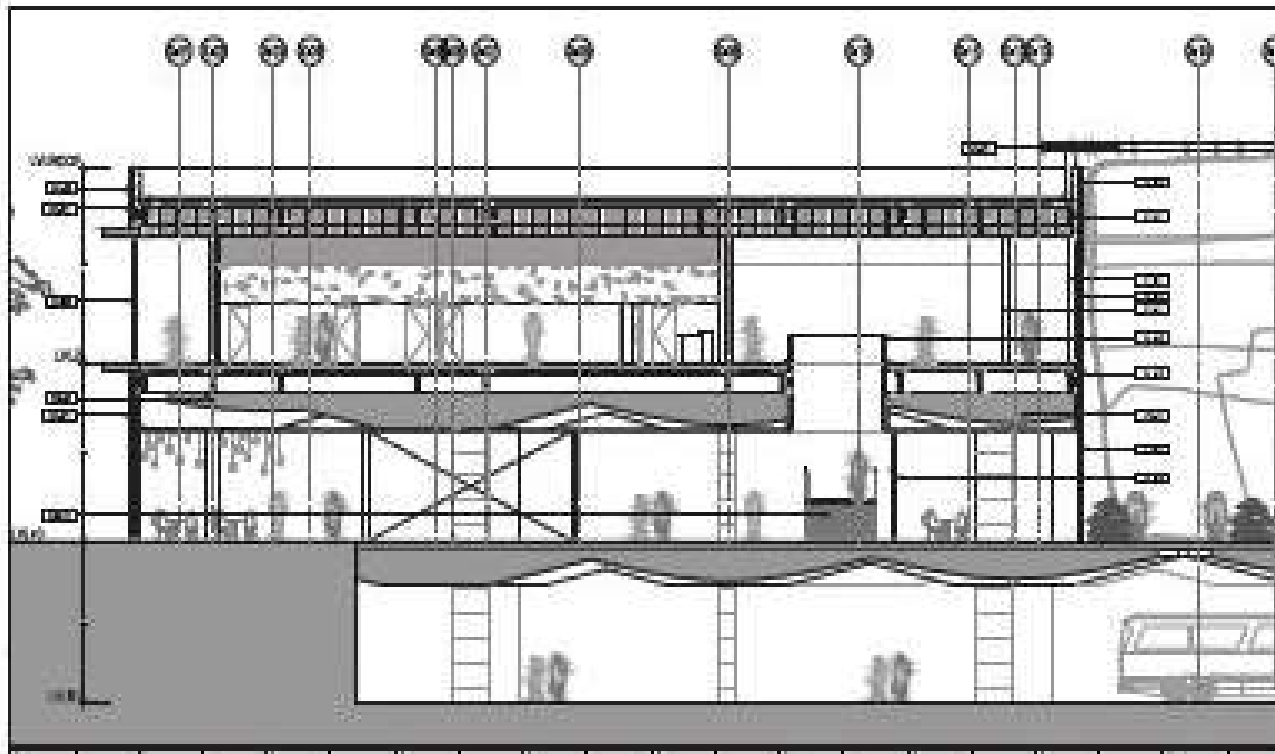


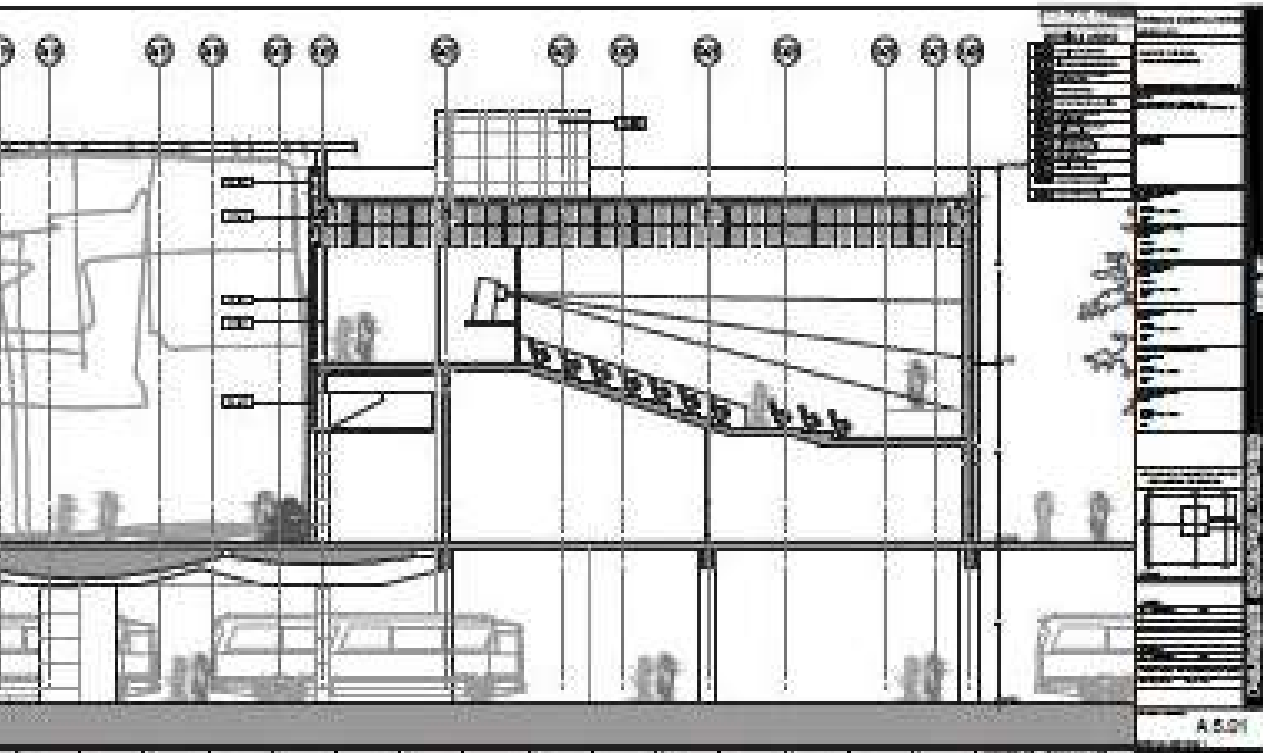
17/22 Model of the UTA research item



frontier changes over time  
20/22 Drawing of personal variable







A.5.01



The Architecture of the site is achieved through the process of transcription. Varies reserach methods ranging from de generic site, perosnal variable, university research, and the soul (twenty one grams) of the previous project all plan role in the design The project is located at the eastern edge of Chapultepec Park in Mexico City. At the intersection of Avenida Reforma and Constituyentes. It consists of the extension of the existing foot bridge as well as a new "Zocalo" public plaza. The design of the building itself is a pure cube which is on axis with Avenida Reforma and lifted two stories off the ground in order to encourage and promote a visual continuity which is already present on the existing site.

The layout of the site is a transcription of photothermal delivery, which is currently being reserached at UTA within the Physics department. As demostrated on the site plan, It is a linear (laser) process that inserts itself into the defective cell in order to cure it. The building sits at this point in the site in order to best complement and contribute to the existing area and conditions.

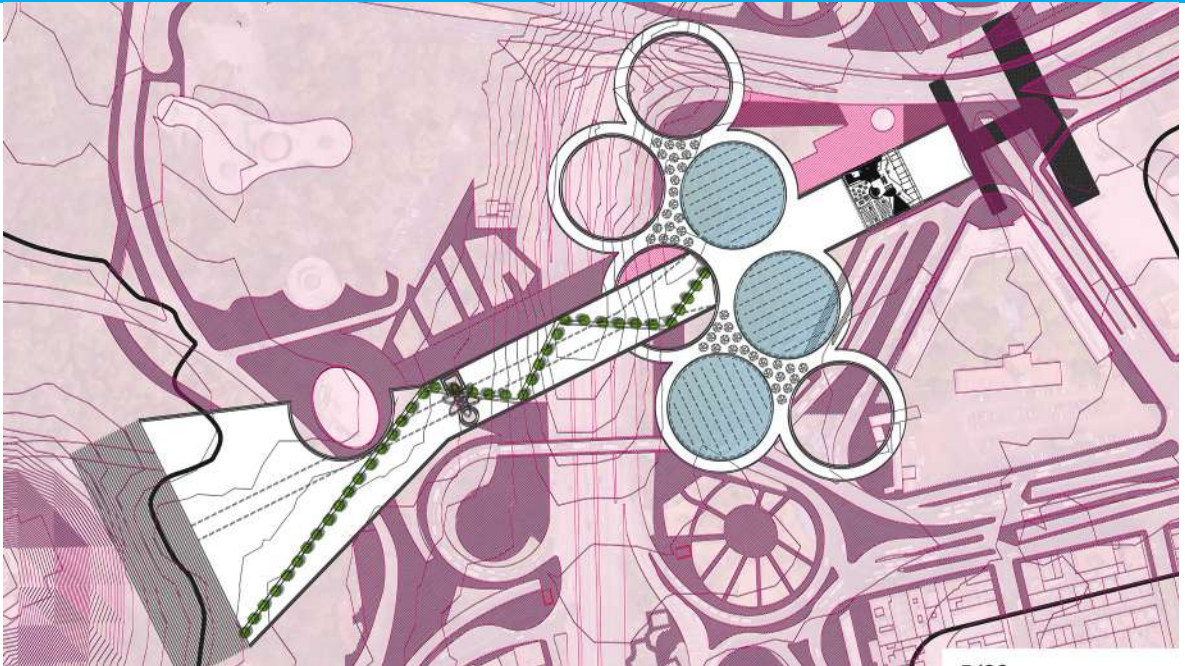
Through the exploration of my own personal variable withing the site, a study between passable walkways and impassable paths defines the floor plans carried throughout the building. The park access points and gates are indentified as steel spiral column structures that are then complemented by concrete circular columns to create the building's structure. Three glass canopies shade approximately one third of the new zocalo public plaza. These shade structures noy only visually define the public area but also create spaces that the people of Mexico City can use to fulfill any program requirements. By maintaining an open plaza design, with shaded structures, the programs can vary anywhere from dance rehersals, outside plays, sport's practices, picnics, civic activates, etc.

The building itself measures 125 feet x 125 feet x 125 feet. As previously stated, the first two stories are lifted antirely off the ground and offer an open-air canopy to the users. This area is the followed by 6 stories above that house three main program requirements: super computers, small business incubators and Lost Steps Space.

At the northeastern corner of the building there is a Lost Steps Space which is 4 stories in height. This area of the building has no written program and is designed to encourage self-reflection through each specific user. It can be accessed either from the first floor level, or by a glass bridge on the fourth floor level which allows one traverse the space and experience the space from an inside perspective. Another form of experiencing the space is from the fifth floor interior balcony that looks down into the Lost Steps Space. The exterior shell of the space funnels in towards the top of the structure to promote an enclosed space from the users view below. The material of Lost Steps Space is composed of titanium alloy that is perforate by an array of tiny puncture across its entire envelope.

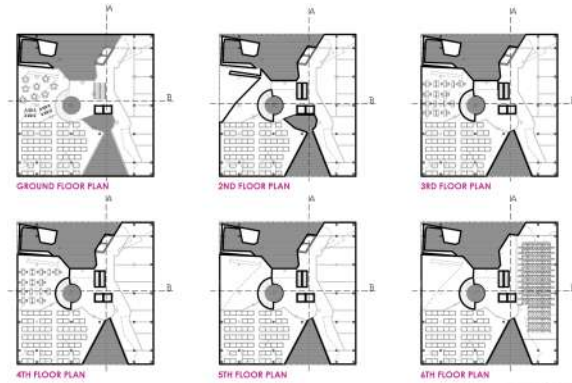
Through transcription, this project has achieved an architecture that improves the existing site in Mexico City by creating a public space and icon that the people of Mexico can experience and enjoy.

## Tania Sabillon





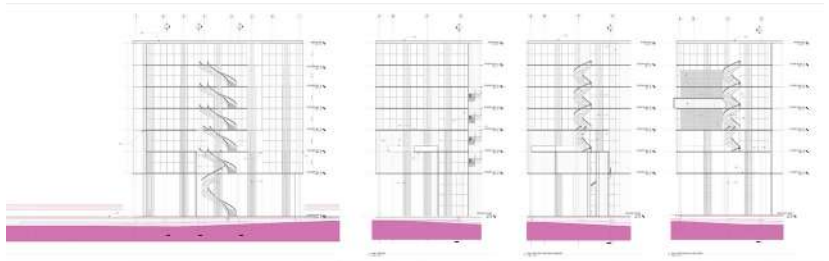
7/22 Model Structural Entity



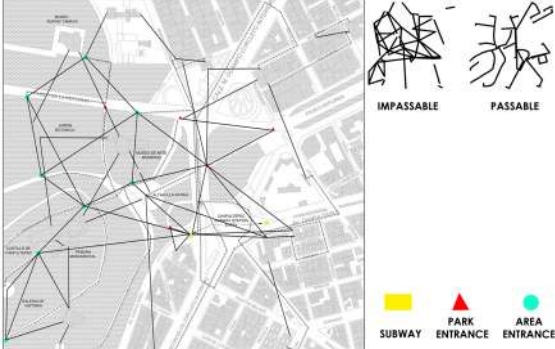
10/22 Renderings



9/22 Plans and sections



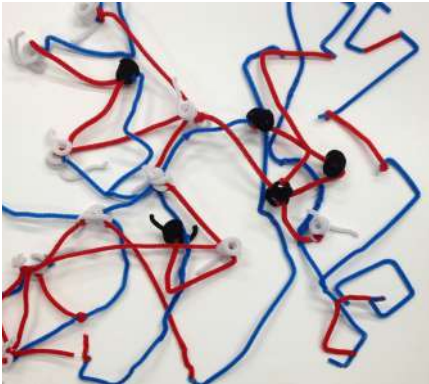
10/22 Renderings



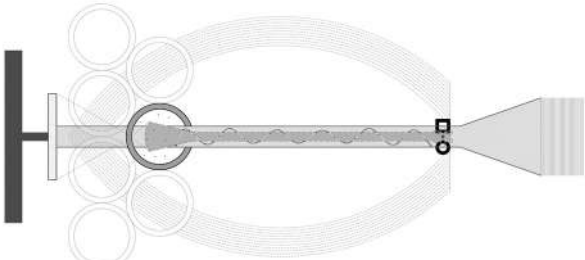
19/22 Drawing of UTA research item



16/22 Model of UTA research item

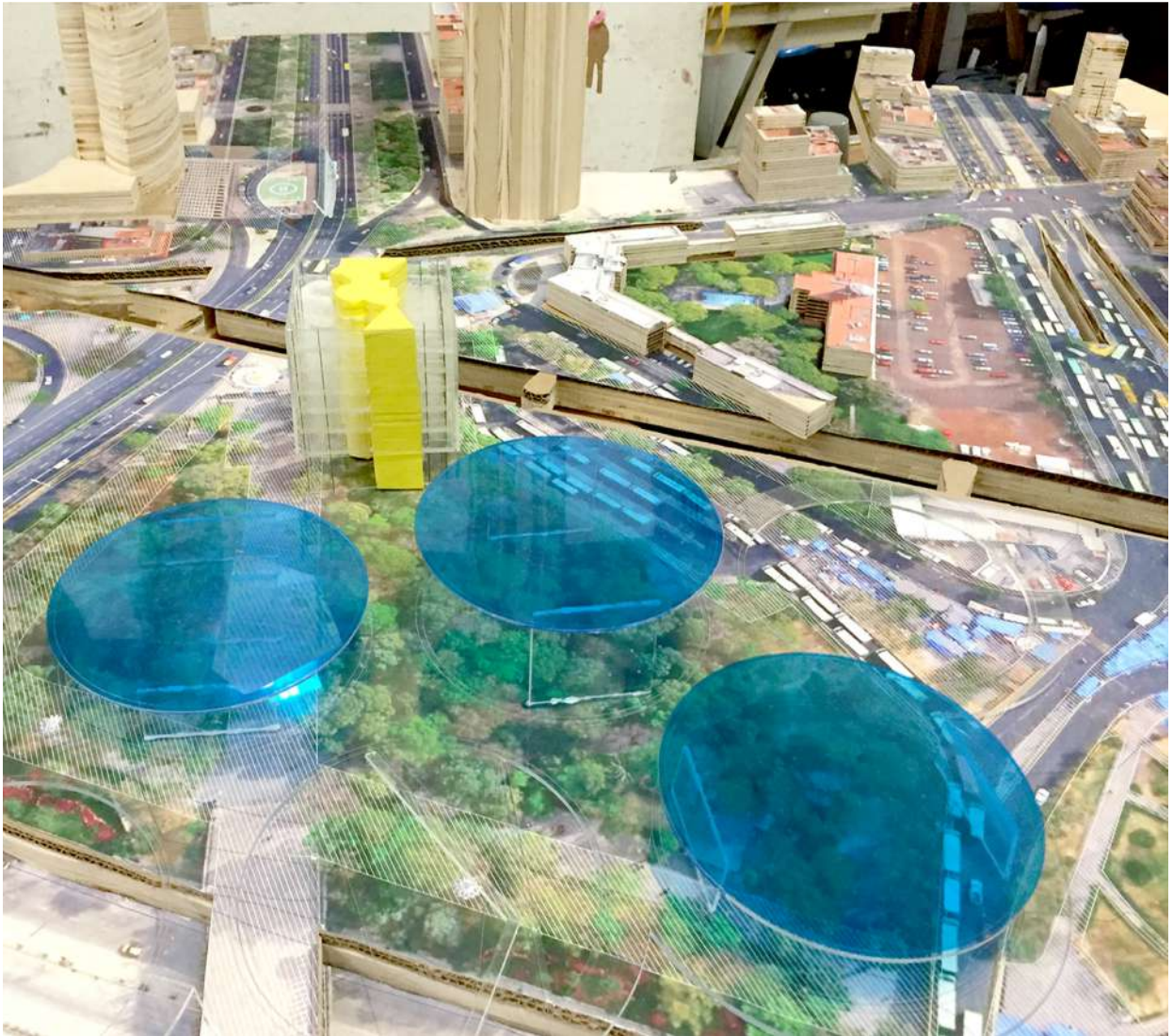


19/22 Drawing of UTA research item



20/22 Drawing of personal variable





8/22 Sectional structural



1/22 Chronicle

The Chapultepec Plaza and Data Center is located deep within the urban region of the Chapultepec park in Mexico City. This proposal extends out to Reforma Street with a 60,000 sqf building that sits parallel to a 700,000 sqf public plaza and is attached to a 5,000 sqf Lost Steps Space. The plaza offers a variety of spaces which can be used for just about any outdoor programs, from the public gatherings to essentially being the Chapultepec Zocalo.

The building which consists of a Data Center came out from the personal variable section which becomes the long narrow design of the building. Sitting between the plaza and the bus stop it gives an easy accessible route to the public. The large void towards the center of the building helps establish the different programs taking place within to the right is the supercomputer data center, and to the left are rental incubator offices, both sharing a cafe/ restaurant and a library.

The design of the public plaza came from the UTA research topic, aeroelasticity. Canopies resemble the flutter flow of an airplane wing where the spaces under it are to be kept open for any kind of program needed. The ground coverings consist of gravel, grass and pavement which then extended through the void in the building allowing for public access from both ends.

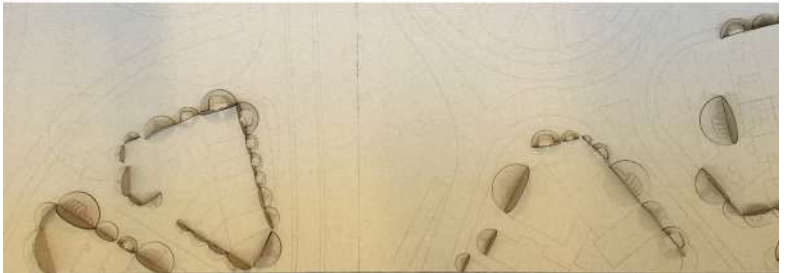
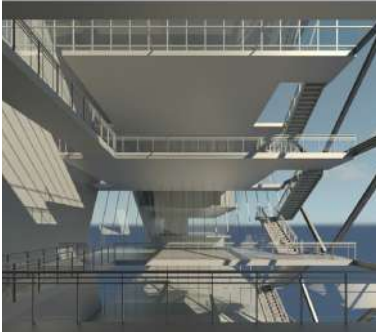
There then comes the lost steps space which is a product of the last project that I worked on. A 21 grams model was made then from that came the circular ramp seen in the animations and sections. This space from the top also has an excellent view of the city. The Lost Steps are to be left with no specific program, where the users can experience it how ever they please to do so.

This entire project complements the site to create a space that is unlike any other in the area at the time. A public plaza, building and a space without a program to create a Chapultepec Zocalo.

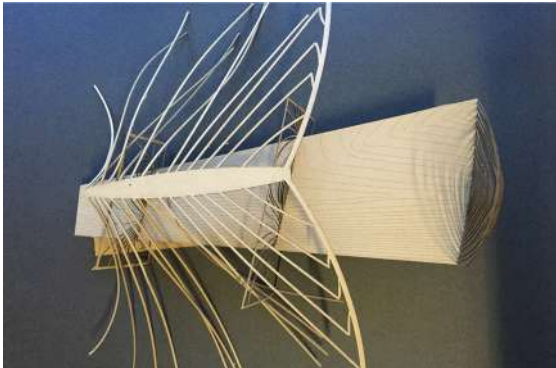
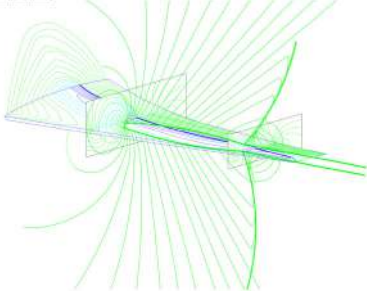
Shivani Patel



3/22 Site Plan Model



**Aerodynamics** is the branch of physics and engineering that studies the interactions between the internal, elastic, and compressible flows that occur when an object body is exposed to a fluid flow. Although internal flows have been covered in aerodynamic applications, recent research has found applications in flows with varying viscosity, and endo-nozzling systems. The study of aerodynamics has been broadly classified into two fields: *fluid mechanics*, which deals with the issues in steady regimes of an object body to a fluid flow; and *Aeromechanics*, which deals with the fluid's dynamic behavior around objects, including the study of fluid mechanics, fluid mechanics, fluid dynamics and structural systems. The problems of aerodynamics with thermodynamics is known as *aerothermodynamics*, and its definition with control theory is known as *aerothermodynamics*.



The Chapultepec Zocalo II is an ambitious proposal containing three different programs that combine to make one project.

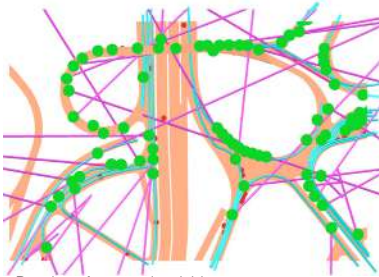
The project is located deep within the urban area of Chapultepec Park and Reforma Street. It's a design that is meant to collaborate with the public and the open areas of the park by creating a stringer and safer connection from one side of the highway to the other. The plaza is inhabited with many different patterns of paving that provide visual paths while also establishing the strength of the reforma axis through the Plaza. A 1,000,000 sqft open space is provided for shading from natural elements. The Plaza derived from an investigation done about a specific research conducted by students at the UTA. The research was that of Polymers and how they work and interact with each other to involve into something much grander.

The Plaza is connected to specially designed building housing super computers, a Data Center, incubators, library, cafeteria, auditorium and among many others a Lost Steps Space. A vertical implementation of data was a main concern in the design of the building. A rather tall structure was design in order to call out attention to the elegant entry of the plaza and its welcoming to interact with others. A safety measure was addressed on the ground floor, the first main floor would have to be elevated to provide more safety, the lobby would remain on the ground floor, and this would also create transparency from one side of the building to the other directing the public view to the plaza. The data gathered from a personal variable, in this case the mapping of taxi behavior in Mexico City is what created the design of the building.

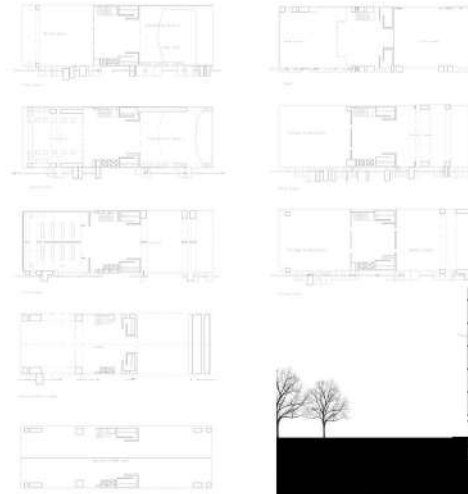
## Francisco Ibarra



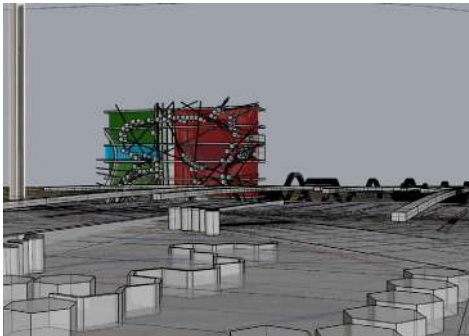




21/22 Drawing of personal variable



9/22 Plans and sections



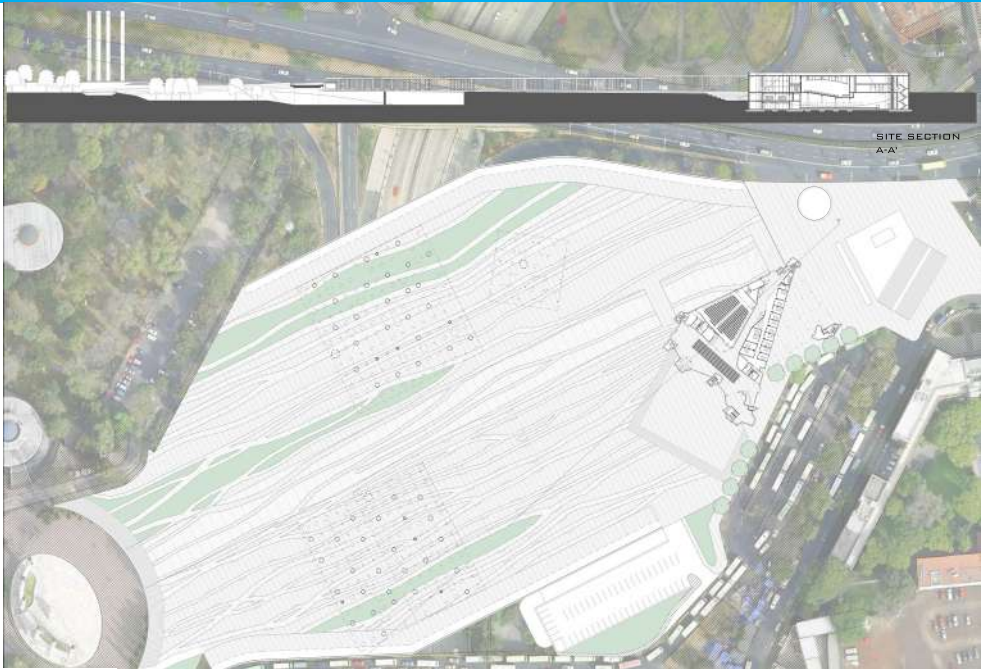
10/22 Renderings



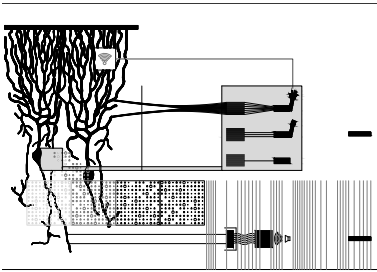
3/22 Site model



Cameron Haddok

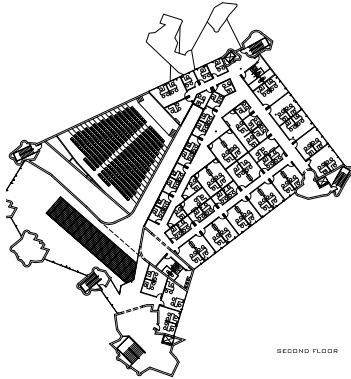


3/22 Site Plan Model

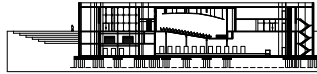


19/2

21/22 Drawing of UTA research item

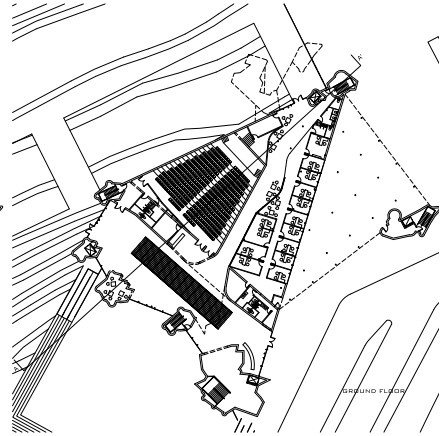


SECOND FLOOR



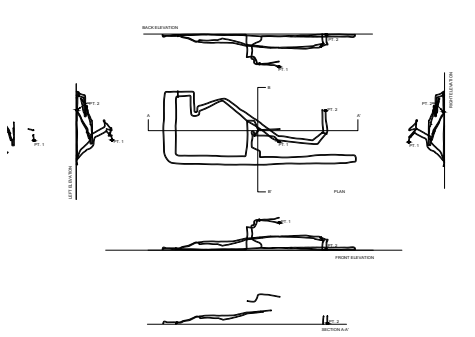
A-A' SECTION

9/22 Plans and sections



GROUND FLOOR

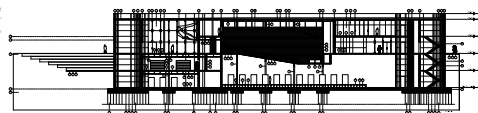
09/25



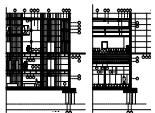
18/22 Drawing of 21 grams model

CHAPLAIN CENTER REGULATORY CENTER

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8/22 Sectional structural



# 04

## PROFESSIONAL WORK

*New mixed use development in China by LaguardaLow*

Shopping Center, Residential and Hotel

Location: Guiyang, China

Author: LaguardaLow Architects

Area: 359,661 m<sup>2</sup>

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Fig.2-3: Site plan and ground level plan.

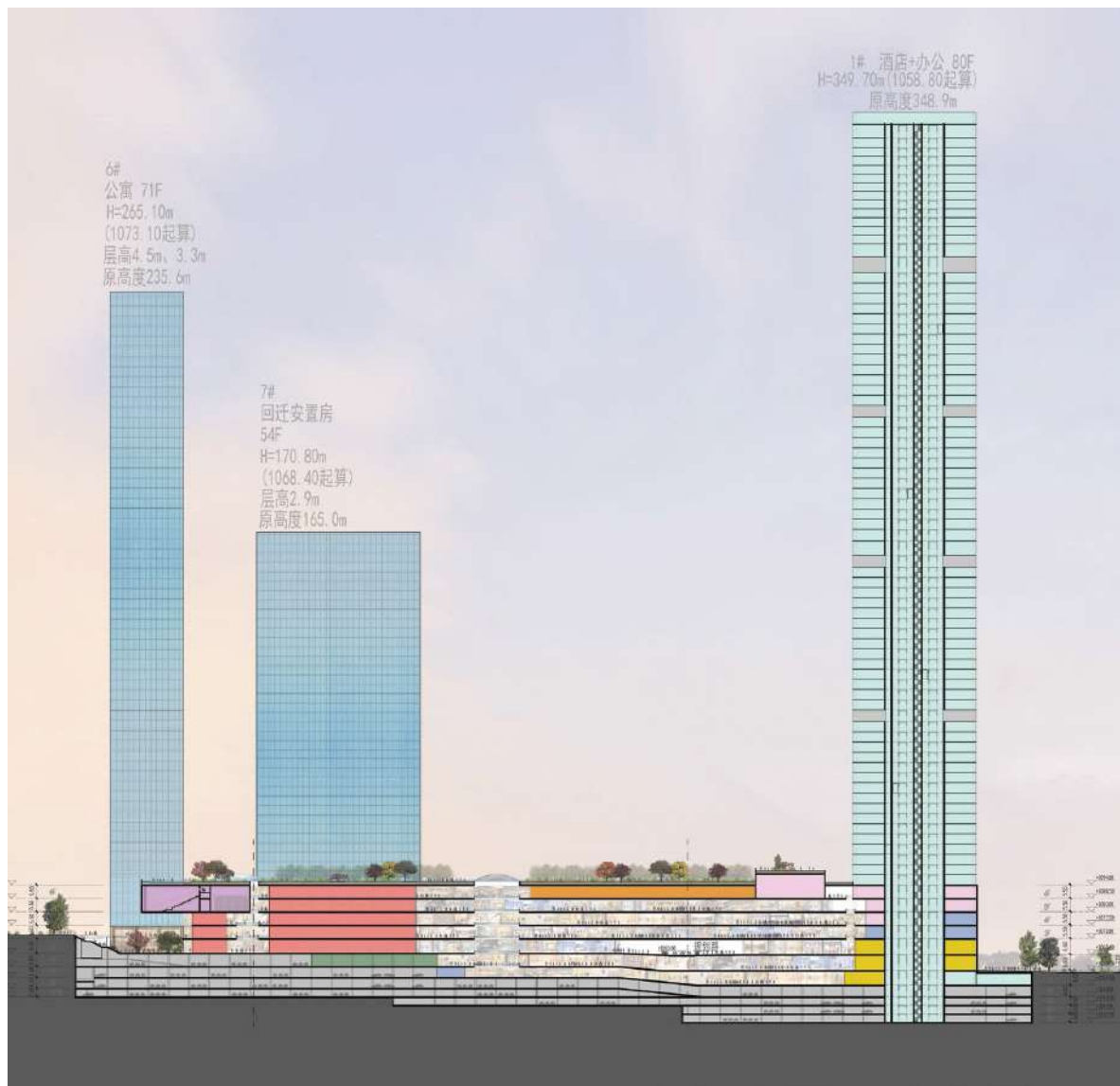


Fig.4: Longitudinal section.

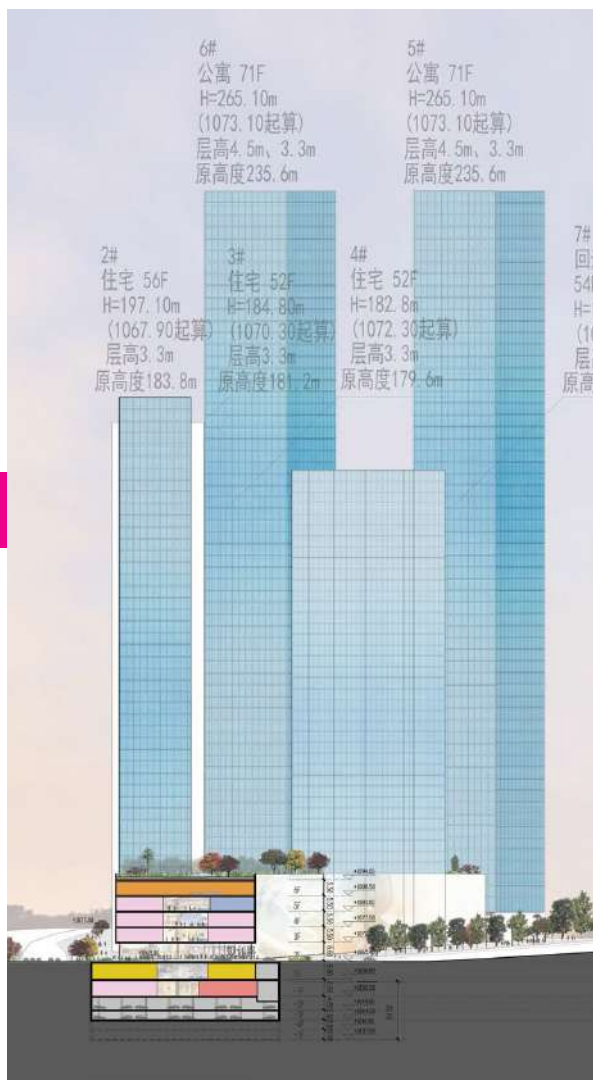


Fig.5: Transversal section.



Fig.6: Overground plans.





**Fig.7-8:** Image of the south and south-east facade.





05

## CONNECTIONS

*Social and media links*

*UTA*

*CAPPA*

*Student animations in youtube via QR codes*





Tomi Salmi



Afia Afrin



Alexandre Quintanilla



Valon Maloku



Elmira Ariavand



Duane Ford



Meghain Wolf



Aldo Guerra



Alaa Alzaitann



Santos Catalán



Cameron Haddok





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***People who made this studio possible***

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