



BARCELONA

Iaac

GLOBAL SUMMER SCHOOL

Hyper Cities, Barcelona

GSS16_NODE 1

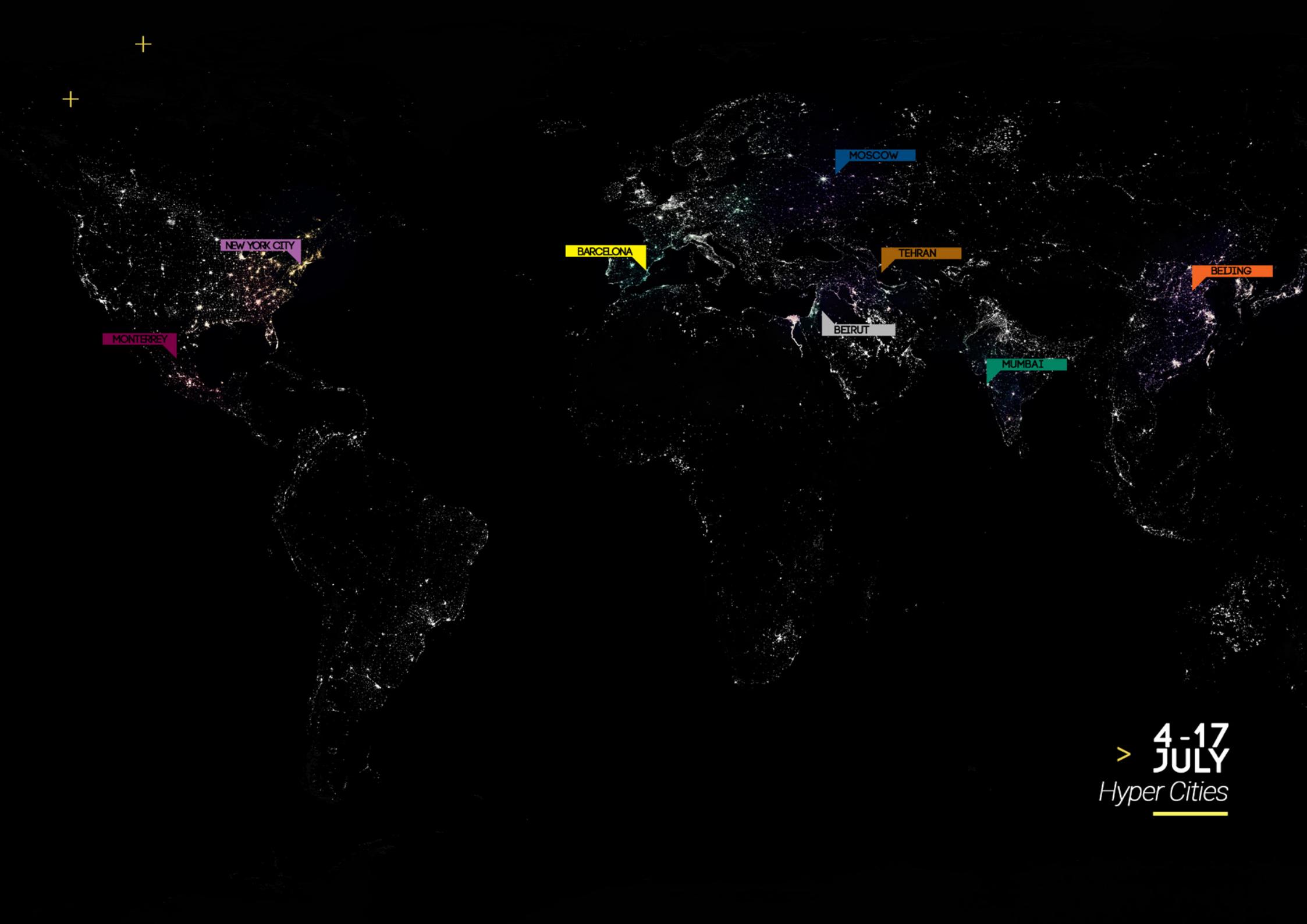
GLOBAL AGENDA, LOCAL SOLUTIONS

Hyper Cities, Barcelona



15 DAYS
8 METROPOLIS
3 CONTINENTS

> 4-17
JULY
Hyper Cities



> 4-17
JULY
Hyper Cities



THE IAAC | GLOBAL SUMMER SCHOOL^(GSS)

IS A PLATFORM DEFINED BY AMBITIOUS, MULTI-SCALAR INVESTIGATION ON THE IMPLICATIONS OF EMERGENT TECHNIQUES IN OUR PLANNED ENVIRONMENTS. EACH YEAR, INTERNATIONAL TEAMS LOCATED IN KEY CITIES AROUND THE GLOBE EXPLORE A COMMON AGENDA WITH PROJECTS THAT ARE DEEPLY EMBEDDED IN DIVERSE LOCAL CONDITIONS. BECAUSE OF THIS, PARTICIPANTS HAVE AN INTERNATIONAL LABORATORY TO TEST THEIR DESIGN HYPOTHESIS, UNDERSTANDING HOW DESIGN CONCESSIONS DERIVED LOCALLY CAN BE TESTED AND EVOLVED GLOBALLY IN DIFFERENT CITIES WHERE OTHER TEAMS RESIDE. THIS INTENSIVE TWO WEEK COURSE CONNECTS EACH PARTICIPANT TO ONGOING RESEARCH AGENDAS IN ROBOTICS, SIMULATION, PHYSICAL COMPUTING, PARAMETRIC DESIGN, DIGITAL FABRICATION, AND OTHER RELEVANT EMERGING DESIGN METHODOLOGIES. SPECIFIC EMPHASIS IS PLACED ON UNDERSTANDING THE MULTISCALAR IMPLICATIONS OF DESIGN CONCLUSIONS, THUS CREATING CRITICAL RESEARCH ADVANCED ON THE APPLICATION OF NEW TECHNOLOGIES IN DESIGN.

AAC HAS AN ACTIVE ALUMNI COMMUNITY DISTRIBUTED AROUND THE WORD ALLOWING A DECENTRALIZED EXPANSION OF IAAC EXPERTISE AND KNOWLEDGE. THE CONSTANT INVOLVEMENT OF THE COMMUNITY IN IAAC ACTIVITIES KEEPS THE CONNECTIONS STRONG AND FERTILE. IAAC GSS16 AIMS TO EMPOWER THE BONDS WITH THE COMMUNITY MEMBERS, THEREFORE PLACES THEM IN STRATEGIC POSITIONS WHICH ALLOWS GLOBAL SUMMER SCHOOL TO TAKE PLACE SIMULTANEOUSLY IN DIFFERENT CITIES AROUND THE WORLD:

BARCELONA, NEW YORK CITY, MONTERREY, MOSCOW, TEHRAN, MUMBAI, BEIRUT, BEIJING

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BARCELONA

NEW YORK CITY

MONTERREY

MOSCOW

TEHRAN

MUMBAI

BEIRUT

BEIJING



HYPER CITIES

THE WAY WE DESCRIBE AND UNDERSTAND CITIES TODAY IS RADICALLY CHANGING, AND ALONGSIDE THIS CHANGE THERE IS ALSO A RADICAL TRANSFORMATION IN THE TOOLS WE USE TO DESIGN THEM. CITIES CALL FOR A DIFFERENT APPROACH TOWARDS THE DEVELOPMENT OF NEW MULTI-SCALAR STRATEGIES IN URBAN DESIGN AND PLANNING SOLUTIONS. CITIES CAN BE DESCRIBED AS SYSTEMS OF NETWORKED ECOLOGIES: A SERIES OF CO-DEPENDENT AGGREGATIONS REVOLVING AROUND ENVIRONMENTAL MITIGATION, LAND-USE ORGANIZATION, COMMUNICATION AND SERVICE DELIVERY. THESE GENERATE A COMPLEXITY THAT CAN BE ORGANIZED THROUGH TECHNOLOGY, LAWS, POLITICAL PRESSURES, DISCIPLINARY DESIRES, ENVIRONMENTAL CONSTRAINTS AND SOCIAL INTERACTION. IN FACT NETWORKED ECOLOGIES EMBODY THE DOMINANT FORM OF ORGANIZATION TODAY: THE NETWORK, BE IT TELEMATIC, PHYSICAL OR EVEN SOCIAL.

GSS16 WILL FOCUS ON THE POTENTIALS OF THIS NETWORK TO WORK NOT ONLY AT AN URBAN SCALE, BUT ALSO ACROSS DIVERSE CITIES, INTERCONNECTING AND EXPANDING THEM. THESE WILL ULTIMATELY CREATE A DYNAMIC AND INTERACTIVE SYSTEM OF "HYPER-CITIES": A VARIETY OF CITY-SENSORS (DIGITAL OR ANALOGUE) PROCESSING AND TRANSFERRING INFORMATION IN EXPLICIT MANIFESTATIONS, INTERRELATING WITH THE COLLECTIVE ENVIRONMENT.

THE GSS16 WILL BE DIRECTED BY IAAC IN COLLABORATION WITH MULTIPLE NODES PARTICIPATING IN THE COURSE FROM AND IN DIFFERENT PARTS OF THE GLOBE. ALL THE NODES ENGAGED IN THE GSS16 WILL BE CHALLENGED TO DEFINE A 1:1 URBAN MACHINING INTERVENTION TRANSFERRING AND DIGITALLY INTERRELATING MULTIPLE SETS OF DATA COLLECTED FROM HYPER-CONNECTED CITIES. THE GOAL IS TO WORK AS A GLOBALLY DISTRIBUTED CAMPUS TO GENERATE A HYPER-NETWORK OF INTERVENTIONS THAT COMMUNICATE TO EACH OTHER BOTH LOCALLY AND GLOBALLY. GSS16 IS AN INNOVATIVE EDUCATIONAL MODEL EMERGING FROM THE DIGITAL ERA.

GSS | FACULTY



ARETI MARKOPOULOU | ACADEMIC DIRECTOR

DIRECTOR

ARETI MARKOPOULOU IS A GREEK ARCHITECT AND PROFESSOR AT IAAC, BARCELONA. HER RESEARCH AND PRACTICE DESIGN EXPLORES NEW ARCHITECTURAL MODELS INVESTIGATING APPLICATIONS OF ICT, ENERGY AND FABRICATION ALLOWING BUILT AND PUBLIC SPACE TO DYNAMICALLY ADAPT TO BEHAVIORAL AND ENVIRONMENTAL CHANGES OVER TIME. SHE IS CURRENTLY THE ACADEMIC DIRECTOR, AND THE HEAD OF R+D AT IAAC IN BARCELONA AS WELL AS THE INITIATOR AND PARTNER OF FAB LAB ATHENS IN GREECE. SHE HOLDS A BACHELOR IN ARCHITECTURE & ENGINEERING FROM DUTH, GREECE, AN MARCH FROM IAAC AND A FAB ACADEMY DIPLOMA ON DIGITAL FABRICATION OFFERED BY THE MIT CBA AND THE FAB LAB NETWORK. SHE IS A PHD CANDIDATE IN THE UPC, BARCELONA AND HAS PUBLISHED SEVERAL ARTICLES INTERNATIONALLY.



ALDO SOLLAZZO | GSS DIRECTOR

ALDO IS AN ARCHITECT AND RESEARCHER. MASTER IN ADVANCED ARCHITECTURE IN 2013 AT INSTITUTE FOR ADVANCED ARCHITECTURE OF CATALUNYA (IAAC), FAB ACADEMY DIPLOMA IN 2014 AT THE FAB LAB BARCELONA. ALDO IS FOUNDER OF NOUMENA AND FAB LAB FROSINONE. EXPERT IN COMPUTATIONAL DESIGN AND DIGITAL FABRICATION THAT TEACHES IN INTERNATIONAL EVENTS AND EXPLORE WITHIN THE LAB AND ITS OWN PRACTICE. SINCE 2013, HE IS DIRECTOR AND COORDINATOR OF RESHAPE – DIGITAL CRAFT COMMUNITY, A PLATFORM DEDICATED TO THE DEVELOPMENT AND IMPLEMENTATION OF INNOVATIVE IDEAS FROM THE WORLD OF DIGITAL DESIGN AND FABRICATION.



EFILENA BASETA | GSS COORDINATOR

EFILENA IS AN ARCHITECT ENGINEER. STUDIED IN THE NATIONAL TECHNICAL UNIVERSITY OF ATHENS (NTUA) WHERE SHE SPECIALIZED IN ADJUSTABLE STRUCTURES. SHE OBTAINED HER MASTER DEGREE IN ADVANCED ARCHITECTURE FROM THE INSTITUTE FOR ADVANCED ARCHITECTURE OF CATALUNYA (IAAC) WHERE SHE DEVELOPED HER MASTER THESIS "TRANSLATED GEOMETRIES", A RESPONSIVE STRUCTURE USING SMART MATERIALS THAT RECEIVED SEVERAL DISTINCTIONS. SINCE 2014 SHE IS PARTNER OF NOUMENA WHERE SHE TEACHES COMPUTATIONAL DESIGN AND DIGITAL FABRICATION IN INTERNATIONAL WORKSHOPS. MOREOVER, EFILENA IS PART OF RESHAPE-DIGITAL CRAFT COMMUNITY.



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CALENDAR AND ACTIVITIES



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GENERAL STRUCTURE

The overall agenda of activities will include:

- 1. MENTORED SESSIONS**
- 2. WORKING SESSIONS**
- 3. LOCALLECTURES**
- 4. CULTURAL INPUTS / VISITS**

CALENDAR AND ACTIVITIES

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MODULES

Modules will be conducted every day with a max length of 4 hours each. The program for the GSS will be divided into three main areas of activities:

- 1.1 URBAN STRATEGIES AND TECHNOLOGIES
- 1.2 AERIAL ROBOTICS
- 1.3 PROTOTYPING

1.1

URBAN STRATEGIES AND TECHNOLOGIES

[24 HRS]

FACILITIES: IAAC CLASSROOM
INSTRUMENTS: PROJECTORS

GOALS:

- THEORY ABOUT URBAN SCALE STRATEGIES
- DISTRIBUTION OF A NETWORKED SYSTEM IN THE CITY. ALDO SOLLAZZO
- DEFINITION OF A SINGLE DATA STATION.
- DEFINE RULES AND CHARACTERISTICS OF 1:1 INSTALLATION AND FABRICATION. EFILENA BASETA

TUTORS:

ALDO SOLLAZZO



EFILENA BASETA



1.2 AERIALROBOTICS

[12HRS]

FACILITIES: GREENFABLAB
VALLDaura CLASSROOM,
FORESTIN

TOOLS: NERO DRONE, CLASS-
ROOM PROJECTOR

TUTORS:

CHIRAG RANGHOLIA



EUGENIO BETTUCCI



GOALS:

- GENERATE MAPPING CARTOGRAPHIES FROM DATA COLLECTED DURING DRONE'S FLIGHTS.
- IMPLEMENTATION OF SMART CITIZEN ON DRONE.

1.3

PROTOTYPING

[24HRS]

FACILITIES: IAAC

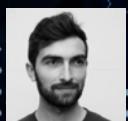
TOOLS: KUKA, CLASSROOM,
PROJECTOR

TUTORS:

ALEXANDRE DUBORD



JORDJE STANOJEVIC



GOALS:

- INTRODUCTION TO ROBOTIC FABRICATION
- PROTOTYPING AND TEST FOR JOINTS AND FRAME
- FABRICATE AND BUILD 1:1 INSTALLATION



1ST AREA
VALDAURA

2ND AREA
GLORIES

5TH AREA
AV.DEL PARALLEL

4TH AREA
AV.DE LA CATEDRAL

3RD AREA
BESOS

GSS16

BARCELONA_CALENDAR



U.S.T.: URBAN STRATEGIES AND TECHNOLOGIES

A.R.: AERIAL ROBOTICS

P.F.: PROTOTYPING AND FABRICATION

AS_3: U.S.T. + A.R. + P.F.

FRONTAL SESSION

WORKING SESSION

CULTURAL VISIT

LUNCH BREAK 14:00 - 15:30

GLOBAL LECTURES 15:30 - 16:30

GL 1 TEBRAN

GL 2 BARCELONA

GL 3 BEIJING

GL 4 MOSCOW

GL 5 BEIRUT

GL 6 NEW YORK CITY

LOCAL LECTURES 20:00 - 21:00

LL 1 A. EROLI

LL 2 M. MONTILLO

LL 3 L. FRAGUDA

LL 4 W. MULLER