Title:

Postgraduate Design Courses as Research Think Tanks for Cultural Institutions

Author/s:

Roger Paez i Blanch + Toni Montes Boada

Date:

2015

Language/s:

English

Format:

Congress Presentation + Article (Indexed Journal)

Publisher/Organizer:

III Workshop on Educational Innovation in Architecture JIDA'15

JIDA'15

III JORNADAS
SOBRE INNOVACIÓN DOCENTE
EN ARQUITECTURA

WORKSHOP ON EDUCATIONAL INNOVATION
IN ARCHITECTURE JIDA'15

JORNADES SOBRE INNOVACIÓ
DOCENT EN ARQUITECTURA JIDA'15

ESCUELA TÉCNICA SUPERIOR DE ARQUITECTURA DE BARCELONA
DEL 25 AL 29 DE MAYO DE 2015

MINISTERIO
DE ECONOMÍA
Y COMPETITIVIDAD

UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH
UPC

GILDA GRUP PER A LA INNOVACIÓ
I LA LOGÍSTICA DOCENT
EN ARQUITECTURA

Editores

Daniel García-Escudero, Berta Bardí i Milà

Edita

Iniciativa Digital Politècnica Oficina de Publicacions Acadèmiques Digitals de la UPC

Comité científico JIDA'15

Berta Bardí i Milà
Dra. Arquitecta, Departamento de Proyectos Arquitectónicos, ETSA Vallès

Ricardo Devesa
Dr. Arquitecto, Departamento de Composición Arquitectónica, ETSA Barcelona

Jordi Franquesa
Dr. Arquitecto, Departamento de Urbanismo y Ordenación del Territorio, ETSA Vallès

Daniel García-Escudero
Dr. Arquitecto, Departamento de Proyectos Arquitectónicos, ETSA Barcelona

Mariona Genís Vinyals
Dra. Arquitecta, BAU Centro Universitario del Diseño de Barcelona

Carles Marcos Padrós
Dr. Arquitecto, Departamento de Proyectos Arquitectónicos, ETSA Vallès

Joan Moreno Sanz
Dr. Arquitecto, Departamento de Urbanismo y Ordenación del Territorio, ETSA Vallès

Judit Taberna
Arquitecta, Departamento de Expresión gráfica y arquitectónica, ETSA Barcelona

III WORKSHOP ON EDUCATIONAL INNOVATION IN ARCHITECTURE'15

The Group for Educational Innovation and Logistics in Architecture (GILDA) organizes in collaboration with the Institute of Educational Sciences (ICE-UPC), the R+D competitive Project of the Ministry of Economy and Competitiveness "E-learning 3.0 in the teaching of architecture", and within the Erasmus project+2014 "Confronting Wicked Problems: Adapting Architectural Education to the New Situation in Europe", the third workshop for Educational Innovation in Architecture (JIDA'15) which will take place on the 25, 26, 27, 28 and 29 of May 2015 at the ETS of Architecture of Barcelona.

OBJECTIVES

The JIDA workshop has as its aim the divulgation and exchange of experiences on educational innovation in the context of graduate and postgraduate studies in the fields of architecture and urbanism. The purpose of the JIDA workshop is to improve the quality of teaching and learning in higher education taking into account the uniqueness of these fields of knowledge.

In particular, this third edition is based on the debate between two important educational environments: the academic and the professional one. The link between learning methodologies and the consolidation process of the knowledge on the discipline that the student is taking in throughout their studies must be contrasted with the professional practice of our architects, the job market and the socio-economic context in which our society is involved in. That is why the purpose of this workshop aims to focus not only on the discussion of educational methodologies, but especially in its effectiveness to ensure a good traineeship which will allow the future architect to adequately address the challenges posed by society.

In this discourse, and in front of these two realities, the academic and the professional, the elaboration of an appropriate portfolio or curriculum seems to be fundamental, understanding it as a key element that should link both areas. That is the reason why this congress will dedicate a significant part of its attention to this document.

PARTICIPANTS

The "JIDA" workshop is open to the participation of all those professionals in higher education who wish to share their experience on educational innovation in the field of Architecture and Urbanism with the scientific community, as well as to the experts and novices interested in this subject.

ORGANIZATION CHART

The format of the III Workshop on Educational Innovation in Architecture (JIDA'15) is divided into four main types of activities:

Lectures
Introductory presentations on behalf of international experts on the subject of educational innovation, structured in 60 minute sessions and a turn for questions and debate.

Timetable: 9:00 - 10:30

Contributions
Public presentation of the papers presented and published in the proceedings of the workshop, these will be half-hour sessions, according to the thematic areas outlined in the previous section. A selection shall be undertaken of those papers that are more related to the thematic areas and whose contributions are more inspiring.

Timetable: 11:00 - 12:30

Debates
Open debate on the whole of the papers presented in the workshops, with the participation of the authors of each of the thematic areas, and moderated by a member of GILDA.

Timetable: 13:00 to 14:30

Workshop
In accordance with the study plan of the ETS of Architecture of Barcelona, and correspondingly to the fundamental role of the electronic portfolio, a pioneer experience in the evaluation of this document as an essential tool in the relation between academic training and the professional career development will be undertaken.

Timetable: 16:00 - 18:30

PAPERS

The articles will be undertaken in two phases. In the first phase an abstract of the participants' papers will be submitted, which should be written in Spanish and English with a maximum of 500 words in each case. They should be sent to the following email address: gilda.rima@upc.edu with the following information:

- *Title and subtitle*
- *Abstract of the paper (maximum 500 words)*
- *Keywords (Maximum three words)*
- *Thematic area (choose one of the four proposals)*
- *Author/s (name and surname)*
- *University / Department*
- *Email Contact*

The proposed paper and subsequent finished article which corresponds to the second phase, will be evaluated by member doctors of the GILDA and invited experts on educational innovation for their final acceptance.

THEMATIC AREAS

The JIDA'15 Workshop proposes the following two fields and the four thematic areas for the drafting of papers (each paper must be associated to at least one thematic area):

FIELD A: TEACHING PRACTICE

1. Student Work Environment

Student education beyond the classroom, forms part of the undertaking of their own curriculum. The tools that allow this traineeship to be carried out and evaluated pose new challenges for teachers.

- ICT tools to enhance student self-learning.
- E-learning and the application development for educational purposes.

2. Innovative Pedagogical Practices

Architectural workshops and the different types of teaching conducted in the classroom will allow one to experiment with innovative educational methodologies.

- New challenges in the teaching practice of architecture.
- Methodological and didactic classroom apps.

3. Educational Planning and Evaluation

The organization, preparation and communication of the educational programmes and the verification of the learning outcomes are used as a didactic tool.

- Programme schedule preparation in the classroom.
- Learning evaluation innovative processes.
- Academic experiences that ensure quality learning.
- Assessment of the learning outcomes.

FIELD B: PROFESSIONAL PRACTICE

4. University-Professional Practice Relationship

The link between classroom learning and professional reality should allow experiencing innovative teaching practices.

- Design and implementation of continuous training programmes
- Educational Experiences in the Degree related to professional practice.

POSTGRADUATE DESIGN COURSES AS RESEARCH THINK TANKS FOR CULTURAL INSTITUTIONS

R. Paez; T. Montes
Master's Degree in Ephemeral Architecture and Temporary Spaces
Elisava Escola Superior de Disseny i Enginyeria de Barcelona
Universitat Pompeu Fabra
rpaez@aib.cat

ABSTRACT

In the interest of reinforcing the relationship between academic research and professional practice, certain postgraduate design courses can serve as research think tanks for cultural institutions or projects which may not have access to in-house research departments, either for organic reasons or as a result of limited resources.

This approach, which we have been implementing since 2006 within the academic framework provided by Elisava's Master's Degree in Ephemeral Architecture and Temporary Spaces, opens up a new scenario for collaboration between the academic and professional spheres through continuing alliances with different cultural institutions, where the school acts as an external research think tank for specific projects.

Key words: architectural design, strategic research, postgraduate design, cultural institutions

INICIATIVA DIGITAL POLITÈCNICA UPC

POSTGRADUATE DESIGN COURSES AS RESEARCH THINK TANKS FOR CULTURAL INSTITUTIONS

In the interest of reinforcing the relationship between academic research and professional practice, certain postgraduate design courses can serve as research think tanks for cultural institutions or projects which may not have access to in-house research departments, either for organic reasons or as a result of limited resources.

This approach, which we have been implementing since 2006 within the academic framework provided by Elisava's Master's Degree in Ephemeral Architecture and Temporary Spaces, opens up a new scenario for collaboration between the academic and professional spheres through continuing alliances with different cultural institutions, where the school acts as an external research think tank for specific projects. Over a period of eight years, we have implemented this collaborative approach, working in conjunction with the Sónar festival as well as a number of projects organized by Barcelona's Culture Institute (ICB), most notably the International Poetry Festival (FIPB).

The origins of this approach are rooted in two fundamental questions.

On the one hand, we believe that postgraduate degree programs are an opportunity for combining training and knowledge creation. Beyond teaching students how to perform the tasks inherent to the profession, postgraduate studies need to educate professionals to generate knowledge so they will be able contribute to the development of the discipline throughout their future professional careers. This is one of the qualities that has the most potential for adding value to a future architect's professional profile, and the university is without a doubt the ideal place for acquiring it. We believe that postgraduate programs should not be limited to simulations of conventional professional practice in terms of their teaching methodology. That type of exercise is necessarily incomplete due to the impossibility of reproducing a situation that mirrors actual practice, incorporating all of the factors that inform professional decision-making process. In order to be effective, that kind of approach needs to include professional internships in the curriculum, which takes away from the opportunity of generating knowledge in the academic sphere.

On the other hand, most cultural institutions and programs do not have in-house research departments. This is often the result of limited resources, as well as a lack of traditional precedents in the sector. Whereas in private industry, a stable dynamic of research and development with close ties to university research groups has been consolidated, in the cultural sector this type of dynamic is largely non-existent. Cultural projects dedicate most of their energy and their often limited means to organization, programming and management. More often than not, they do not have resources to allocate toward assessment, evaluation and strategic planning – factors which could contribute significantly to the development and improvement of key aspects in their projects. This lack is a need that has yet to be addressed, and it is an excellent opportunity for building bridges with the academic world in the form of strategic research projects.

Bringing these two questions together results in an ideal setting for creating a symbiotic relationship between the academic sphere and the realm of cultural

production, where needs on both sides are satisfied reciprocally at the same time, generating a virtuous feedback cycle .

Elisava School of Design and Engineering has a long tradition of collaborating with businesses – especially in the areas of product design, communications and graphic design – through research and development projects. This activity has proven very effective in fostering knowledge creation and in consolidating the school as a think-tank which companies refer to when they are interested in hiring new professionals. Until recently, however, this collaboration had not been carried over into the cultural sphere.

The traditional collaboration model is tailored to the field of applied research and it relies on the typical working methodology of a design workshop: students develop proposals, individually or in groups, in response to a single design problem; the results are specific solutions that are geared toward a direct application, and the variety among the proposals is derived essentially from the students' individual interests and capabilities and from their different interpretations of the initial proposition.

Translating this model into the cultural sphere implies a shift in focus – from applied research to strategic research – and it requires a different working methodology. The processes of analysis, reflection and diagnosis, as well as the construction of the problem itself, are a fundamental part of the task and the proposals need to be developed along strategic lines. From our point of view, this differential trait is relevant because the change in methodology it implies has a decisive impact on students' education: the emphasis is placed on developing critical thought and strategic thinking. These skills are distinctive traits of architectural training and they are increasingly sought after in the professional world. Rather than providing a response to a pre-established demand, architects need to be able to construct the problem based on diagnosis and strategic thinking. Diagnosis is largely founded on an operative acknowledgement of the opportunities present in conditions which are often accepted acritically as a given. Strategic thinking involves developing the ability to make design decisions without being limited by the horizon of mere resolution.

Although strategic research, as we mentioned earlier, is among the specific qualities inherent in architecture and the design disciplines in general which holds the most potential, it is not often the focus of much attention in the formal curriculum.

In terms of academic methodology, developing an ability for strategic thinking implies a two-fold movement. First, during what we call the instruction phase, students are familiarized with the tools they need to outline a strategic working framework. Second, during what we call the operation phase, students put these specific tools into action: their design decisions are directed toward developing strategic proposals which incorporate multiple possibilities for implementation.

The instruction phase is fundamentally instrumental, and the work is focused on two central issues: research hypothesis and mediation systems.

The definition of the research hypotheses is done in student groups and with the close participation of professors and representatives from the cultural institutions involved in the collaboration (hereafter, the partner). In this phase, first of all, the

partner's demands are discussed and identified; second, strategic approaches are proposed which relate the partner's interests with the general conditions of the working framework (program, location, narrative, etc.); finally, the specific working hypotheses are agreed upon, with a particular focus that is different for each working group. In the end, this process results, on the one hand, in the focused construction of the problem (what is the object of the strategic research?) and, on the other, in the definition of a specific working hypothesis for each group. In this way, each of the projects focuses on developing a specific application of the general research framework determined jointly by the client, the students and the professors. In contrast with a conventional design workshop structure – which is often focused on resolution, through the development of multiple responses to the same question– this strategic working structure is based on approaching the initial problem in different ways, so that the project is rooted in problematization as opposed to solely providing solutions. [Fig. 1].

After defining a research hypothesis, the other area in the instruction phase centers on mediation systems. We use the term mediation systems to refer to formats that establish a system for mediating between designer and design, through a protocolization of reality (on a programmatic, spatial or social level) based on a specific point of view. These abstract intermediaries are not only able to read specific aspects of reality; they inform design decisions on a strategic and tactical level, and in terms of resolution. The most well-known mediation systems used in the design disciplines are the map and the diagram, but other examples include scripts, scenarios, scores, spatial formats or protocols. They are all abstract intermediaries that operatively inform the designers' decision-making process by mediating between disparate levels of 'objective' reality and 'subjective' architectural aims. Mediation systems offer alternatives to the idea of design understood as composition by generating an intersubjective filter which allows for establishing links between the different agents in play, while activating a dialogic mediation among the different levels of objective reality and subjective desires. [Figs. 2 and 3].

The operation phase is fundamentally productive, and it follows a methodology divided into four movements: strategic interpretation of the program through diagrams; strategic interpretation of the site through maps; operations on these diagrams and maps; and the development of prototypical proposals.

Diagrams and maps are used to uncover hidden potential and to reveal strategic opportunities both in the cultural program contributed by the partner and in the physical framework where that program takes place [Figs. 4 and 5]. Beyond contributing new information regarding place and program, these operations explore potentials for intervention; in other words, they establish a specific framing for the factors which need to be negotiated in the project, and they construct an authorial position based on defining valid or relevant intervention strategies. Later, the mediation systems which have been investigated are put to work to make design decisions through operations on those maps and diagrams [Figs. 6, 7 and 8]. In this way, the active perspective on the problem that has been constructed from a specific standpoint is given a projective impulse which fuels proposals – still on a strategic level. A prescriptive phase comes last, beginning with the development of prototypical proposals that explore concrete options for implementing the strategic proposals. The work done in this phase usually provides a framework for possible versions or local variations that could ultimately be designed. In order to concentrate efforts on developing the strategic

research and thinking consistent with our understanding of academic research, and to avoid any intrusion from postgraduate programs into the professional sphere, students' design proposals are not carried over into the realm of specific applications, i.e., providing concrete solutions which could be implemented directly by the partner. The aim is not to design professional projects, but to engage in a type of research and prospection which is usually neglected both by cultural institutions, due to a lack of resources, and by professionals, due to a lack of training. [Fig. 9].

Outside the strict academic framework there is a third phase, the application phase. It aims to ensure continuity in the collaboration between cultural and academic institutions, establishing feedback between the strategic research developed by the school and the continued applied research in the institutional context, either public or private. These joint efforts with cultural institutions are formalized through collaboration agreements. In addition to planning and preparing the aforementioned research projects, this includes a commitment to incorporating students through professional internships. The system of grants and internships at the cultural institutions we partner with is meant to ensure that, once the academic program is finished, students will be able to continue the work they began in the Master's program, ultimately transforming strategic research into applied research.

In conclusion, the goal of postgraduate courses understood as think thanks for cultural institutions is, first, to contribute to conceptualizing the demands made by the institutions we work with in order to clearly define areas of opportunity for design; second, to construct strategic research that can help bring into focus which areas are relevant in terms of design decision-making, regardless of the particularity of those decisions; and, third, suggesting prototypical solutions which, without moving beyond the strategic realm defined by this methodology, point out possible avenues for architectural intervention for the benefit of cultural institutions.

We believe this approach is effective in three specific aspects: it contributes decisively to reinforcing the link between the school and the network of institutions and companies in the cultural sphere; it contributes to reasserting the role of architecture as an eminently cultural activity; and it is a means of broadening professional horizons for future practitioners beyond traditional options.

IMAGES AND FOOTNOTES

Unless otherwise indicated, all of the images that accompany this article were produced in the context of postgraduate programs directed by the authors at Elisava.

Further information can be found in:

Montes, Toni and Roger Paez, eds. *Design Strategies for Temporary Intervention in Public Space.* Barcelona: Elisava, 2014. ISBN 978-84-616-3481-1.
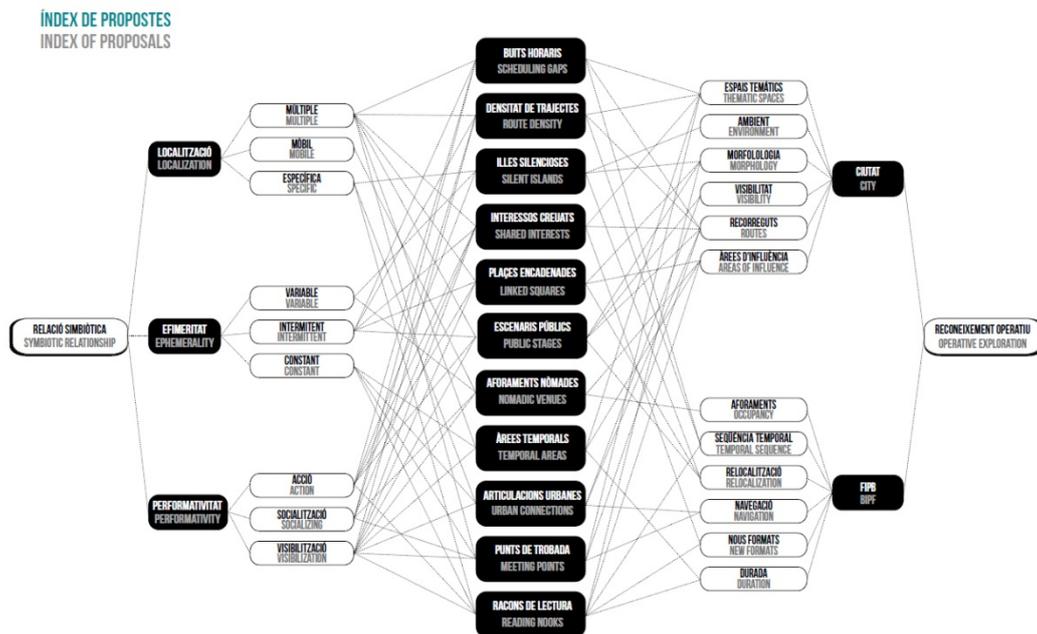

Figure 1 shows the structure for defining research hypotheses in the context of the Barcelona International Poetry Festival. Each working group structures its research through a unique combination of factors. The final result allows for a two-fold interpretation: on the one hand, it provides a set of strategic responses which refer to the case study; on the other, it provides for a prototypical illustration of a series of possible solutions corresponding to each of the strategies.
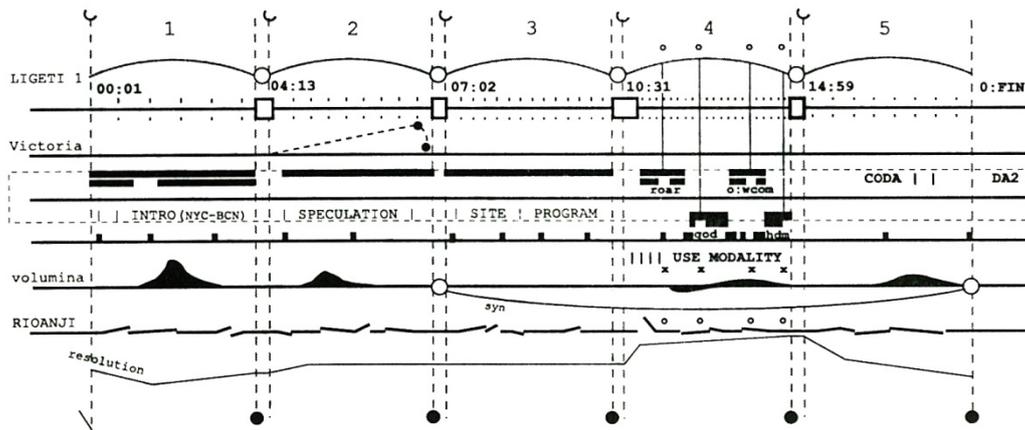
[E] : pentagrama

Figure 2 [*AiB arquitectes, Roger Paez*] shows a mediation system in the form of a diagram which establishes a relationship between different aspects involved in the definition of an event. Organized like a musical staff, the diagram allows for making a diachronic record of the different lines (narrative, environmental, perceptive, etc.), while it also provides the possibility of negotiating their mutual relationships synchronically. The document is analytic and anticipatory at the same time; it is both representative and generative: while serving as a record, it also acts as a negotiation protocol for the multiple agents involved in the generation of a temporary event.
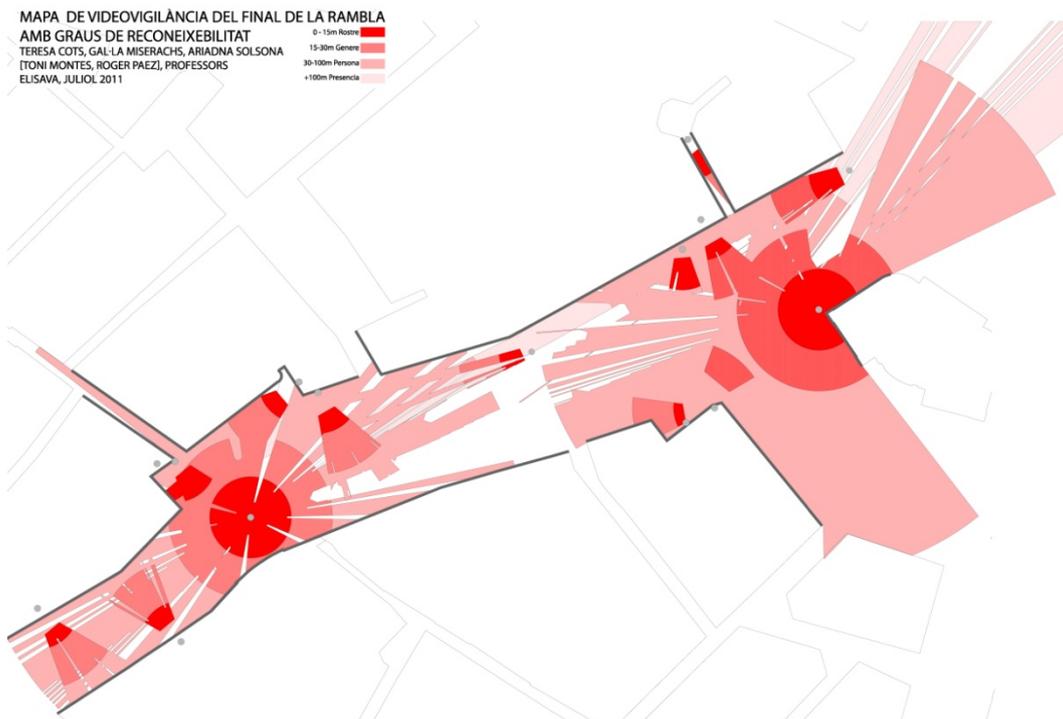
Figure 3 shows a video surveillance map for the final stretch of Barcelona's La Rambla. Following an in-depth study of the location, quantity and type of CCTV cameras, the map was created based on a systematization of the graphic code, which reveals the different degrees of surveillance in this public space. The overlapping of the different cameras' fields of vision provides a rich and nuanced reading of the levels of video surveillance, and it allows for discovering opportunities for a temporary intervention along the lines of the Surveillance Camera Players. Similarly to the previous figures, this map is both a representative and generative document: at the same time it interprets the existing reality and projects possible realities, effectively expanding the field of the real.
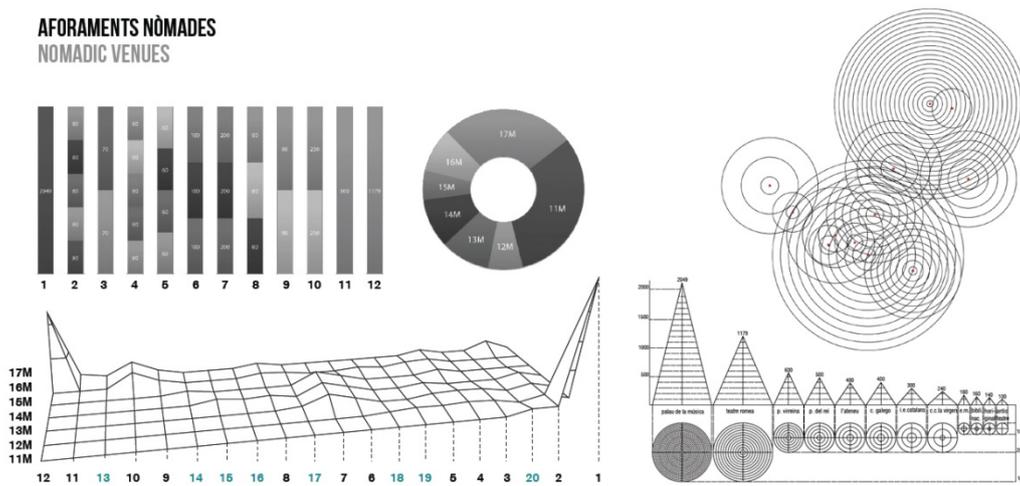
AFORAMENTS NÒMADES
NOMADIC VENUES

Figure 4 shows a graphic coding of numerical information, in this case the audience volumes for the Barcelona International Poetry Festival, which are highly variable from one day to the next, both in terms of audience size and according to the number of venues where events have been programmed.
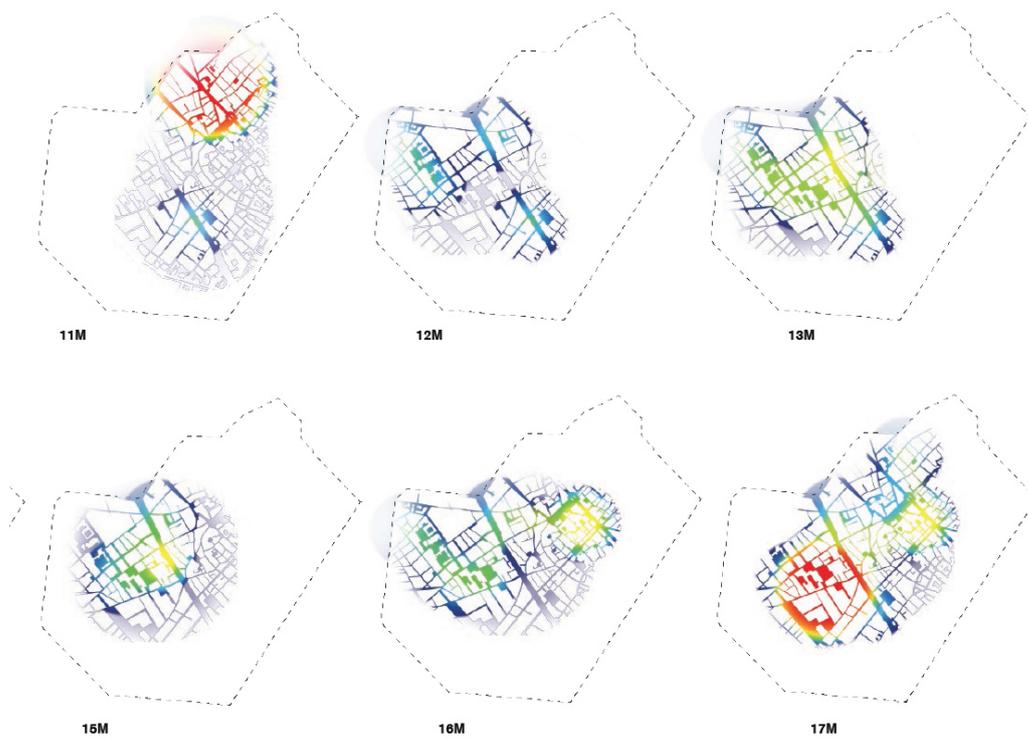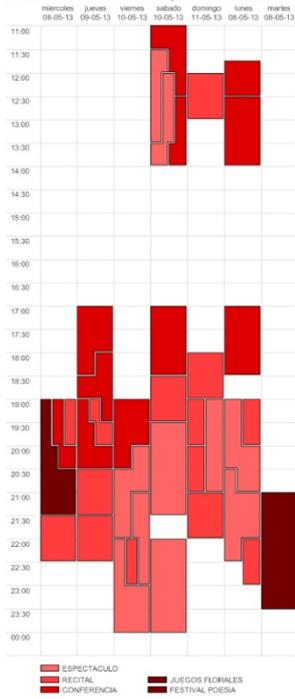

11M

12M

13M

15M

16M

17M

Figure 5 shows the result of the previous coding superimposed on the map of the city, creating a dynamic map that reveals the variability of typologies and the distributions of audience hotspots over the six days of the festival's duration.

DIAGRAMA TIEMPO/FORMATO

NORMAS ACTUACIÓN:
- UNICO MOVIEMTO EN EL PROGRAMA :HORARIO
- HUECO FIJO 20:30 - 22:00
- TENER EN CUENTA LA UBICACIÓN DE LA SEDE Y EL TIEMPO DE DESPLAZAMIENTO PARA LLEGAR AL DESTINO
- LOS EVENTOS QUE ESTÉN FUERA DE CIUTAT VELLA A MAS DE 30' CAMINANDO DEL DESTINO DE LAS 22:00H SE DESPLAZARAN POR METRO HASTA LA ESTACIÓN MAS CERCANA.
- SIEMPRE TRAYECTO MAS CORTO, LOS MAS CERCA POSIBLE DE LA LÍNEA DE UNIÓN ENTRE LAS SEDES.
- EVITAR EN LO POSIBLE VÍAS EXCESIVAMENTE TRANSITADAS Y CON DEMASIADA CONTAMINACIÓN VISUAL.
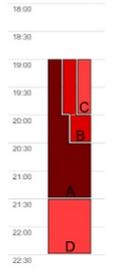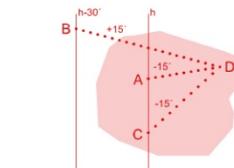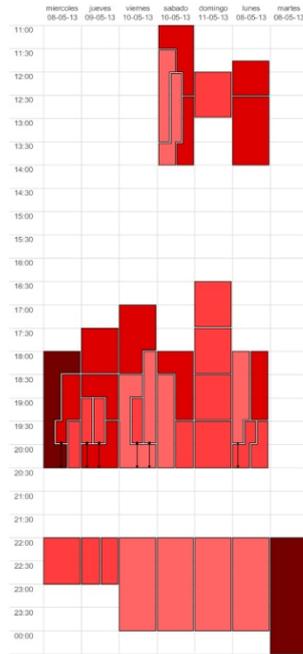
DIAGRAMA PROPUESTA

Figure 6 shows the discovery of design opportunities in the analysis of the programming for the Barcelona International Poetry Festival. First, all of the events are put onto a graph based on their scheduled times, their duration and their format. Second, the intervention criteria are defined: avoiding dissipation of the audience by promoting a common space-time for audience members to socialize before the final event for each day. Third, the maximum number of events in the afternoon are redistributed on the schedule, accounting for the travel time needed to arrive at the final event in cases where venues are far away.

Figure 7 shows a navigation map of Barcelona's historical center based on the programming for the Barcelona International Poetry Festival. The diagrams incorporate the scheduling distribution of events for three different days, identifying all of the possible combinations for event attendance. The corresponding maps show the priority paths for travelling from one event to the next, as well as their recurrence.

Bcnegra · Visibilidad y encierro

Mapa de visibilidad
+ Selección de calles de menor visibilidad
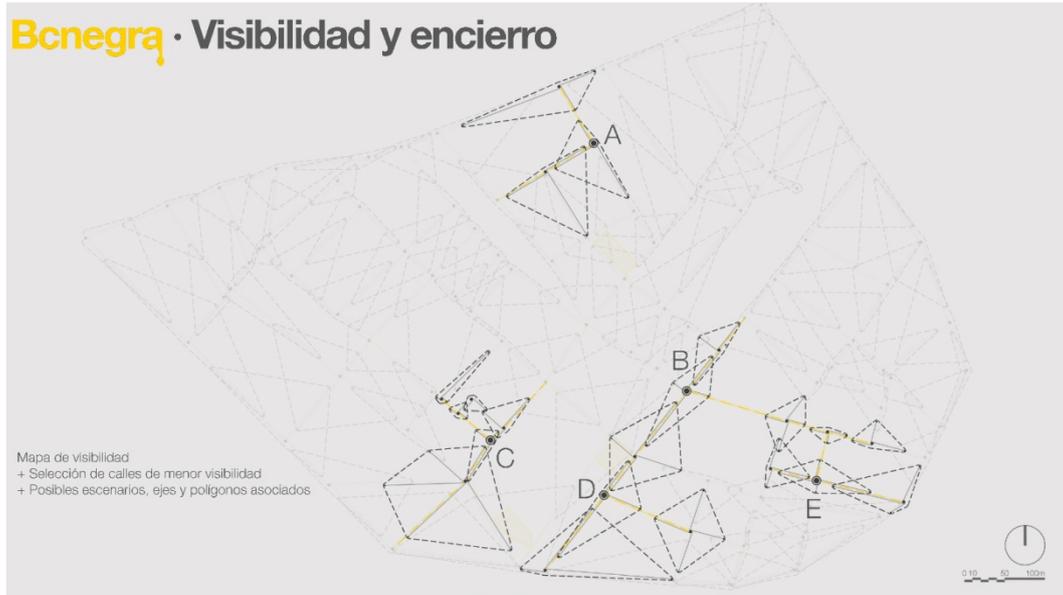+ Posibles escenarios, ejes y polígonos asociados

Figure 8 shows the advanced stages of an operative map generated to inform design decisions for an ephemeral intervention for Barcelona's crime fiction gathering, BCNegra – in this case, the search for the optimal location for an event to be held in public space, which requires both an area that provides good visibility and an exit route with reduced visibility. The map provides a re-reading of the urban reality based on the recognition of a limited series of parameters which are relevant to this specific project. The way in which a particular operative vision of the city is constructed is a design in and of itself.
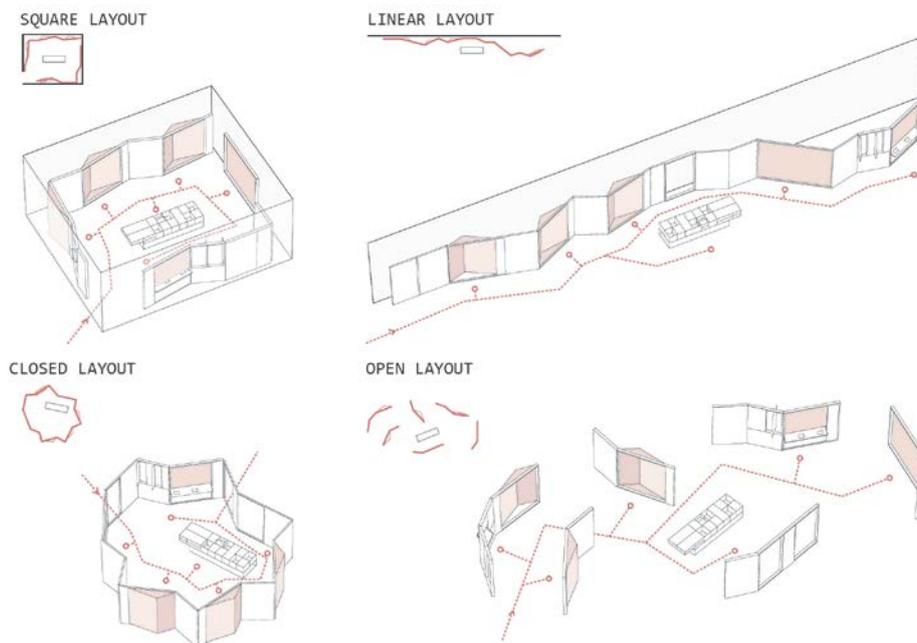

SQUARE LAYOUT

LINEAR LAYOUT

CLOSED LAYOUT

OPEN LAYOUT

Figure 9 [*miba architects, Toni Montes*] shows a prototypical approach to creating a travelling exhibition mounting system, which can be disassembled and adapted to multiple spatial configurations. The system responds to open hypotheses concerning possible spaces for installing the exhibition.