COLOUR AND PARTICIPATIVE PROCESSES IN URBAN REQUALIFICATION

Colour Studies for Social Housing in Portugal

FCT PTDC/AUR: 66476/2006

JOSÉ AGUIAR | JOÃO PERNÃO

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FATUL | Faculty of Architecture|Technical University|Lisbon|Portugal

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This presentation discusses the relevance of colour planning in urban requalification participatory processes

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•1

FA-TUL / IHRU partnership

The Faculty of Architecture (FA-TUL), was commissioned by the Institute for Housing and Urban Rehabilitation (IHRU) to develop applied research studies on colour in social housing in very critical neighbourhoods (national program: "Bairros Críticos").

The Faculty research team, that includes professors and students, worked with a multidisciplinary group of experts and other political and social actors which has contribute to the general effort of the participatory process and the rehabilitation program.
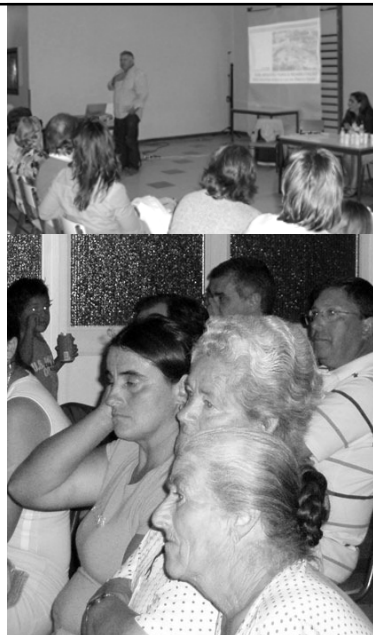
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Participatory Process

Participatory processes have always been a fertile field for the exchange of views between the architects and their clients through the possibility of direct contact.

However, the difference between academic education and the cultural environment of who does and who uses architecture turns social housing a difficult field to implement these processes.

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Participatory Process

Paradoxically this is where they most need to be developed since in these cases its very important to integrate the will of the community in crucial decisions, namely the ones concerning the creation of an urban environment that everyone can assimilate and call their own

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Colour stigma and prejudice

Unfortunately we are all aware of many examples where architects explore aesthetic solutions for these built environments, often more pictorial than architectural, that they would not dare to apply in higher status neighbourhoods.

This has caused a stigma and prejudice that can only be overcome by a true integration of the inhabitants in the whole process.

•http://i338.photobucket.com

•http://www.skyscrapercity.com

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Communication is essential

It is very important to promote focused discussion aimed at an efficient understanding of the issues at stake, of the proposals drawn up and finally in helping to make a final decision.

For this objective, we need efficient communication tools. Through simple processes, away from architectural technical drawings, we've been able to discuss and implement colour plans with consensual agreement in social housing requalification, and more important, these colour plans have helped to boost the relationship between all the participants in the projects.

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How to convey the importance of colour applied to architecture in participative sessions.

We use simple but very effective examples based on iconographic patrimonial sites like the main square of the capital (Commerce Square in Lisbon) and show how it can be transformed only by colour.

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How to convey the importance of
colour applied to architecture in
participative sessions.

Contextual harmony between buildings and natural environment.

A chromatic example of adjacent colour harmony between the colour used (
greyish blue) in square buildings and the natural elements like the sky and the
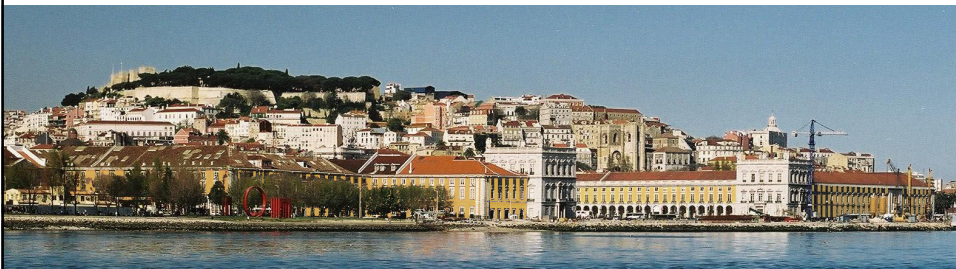water form the river Tagus.

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How to convey the importance of
colour applied to architecture in
participative sessions.

Contextual contrast between buildings and natural environment.

A chromatic example of colour contrast harmony between the colour used (
ochre yellow) in square buildings and the natural elements like the sky and the
water form the river Tagus.

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How to convey the importance of colour applied to architecture in participative sessions.

Inappropriate use of colour.

A chromatic example of how colour could contribute to destroy the image and the memory of the identity and the historical - cultural heritage of a place.

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COLOUR STUDY OBJECTIVES

We believe that a colour study could improve the quality of the inhabitant's daily life through a plan that understands and respects their specific identity, needs and expectations but also the aesthetical goals of architecture, resulting in a better sense of belonging and integration with their built environment.
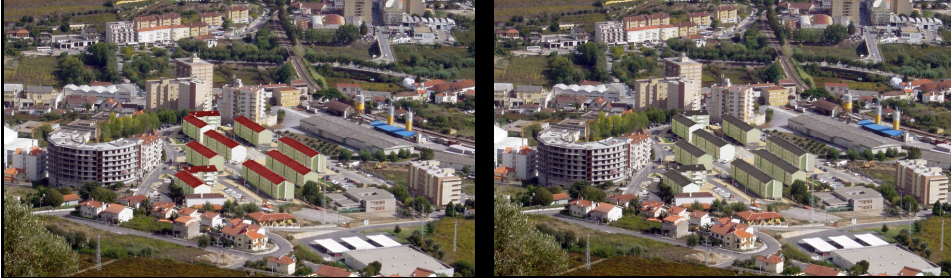

before

after

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THE SCOPE OF THE COLOUR STUDY

The colour studies developed define the colours and technical characteristics of all exterior painted surfaces of buildings as well as those in interior public areas of circulation, but we should also take in account, and even propose to substitute if necessary, all the finishing and colours of other materials and surfaces that by their importance in the final building appearance will condition its final quality and unity (e.g. roof tiles, stones, window frames, etc.).

Roof colour importance in neighborhood relation with natural and built environment

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THE SCOPE OF THE COLOUR STUDY

actual state

Disqualification of the architectural image using ETICS - external thermal insulation composite system - simulation

after intervention

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ETICS applied with recessed stripes returns morphological respect to pre-existing architecture

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METHODOLOGY: PROCESS PHASES AND SPECIFIC TOOLS

There are mainly 9 working phases in the standard process created for these projects, with little variation from one case to another:

1) Team PRESENTATION to the community where the main objectives and expectations are discussed;

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METHODOLOGY: PROCESS PHASES AND SPECIFIC TOOLS

There are mainly 9 working phases in the standard process created for these projects, with little variation from one case to another:

2) Site and environment ANALYSIS through a detailed survey of specific architectural and site plan characteristics, geo-morphology, geography of colour, etc., aiming to the overall site characterization;

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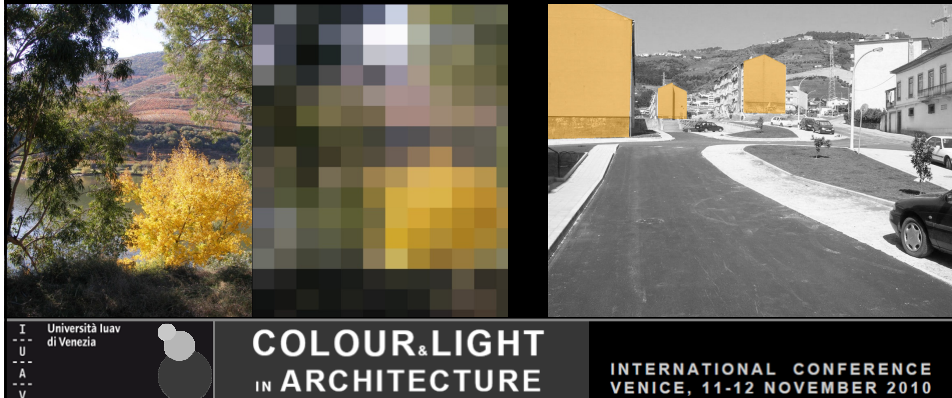
METHODOLOGY: PROCESS PHASES AND SPECIFIC TOOLS

The necessity to work and communicate the outcome of colour transformations in the environment in a way that is easily understood (seeing exactly "as it is" and "as it will be") promoted the development of a specific process of image simulation. This tool allows the visualization of the colour study impact on urban image requalification without changing the light and texture of the architectural surfaces.

In this ANALYSIS phase we took photographs from important point of views (that could be easily recognized by the inhabitants). These images constitute the digital bases for the simulations.

image of the existing situation   surface cleaning and minor architectural changes proposed   colour study virtual simulation

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•9

METHODOLOGY: PROCESS PHASES AND SPECIFIC TOOLS

There are mainly 9 working phases in the standard process created for these projects, with little variation from one case to another:

3) Debate of the initial ideas through a process of BRAINSTORMING within the research team, in order to establish the main research hypothesis;

actual state   brainstorming

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METHODOLOGY: PROCESS PHASES AND SPECIFIC TOOLS

There are mainly 9 working phases in the standard process created for these projects, with little variation from one case to another:

4) FIRST PUBLIC DISCUSSION revealing the site analyses and a vast array of possible solutions, aiming to chose a consensual solution;

1   2   3

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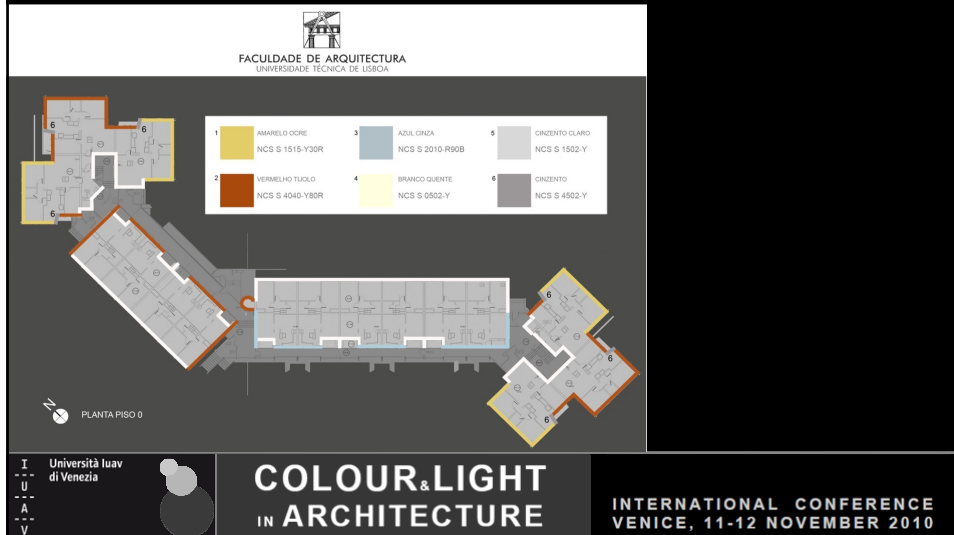
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•10

METHODOLOGY: PROCESS PHASES AND SPECIFIC TOOLS

There are mainly 9 working phases in the standard process created for these projects, with little variation from one case to another:
5) Final COLOUR PLAN DEVELOPMENT according to the results of the previous phase;

METHODOLOGY: PROCESS PHASES AND SPECIFIC TOOLS

There are mainly 9 working phases in the standard process created for these projects, with little variation from one case to another:
6) FINAL PUBLIC PRESENTATION, discussion and approval;

METHODOLOGY: PROCESS PHASES AND SPECIFIC TOOLS

There are mainly 9 working phases in the standard process created for these projects, with little variation from one case to another:

7) COLOUR PLAN COMMUNICATION to the building site;

METHODOLOGY: PROCESS PHASES AND SPECIFIC TOOLS

There are mainly 9 working phases in the standard process created for these projects, with little variation from one case to another:

7) COLOUR PLAN COMMUNICATION to the building site;

METHODOLOGY: PROCESS PHASES AND SPECIFIC TOOLS

There are mainly 9 working phases in the standard process created for these projects, with little variation from one case to another:

8) Final COLOUR TUNING on site;

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METHODOLOGY: PROCESS PHASES AND SPECIFIC TOOLS

There are mainly 9 working phases in the standard process created for these projects, with little variation from one case to another:

9) DISSEMINATION and discussion of the process and its results.

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DISCUSSION:

CASE STUDIES

BAIRRO DAS ALAGOAS

PESO DA RÉGUA

Bairro das Alagoas in Peso da Régua is located in the north of Portugal on the slopes of River Douro. This was an exemplar process concerning a close relationship between a large and multidisciplinary technical staff, in which we take part, and the resident population through plenary sessions.

IDENTITY *versus* INTEGRATION

before

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before

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BAIRRO DAS DESCOBERTAS

VALE DA AMOREIRA • MOITA

On the south bank of River Tagus, we were commissioned to study a complex and morphologically heterogeneous situation of urban decay related to the low-income residence area of the industrial city of Barreiro, in the Vale da Amoreira, Moita. Bairro das Descobertas was the first phase.

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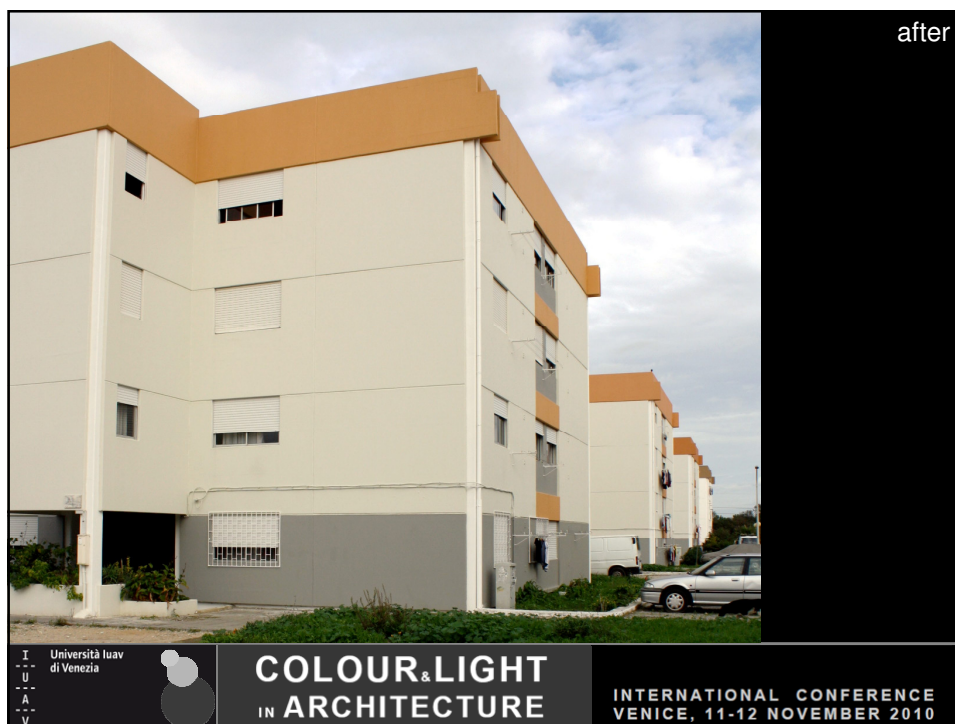INTERNATIONAL CONFERENCE
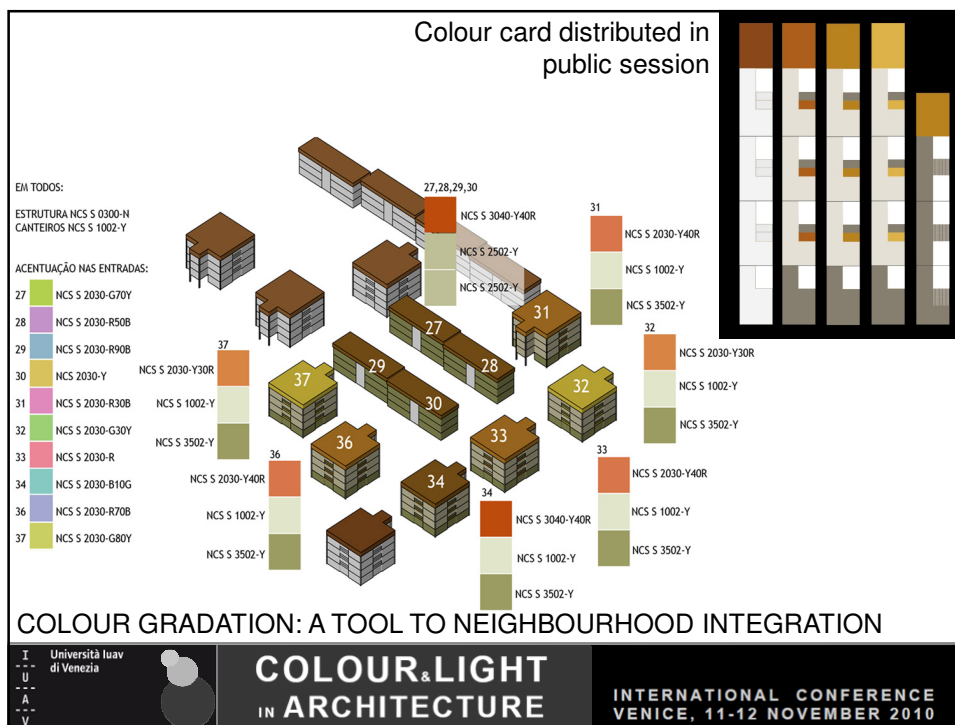VENICE, 11-12 NOVEMBER 2010

before

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after

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after

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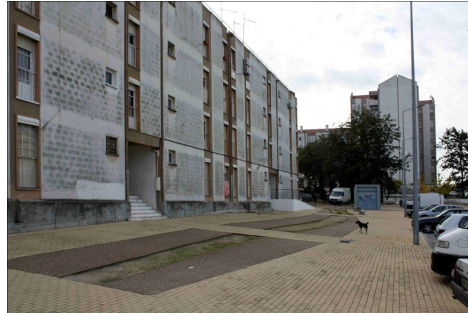VENICE, 11-12 NOVEMBER 2010

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•19

BAIRRO DO FUNDO DE FOMENTO
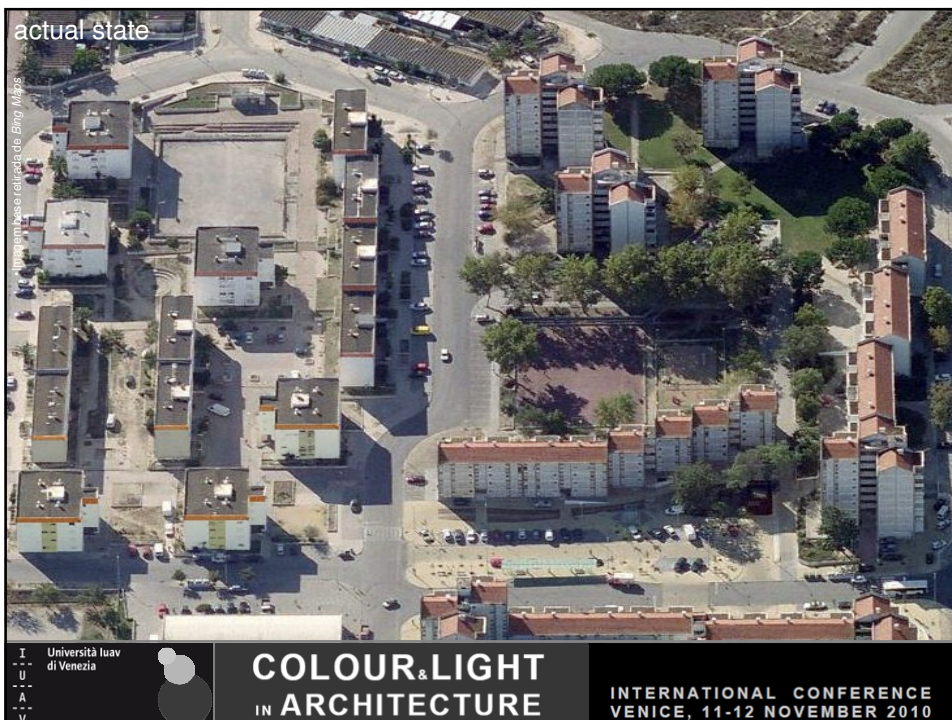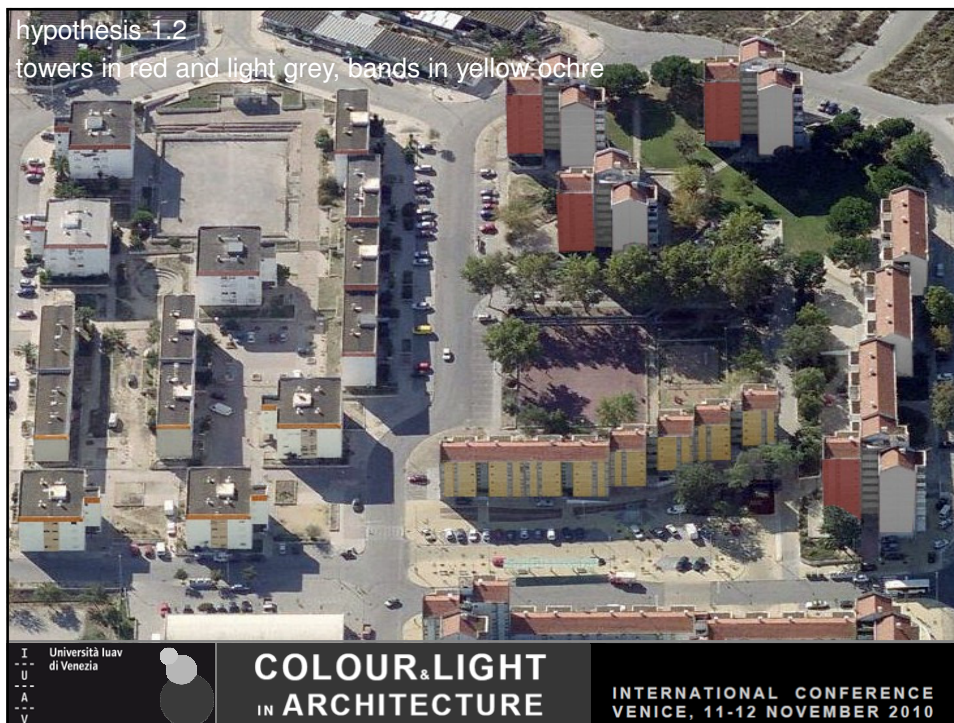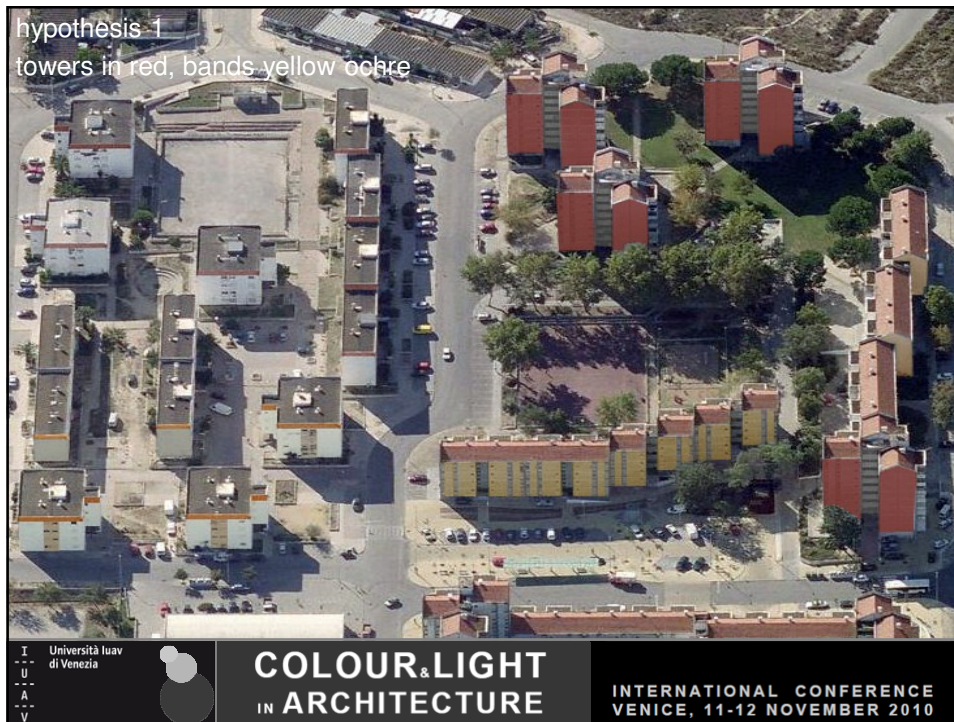
VALE DA AMOREIRA • MOITA

This was an ensemble of great unity, with all buildings designed by the same architect, where the main issue was to understand and reveal the main morphological and functional elements and deal with the dynamic relationship between vertical towers and horizontal bands.

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actual state

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•20

hypothesis 1
towers in red, bands yellow ochre

hypothesis 1.2
towers in red and light grey, bands in yellow ochre

hypothesis 2
towers in red, bands in light grey

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hypothesis 2.1
towers in red and light grey, bands in light grey
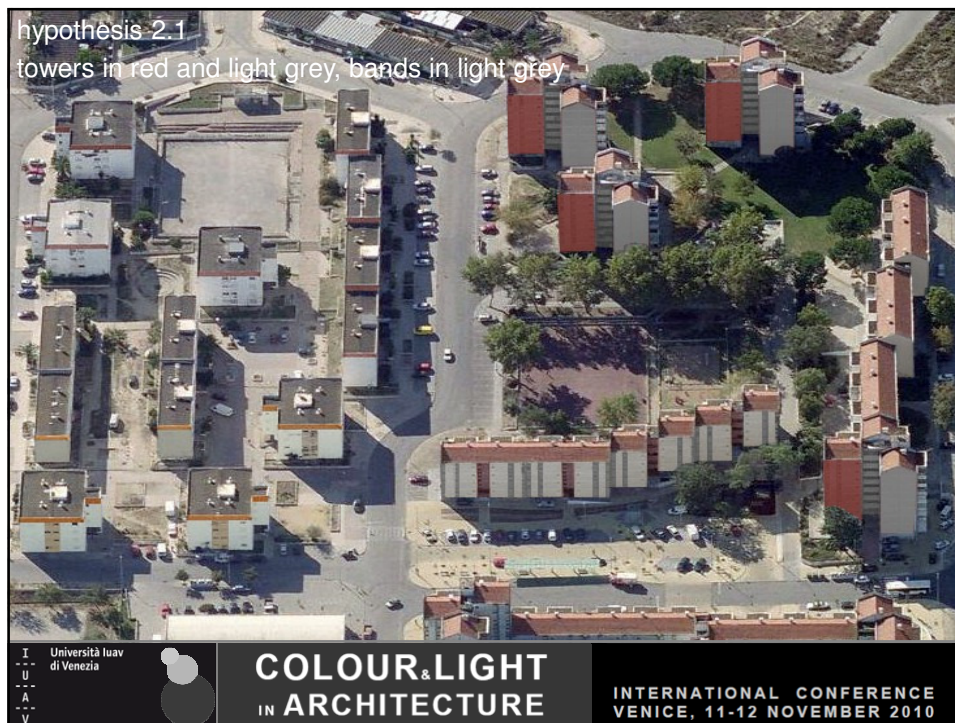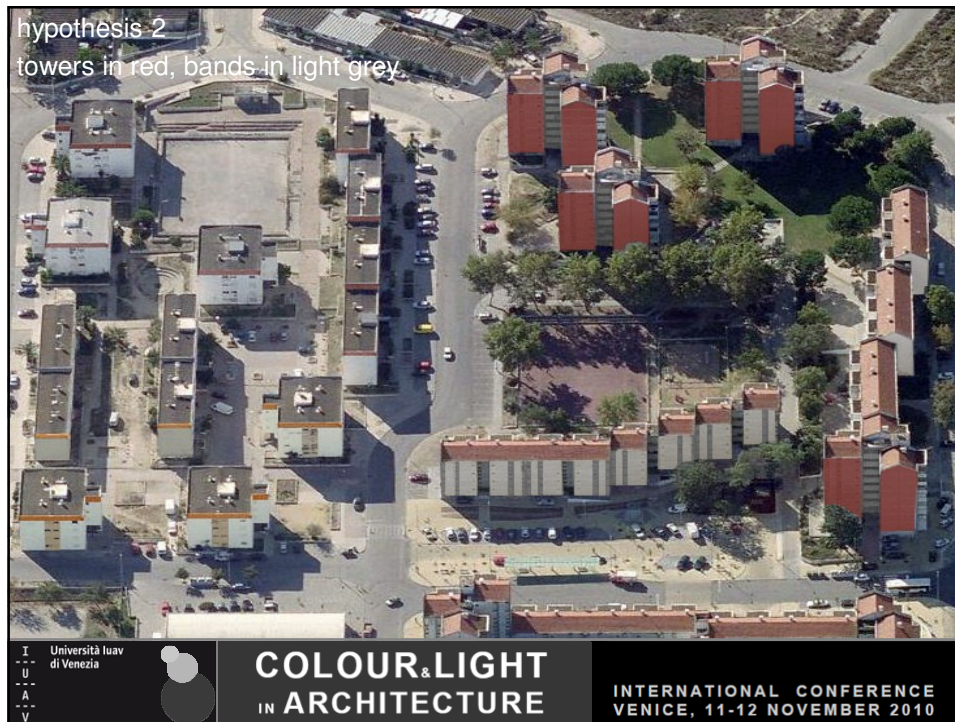
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hypothesis 3
towers in yellow ochre, bands in light grey

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hypothesis 3.1
towers in yellow ochre and light grey, bands in light grey

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hypothesis 4
towers in yellow ochre, bands in light grey.
central tower in red

actual state

hypothesis 1
towers in red, bands yellow ochre

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hypothesis 1.2
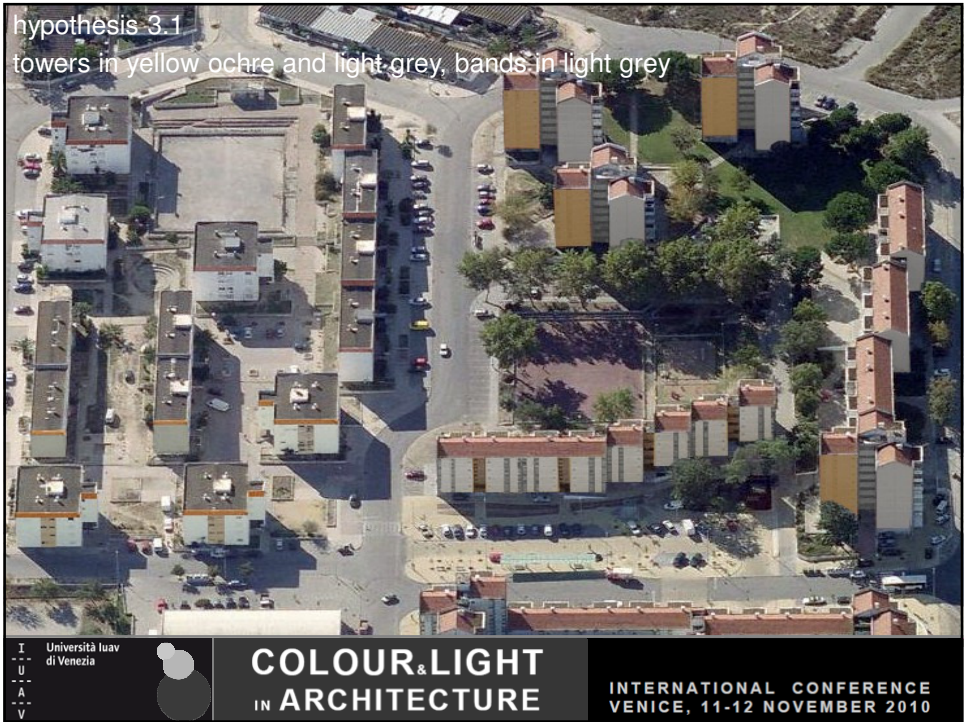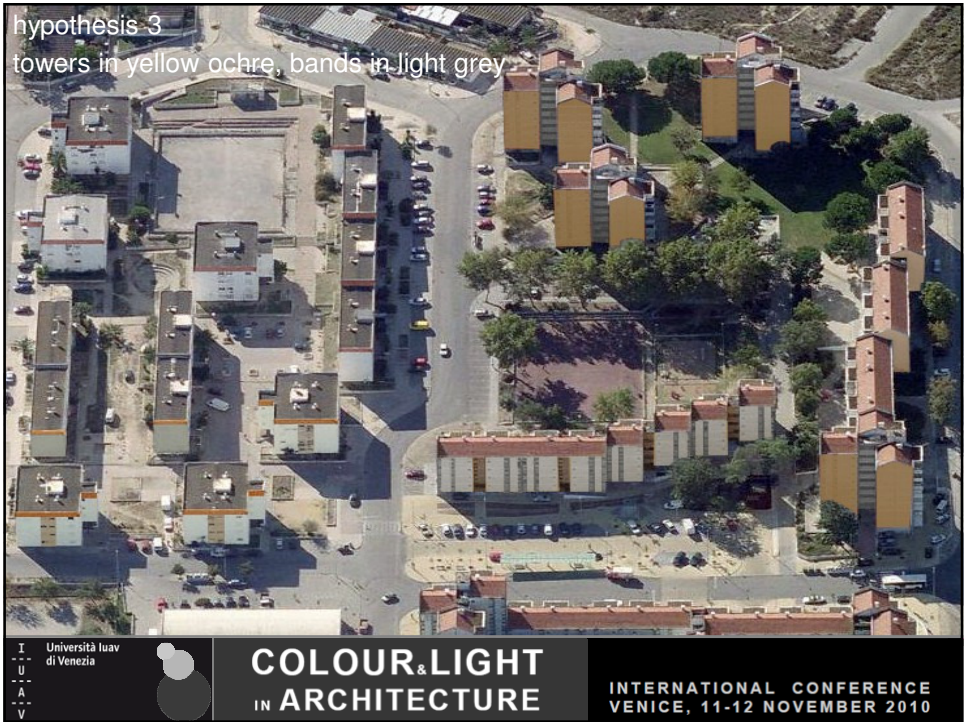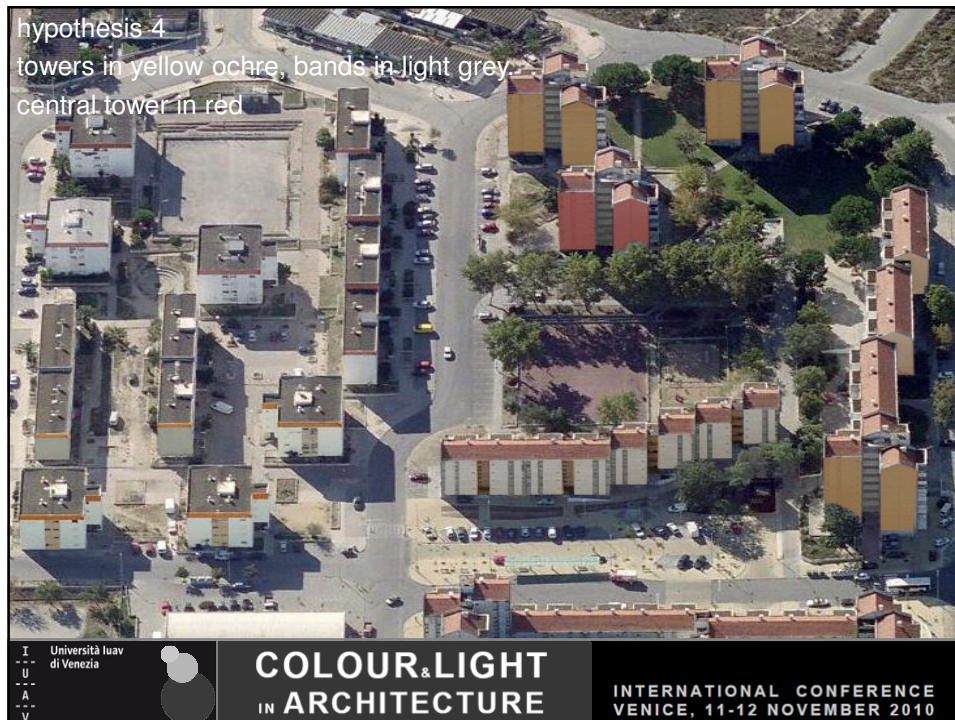towers in red and light grey, bands in yellow ochre

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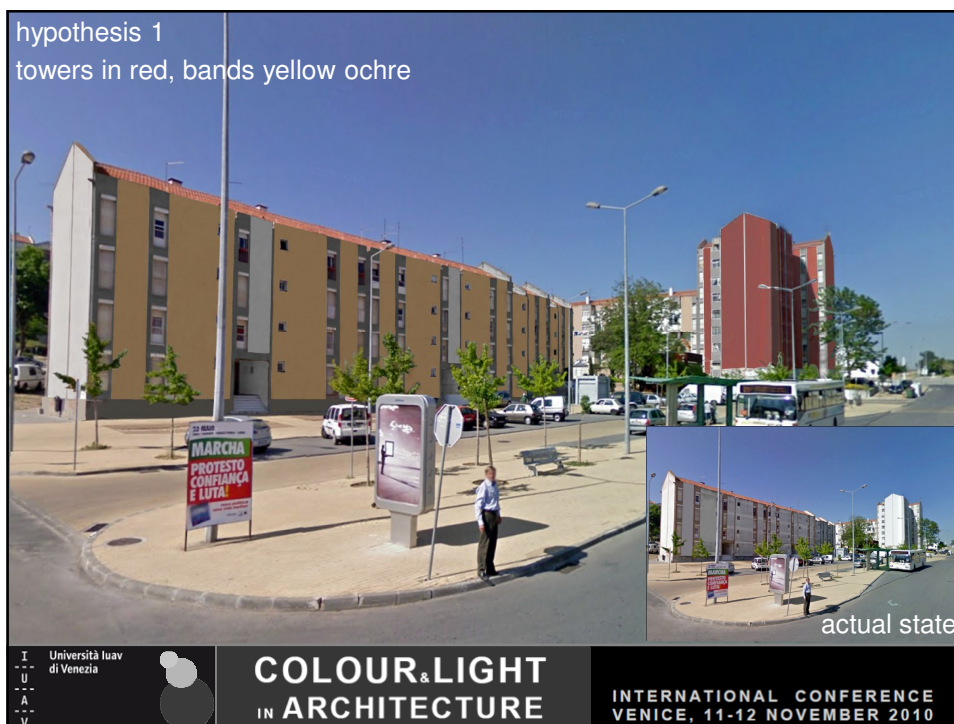
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hypothesis 2
towers in red, bands in light grey

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hypothesis 2.1
towers in red and grey, bands in light grey

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hypothesis 3
towers in yellow ochre, bands in light grey

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actual state

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hypothesis 1
towers in red, bands yellow ochre

actual state

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hypothesis 1.2
towers in red and light grey, bands in yellow ochre

actual state

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hypothesis 2
towers in red, bands in light grey

actual state

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hypothesis 2.1
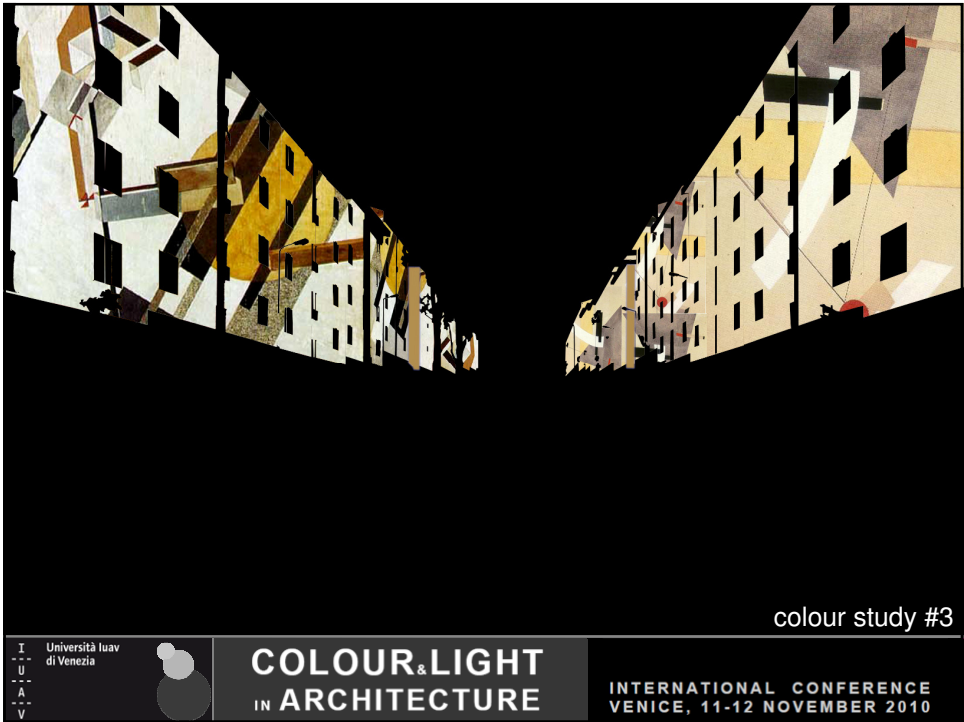towers in red and grey, bands in light grey

actual state

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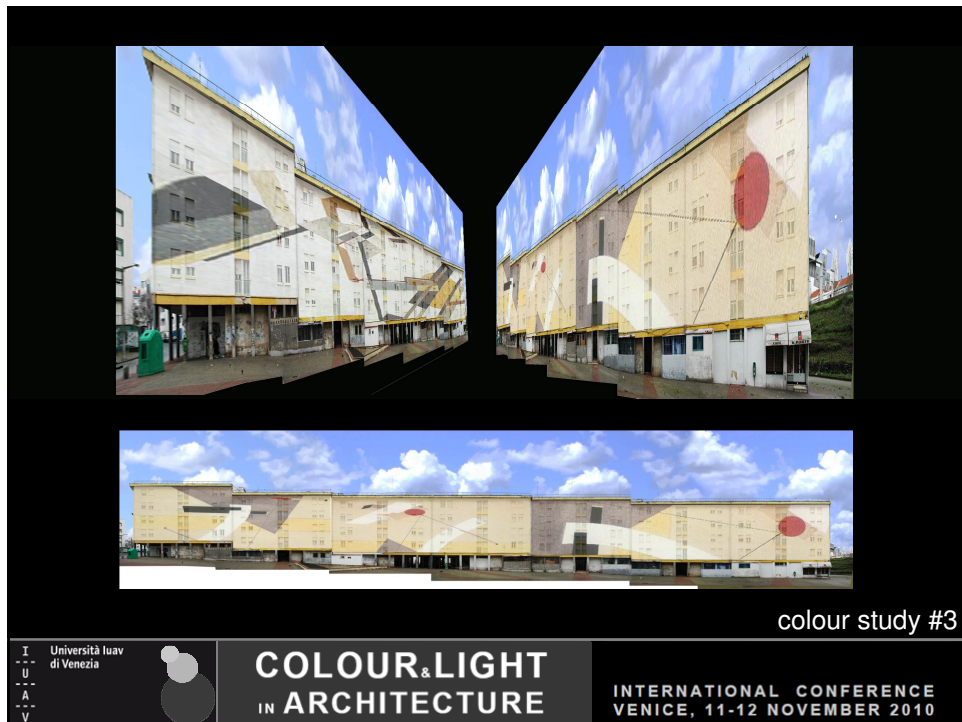
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•29

hypothesis 3
towers in yellow ochre, bands in light grey

actual state

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hypothesis 3.1
towers in yellow ochre and grey, bands in light grey

actual state

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RUA DAS MÃES D'ÁGUA

BAIRRO DO ALTO DO ZAMBUJAL • AMADORA

This was a completely different challenge: the rehabilitation of a 400-meter pedestrian street framed by two almost continuous plan facades. Our work orientation was to find a solution that could break the monotonous sequence and visual length of these facades.

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actual state

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colour study

actual state

colour study

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actual state

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•33

colour study

actual state

colour study #1

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colour study #2

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colour study #3

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colour study #3

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colour study #3

colour study #3

BAIRRO DAS AMENDOEIRAS / OLIVAL

CHELAS • LISBOA

original image from *Bing Maps (http://www.bing.com/maps/)*

Chelas is an very important district in the city of Lisbon for a generation of Portuguese architects that from the seventies and through the eighties had the opportunity to test and apply in a large scale a new relationship between the street and housing, as a reaction to the CIAM's Athens Charter.

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BAIRRO DAS AMENDOEIRAS / OLIVAL

CHELAS • LISBOA • PHASE 1

This is an ensemble with morphological unity and identity that was already been painted years ago in a way that has erased and subverted the original relationship between apparent concrete and painted surfaces.

Our colour study restored that original concept and deals with urban space as a succession of architectural events in which colour takes its place in space perception and organization.

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•38

after

before

after
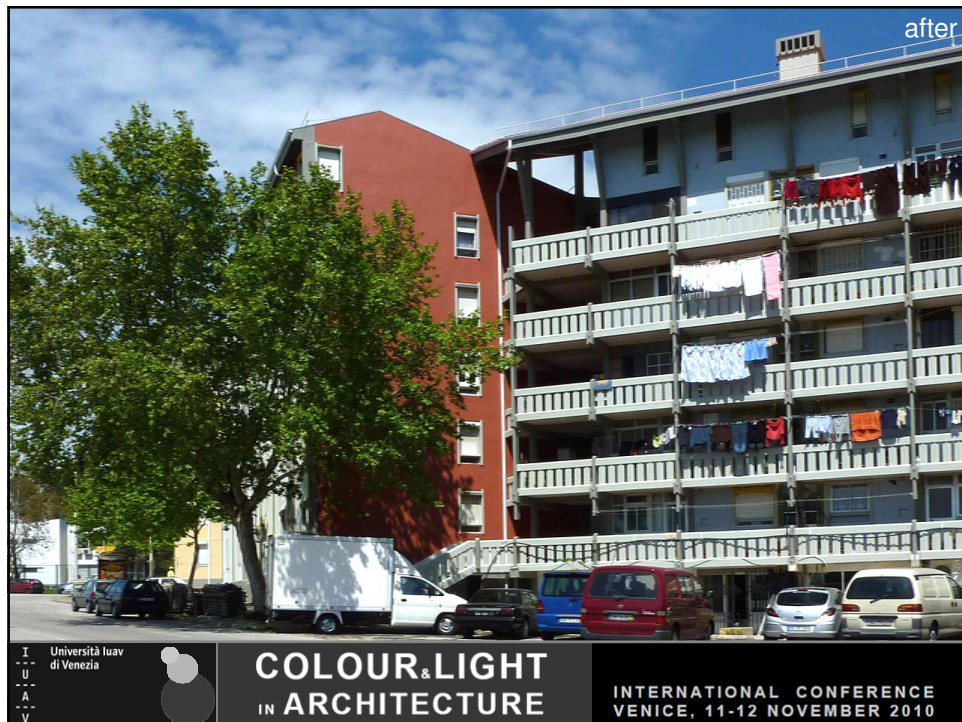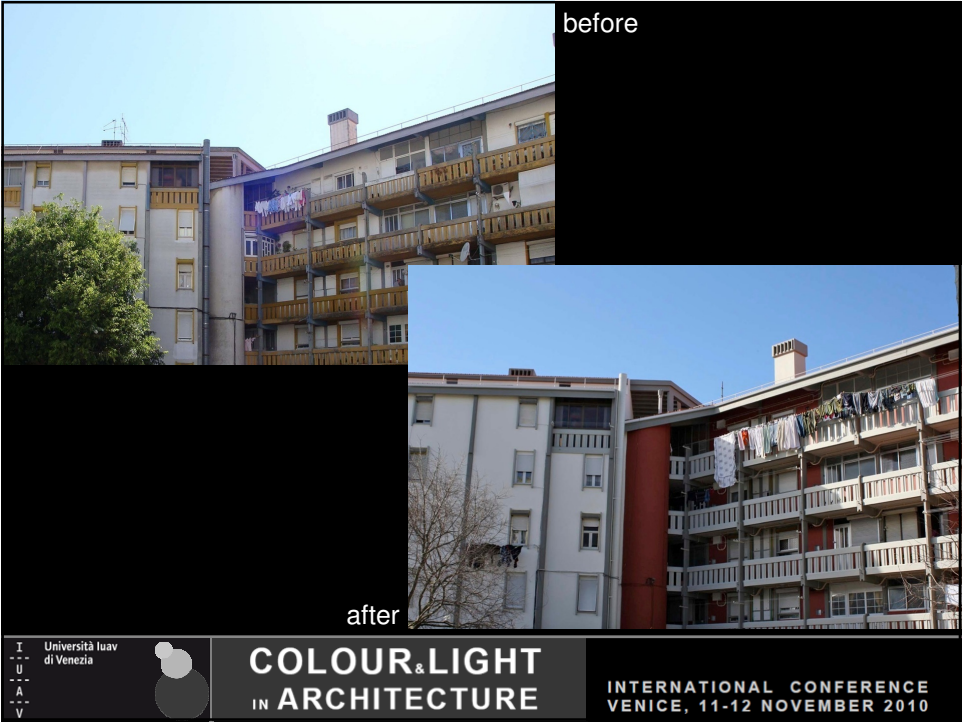
BAIRRO DAS AMENDOEIRAS / OLIVAL

CHELAS • LISBOA • PHASE 2

This phase consists in the overall colour plan for the site. Our goal for this plan is mainly the establishment of chromatic rules that help define the relationship of centrality and periphery of the neighbourhood and thus to strengthen its identity as a whole. Trough our chromatic study we will build an order that allows an easier recognition of the urban hierarchy, and spatial
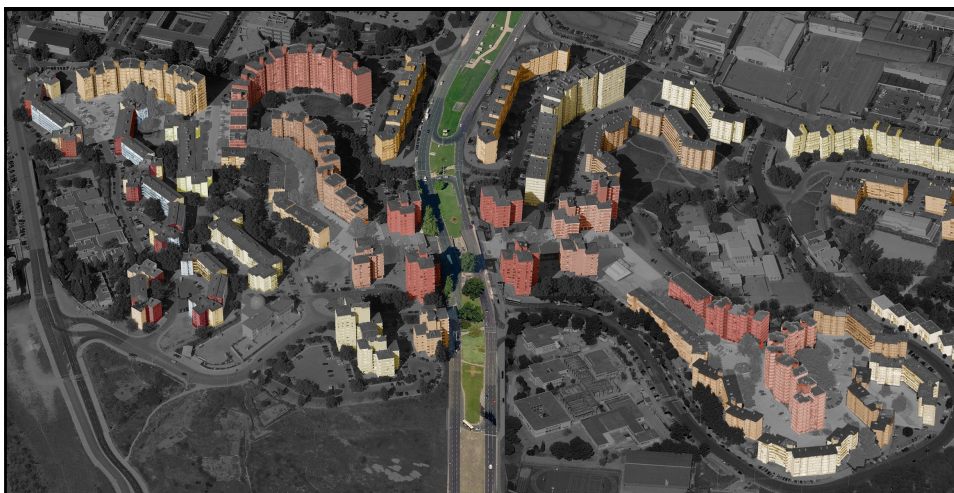
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original image from *Bing Maps (http://www.bing.com/maps/)*

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Example
actual state
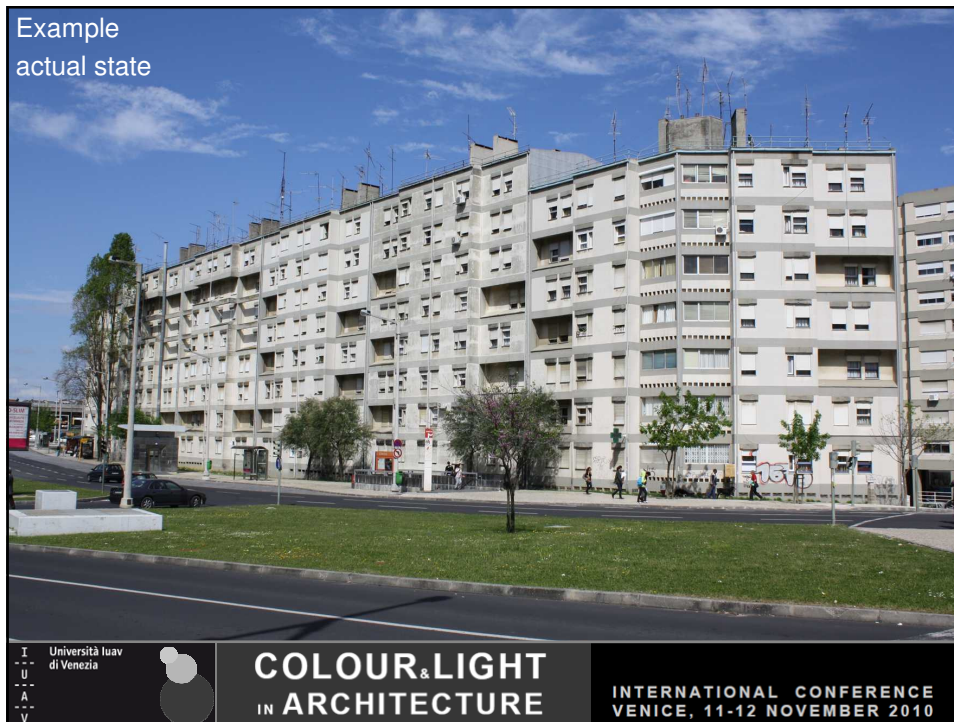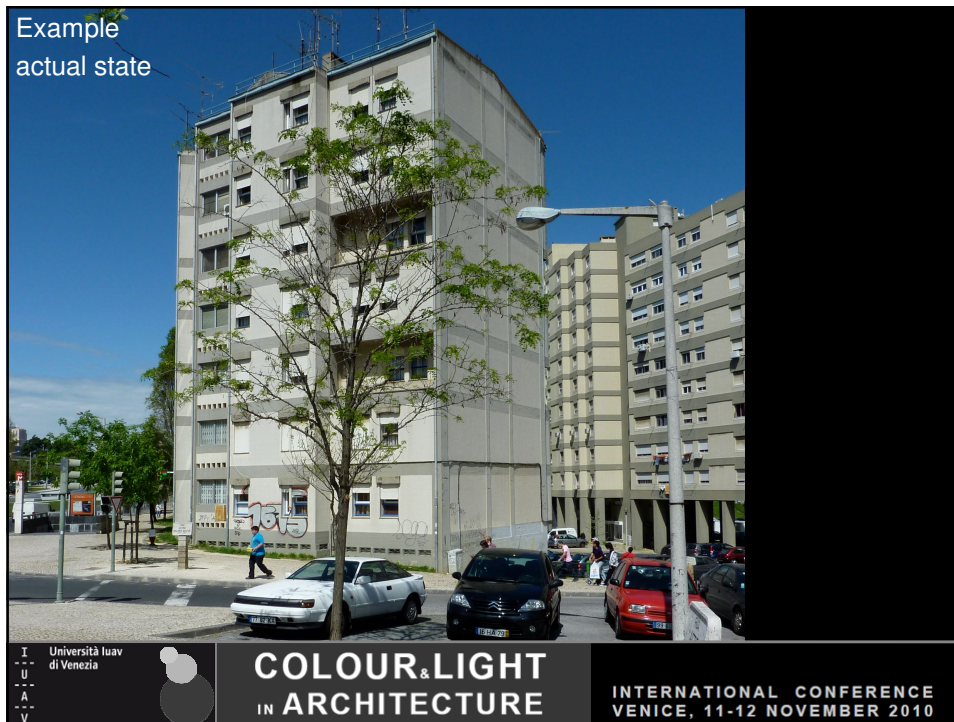

Example
colour study

Example
actual state

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Example
colour study

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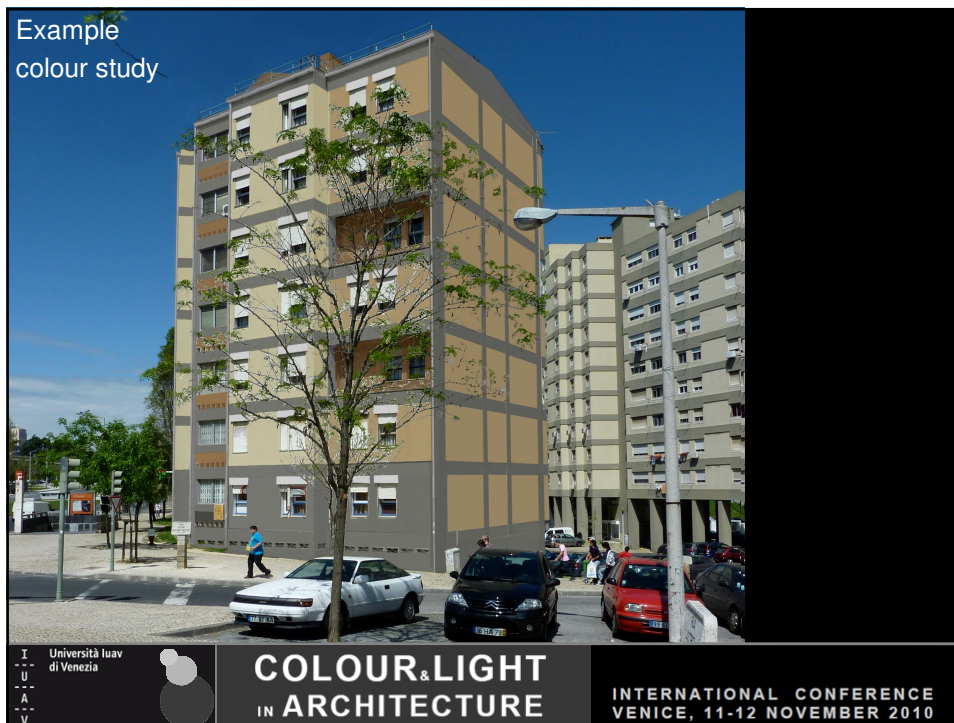
Example: actual state

Example: colour study

CONCLUSIONS

1. Colour studies inside participative processes are extraordinary effective tools to urban rehabilitation and requalification planning.
Our experience, in the case studies here discussed, allow us to conclude that colour, although not usually seen as a priority when we deal with critical housing conditions, can encourage inhabitants integration in the rehabilitation program effort through the capacity of seeing and anticipating the final result of all the process.

2. Communication tools are very important in this process. Our tools – based in low-tech approaches and freeware software – developed for direct and easy communication, have been very effective in aiming at that goal. Just by the action of consulting the inhabitants, of being able to clearly communicate the project and allowing an effective and active voice in the process, these projects have been very welcomed by the community.

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CONCLUSIONS

3. Virtual simulation of the colours needs a very sensitive and attentive eye but are quite accurate (is amazing the similarity between those simulations and real photographs after the end of the works); but the precise reproduction and communication of those studies to others is quite difficult due to the different colour perception in diverse medias and observation conditions– one needs to carefully prepare public presentations (projectors calibration), and to produce colour medias (like the printed cards we used) to support the communication.

4. Due to the complexity and interdisciplinary characteristic of the colour study we've concluded that it is important that it should be commissioned and designed at an early stage of the rehabilitation planning process so that it can be articulated with other project decisions in terms of materials and constructive solutions.

5. The relationship and communication with the contractor at the construction site is another issue to control carefully due to its importance in the final technical and aesthetical result of the work.

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CONCLUSIONS

6. Above all we like to state the exceptional social role of these participatory processes.

The opportunity of discussing the plan directly with the inhabitants was an important experience for our research team and a valuable input in the relationship between colour plan academic concepts and its disciplinary, practical and architectural applications:

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COLOUR AND PARTICIPATIVE PROCESSES IN URBAN REQUALIFICATION: Colour Studies for Social Housing in Portugal. J Aguiar; J. Pernão

*«La couleur est par excellence la partie de l'art qui détient le don magique.
Alors que le sujet, la forme, la ligne s'adressent d'abord à la pensée,
la couleur n'a aucun sens pour l'intelligence,
mais elle a tous les pouvoirs sur la sensibilité».*

Delacroix

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FATUL | Faculty of Architecture|Technical University|Lisbon|Portugal

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•46