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WHAT?

The study of accessibility and universal design to promote the suppression of architectonic barriers.

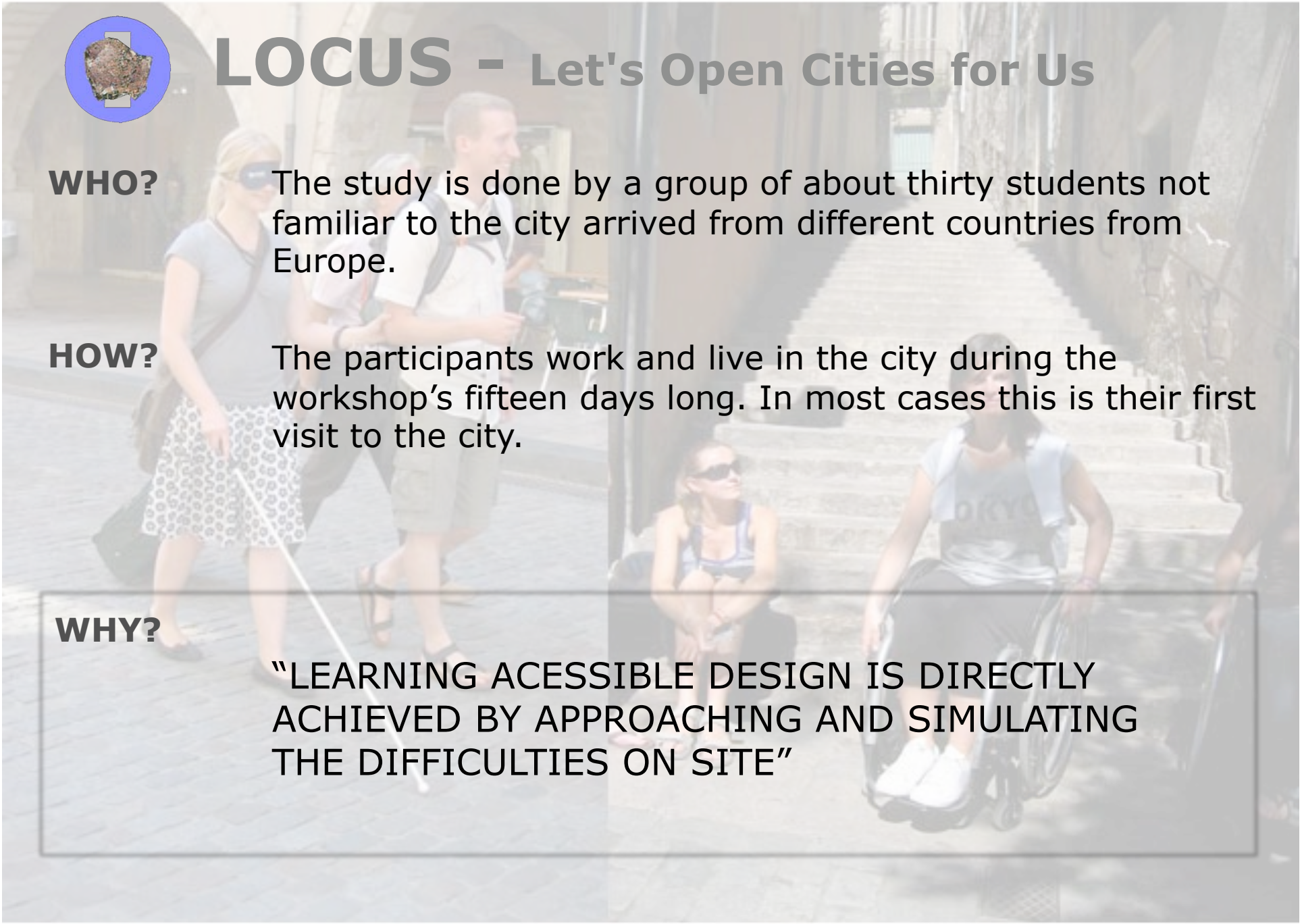
WHERE?

In urban centers with sharp and complex topography and a strong cultural and historical heritage value which restricts significantly the possibilities of intervention.

- TARRAGONA (Spain) February 2008
- GIRONA (Spain) July 2008
- **ÉVORA (Portugal) July 2009**

WHY?

"BY TRYING TO IMPROVE ACCESSIBILITY IN IMPOSSIBLE PLACES WILL HELP US TO KNOW MUCH BETTER HOW TO IMPROVE ACCESSIBILITY IN POSSIBLE PLACES"



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WHO?

The study is done by a group of about thirty students not familiar to the city arrived from different countries from Europe.

HOW?

The participants work and live in the city during the workshop's fifteen days long. In most cases this is their first visit to the city.

WHY?

"LEARNING ACESSIBLE DESIGN IS DIRECTLY ACHIEVED BY APPROACHING AND SIMULATING THE DIFFICULTIES ON SITE"

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LEGAL LIMITS?

Article 14.4, Accesibility Regulation of Catalonia:

"the design of adapted paths in existing urban centres and protected natural environments admits alternative solutions if the project is approved by the competent organism for this topic"

"IN HISTORICAL AREAS WE ARE NOT FORCED TO STRICTLY FOLLOW THE LAW"

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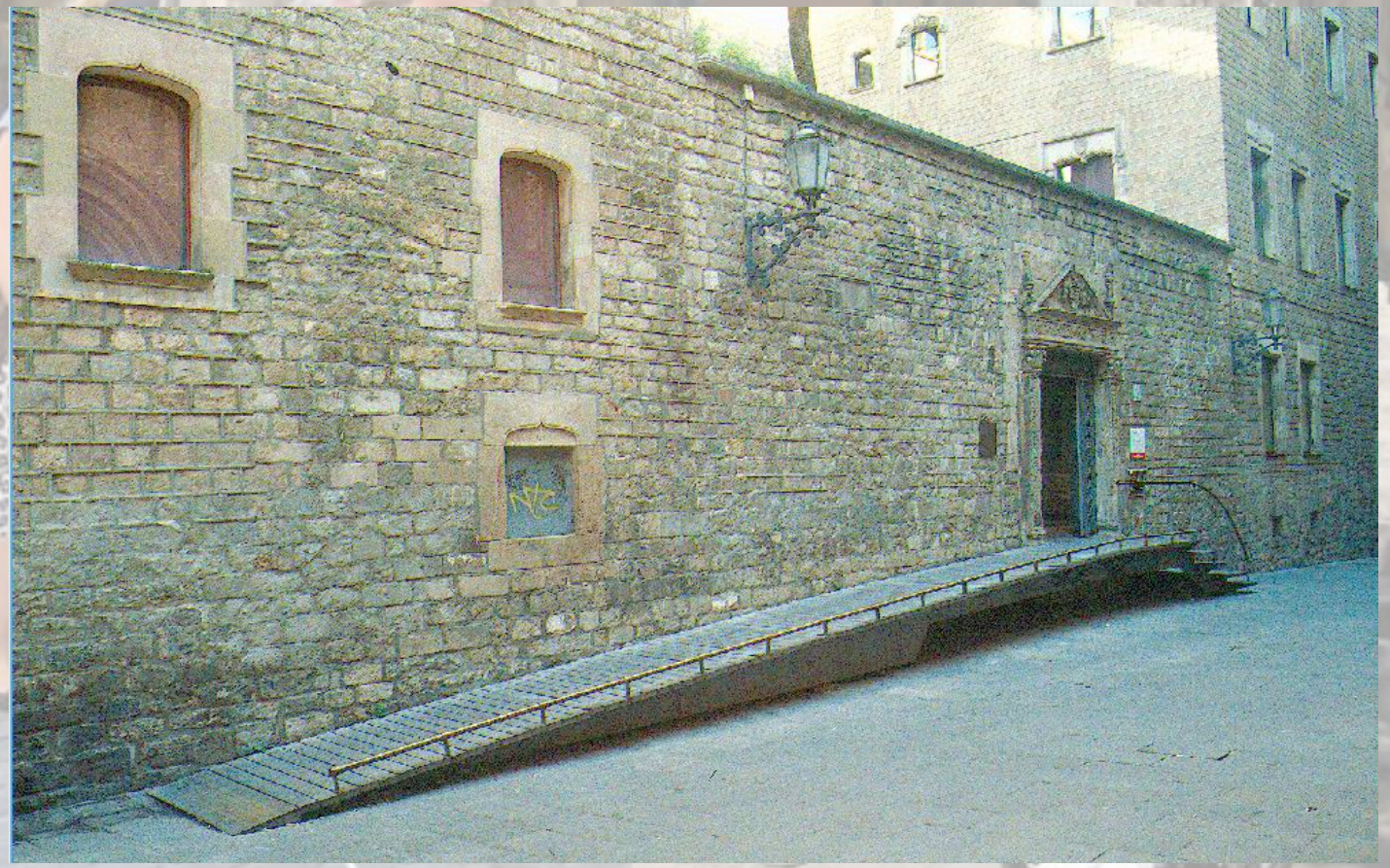

Photograph by:

Design for all FOUNDATION

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MORAL LIMITS?

"thinking the city as an ecosystem, to be able to decide what interventions can be done without altering, without unbalancing, without destroying the ecosystem"
(Ricardo Mar, Prof. Arq. URV)

"an historic building implemented with electricity and toilet services has already suffered an important intervention in its patrimony. We should have liberty for using mechanisms to solve the accessibility"
(Francesc Aragall, Design for All Foundation)

"PROMOTE UNNOTICED ACCESSIBILITY BY IMPLEMENTING PROPOSALS INTEGRATED IN THE ENVIRONMENT"

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Generally, when approaching the accessibility of a city, we can identify **three differeent scales**:

- CITY SCALE

- STREET SCALE

- DETAIL SCALE

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THE CITY SCALE:

OBJECTIVE: **To analyze** the city in order to propose new solutions for the **main routes** and identify the **strategic access points**.

STARTING POINT:

- STEEP TOPHOGRAPHY – **slows down** and makes mobility very **difficult**
- NON-ALTERABLE TOPHOGRAPHY - **severely reduces** the number of **possible solutions**.

BASIC MEASURES: A plan indicating the **accessible paths** and the **non-accessible ones**, remarking the kind of obstacle or accessible solution which define them in that way.

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Accessibility plan of Tarragona- Prof. Sandra Bestraten & Emili Hormías (UPC)

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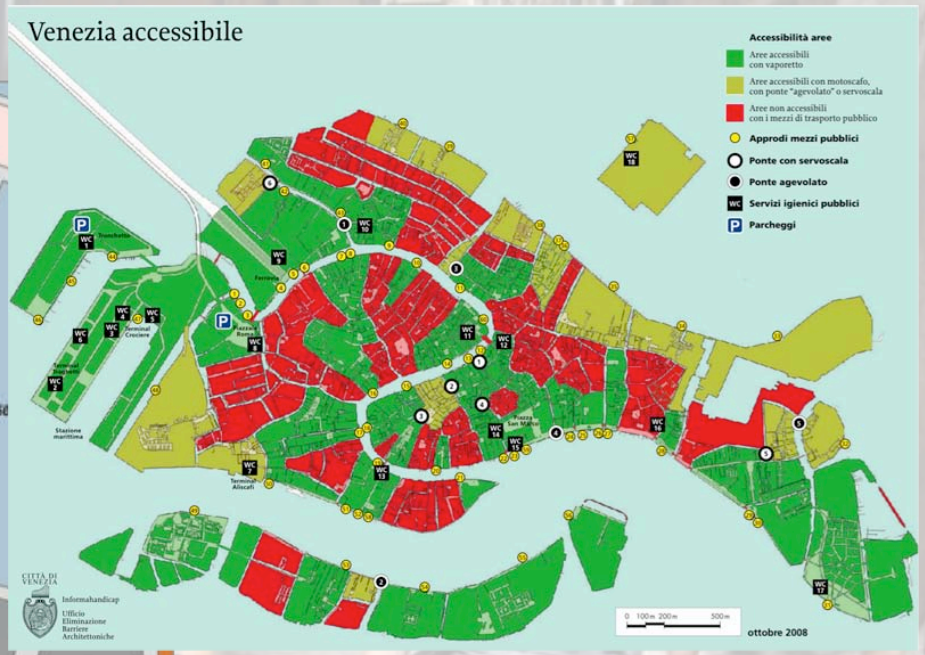

Acessibility plan VENICEMARATHON

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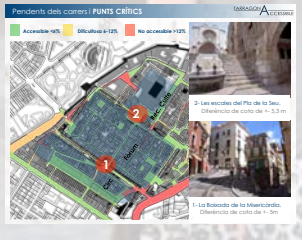
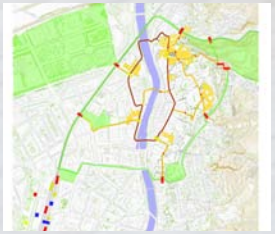
CITY SCALE:

HOW TO APPROACH:



• Study main touristic paths with important cultural and historic value in order to identify the **inaccessible areas** and the **strategic intervention points**.

• Identify **strategic access points** in the higher levels to facilitate **downhill routes**, remarkably easier for everybody.



• Provide **parking areas** and **public transport stops** in the strategic access points and in the ending points of the route to establish a permanent mobility connexion.

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Study case Tarragona: PFC – Carlos Vidal

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DESIGN FOR ALL ...

1. Path for everyone;
2. Maximizing the accessibility;
3. Connecting important nodes of the city creating closed circuit;
4. Safe interesting plesant, logical functional, clear form;
5. Two kinds of connection:
   - strong stream
   - filter
6. Activation of the north part of the city

GIRONA FOR ALL

Study case Girona GROUPWORK 2 (L. Bonasera, S. Font, M. Karakosta, K. Krzysik, O. Vasile)

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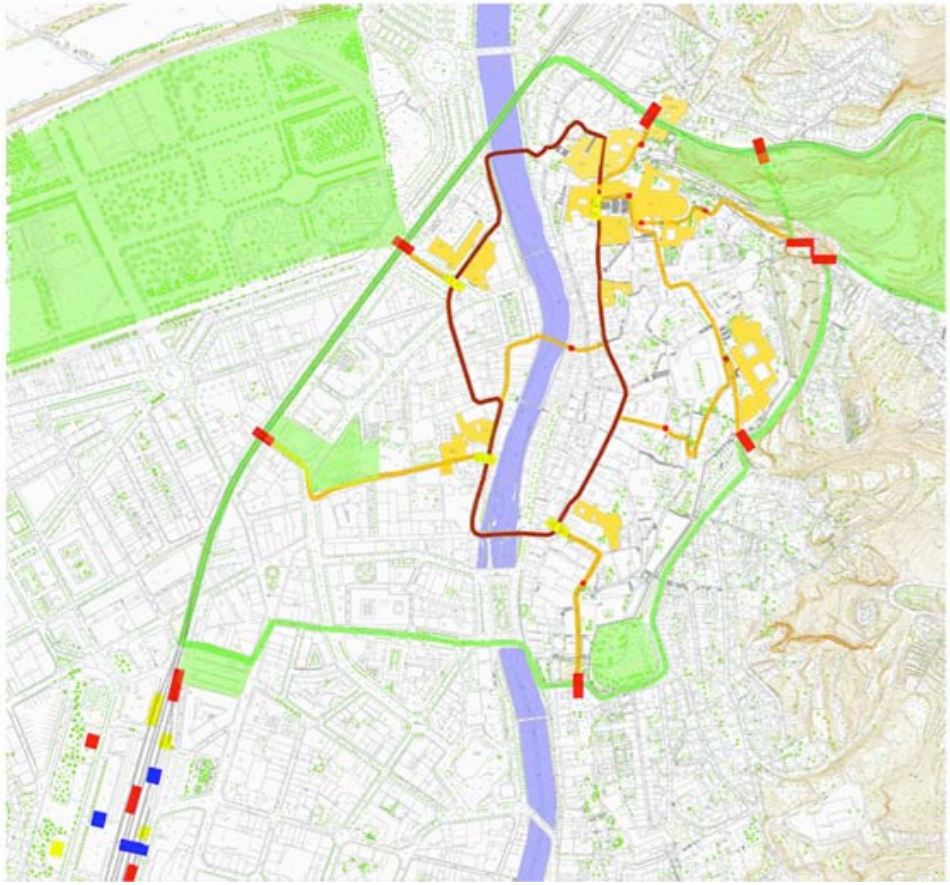

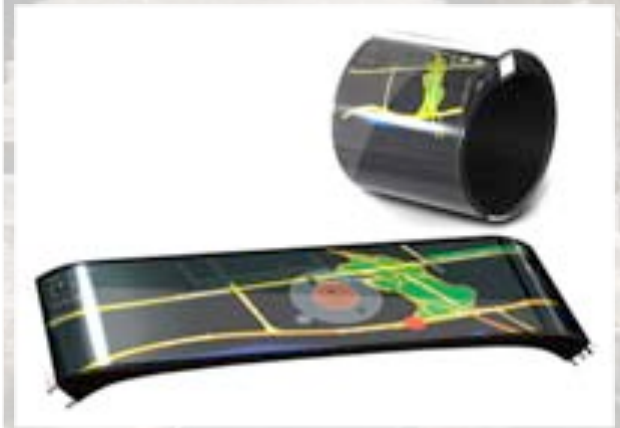

FIND YOUR WAY
CALL AN ELECTRIC CAR
HAVE INFORMATION ABOUT BUILDINGS ...

GPS SYSTEM

Study case Girona: GROUPWORK 4 (A. Stochel, M. Figliomeni, V. Roustit, P. Nordmann, A. Serrano)

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Minimetro n Perugia, by Jean Nouvel

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STREET SCALE:

OBJETIVE: Analyze **streets typology**, **pavements** and **urban furniture**.

STARTING POINT: Attempt to **reduce traffic density** in historical centers, giving priority to pedestrian circulation. Strategies of urban design, typology and location of the urban furniture will be used to guarantee the **security of all citizens.**

STREET TYPOLOGY:

- EXCLUSIVELY PEDESTRIAN STREETS
- PEDESTRIAN STREETS WITH LIMITED TRAFFIC CIRCULATION

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STREET TYPES:

EXCLUSIVELY FOR PEDESTRIANS:

• Usually there are no circulation problems, being only necessary to pay attention to the **pavement type** and it's **conservation**.

• The pavement has to be **flat, hard** and **non-slippery**. It's important to guarantee it's full and constant maintenance.

• The **suitability** of some existing pavements in **historic centers** needs to be questioned, evaluating the possibility of replacing them with more appropriate ones.

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Existing pavements in the historical centre of Tarragona

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Existing pavements in the historical centre of Tarragona

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STREET TYPES:

PEDESTRIAN STREETS WITH LIMITED TRAFFIC CIRCULATION:

- **Sidewalks at different level than the road ➔** problems of circulation's width and connection between sidewalks

- **Street width ≤ 5m ➔** raise the road's level to the same height as the sidewalks to assure a comfortable circulation for pedestrians and lower the speed of cars

- Mark out the safe area of circulation in front of the road traffic ➔ combination of different textured pavements and/ or urban furniture, both easily detectable with the hand or the stick.

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Existing pavements in the historical centre of Tarragona

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Existing street typologies in the historical centre of Tarragona

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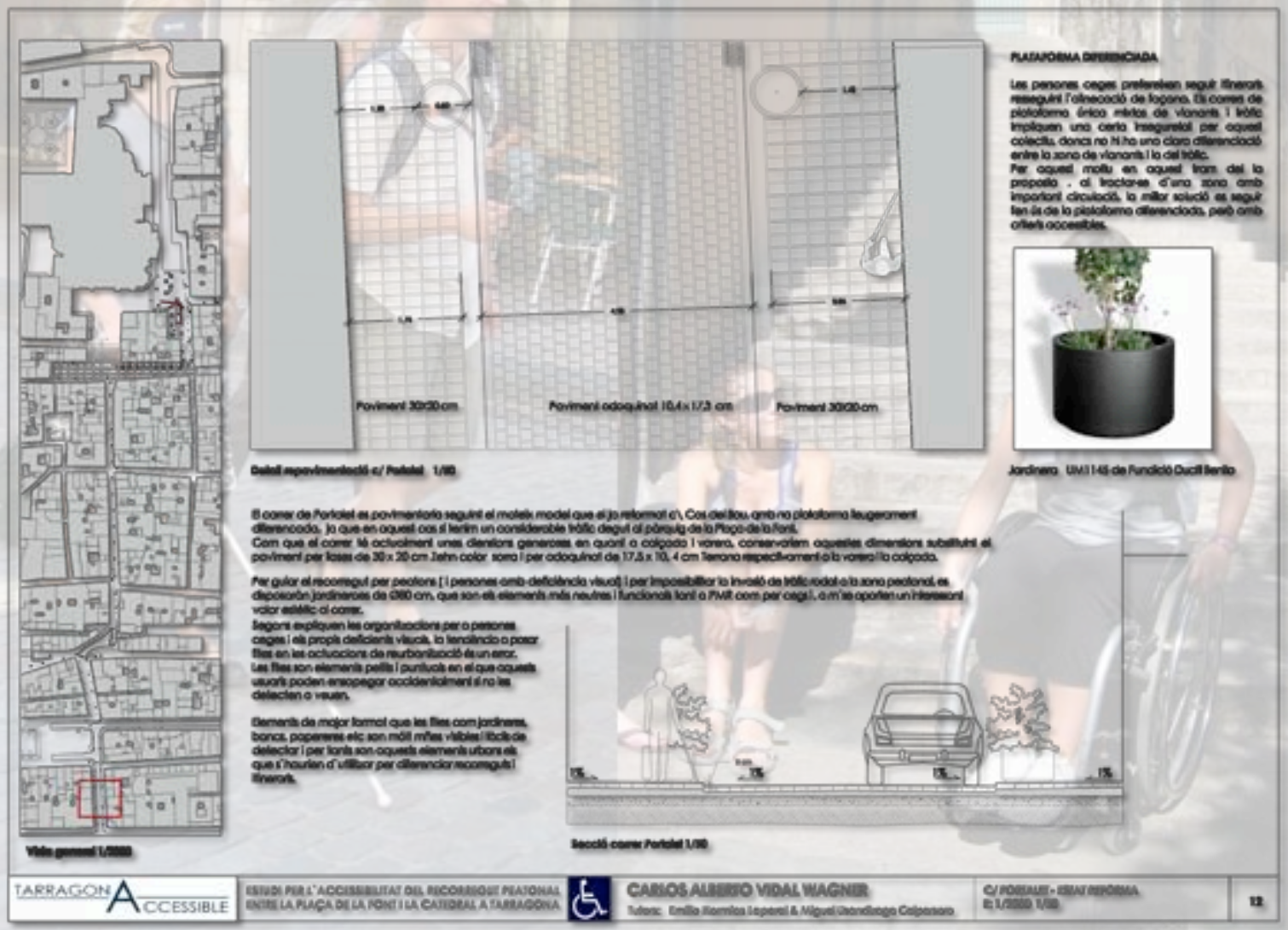

Study case of Tarragona: PFC – Carlos Vidal

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DETAIL SCALE:

OBJECTIVE: Analyze the inaccessible points that need strategic punctual interventions.

STARTING POINT: Topography exceeds the maximum allowed slopes ➔ operate strategically witch mechanical vertical circulation elements.

BASIC MEASURES: Construction of a lift using an existing building strategically located. This solution allows the maximum respect to the existing architectonic surrounding without attempting it's identity.

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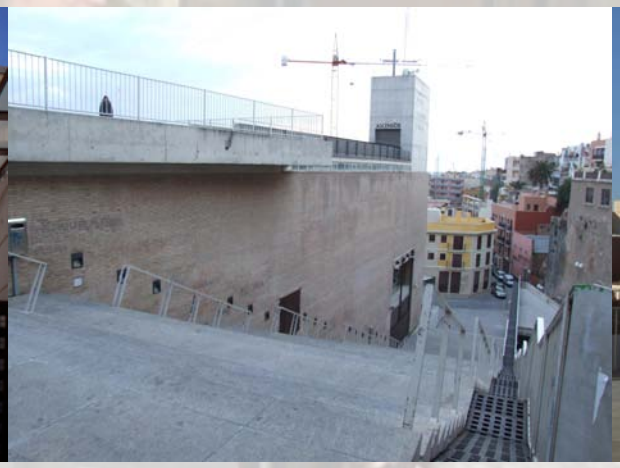

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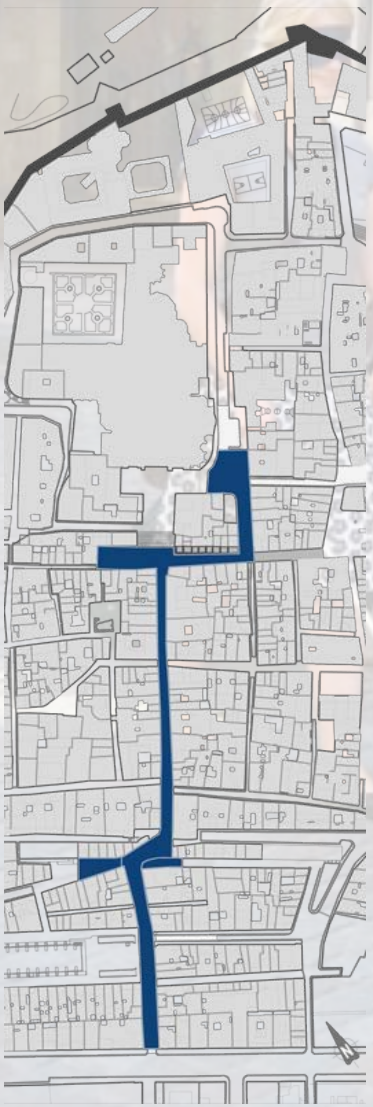

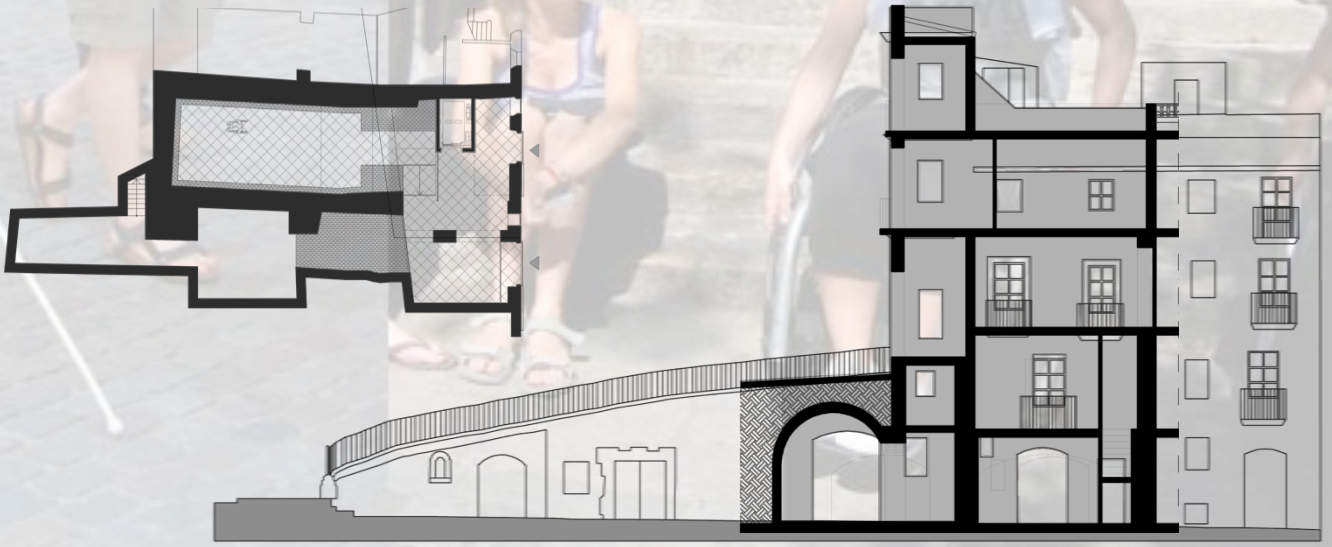

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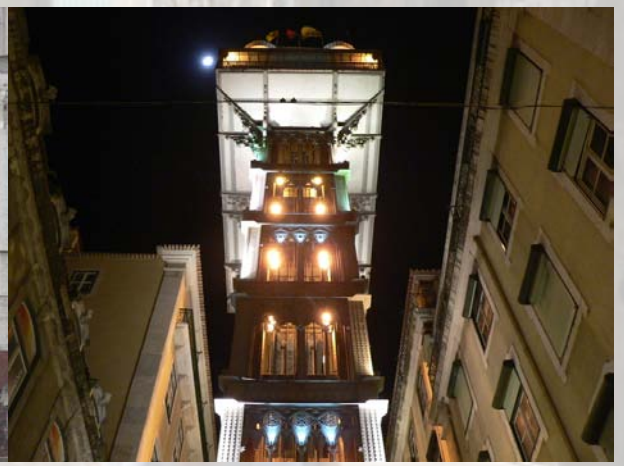

Santa Justa elevator, Lisboa, Portugal

Begoña elevator, Bilbao, España

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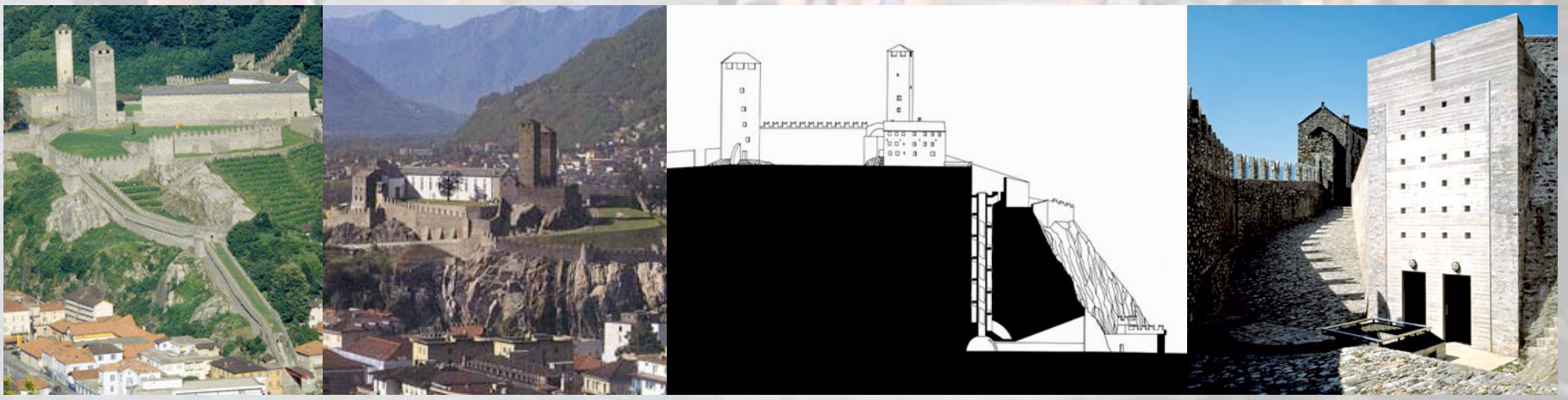
Ripoll – "Imserso Infanta Cristina awards " 2008 - I+D award in new technologies and technical aids"



Castelgrande, Bellinzona, Switzerland- Human Heritage (UNESCO-2000). By Aurelio Galfetti

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SESAME ACCESS SYSTEM EXAMPLES