Scenario based design for inclusive touristic accommodations

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Cultural context

Interior design as multi-dimensional discipline able to deal with the phenomena of contemporary society, through contamination with Humanities, by comparing and profitable application of experimental methods.

It is the act of conceptual and practical design of containers of relations. A creative act not only able to answer to functional needs, but also to social and relational needs in which also the sensory and soft qualities of the environments become an immersive experience.
Social perview

The project as “arte-fatto” responds to people’s sociological, intellectual and even political dimensions. In fact, designers invite people to behave in a certain way. Living experiences, users could affect a full recognition, satisfy new curiosity, be surprised or amused, arouse positive emotions; or, on the other hand, could live a more or less conscious sense of frustration and devaluation (Vash & Crewe, 2004), especially in people that have to face physiological or pathological situations.

...objects have their own life, [...], in the sense that they reinforce social practices exactly as social practices strengthen them.
Molotch, 2005

Design is the conscious effort to impose a meaningful order.
Papanek, 1971

This means engaging designers in new ways of thinking and developing more universally designed environments usable to the greatest extent possible by all people without the need for adaptation or specialized design.
Mace, 1997

Good design enables, bad design disables.
EIDD, 2004
Research goals

The aim of the research is to support the switch from integration to social inclusion in designing touristic accommodations.

The main goal is to provide a range of tools to do so, through design driven planning of interiors, services and products.
Methodology

- mixed
- multidisciplinar
- qualitative
- empirical
- through design

Tools

Desk research
and literature review

Grounded theory
*Denzin and Lincoln, 2005*

Best practices
*Overman and Boyd, 1994*
*Stenstrom and Laine, 2006*
*Vasely, 2011*

Case studies
*Eisenhardt, 1989*

Action Research
*Denscombe, 2010*

Tools for interpretation

- interviews
- patterns
- interpretative matrix
- extrapolation
  *Bardach, 1994; Ongaro, 2009*
Output

Concept-based scenario (toolset) for development of inclusive context-based design brief (spaces, services and products)
Research backgrounds and structure

MULTIDISCIPLINAR RESEARCH
SCIENTIFIC BACKGROUND

- Human diversity
  - Societal & cultural framework
  - International health law
  - International convention
  - Legal framework
- Design culture
- Architecture
- Design

ACCESSIBLE TOURISM
- Societal & cultural framework
- Legal framework
- Economic framework & stakeholders

THEORETICAL FRAMEWORK
DEFINITION

General research question
How to develop a systemic & experiential approach to interior design for all?

DESIGN INSIGHTS
PATTERN DEFINITION

- Literature review
  - Economics
  - Sociology
  - Cognitive Psychology
  - Ergonomics

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<tr>
<th>CS</th>
<th>PAR</th>
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- Literature review
  - Economics & Tourism Management

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INTERIORS

STRATEGIES
DEFINITION

Words and language
Inclusive environment definition
Accessible experience definition

INTERPRETIVE
MATRIX

- PwD vs for all
- Access vs experience

Research question
How design social inclusion in accommodations interior, services and products?

How the Design community could debate on universal design of the experiences offered by the accommodation?

Model and tools
Scenario toolkit definition

EXPLORATION

RESULTS
MULTIDISCIPLINAR RESEARCH

SCIENTIFIC BACKGROUND

Human diversity
- Societal & cultural framework
- International health law
- International convention
- Statal legal framework
- Design culture
  - Architecture
  - Design

Accessible Tourism
- Societal & cultural framework
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- Economic framework & stakeholders

THEORETICAL FRAMEWORK

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DESIGN INSIGHTS

PATTERN DEFINITION

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INTERIORS

EXPLORATION
Research question
How design social inclusion in accommodations interior, services and products?

Model and tools
Scenario toolset definition

INTERPRETATION

STRATEGIES
Words and language
Inclusive environment definition
Accessible experience definition

COMPETENCES
Human diversities
Background research
Accessible Tourism
Background research

INTERPRETIVE MATRIX
Interpretative directions
PwD vs for all
Access vs experience

INTERPRETATION

Design contribution
Literature review

Design focus
Literature review
Field observation

Area of interest
Research questions

Theoretical insights
Topics definition

Patterns
Extrapolation
Issues and insights

Extrapolation
Interpretative matrix

EXPLORATION

RESULTS

Interpretative directions
PwD vs for all
Access vs experience

Human diversities
Background research

10 BP

Design focus
Literature review
Field observation

4 CS

5 CS

Design contribution
Literature review

4 CS

3 PAR

Area of interest
Research questions

Theoretical insights
Topics definition

Patterns
Extrapolation
Issues and insights

Extrapolation
Interpretative matrix

Scenario tool
Literature review

Inclusive Scenario
General framework
Toolset development

Conclusions
Values
Further research
Q&A

EXPLORATION

RESULTS
Recognizing that disability is an evolving concept and that disability results from the interaction between persons with impairments and attitudinal and environmental barriers that hinders their **full and effective participation in society on an equal basis with others.**

*UN Convention, 2006*
Designing hotel for all
Theoretical framework

Universal Design
R.Mace 1997
Equitable use
Flexibility in use
Simple and intuitive use
Perceptible Information
Tolerance for error
Low physical effort
Size and space for approach and use

Wider User base Design
G. Arduini 1991
Autonomy of use
Compatibility
Adaptability and flexibility
Normal image
Ease of use
Good quality / price ratio
Safety and reliability

Design for All
Stockholm 2004
Design for All is design for human diversity, social inclusion and equality. Design for All aims to enable all people to have equal opportunities to participate in every aspect of society. To achieve this, the built environment, everyday objects, services, culture and information, everything that is designed and made by people to be used by people must be accessible, convenient for everyone in society to use and responsive to evolving human diversity.
Designing hotel for all
Accessible Tourism framework

Context Introduction
The accessible tourism market is growing, thereby sparking a need for more research from a demand focus.
Kim and Letho, 2012

Muller, 2010
Darcy and Dickson, 2009

Political strategies and laws
UNWTO, 2005
UNWTO, 2013
Italian Tourism Code, 2009
Italian technical norms

Market definition
Eurostat, 2010
Calypso Study, 2010
WHO, 2011
Istat, 2012

Defining the segment
Burnett and Baker, 2001
Kim, Stonesifer and Han, 2012
Daniels, Rodgers and Wiggins, 2004

European research
Stakeholders

Human diversities
Background research

Accessible Tourism
Background research

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Literature review

Design focus
Literature review
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Research questions

Theoretical insights
Topics definition

Extrapolation
Issues and insights

Patterns
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Extrapolation
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4 CS 3 PAR

10 BP 5 CS

Conclusions
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EXPLORATION

INTERPRETATION

RESULTS
Accessible tourism sector is the wider frame where the entire destination has to be accessible. 
*Israeli, 2002*

Availability of adequate accommodation for the overnight of PwD is the fundamental condition to embark in a journey. 
*Darcy, 2002*

If PwD cannot find suitable accommodation that meet their access needs, by necessity, they change their destination choice or do not travel. 
*Darcy, 2010*
Designing hotel for all
Accessibility in Hospitality sector

It has been noted that tourism experiences for PwD are more than access issues.

Yau, McKercher and Packer, 2004
Shelton and Tucker, 2005
Stumbo and Pegg, 2005
Disabled travellers did not regard themselves as “regular folks”.

Instead, they recognize that they differ from the mainstream population.

They do, however, expect a “regular folks” experience.

Ray and Ryder, 2000
Designing hotel for all
from integration to inclusion

...It is an ideal path not to meet the technical standards on accessibility, but rather to respond to needs and desires associated with an effective, safe, enjoyable, satisfying and independent use of environments. The aim of ensuring accessibility and usability has to faced with appropriate solutions incorporated in the design process, regardless of regulatory requirements. It is not about adapting accessibility features required by rules, but it has to create environments starting from the more “fragile” human condition. It recognizes the importance of how the solution appears, in its expressive value, its communicability.

Monzeglio, 2010
Research questions

How to overcome the regulatory approach?

How to develop a **systemic - holistic- approach** to **inclusive interior** design?

Are there design tools to develop **universal experiences**?
Research questions

#experience

<table>
<thead>
<tr>
<th>Economic Offering</th>
<th>Commodity</th>
<th>Goods</th>
<th>Services</th>
<th>Experiences</th>
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<tbody>
<tr>
<td>Economy</td>
<td>Agrarian</td>
<td>Industrial</td>
<td>Service</td>
<td>Experience</td>
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<td>Economic function</td>
<td>Extract</td>
<td>Make</td>
<td>Deliver</td>
<td>Stage</td>
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<td>Tangible</td>
<td>Intangible</td>
<td>Memorable</td>
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<td>Natural</td>
<td>Standardised</td>
<td>Customized</td>
<td>Personal</td>
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<td>Supply method</td>
<td>Stored in bulk</td>
<td>Inventaried after production</td>
<td>Delivered on demand</td>
<td>Revealed on duration</td>
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<tr>
<td>Seller</td>
<td>Trader</td>
<td>Manufacturer</td>
<td>Provider</td>
<td>Stager</td>
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<tr>
<td>Buyer</td>
<td>Market</td>
<td>User</td>
<td>Client</td>
<td>Guest</td>
</tr>
<tr>
<td>Demand’s factor</td>
<td>Characteristics</td>
<td>Features</td>
<td>Benefits</td>
<td>Sensations</td>
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Needs, such as inductors prior to consumption are rapidly giving the way to desires and these are combined with experience research.

*Fabris, 2009*
Research questions

Human diversities
Background research
Accessible Tourism
Background research
Design contribution
Literature review
Field observation

3 PAR

Literature review
Field observation

Theoretical insights
Topics definition

Patterns

Extrapolation
Issues and insights

Scenario tool
Literature review

Inclusive Scenario
General framework
Toolset development

Conclusions
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Further research
Q&A

#design for experience

Makela and Fulton Suri, 2001
WHO, 2001
Rizzo, 2009

Past
Social integration
Social context
Disability

Present
Person
Social inclusion

Future
Context
Environment

EXPLORATION
INTERPRETATION
RESULTS
Research questions
#systemic and holistic approach

**EXPLORATION**
- Human diversities
- Accessible Tourism

**INTERPRETATION**
- Design contribution
- Design focus

**RESULTS**
- Extrapolation
- General framework

**Mitchell, 1993**
**Fubini, 2009**
**ISO/IR 16982/2002**

Research questions

#systemic and holistic approach

Maslow's Hierarchy of Needs
1954

Design Hierarchy of Needs
Lidwell Holden Butler 2005

Maslow, 1954
Jordan, 1999
Lidwell et al., 2005

Users Hierarchy of Needs
Jordan 1999
Extrapolation
A model of reading

experience access

specialised

inclusive

ruled

integrated

human diversities

access issues

PwD

Cautela, 2007
Petrillo, 2016
Patterns
A model of reading

social integration vs social inclusion
accessible vs inclusive environments
access vs experience

Alexender, 1977
Petrillo, 2016

Human diversities
Accessible Tourism
Extrapolation
Pattern
Scenario tool
Inclusive Scenario
Conclusions

Design focus
Design contribution
Area of interest
Research questions
Topics definition
Extrapolation
Issues and insights

EXPLORATION
INTERPRETATION
RESULTS
Scenario-based design changes the focus of design work from defining system operations to describing how people will use a system to accomplish work tasks and other activities. *Carroll, 2002*

Scenarios anchor design discussion in the work to be supported, encouraging input and participation among all stakeholders. They serve as advance organizers to functional specifications. *Carroll, 2002*

By vividly representing work activity, scenarios can help designers stay focused on end-user’s activity and experience, and avoid confusing their preferences within those of the users. *Carroll, 2002*
Inclusive scenario
General framework

Process guided path
Goods, services, environment | Processes, systems | Management | Encounters, behaviours | Experience as result

Organisation
Goods, services, environment | Processes needed, systems | Leadership | Optimal environment to work | Optimal encounters, behaviours | Starting from experience desired

Experience guided path

Human diversities
Accessible Tourism
Design contribution
Design focus

Kotler et al., 2010
Cianfanelli, 2010
Scullica, 2008

Conclusions
Inclusive Scenario
General framework
Toolset development
Values
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Q&A
Inclusive scenario

Toolset

**Analysis**
- User analysis
  - Consumer behaviours
  - Contextual observation
  - Contextual inquiry
  - Probes
- Hospitality
  - Mission
  - Vision
  - Concept design
  - Definition of touristic offers
  - Targeting

**Engage & Mix**
- Experience Scenario
  - Customer Experience mapping
  - Personas
- System solutions
  - Design brief
  - Space/product/service
  - Design
- Check Inclusiveness
  - Check-lists

**Design**
- System solutions
  - Design brief
  - Space/product/service
  - Design

**Verify**
- Check Inclusiveness
  - Check-lists

The need is all centered on the answer; the desire on the question. - Fabris, 2009

- Consumer behaviours
- Contextual observation
- Contextual inquiry
- Probes

**Extrapolation**
- Issues and insights
- Scenario tool
- Literature review
- Interpretative matrix
- Patterns

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**Inclusive Scenario**
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**Conclusions**
- Values
- Further research
- Q&A

**Exploration**

**Interpretation**

**Results**
Inclusive scenario

Toolset

Consumers behaviours by Kotler et al., 2010

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- Background research

Accessible Tourism
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Design focus
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Inclusive Scenario
- General framework
- Toolset development

Values
- Further research
- Q&A

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RESULTS

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Hospitality
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Toolset

Corporate strategic planning scheme by Kotler et al., 2010

Human diversities
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Accessible Tourism
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Design contribution
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EXPLORATION

Corporate Level

Defining the company mission

"What business are we really in? What business should we be in?"

Setting company objectives and goals

"Where do we want to go, what are our targets?"

Designing the business portfolio

"How well are our different businesses and products doing? What shall we do about them to improve profitability?"

Business unit, product, and market level

Planning, marketing, and other functional strategies

Developing detailed plans for implementation

Inclusive Scenario
General framework
Toolset development

User analysis
- Consumer behaviours
- Contextual observation
- Contextual inquiry
- Probes

Hospitality
- Mission
- Vision
- Concept design
- Definition of touristic offers
- Targeting

ANALYSIS

EXTRACTION

Issues and insights
- 4 CS
- 3 PAR

THEORETICAL INSIGHTS

- Area of interest
- Research questions
- Topics definition

- Extrapolation
- Issues and insights

INTERPRETATION

- Patterns
- Scenario tool
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- Extrapolation
- Interpretative matrix

RESULTS

- Conclusions
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- Further research
- Q&A
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Toolset

Segmentation process of consumer markets by Kotler et al., 2010

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- Background research

Accessible Tourism
- Background research

Design contribution
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Design focus
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- Field observation

Area of interest
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Theoretical insights
- Topics definition

Extrapolation
- Issues and insights

Patterns
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Toolset
Inclusive scenario

Toolset

**ENgAGE & MIX**

- **Existing hotel?**
  - **NO**
    - Experience Scenario
      - Customer Experience mapping
      - Personas
  - **YES**

**DESIGN**

- System solutions
  - Design brief
    - space/product/service
  - Design

**VERIfY**

- Check-list
  - Check Inclusiveness

---

**EXPLORATION**

- Human diversities
  - Background research
- Accessible Tourism
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- Values
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**Frow and Payne, 2007**

**Cooper, 1999**

- Consumer behaviours
- Contextual observation

**ENGAGE & MIX**

- Customer Experience mapping
- Personas

**DESIGN**

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Research questions
Theoretical insights
Topics definition

Extrapolation
Issues and insights
Patterns
Extrapolation
Interpretative matrix

4 CS
3 PAR
10 BP
5 CS

Scenario tool
Literature review
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General framework
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Conclusions
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Q&A

Persona:
Giovanni Bianchi
Purpose:
Leisure
Social context:
with girlfriend
and 2 sons
Disability:
Wheelchair user
Environ. Context:
Night time
Winter - Raining

Touchpoints
Book
Arrive
Check in
Move
Room
Food
Amenities
Services

WHAT & HOW
Hotel vision
Concept brief

Support processes - Backstage
Employee skills

Interactions - Frontstage
Line of visibility

5 senses
sineasthetic interaction
cognitive interaction
emotional interaction
cultural interaction
physical interaction

Win points
Pain points

persona:
Purpose:
Social context:
Disability:
Environ. Context:
Giovanni Bianchi
Leisure
with girlfriend
and 2 sons
Wheelchair user
Night time
Winter - Raining
WHAT & HOW

Hotel vision

Concept brief

---

Touchpoints

- **Book**
  - Online
    - Accessible website to blind and visually impaired people
  - Direct
    - Accessible website to blind and visually impaired people

- **Arrive**
  - Get closer
    - Accessible website to blind and visually impaired people
  - Get in
    - Accessible website to blind and visually impaired people

- **Check in**
  - Welcome
    - Accessible website to blind and visually impaired people

- **Move**
  - Horizontal
    - Provide tools for wayfinding
    - Handrails in stairways
  - Vertical
    - Accessible website to blind and visually impaired people

- **Room**
  - Bedroom

---

Interactions - Frontstage

- Pain points
  - Cultural interaction
  - Emotional interaction
  - Cognitive interaction
  - Mapping and wayfinding
  - Sineasthetic interaction
  - Physical interaction
  - 5 Senses

---

Interactions - Backstage

- Support processes - Backstage
  - Employee skills

---

Line of visibility

---

Support processes - Backstage

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Pisano, 1987
Empler, 1997
Steffan, 2012

---

Personal experience components

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---

---
persona: giovanni bianchi
purpose: leisure
social context: leisure with girlfriend and 2 sons
disability: wheelchair user
environmental context: night time - winter - raining
Inclusive scenario

Toolset

ENGAGE & MIX

Existing hotel?

NO

Experience Scenario
- Customer Experience mapping
- Personas

YES

DESIGN

System solutions
- Design brief
- space/product/service
- Design

VERIFY

Check Inclusiveness
- Check-lists

EXPLORATION

Human diversities
Design contribution
Accessible Tourism
Design focus

BACKGROUND RESEARCH

Area of interest
Research questions
Theoretical insights
Topics definition

EXTRAPOLATION

Extrapolation
Issues and insights
Patterns

EXTRAPOLATION

Extrapolation
Interpretative matrix

CONCLUSIONS

Inclusive Scenario
General framework
Toolset development

Values
Further research
Q&A
Designing hotel for all

Originality and values

Provide design tools that come from other Design area or disciplines.

Could be used in other fields and not only for PwD

Flexibility of use: possibility to be used in its entirety or to use fewer tools, and in more or less extended way;

The Inclusive Scenario:
- changes the starting point of accessibility design.
- Wishes, wants and needs of PwD are in preliminary phases of design process, stating that human diversity is not an exception.
- are not used categories of PwD but user contextualised profiles.
- it is the mirror of the cognitive process that guests experience, and it is not only broughted the access issue.
Designing hotel for all
from integration to inclusion

Thank you for your questions