Landscape devices for a healthier lifestyle in metropolitan areas: the Piers project

Cristina Imbroglini
Lucina Caravaggi

DiAP - Department of Architecture and Design, Faculty of Architecture, Sapienza University of Rome, Italy
Email: cristina.imbroglini@uniroma1.it; lucina.caravaggi@uniroma1.it
web: http://w3.uniroma1.it/arco/
Overall context and objectives

Main goal
To make cities more livable and healthier by introducing adequate physical activities in citizens’ daily lives

Background assumptions
Encouraging daily physical activities cannot be accomplished only through warnings, we need spaces that truly facilitate movement and support healthy lifestyles.

That’s why we are working on landscape projects, that is to say actions able to change urban spaces, support new lifestyles and promote new behaviors at the same time.

Reasons for physical inactivity increasing in urban areas
- LACK OF TIME
- INCREASE IN THE USE OF "PASSIVE" MODES OF TRANSPORT
- SEDENTARY LIFESTYLES
- VIOLENCE AND CRIME
- HIGH-DENSITY TRAFFIC
- LOW AIR QUALITY, POLLUTION
- LACK OF PARKS, SIDEWALKS AND SPORTS/RECREATION FACILITIES

Prevalence of physical inactivity* among adults (<18) both sexes. WHO 2015
* Less than 150 minutes of moderate-intensity physical activity per week, or less than 75 minutes of vigorous-intensity physical activity per week, or equivalent
Overall context and objectives

To reverse the current trend towards inactivity, countries across the WHO European Region will need to create conditions for people to make physical activity part of their everyday lives.

provide **safe and attractive environments** to encourage physical activity in daily life

**promote active and safe methods of travelling** to and from schools and workplaces, such as walking or cycling;

**create space for recreational activity.**

**promote integrated, multisectoral and partnership-based approaches**

Across the EU, far more people get ‘informal’ physical exercise (in such forms as cycling, walking, dancing or gardening) than play organised sport

**Question:** how often do you exercise or play sport  
**Answer:** Never

**Question:** how often do you engage in a physical activity such as cycling or walking from one place to another, dancing or gardening?  
**Answer:** Never
Our specific objectives for a healthier lifestyle in metropolitan areas.... according to international goals and agreements

"the battle for a more sustainable future will be won or lost in cities"
UN-Habitat, 2012 Manifesto for Cities

**Health is a city’s most important asset.** Yet most of the 3.5 billion people living in cities – half of humanity – suffer from inadequate housing and transport, poor sanitation and waste management, and air quality failing WHO guidelines. Pollution and congestion, shifts from fresh to processed foods, and a dearth of space for walking, cycling and exercise also combine to make cities epicentres of the NCD epidemic and drivers of climate change.

WHO, 2015, HEALTH & SUSTAINABLE DEVELOPMENT GOALS PREVENTING DISEASE THROUGH ACTIONS ACROSS THE SDG SPECTRUM

---

<table>
<thead>
<tr>
<th>2010</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="#">Map showing urban population growth from 2010 to 2050</a></td>
<td></td>
</tr>
</tbody>
</table>

**Urban Population growth 2010-2050**
(Un DESA 2014)

- Greater than 75%
- 50% - 75%
- 25% - 50%
- Less than 25%

---

- **a. metropolitan accessibility**, i.e. ability to move around the city and to access to public transport and services in a sustainable, active, healthy way
- **b. good health and wellbeing**: i.e chance to live in a healthier environment, fostering daily physical movements and a proper & healthy nutrition
- **c. urban safety and inclusion**: i.e chance for everyone (children, women and elderly in particular) to use fearlessly streets, parks, and public places.
Specific issues in Rome metropolitan area

Our project is focused on the urbanized territories of Rome metropolitan area, beyond the Grande Raccordo Anulare (the ring-road highway that circles Rome).

The classical concept of suburbs is absolutely inappropriate to interpret the new metropolitan landscapes, showing completely different characters than ever before.
Specific issues in Rome metropolitan area

Different metropolitan landscapes

- Historic villages
- Low density settlements, mostly “informal”
- Medium density settlements
- Social housing
- Recent large unitary complexes
- Gated residential settlements
Specific issues in Rome metropolitan area

**Lack of accessibility**

Rome is radically changed in the last decay, it has grown both in terms of population and urbanized areas. Flows of people for work, study, access to services involve an increasingly larger territory, beyond the municipal and provincial boundaries.

At the same time the mobility system (in particular the railway network) remained the same as the last century: it does not reach all the districts, it is an inefficient and disconnected network.

Rome growth: urbanized areas and railway network 1950-2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Urbanized areas</th>
<th>Railways</th>
<th>Roads</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>14.96 Km²</td>
<td>200 km</td>
<td>600 km</td>
</tr>
<tr>
<td>1962</td>
<td>43.16 Km²</td>
<td>213 km</td>
<td>1000 km</td>
</tr>
<tr>
<td>1984</td>
<td>117.8 Km²</td>
<td>220 km</td>
<td>2000 km</td>
</tr>
<tr>
<td>2005</td>
<td>194.9 Km²</td>
<td>240 km</td>
<td>2300 km</td>
</tr>
</tbody>
</table>

Public transport average time of journey

- 18-20 minutes
- 21-43 minutes
- 44-55 minutes
- 56-68 minutes
- 69-80 minutes
Specific issues in Rome metropolitan area

**Lack of public liveable places**

In the metropolitan territories of Rome, as in other European cities, there is a lack of public spaces able to host people and activities as squares, marketplaces, gardens and avenues, proper of the historical towns in the past centuries.

Public spaces in contemporary urban settlements are often poorly designed, inaccessible nor enjoyable for all.
Specific issues in Rome metropolitan area

wide availability of green spaces

Rome metropolitan area is characterized by large portions of open spaces, unused or underutilized—many publicly owned—of high environmental and landscape value, that allow to imagine a social and ecological rehabilitation (agricultural areas, environmental hubs, green areas of archaeological and historical value)

**ROME METROPOLITAN AREA**

3155 VASCULAR PLANT SPECIES
(150 FAMILIES, 897 GENUS)

64 MAMMALIAN SPECIES
21 BATS SPECIES

**COMMON GREEN SPACES**
ABANDONED AREAS RECLAIMED BY CITIZENS AND CIVIC ORGANIZATIONS
218

**URBAN/GARDENS**
83

**POCKET/GARDENS**
28

**COMMUNITY/GARDENS**
66

**ONGOING/PROJECTS**
41

**ROME MUNICIPALITY**
ABANDONED OR UNDERUSED PUBLIC ESTATES

**RURAL ESTATES**
ASSIGNED THROUGH PUBLIC TENDER
4

**CERVELLETTA ESTATE**
14 Ha

**REDICOLI ESTATE**
30 Ha

**TOR DE CENCI ESTATE**
28 Ha

**BORGETTO SAN CARLO**
22 Ha

**RURAL ESTATES**
ABANDONED OR UNDERUSED 3

**CAVALIERI ESTATE**

**CASTEL DI GUIDO ESTATE**

**MISTICA ESTATE**
Community resilience

The most significant urban regeneration process in Rome metropolitan area, it's bottom-up. It is a process that led, in many suburbs, to the formation of viable communities, sharing and cohesive, able to support and feed public and private initiatives, showing great skills in self-organizing, information exchange and democratic participation.
Our proposal: Piers project in Rome

Metropolitan strategy:
creating a large number of connection spaces (called piers) between urban settlements and railway stations, that are also able to establish local and daily connections between residences and services without using the car.

Piers project as **multifunctional infrastructures**: new sustainable mobility connections, new green spaces, new social opportunities

---

**Connecting infrastructures**
sustainable mobility
Going without a car from home to the metro or railway station

**Green infrastructure**
Enhancing the ecological role of open spaces, let them host new life styles, new economies, new safeguard devices

**Social infrastructure**
Ensuring social inclusion, health and wellbeing, recreation opportunities; facilitating creation of job and diversification of local economy, enhancing the societal and cultural link with nature and biodiversity
Our proposal: Piers project in Rome

experimental application: Corviale suburb

Piers, co-designed with local community, are not reducible to a linear path, but a constellation of spaces and equipments able to:

− guarantee the right to move within metropolitan areas (allowing the effective enjoyment of urban life benefits);
− regenerate abandoned green spaces (improving ecological performances and resilience and enhancing urban agriculture)
− contribute to the social activation of the green for collective activities booming nowadays (urban sport practice, health and wellness promotion, environmental education, etc)
Our proposal: Piers project in Rome

Community workshop as new modality of design: open and dialogical

Local Stakeholders

SHARING KNOWLEDGE
sharing and approving, by all participants, of the context fact‐finding process, considered fundamental to have a common ground and a common language

CREATIVE DIALOGUE
An open debate with the citizens has transformed unfulfilled needs and questions in the first hypothesis to give life to the piers project

PUBLIC CALL
Stimulating initiatives; Who is a candidate to do what? Involving local communities in launching, coordinating and implementing activities generated and attracted by the piers, maintaining spaces and equipments

FEASIBILITY
Piers project developed in form of prototype to be experimented in different contexts, contains the “mandatory” reference at different levels of feasibility: Social feasibility; economic feasibility (eu Fundings), administrative feasibility

Social campaign

few steps

SHARING KNOWLEDGE

CREATIVE DIALOGUE

PUBLIC CALL

FEASIBILITY

Su Facebook

Su twitter
Our proposal: Piers project in Rome

The collective proposal: a network of multifunctional spaces and equipments

the (re)creational labs Pier, dedicated to schools, arts and crafts activities with training purposes for the younger and employability for older.

The Playgrounds Pier, dedicated to games, sports and athletes of all ages that will “colonize” underutilized public spaces

The Picnic Pier, imagined as green crown and enhancing device for the extraordinary landscapes and environments of this urban territory
Our proposal: Piers project in Rome

New spaces for health and sport practices along the daily connection path between neighbourhoods, services and urban railway stations.
Our proposal: Piers project in Rome

Corviale piers support and promote daily physical activity, autonomy (for children, young, elderly) and social inclusion.

They are simple devices: repeatable, low budget, sustainable, co-designed solutions able to affect, in a direct form, the relationship between people and spaces through the launch new behaviours and life styles.
Our proposal: Piers project in Rome

Corviale Piers are:

new green, sustainable connections between settlements and urban transport system (green infrastructures to reduce car dependence promoting walking and cycling, constellation of spaces and equipment which allow fast and secure transfers but also many activities)
Piers as Innovative ideas for more livable cities

The elements of innovation that can make the Piers project meaningful for the reactivation of underused, or poorly functioning public spaces in the contemporary metropolitan territories are:

- **simplicity of the devices**: nature based solutions, low tech, low costs, easy to replicate but able to work as an ignition device

- **direct involvement of citizens**, not only as final beneficiaries, but also as actors in choosing, developing, managing and activating the piers, aimed to **increase ecological awareness and eco–social empowerment** (healthier relationship among individuals, families, communities, and the environment supporting new outdoor lifestyle, daily exercise and sports practices, innovative collective uses of open spaces).

- **feasibility and viability** i.e ability to meet the new needs of metropolitan citizens (accessibility, wellbeing, social security and inclusion); to be perceived as **common goods** and maintained and defended by all the community.
The future of Piers project

**Piers project is an** active interpretation of EU programs, so that we are currently in the race to get the most important European funding: **HORIZON 2020**.

We passed the first selection phase and we hope to be able to implement and disseminate the project!

\begin{itemize}
  \item sustainable mobility
  \item reduction of travel time
  \item saving income
  \item health and daily physical activity
  \item Social inclusion
  \item collective management of open space and agricoltural areas
  \item Social innovation
  \item Green economies
  \item Environmental quality
  \item Safe and accessible open spaces
  \item Permanent environmental training
  \item enhancement of urban social and multifunctional agriculture activities
\end{itemize}