ABSTRACT

The aim of this paper is twofold: first, to analyse urban, conservation and tourist policies through the case study of the itinerary connecting the monumental squares of Pantheon and Trevi Fountain in Rome, and second, to investigate the human risks to which this area is subjected in relation to tourist pressure. Protecting these places – the guardians of the city’s cultural identity – means preserving not only the architectural and cultural heritage but also the urban morphology and related uses and values – in short, it means protecting that which makes a space a place. The analytical approach for monitoring tourist impact, put forward in this paper, is based on three interrelated surveys mapping changes and transformations in the case study area.

* This paper is the outcome of the institutional research project of the CNR - ICVBC - Rome on «Enhancement and sustainable fruition of cultural heritage» started in 2006 (H. Porfyriou coordinator, L. Fragasso archival research, L. Genovese monitoring and documentation, A.M. Mecchi state of conservation analysis, C. Di Rosa and V. Susanna, collaborators for the documentation).
Introduction

The enhancement and valorisation of the cultural heritage is a subject of great importance and has direct consequences on the conservation of artefacts. One of the possible consequences of valorisation is in fact the increase of fruition, which implies a greater risk of decay due to the greater numbers of visitors and their interaction with the artefacts and the environment in which they are located. The human impact or so called «human risk» is one of the less studied aspects in relation to the sustainable fruition of the cultural heritage. On this subject, as well as on the methods for mitigating the negative effects of human impact and fruition of artefacts, the CNR - Institute for the Conservation and Enhancement of the Cultural Heritage of Rome has concentrated its research activity in the last years 1. Furthermore, since 2006 special attention has been paid to the impact of mass tourism in historic centres and, more precisely, in their symbolic and representative cores.

Although Italy was the first European country to prepare a «map of risks» (Castelli 1997) for the cultural heritage and has a long experience on the subject, research on human risk is not equally advanced (Camuffo 1997; Stovel 1998; Drdàcky 2002). On the contrary, the subject has, lately, attracted interest worldwide because the processes of globalisation have significantly increased tourist flows putting many heritage sites and historic centres under stress. Not only Venice (Montanari and Muscarà 1995; Van Den Borg and Costa 2004) (Fig. 1) and other famous art-cities such as Florence or Rome have raised the alarm but also newcomers in the world’s cultural heritage market such as China (Anderson 2005; Cina 2005) (Fig. 2). A similar preoccupation is

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expressed also by UNESCO and is reflected in its recommendations for the World Heritage Sites (forty of which are located in Italy), regarding the need to prepare management plans for all sites and historic centres (Rodwell 2006; UNESCO 2006; Guido and Palombi 2008). UNESCO’s recommendations regarding the preparation of management plans became a law in Italy (law 20 February 2006, no. 77) and among the first historic centres to adopt one was Florence (Francini, Carsillo and Rizzetto 2006).

The negative impact of mass tourism on the conservation of the urban heritage and the depletion of traditional civic values in historic centres is evident and had already been noted in European and International Reports (Council of Europe 2000; ICOMOS 2002; ICCROM 2005; Drdàcky and Drdàcky 2006). However, neither guidelines nor methods for monitoring and mitigating these effects have been promoted. On the contrary, planning and conservation policies in many historic cities continue to be fragmented and short-sighted, since they seem mainly interested in the short-term economic advantages of tourism.

Fig. 1
«Venice under siege», National Geographic, August 2009.
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Fig. 2

«Hordes of tourists are threatening the survival of China’s World Heritage sites», City Weekend, 27 October - 9 November 2005.
The historic centres of many European cities (Brussels, Prague, Barcelona, Rome, Venice, etc.) are besieged by masses of tourists and are being depleted (of their traditional civic values) and degraded (growing occupation of public property, disproportionate increase of commercial activities, filth, bad smells, overcrowding). Moreover, the authorities in charge of preserving these monumental sites often authorise restoration work with dubious results. Therefore it must be stressed that protecting historic centres, that is the places which are the guardians of a country’s cultural identity, means preserving not only the architectural and cultural heritage but also the urban morphology of space and the uses and values linked to it – in short, it means protecting that which makes a space a place. The following case study of Rome will hopefully clarify some of these points.

1. Recent urban policies in Rome

1.1. The competition

On December 28 1990 the City of Rome decided (Town Council Resolution no. 9442) to announce a competition for the re-qualification of the historic centre, establishing the areas and general modalities of intervention.

No. 93 of the Official Gazzette dated 26 November 1991 published an «International competition of ideas for street furniture and re-qualification projects for the two areas comprised respectively between: Piazza Trevi - Piazza della Rotonda (Pantheon) and adjacent spaces and between Via Condotti - Via Fontanella Borghese and adjacent spaces». Article 1 of the announcement specifies that the competition’s goal is to establish «the best possible solution for the use and image of public spaces in the historic centre» in which major buildings and monuments are located, as well as commercial and tourist activities and spaces relating to residency. The municipal authorities therefore feel the need to reconcile the protection and enhancement of the city’s historic image with
an appropriate usability of the areas under examination, representing two major road axes in the most commercial part of the historic centre.

The announcement establishes two macro areas. Area A: the Trevi-Pantheon itinerary and Area B: the Via Condotti - Via Fontanella Borghese itinerary. Each of these areas is subdivided into several sectors.

In addition to a general study of the road network and street furnishings of the area of choice, each designer is required to present a detailed study of one of the 12 furnishing components (for example facade colour, seating and lights, vehicle barriers, tourist and public information signage, kiosks, litter bins, etc.). One of the aims of the competition is to attain a model solution, that is «a general project of elements of urban furniture that, though designed specifically for these areas, can also be used in adjoining streets and/or with characteristics similar to the ones examined by the competition».

The competition was concluded by the Judging Committee on 4 May 1994 and the list of winners was approved by Town Council Resolution no. 2754 on 8 August 1994. As we can deduce from the report of the Committee, headed by Italo Leone, the level of the 34 projects presented – all of which were admitted – was lower than expected. Many projects appear to be «mere exercises for a possible embellishment of the places», limiting their interventions to a re-designing of urban furniture for public spaces or to a useless multiplication of new itineraries. Only a few seem to have entered into the original spirit of the Competition of Ideas and have tackled «the historic itinerary as an instrument for project formulation». Among these in particular the project headed by architect Maria Angelini and also designed by architects Carmen Andriani, Alessandro Orlandi and Antonino Terranova, winner of the first prize (20 million lire) for Area A, while for Area B none of the projects was judged worthy of receiving a prize and the Committee limited itself to mentioning five of them.

The Committee also expressed its dissatisfaction by omitting to mention, for both areas, any of the projects for at least one of the 12 furnishing components stated in the announcement. To quote the final report: «with regard to the general results of the competition, the Committee hopes that this may be an opportunity to reflect on the need for in-depth consideration of a subject of such importance for the habit-
ability of the town’s historic centre». A hope that does not seem to have been fulfilled, also with regard to the implementation of the Angelini group’s winning project.

1.2. The implementation of the project

In report no. 2619 dated 7 December 1994, the «Ufficio Progetti Città Storica» asked the «Ufficio per il Programma di Roma Capitale» to finance the implementation of the above project. Subsequently the Presidency of the Council of Ministers in note no. 2619 dated 12 July 1994 allocated specific funds of law 396/90 for Roma Capitale, for a total of around 3 billion lire, for the project’s implementation (Fig. 3), yet it is significant that there is no longer any mention of re-qualification or urban furnishing, but simply of a «protected pedestrian itinerary for disabled persons and signalling systems».

The initial call for tenders in 1991 simply mentions in article 1 the possibility of extending pedestrianisation, but without presenting it as the intervention’s primary element.

It would seem that, when it came to finding funds and implementing the very project described by the Committee as «the one in which enhancement of place, through the rediscovery of historical and environmental values, is most in evidence» the hoped-for interventions for the re-qualification of the historic centre were reduced to the creation of protected itineraries for disabled persons.

At the same time, in addition to the elimination of architectural barriers the local authorities decided to focus on another aspect: the aim was to improve the situation underground by reclaiming the public services tunnel (already in existence along part of the Trevi-Pantheon itinerary) known as the «cunicolo intelligente». The tunnel is accessible for inspection and brings together electrical, telephone and gas conduits. Along its route there are manhole covers in the shape of modular stone elements, easy to remove. All this is emphasised by the paving design made of «sanpietrini» stones in different sizes, presenting transversal bars in travertine (in Piazza di Pietra) or basalt (in the other streets) next to the above-mentioned manhole covers.
Plan of the Trevi-Pantheon itinerary indicating the phases of realization of the «protected pedestrian itinerary for disabled persons», 12.11.1997.
The paving project was therefore aimed at putting in order the numerous technical elements concerning the tunnel and at providing a suitable solution for street intersections, resulting in a singular intertwining of bands that have little to do with the original street network. Moreover, in order to draw even greater attention to traces of the tunnel above ground, it was decided to create the reserved lane for disabled persons right above it, in smooth material.

The project presents a series of devices for the use of the itinerary by disabled persons, and in particular by the visually impaired:

• Installation of acoustic and visual traffic lights at the vehicle crossing of Via del Corso. The traffic light installation is connected to a vibrating device equipped with a button, located at around 1 metre from the ground to enable the visually impaired to perceive the vibration and therefore the signage system, should the excessive background noise of traffic interfere with the acoustic signal.

• Orientation guidance provided by electronic signal and automatic voice information through the Walk Assistant method, whose implementation is entrusted to ENEA (Town Council Resolution no. 4592 dated 24 October 1997). The Walk Assistant system (tested since 1996, not only in Rome but also in Bologna, along the route from the railway station to Giardini Margherita; in Brescia at Piazza della Loggia; in Ancona, etc.) consists in a magnetic cable placed under the paving that gives the visually impaired instructions on how to proceed in the right travelling direction through a signal that, picked up by a specially designed cane, is transformed into a vibration that can be perceived at handle level. The system also consists of electronic signalling devices and individual units (similar to a walkman) that automatically repeat specific phrases and indications for a total period of 2 hours, based on the visually impaired person’s position in the area covered by each signalling device.

• Educational and information posts in burnished metal, fixed to the ground and inclined like a bookrest (so that they can be read from a sitting position too). Information is provided through engraved writing in Italian, English and Braille and also through representations in relief of the itinerary and the piazza.
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• Tourist information point (P.I.T.) in Via Minghetti, the street parallel to Via delle Muratte, for tourist use, where brochures and «magnetic» canes for the visually impaired are available.

The project was approved on 26 July 1996, accepting the specific limitations put forward by the Fine Arts Offices (Soprintendenze: Comunale, Archeologica e dei Monumenti) in several and controversial Service Conferences. The principal problem was Piazza di Pietra, where the Fine Arts Offices did not accept any of the «project elaborations» presented. The project originally envisaged a change in the piazza’s orography consisting in a flight of steps descending in front of the Temple of Hadrian and encircling it (with at least two seats of around 45 cm placed at two different levels) as well as an inclined ramp for disabled persons leading to the lower level. Other unrealised project suggestions included the representation of the layout of the no longer existing Church of S. Stefano del Trullo: a sort of imprint outlined by stone elements on the street’s surface.

1.3. Management and outcomes

Work began on 1 July 1997 and ended in October 1998 but only with regard to lot I: Via dei Pastini, Piazza di Pietra and Via di Pietra. Lot II, that is the Via del Corso intersection and Via delle Muratte, was funded subsequently by law 651/96, the intervention plan for the 2000 Jubilee. Work started in 1998 and ended in 1999. The ENEA guide itinerary was tested in 2000.

Problems in the ordinary management of the itinerary for the visually impaired are reported as soon as 2001. Once the work was completed (31 December 1999) and the area was returned to the 1st District

2 The design solution of the Angelini-Terranova group to create a flight of steps in Piazza di Pietra in front of Hadrian’s temple seems to re-propose what Andreina Ricci (2006: 47-67) has suggested as an unconscious, yet rooted in our culture approach, to circumscribe antique monuments in «isolated» enclosures, creating privileged observation points, when dealing with the issue of integrating the ancient and the contemporary.
Urban policies and monitoring tourist impact: Trevi-Pantheon itinerary in Rome

(9 February 2000), the municipal office «Ufficio Progetti Città Storica» considered itself to have completed its tasks and transferred management aspects to others. The Tourist Board was therefore charged with managing the tourist information points and the training of operators, while maintenance of the technological itinerary was entrusted to the VII Department (Mobility Policies), making use of the services of STA (the Rome Municipality’s agency for mobility, which also manages the streetlight installations). Since 2001 the itinerary for visually impaired persons is not functioning.

Now, after ten years, what are the benefits produced by an intervention originally conceived as a «re-qualification of the historic centre», then transformed into a «protected pedestrian and tourist itinerary» and finally degraded to a mere intervention of «extraordinary road maintenance», with a guide system for the visually impaired that doesn’t even work?

The only concrete consequences as of today are the concentration of the flow of tourists along the itinerary, the invasion of vehicles (of which residents frequently complain) and the occupation of public property by commercial businesses, not always in keeping with the indications of the municipal authorities.

In fact, as theory suggests, interventions of enhancement may sometimes have negative outcomes instead of the expected positive one. This was the case with the re-qualification project for the Trevi-Pantheon itinerary, completed on time for the 2000 Jubilee. Since then, in the last 10 years, tourist numbers in Rome have grown at an exponential rate. It has been calculated (on the basis of hotel presences) that more than 30 million people per year visit Rome (Berdini 2008), which means that on a daily basis there are 100,000 tourists in the historic centre. The Pantheon square and Trevi fountain are probably, along with the Coliseum and the Vatican area, the city’s major attractions. Connecting Trevi to Pantheon with a pedestrian street (initially specially designed for the visually impaired) implied creating a privileged itinerary especially attractive to tourist groups and flows, who in fact immediately adopted it as the only real direct connection between these two monumental urban spots of the city. It is amazing that nobody in the municipality’s offices seems to have thought of this or considered
monitoring its effects, which have been devastating for the area, as shown by our monitoring of the area.

Furthermore, the «re-qualification» approach introduced for Trevi-Pantheon (new pavements and pedestrianisation of streets) became part of an operation on a greater scale of the «Ufficio Progetti Città Storica» regarding the so called «Tridente» area of the historic centre of Rome, which comprises the baroque core of the city (Fig. 4). It aimed at three major goals: to introduce more pedestrian streets; to renew old paving, both street pavements and sidewalks; and to improve infrastructural services, such as electricity, gas, telephone etc. The direct beneficiaries of these interventions should have been, according to the municipality’s aims and declarations, the citizens of Rome, whose life should have been improved by less cars (due to more pedestrian streets), cleaner air, better streets and infrastructures. These conditions should also have had a positive effect on the conservation of this monumental part of the city (Ufficio per la Città Storica 2002).

Fig. 4
Map showing the interventions of the municipality in the «Tridente» area of Rome.
2. Monitoring human risk and tourist impact

Monitoring the consequences of this type of municipal intervention, or more specifically the impact of mass tourism, became the goal of our research. The question we posed was: what are the effects of this increased tourist flow on quality of life, monument conservation and urban morphology? In other words, what risks do increased tourist flows pose for the historic urban context? And which are the specific consequences of this type of municipal intervention?

Our first aim was to monitor transformations along the itinerary related to increased tourist presence. Our second aim was to evaluate the effects of increased tourist flow on the material and historical connotations of the monuments. Our third aim, which is still in progress, was to develop techniques for the mitigation and control of tourist impact and risks, with the final aim of developing recommendations for a sustainable fruition.

In other words the aim was to study the impact of mass tourism on historic centres. That is, on their conservation in physical and functional terms as well as with regard to their inherent intangible values (Stovel 2007; Zancheti, Hidaka, Ribeiro and Aguiar 2009).

Although various research projects have singled out the necessity for monitoring the impact of tourism in historic centres, no method for doing so is available as yet (Daniel and Ashley 2002; Drdàcky and Drdàcky 2006; PICTURE 6FP project). Therefore we had to elaborate our own methodology for monitoring the Pantheon – Trevi itinerary (Fig. 5). We did so by using two complementary approaches: one static, the other dynamic (see the paper of Marichela Sepe in this publication). I will briefly present only the static analysis and its results. It consisted of three interrelated surveys mapping changes and transformations with respect to: the uses and functions of buildings along the itinerary; the state of conservation of their facades and the urban quality of the places.

The surveys were based on a systematic collection of data along the itinerary in relation to three major aspects: uses and functions of the buildings, the occupation of public space, the state of conservation of the facades. This data was collected for each building along the itinerary in
two expressly created forms. The first one (Figg. 6 and 10) documented the uses and occupation of public space directly related to the building’s pertinence. The second one (Figg. 7 and 11) documented the state of conservation of the building’s street façade, particularly in relation to the various changes of uses undergone by ground floors. This documentation was then collected in 2008-2009 and used to create four thematic maps representing: i) uses and functions to which all buildings along the itinerary are destined; ii) occupation of public space, both legally and illegally along the street; iii) interrelation between different uses and occupation of public space (Figg. 8 and 10); iv) state of conservation of the facades of the buildings along the itinerary (Figg. 9 and 11).

The next step was to confront and analyse these maps in relation to the original situation of the area, before the re-qualification intervention by the municipality was carried out, deduced from photographs of the area and other relevant documentation (regarding commercial licences, or restoration interventions) collected from the relative municipal offices.

The outcome of this comparison showed that:
1. Commercial activities, especially restaurants, bars, pizza and ice cream shops, had increased enormously in number (almost ten times as much), often taking the place of previous commercial activities related to residential needs, such as shops selling fruit and vegetables, bakeries etc. and other neighbourhood services. Most commercial activities have become souvenir shops which do not sell local products any more, but instead the products of a global market, often «made in China»!
2. Furthermore, commercial activities related to restaurants, bars, gift shops, souvenirs etc., had gradually increased their occupation of public space (both in legal and illegal terms) with tables, umbrellas, stands, benches, litter bins, fences, flower vases, etc. The increased presence of tourists also attracted other activities, such as street performers and street sellers, taxi and carriage parking, gladiators, police cars, etc, all of them indiscriminately occupying public space.
3. Tourist masses increased at an exponential rate along this pedestrian street, thus destroying the new street pavement put in by the municipality when it re-qualified the area.
Fig. 5
The Trevi-Pantheon itinerary in Rome.
Fig. 6

Form documenting uses and occupation of public space.
### FACCIATE

**Tipologia rivestimento:** base in pietra e afzato intonacato  
**Conservazione**  
degrado: diffuso  
restauro:  
patchwork: ai lati delle aperture  
**Infissi**  
accesso diretto: 2  
porte:  
vetrate:  
**Impiantistica**  
centraline: antifurto al n° 118  
fili/cavi: lungo marcapiano 1° livello  
illuminazione:  
**Affissioni**  
inesegne:  
**graffiti:** diffusi  
targhe storiche/edicole sacre:

### PAVIMENTAZIONE

**Tipologia:** spaietri e percorso speciale non-vedenti  
marciapiede:  
dissuasori:  
segnalativa orizzontale:  
**Conservazione**  
degrad: sporadico  
restauro:  
patchwork:  
**Note:**

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**FOTO**

![Civici n° 117-118](image1)

![Civici n° 120-121](image2)

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*Fig. 7*

*Form documenting the state of conservation of the ground floor facades and of pavement.*
Fig. 8
Planimetric representation of uses and occupation of public space along part of the Trevi-Pantheon itinerary.

Fig. 9 - State of conservation of the ground floor facades and related functions, along Via dei Pastini.

Fig. 10 - Legend for Figg. 6, 8 and 9.

Fig. 11 - Legend for Figg. 7 and 9.
4. The urban decay of all areas along the itinerary is quite evident, both in material (graffiti, occupation of public space, pavement in bad conditions, overcrowding), social (the expulsion of residents and related functions) and civic terms (civic activities have less space in which they can be expressed since they must share it with mass tourist presence). In short, a formerly residential street has become a tourist one. The results are overcrowding, filth, unqualified occupation of public space, disproportionate increase of commercial activities.

Regarding our second aim to evaluate the effects of increased tourist flow on the material and historical connotations of the monuments, our analysis of the state of conservation of the facades of the buildings along the street resulted in our realising that there are two main kinds of interventions related to the quality of the facades.

The first one regards interventions of maintenance and of external «improvement» of the building. These interventions are frequently carried out by commercial businesses occupying the ground floor of historic buildings of minor architectural prestige. They usually give a fresh hand of paint to the façade of the new business premises – the plaster is often of slightly different colour with regard to the original colour of the building colour and the result is a patchwork which further contributes to the area’s pillaged appearance.

The second kind of intervention regards restorations of major historic buildings (or buildings bought by tertiary or commercial activities, such as hotels or banks, which aim to add prestige to their investment). Sometimes the restoration seems exaggerated or raises questions regarding the colour plan or conservation regulations of the city (as for example in the case of the building in Piazza del Pantheon which turned from ochre to light blue after its recent restoration).

Reassuming the results of our monitoring we can say that human risk and the impact of mass tourism on the state of conservation of buildings is relatively low, while totally absent is the impact on urban morphology, as revealed by a comparison between historic cartography and today’s urban form. The urban form of this antique part of the city has not in fact changed at all, as one can see when comparing a Google map with the Nolli map of 1748 or the Pio-Gregorian cadastral map of
1820. Significant, on the contrary, is the impact of mass tourism on the quality of life in the area and on the quality of these places, considered as symbols of collective identity.

The outcome of our investigation therefore sounds an alarm that is evident:
1. Conservation policies should not only regard the restoration of a building or a fountain, but the historic centre in its complexity, comprising both the tangible and intangible heritage.
2. Enhancement policies (or re-qualification ones) devoid of a comprehensive vision and lacking impact monitoring may produce negative results and be counterproductive, as the case of Trevi-Pantheon has shown.
3. Human risk has more influence and a negative impact on the vitality of a place, on its quality of life and on the identity of places stratified through centuries – in other words it conditions the «city of people» more than the «city of stones».

Therefore, if we wish to safeguard the places of the European collective memory, we must immediately commit ourselves to finding ways to reconcile the needs of the tourist industry with those of life in historic centres and the conservation of their monumental cores. In this respect the indications resulting from this research are: the need to introduce coordinated urban policies instead of fragmented ones, to diversify tourist offer instead of simply increasing the incentives of demand, to promote monitoring of enhancement policies and of tourist impact instead of repeating an urban policy without testing its results.

3. References


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UNESCO World Heritage Centre (2006). *Statement of the workshop on new approaches to urban conservation held in Jerusalem, 4-6 June*.


**Riassunto**

Lo scopo di questo saggio è doppio: da un lato di analizzare le politiche urbane, di conservazione e le politiche turistiche relative allo specifico caso di studio offerto dall’itinerario che connette le piazze monumental del Pantheon e di Fontana di Trevi a Roma e dall’altro, di analizzare il rischio antropico cui l’area si è sottoposta in conseguenza della pressione turistica. Proteggere questi luoghi – che sono depositari dell’identità culturale della città – significa conservare non solo il patrimonio architettonico e culturale, ma anche la morfologia urbana e gli usi e ed i valori connessi; in altre parole, significa salvaguardare ciò che fa di uno spazio un luogo. L’approccio analitico di monitoraggio dell’impatto turistico utilizzato è basato su tre campagne di documentazione interrelate che descrivono i cambiamenti e le trasformazioni avvenute nell’area di studio.