

La Commissione europea nel documento "Promuovere la sicurezza stradale nell'Unione europea: programma 1997-2001" (n° 131/97) propone un'azione coordinata di soggetti pubblici e privati, per migliorare la sicurezza nella mobilità ed assume come obiettivo di ridurre i morti per incidente stradale del 40% entro il 2010. E' evidente che per conseguire tale obiettivo non basta una decisione delle autorità europee, è necessario che le politiche ed i programmi per la sicurezza stradale vengano adottati ad ogni livello dalle autorità nazionali e locali, adattando le decisioni alle effettive carenze del sistema della circolazione. Un dato accomuna la terribile realtà degli incidenti causati dai veicoli in tutti i Paesi membri: il 70% dei danni alle persone si verifica in ambiente urbano e sono gli utenti deboli a pagare il prezzo più alto in termini di mortalità ed invalidità permanente.

La VI Conferenza Internazionale "VIVERE E CAMMINARE IN CITTÀ" vuole mettere a confronto le politiche adottate in alcune significative realtà urbane, per capire quali ostacoli impediscono l'adozione generalizzata dei suggerimenti prodotti dai gruppi di esperti, finanziati dall'Unione Europea.

Roberto BUSI

The European Commission in the document "Promoting road safety in European Union: programme 1997-2001" (n° 131/97) proposes a co-ordinated action of public and private subjects to improve safety in mobility and has as its target the reduction of the 40% of fatalities in road accidents by the year 2010. There is evidence that to reach this target the decision of the European authorities is not sufficient. It is necessary that policies and programmes for road safety are adopted at any level by National and local authorities adopting solutions to the real lacks of the circulation system. There is a data that pools the terrible reality of casualties in all the member Countries: 70% of the injuries occur in urban areas and the vulnerable road users pay the highest price in death and permanent disability.

The VI International Conference "LIVING AND WALKING IN CITIES" wants to compare policies adopted in some significant urban realities, to understand which obstacles do not allow the general adoption of the results of the researches made by experts financed by the European Union.

Roberto BUSI



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Lingue ufficiali: italiano e inglese - traduzione simultanea
Official languages: Italian and English - simultaneous translation

L'iscrizione alla Conferenza, che è gratuita, dovrà essere trasmessa entro il 7 giugno 1999, anche a mezzo fax, alla Segreteria scientifica del CeSCAm.

The registration to the Conference, free of charge, must be sent, also by fax, to the Scientific secretary of CeSCAm before the 7th June 1999.

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VI Conferenza Internazionale
VIVERE E CAMMINARE IN CITTÀ
Politiche per la sicurezza nella mobilità:
dal livello comunitario al livello comunale

VI International Conference
LIVING AND WALKING IN CITIES
*Policies for safety in mobility: from the community
level to the municipal one*

Brescia 14-15 giugno 1999
Brescia 14-15 June 1999

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14 GIUGNO 1999

ore 9.00 Registrazione dei partecipanti/Registration

ore 9.15 Introduzione/Introduction

R. BUSI (Università di Brescia)

ore 9.30 I sessione: Politiche comunitarie e nazionali

I session: Community and National policies

CHARMAN: **F. SANTORINI** (Università di Trieste)

G. PRESTON (European Commission, DGVII)

M. FABRIS (Ministero dei Lavori Pubblici, Italia)

J. BREEN (European Transport Safety Council, Brussels)

N. MUHLRAD (INRETS, Paris), **A. FAURE** (Urban Planner in Paris)

M. HAEGI (European Federation of Road Traffic Victims, Genève)

M.R. VITTADINI (Ministero dell'Ambiente, Italia)

W. DUERDEN (DETR, London)

J. GEHL, (Royal Danish Academy of Fine Arts, Copenhagen)

J. BOENDER (CROW, The Netherlands)

P. DE ANGELIS (ACI, Roma)

T. BENDIXSON (The Pedestrians Association, London)

G. CAMPO (Università di Catania)

ore 13.00 Interruzione dei lavori/Break

ore 14.30 II sessione: Politiche regionali

II session: Regional policies

CHARMAN: **A. CAPPELLI** (Università della Basilicata)

B. BEDUSSI (Provincia di Brescia)

E.J. CANTILLI (EJC Safety Associates, New York)

G. REITANI (Università di Pavia)

A. MACKIE (TRL, Crowthorne)

L. CUSTER (GMT-Si, Beride)

L. DE ROSSI, A. CALZAVARA (Provincia di Venezia)

B. BARROCCU (ACI, Roma)

A. RANZI, G. DANIELI, P. LAURIOLA (A.R.P.A., Emilia Romagna) **D. GAUDIO, F. TOSATTI** (Provincia di Modena)

15 GIUGNO 1999

ore 9.00 Registrazione dei partecipanti/Registration

ore 9.15 Introduzione/Introduction

R. BUSI (Università di Brescia)

ore 9.30 III sessione: Politiche urbane - esperienze

III session: Local policies - experiences

CHARMAN: **C. PODESTÀ** (Politecnico di Milano)

E. BRUNELLI, A. PIOVANI (Comune di Brescia)

G. CASTELLI (Comune di Modena)

M. C. MONTEL, D. FLEURY, J. C. DESIRE (INRETS, Paris)

M. TIRA (Università di Brescia)

F. FOLLESA (Comune di Firenze)

G. BONTEMPI (ACI, Brescia)

M. DERONZIER (Town of Chambéry)

G. PULLI, C. FEDELE (Comune di Napoli)

M. RAINIERI (ASM, Brescia)

M. ROBIGLIO, I. ROMANO, S. GUERCIO (Avventura Urbana, Torino)

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E. MILIA (Comune di Bologna)

L. LANCERIN, R. MULATO (Architetti in Vicenza)

R. ANZALDO (Università di Catania)

ore 13.00 Interruzione dei lavori/Break

ore 14.30 IV sessione: Politiche urbane nella ricerca italiana

IV session: Local policies in the Italian research

CHARMAN: **E. BORGIA** (Università di Roma "La Sapienza")

G. MAZZEO (PIGET-CNR, Napoli)

G. MATERNINI (Università di Brescia)

A. AUTERI (Università di Catania), **E.L. MACI** (Comune di Garavina), **G.M. MANDINA** (Ingegnere in Catania)

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Conclusioni/Conclusions: **R. BUSI** (Università di Brescia)

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*Policies for safety in mobility:
from the community level to the municipal one*

Brescia, 14 - 15 giugno 1999

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PEDESTRIAN MOBILITY AND GREAT EVENTS IN ROME: THE JUBILEE

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Since ever, Rome is the core of great events, and Jubilees have been, and are, among the most demanding ones, due to their existential and symbolic values. Great events often represented for the city moments of verification, and thence of urban upgrading and re-organization; indeed, they, being gathering moments of different duration, lead to programs and choices apt to manage the complexity of each situation, and to avoid negative consequences on city dwellers, not only during the time they take place, but also ante and post operam. Procedures, that the preparation of such events requires, can be organized and divided among the different involved bodies; each hosting city must provide hospitality, information, transport, mobility, safety, first aid, etc, by preparing and strengthening the available structures and services. The celebrations for the Jubilee of end millennium are, on their whole, a case apart from the most traditional events that Rome already hosted. The reason of such diversity lays, on one hand, upon the foreseen ceremonies length, distribution and heterogeneity, upon the participants special motivations, in terms of emotional involvement and spiritual significance, and on the other hand, on the exceptional number of arrivals, forecast in 30.000.000 units.

To manage the complexity of this event, on purpose, a Body has been created: "Rome Agency for the Jubilee"; its tasks, indicated in the "Intervention Plan", are aimed at preparing a "Welcome Plan", information and communications activities, computerized management of decision and control apparatus. All tasks are described in the official document called "*Plan for the co-ordination and management of the main Jubilee routes in the city of Rome*"¹. This Plan concerns areas and pilgrimage routes located in Rome, and mainly: Patriarchal basilicas and the related historical linking paths, Stational churches, catacombs, early Christian basilicas, national churches and other devotional sites. Overall objective of this Plan is the definition of measures aimed at:

- adapting areas and routes to the exceptional use demand;
- guaranteeing orderly flows of visitors and pilgrims;
- completing the foreseen interventions before the beginning of the celebrations by the year 2000.

Moreover, the plan has several more targeted goals, i.e:

- definition of extraordinary plans for safety and security matters at the pilgrimage places;
- equipment of the pilgrimage places by information services, toilets, refreshments and so on;
- improvement of the urban comfort by removal of architectural barriers and the lay-out of suitable urban furniture, sign systems, public lighting and so on;
- rationalization of the accessibility and mobility features of all pilgrimage destinations by creating pedestrian areas, rest areas, parkings for public and private vehicles;
- urban maintenance interventions, with special regards to pedestrian places and paths.

¹ See: Agenzia Romana per la preparazione del Giubileo, *Piano di Coordinamento e gestione dei principali itinerari giubilari nella città di Roma*, Rapporto finale, Relazione di Sintesi, 31 dicembre 1997

Under the point of view of mobility management and control, the studies have been focused on two main fields: on one hand, for what concerns the motorized mobility organization, interventions regard the adjustments of the infrastructure network, the creation of new intermodal areas and the empower of the existing ones; on the other hand, for what concerns non motorized travel modes, the creation of pedestrians paths for pilgrims, and of a related bearings signs system. The study of the pedestrian mobility plays a strategic role in the global management of the visitors shifts flows, foreseen regarding both the quantitative and qualitative aspects. Under this point of view, information about Jubilee routes and paths, on the related accessibility conditions and services current availability, have been gathered; moreover the Agenzia, on behalf of Rome Municipality, has drawn up the "Co-ordination and management plans for the areas surrounding the Basilicas". From the consideration of the previously faced aspects, an attention to some pedestrians requirements as accessibility, bearing and comfort seems to have been paid; in particular, among the prefixed goals, safety, considered under a very broad meaning: as safeguard from calamities, as security from unwanted actions, and finally as safety from dangers related to vehicular mobility and to pedestrians shifts, seems to play a priority role. In the planning activities development, up to now, priority has been given to the management of the vehicular mobility, that according to the expected traffic flows, could be the most hard phenomenon to face; indeed, in case of bad management, negative consequences could arise, above all in term of comfort, security and quality of urban environment for pedestrians, and of air and noise pollution.

THE PEDESTRIAN PATHS

The creation of pedestrian routes leads to consider two relevant aspects: the pedestrian paths stem from liturgical and devotional ancient routes, so no "profane" routes have been planned; moreover, in order to evaluate pedestrian flows impacts, in-depth analyses about pedestrian traffic have been run.

All pilgrims routes originate from ancient processions paths along the most important devotional places and churches of Rome. Indeed, one of the goals of the pilgrimage is the visit of Rome four main basilicas and of other important sites of devotions, such as for instance the Holy Stairs. According to this aim, the Plan foresees nine different routes on the whole Roman area, individuated on the basis of their religious and historical relevance, of their possibility to act as linking axes among the basilicas, and also of their main features (walking difficulties, narrow sections and so on).

Moreover, some further minor paths, as main routes branches, have been also planned, allowing to integrate in the path churches and monuments of some historical values, not directly linked to the Jubilee celebrations, and to enhance their tourist interest. The whole jubilee 9 routes network is 41,5 km long, and it becomes 65,8 km long thanks to these minor branches. Analyzing these routes, it can be stressed that the average length is 4,6 km each, so they could be covered, on foot, about in 1 hour and half; indeed, this seems to be quite impossible, because some of these routes (see nr. 5,7,8 and 9 on table 1) lead people out from the historical core to the city outskirts, where these ancient monuments are located: problems of traffic, of not suitable pedestrian paths, of distance could slacken pilgrims' pace; moreover, the comparison with statistical data, run in foreign Countries, shows that, people walking average is about 3 km, as for instance resulted from an overall survey, coming from several studies in Germany, on pedestrians' trips length.²

This can be seen as a premise for the other important matter: pilgrims move in a very slow way, very often in group, with many stops and rests. Besides that, pilgrims as pedestrians are not a homogeneous group and this must be taken into account in every planning activity. The following parameters have been considered as starting data: unitary pedestrian bi-directional flow is esteemed about 1000 persons/hour, with a walking speed of 2 km/h. So, the "Rome Agency for the Jubilee" considered to

² See Rytz, M., *Weglängen und Reichweiten der Fussgängerinnen. Bestimmungsgrößen der Weglängen und Reichweiten, Auswertung des Mikrozensus Verkehrerverhalten 1994, Anwendungsmöglichkeiten am Beispiel Burgdorf*. Diplomarbeit am Geographischen Institut der Universität Bern 1997, mentioned in Seewer, U., *Pedestrian research – selected results of scientific studies at the Geographical Institute*, University of Berne, Presentation at the COST C6 Meeting in Rome, October 27th and 28th 1997.

be a very important aspect the study of the pedestrian flows and of the related mobility demand. Main analyses have been run in order to esteem the daily average shifts demand along the above mentioned routes. These evaluations have been based upon O/D matrixes originated by sample investigations, run during the 1996 and 1997 Easter holidays periods, in the main Jubilee spots. Of course, source data, based on mere tourist flows evaluation, cannot be perfectly fitted to religious flows esteem; indeed, Jubilee forecast data could be considered as a transposition from those ones coming from the most popular tourist routes. The relevant places have been grouped together in 19 “significant destinations” by a road graph which allows to schematize the routes along the main religious and tourist destinations. There is described the pedestrian flows pressure on private and public motorized modes and on pedestrians shifts. Among the various results, it can be stressed that on the most charged shifts directrix (Campidoglio – Roman Forum), the overall amount of shifts on vehicles and on foot is esteemed about 70.500 persons per day, pedestrian shifts are about 27.500 persons per day, with an average of 5.750 – 3.850 persons per hour (see table 2).

The definition of scenarios concerning visitors walking features is a very important issue of the Jubilee program: indeed, in Italy walking habits are scarcely investigated and esteemed, at least at national level, with the consequence of an overall lack of data about non motorized modes. Only since 1996 official data have been gathered³ but never with regard to a great event. Moreover, in terms of accessibility management, data about pedestrians have been considered as one of the most important steps in the process of the Plan goals definition, as the following objectives demonstrate:

- to give the possibility of choosing among the different modes of transport, according to the visitors requirements;
- to make all the visiting places accessible in a reliable and safe way;
- to produce, with the interventions on the infrastructure, minimum effect on Romans’ everyday mobility;
- to improve, for pedestrians and for public transport, general use conditions;
- to increase road safety, also in relation to the big number of pedestrians;
- to remove architectural barriers.

In order to achieve such goals, the applied methodology was based on survey and esteem of pedestrians habits, as previously described; on studies about the infrastructure capacity; on critical conflict points individuation, and on intervention proposals definition. In relation to this last point, intervention typologies have been drafted concerning five main topics:

pedestrian spaces: definition of pedestrian dedicated spaces, by walkways enlargements, pedestrian bridges, crosswalks, protected paths;

architectural barriers: removal of all kind of obstacles in order to favour all kinds of users, especially impaired people;

vehicular scheme: layout of vehicular scheme for main access and service infrastructures, paying particular attention to intersections;

parking scheme: organization of stop places and parking areas for tourist buses;

sign system: creation of a suitable sign system, in accordance to Road Traffic Code directions.

THE INTERVENTIONS ON THE BASILICAS AREAS

The application of the Plan directions can be seen on the different interventions that are going to be run on the four main basilicas areas; these are worth to be considered one by one, in order to appreciate the synergy between the new design features and the upgraded mobility schemes. Before starting the description, it is very important to stress that most of the interventions are located in the historical urban context, that the inputs come from bodies that differ for played roles, for different powers of decision, and for the degree of involvement in the process. The difficulties, obstacles and barriers have been, and still are, so many and of so different kinds that all the design proposals needed to be developed, discussed and re-handled several times, on the basis of requirements, attitudes and

³ See ISTAT “Everyday life aspects” statistical survey in ISTAT, *La vita quotidiana nel 1996, indagine multiscopo sulle famiglie*, Roma 1996

prohibitions coming from all the implementation involved bodies (Vatican, Rome Municipality Mobility Department, Monument Offices, Police, and so on). Under this point of view, all the following solution can be considered as successful examples of interventions on very congested areas. *The Area of S. Peter*: this should be the most visited, and consequently the most crowded area. Three main interventions have been planned, and all of them on the access axes to the church. The first one is the route “Via Ottaviano – Piazza Risorgimento - Via di Porta Angelica ”: from a popular shopping street, with the usual traffic and parking problems, where walkways have been enlarged to allow a more comfortable pedestrian flow, it is possible to reach Piazza Risorgimento, an important square with tramways terminals; here a big part of the area has been re-converted to pedestrian use (from the former 7.800 m² up to new 11.500 pedestrian areas) to allow both walking and resting; the itinerary goes on Via di Porta Angelica, that ends on a little square adjacent to the Bernini’s colonnade. In this case it has been possible to transform the street into a local traffic one way lane, with broadly widened walkways, since the traffic schemes have been changed from a through traffic road to one where the access is allowed only to residents.

Another important way to S. Peter is the so-called “Museum axis” (Via Candia – Via Santamaura) that joins the nearest metro underground station “Cipro” to the Vatican museums entrance. Near the metro station, an intermodal point with tourist bus parking has been located.

The third intervention is on Via della Conciliazione: the main access road, created at the beginning of this century, that changed the approach to S. Peter’s square from a sudden surprise to a monumental perspective; this is a very important road not only because of its leading, or hosting, the masses of the church visitors, but also because of the location of the City Auditorium, of the Embassy of Canada, of the Church of S. Maria in Traspontina and of some hotels along it. The intervention, aimed at its global pedestrianization, had to maintain two crossing “vehicular” corridors that, for traffic management reasons, couldn’t be avoided; in this scheme, a pedestrian area in front of the Auditorium and a pedestrian “alley” to S. Peter have been created; this new pedestrian axis should join an existing pedestrian path, in front of Castel S. Angelo, and on the homonymous ancient bridge.

A minor intervention, aimed at re-creating the old kind of approach to St. Peter, is the pedestrianization of Borgo Pio, a corridor street that runs parallel to Via della Conciliazione. Along this street only urban furniture and bollards have been planned, but at its end, towards the Tiber, the *cavea* of an important historical building (a former XVI century orphanage) is going to be converted into a reception and rest point.

The Area of S. Giovanni in Laterano– S. Maria Maggiore – S. Croce in Gerusalemme: the triangle formed by these three churches, located in the heart of Rome, could be considered, under many points of view, the hottest spot in terms of city and citizens involvement. In this area, indeed, there is a mix of residential and commercial activities, with the usual traffic and parking problems; nearby is located Rome main railway station and, moreover, the square on the rear of S. Giovanni Basilica acts as a crossroads for many streets to the southern districts of Rome; a big part of the area is already ruled as a limited traffic zone. In this high density urban context, processions have been foreseen twice a week on many jammed roads (S. Maria Maggiore - Via Merulana – S. Giovanni – Via Carlo Felice – Via Conte Verde); the effects on traffic are easy to imagine. Because of this complex situation and, above all, because of the unavoidable vehicular flows (unless a redesign of the whole lay-out of the circulation in a too wide area), interventions are aimed mainly at re-shaping the church squares, organizing single pedestrian zones with no real links to each others.

The efforts have been mainly directed to remove the existing parking lots in order to create a wider continuous area surrounding S. Maria Maggiore, that includes two squares especially redesigned and widened; both church façades are important, the main one, characterized by a fountain and an obelisk, and the rear one (Piazza dell’Esquilino) that goes downhill; in this case the slope has been gently remodeled. The intervention on S. Giovanni and S. Croce in Gerusalemme areas can be considered, maybe, as an attempt to build a pedestrian link between the two basilicas, but the result is quite fragmentary. Indeed, the area surrounding S. Giovanni has been reshaped according to the same scheme of S. Maria Maggiore’s one (a wider pedestrian area around the church, including the obelisk and shifting away the vehicular traffic), and the same has been done for S. Croce in Gerusalemme’s

front area. The street that joins these two churches, Via Carlo Felice, was a very jammed street, with tram lines, a bus depot and a public garden. The bus depot is currently out of service, with no real further use destination, but the garden has been reshaped and upgraded in order to host a pedestrian path connecting the two churches. Unfortunately, it cannot be said that the proposed path is continuous and safe in all its length, since it presents two conflict points, two wall gates, in which are present heavy traffic flows. Outside S. Giovanni's church square, not daring slowing down traffic, a proposal for pedestrian bridge was made, luckily rejected by the Monuments Office. Also the redesign of the square in front of S. Giovanni maintains some unsolved problems such as the location of a carriageway.

The Area of S. Paolo: This is the farthest area from the city center. The basilica is surrounded by a public garden (the Schuster Park) on its main front, and by very jammed streets on two sides; the rear front is on a quieter street. The public garden was separated from the church by a big bus stop, that has been removed; this intervention allowed to connect the garden to the front of the church, thus creating a green pedestrian area. On one of the two side of the church, a little bus parking has been provided, while on the other side, walkways have been enlarged; moreover, the path to the nearest underground station has been also improved.

Besides the religious events that will take place in the basilicas areas, other mass - ceremonies are foreseen, such for instance the "Youth Day" (1 million pilgrims expected); for these events outer areas must be provided, mainly in the city outskirts. At the moment ten areas have been individuated, each one of them must have the following requirements: more than 50 Ha area, no slopes, good infrastructure connections, accessibility and availability. Of course, because of their limited use, these areas will be provided only with temporary equipments, and the design activities will be directed to create suitable accessibility conditions.

FACILITIES

For such event, the provision of facilities is a very important matter; first of all, a new concept of facility is required, overcoming the equipment usual definition. Indeed, facilities as response of an overall ease and comfort requirement, must be planned and designed according to different scales and kinds of needs. From this point of view, by the analysis of the planned facilities, these can be divided into some macro-categories: bus parking facilities, information facilities, targeted equipments.

Bus parking facilities: one of the most favorite mode of transport for tourists is the bus. It is easy to imagine the problems, in terms of traffic jam, that unexpected or not planned arrivals can cause in the city. Forecasts esteem 1.400 – 1.900 tourist buses/day, while actually Rome is visited daily by 600 buses⁴. In order to face this situation, three rules have been set: the entrance to all tourist buses is forbidden within the city center; arrivals and entrances to the city must be booked by a telematic system called SCOOP; all buses arrivals must be checked before entering the city, at primary roads. On these bases, the accessibility scheme works as follows: buses arrive to the main Rome ring road (Raccordo Anulare), where check points are located; there, after checking the reservation (buses without reservation can make it and pay directly at the check points, otherwise they could be severely fined), they are addressed to ten parking areas located in the outskirts. Each area can host from 20 to 50 buses, and parking fees are 18,08 Euros per day. Possibilities of intermodal changes are provided on each parking area, by public transport services (buses, underground, local trains). All areas are also equipped with toilets and facilities for disabled people. Of course, for tourist buses the possibility of reaching St. Peter's area is allowed on condition that people get off at four determined areas and get on at three different ones. Time to stop for boarding operations cannot exceed 15 minutes. Each stop area is equipped with canopies, seats, hischiatic supports, public telephones, toilets and information displays. The management of buses accessibility in central areas, even if it will be ruled in the just mentioned way, could become a problem in terms of enforcement and monitoring aspects: indeed, up to now, no specific authorities or bodies seems to have been created for this task, and in a city with

⁴ See: Agenzia Romana per la Preparazione del Giubileo, *Divieto di circolazione degli autobus turistici a Roma nell'anno 2000, Sistema di gestione e controllo*, Studio di fattibilità, 5 giugno 1998, available on the Agenzia's web site: [www. Romagiubileo.it](http://www.Romagiubileo.it)

such traffic problems as Rome, this is a not affordable duty for the local police. Moreover, also the Public Transport Company (ATAC) offers special services: 200 new buses are going to be operative by the next months and a tourist tour joining all the basilicas is already in service. The management of buses mobility (both private and public) was a priority goal in the Jubilee overall planning activities and it can be actually considered as the greatest effort run by the Municipality of Rome, the Rome Agency for the Jubilee and by all the other involved local bodies. This is mainly due to the exigencies of avoiding negative consequences on everyday traffic situation in Rome, already at critical levels. In this direction, the decision of limiting the circulation and forbidding long stays for buses in the city center is good both for dwellers quality of shifts and for pollution control.

Anyway, the complete elimination of tourist buses traffic from central areas will be impossible, since the possibility of some parking will be allowed by the creation of the above mentioned boarding areas in the city center and by the building of a parking very close to the Vatican City, on an extraterritorial area. It must be underlined that some groups of citizens, living in the areas nearby St. Peter, have already complained, in a more or less organized way, against the congestion and the pollution created by buses; the fear for how much the situation is getting worse in the Jubilee period is very high. In organizing this aspect, no policy aimed at the "consensus" achievement and no information campaigns seem to have been planned, but requests to the citizens of being patient. It is also worth to mention the latest issues about Jubilee intervention, recently enacted at national level, which foresee very expensive fines for buses that don't respect rules, the employment of conscripts as urban policemen and finally staffs increasing in the museums.

Information facilities: Order, ease and comfort can be also achieved by a suitable information service at different levels. Information service can be meant both as intelligence and as possibility to facilitate people bearings and knowledge of places. Intelligence can be considered a part of the security system that such a great event requires, and therefore cannot be seen as a real facility. So, information will be considered as all suitable devices apt to direct, clearly and easily, people where they want to go and towards what they want to know. Media will play a major role in informing people day by day about the course of events, and so will be for telematic communications via Internet, but the role of signs and signals, for what concerns bearings and directions, within the city cannot be minor. Actually, Rome do not own a real pedestrian signs system (with the exception of the usual pedestrian crossing signs and signals), so the Rome Agency for the Jubilee has planned a special new signs system, which will partly integrate and partly substitute the existing one. New signs and signals are especially designed not only to direct pedestrian and vehicular shifts, but also to inform people about the history of churches, monuments and other devotional places. The special system will enable pilgrims to go everywhere by using traditional signs and by innovative aerial bearings techniques, currently under feasibility study. Moreover, an international contest for the Jubilee pictorial graphics and types for the temporary signs system is going to be announced. Expected results will take to a new system, elaborated in all its parts (materials, graphics, forms, and so on), able also to improve the quality of Rome look. The big amount of involved resources (about 20.700.000 Euros) demonstrates the importance of this kind of equipment.

Targeted equipments: information facilities are a very special part of the whole services provision that the Rome Agency for the Jubilee has planned. Indeed, services can be divided into many categories, as follows: welcome services, mainly based on hosting activities; control services; safety and first aid services, concerning the management of assistance organizations for elderly and impaired people, of temporary infirmary rooms located on the basilicas' areas and related creation of reserved parking lots for ambulances, commercial activities, and especially refreshments sales points. For commercial services, a special temporary modular stand has been planned, consisting of two parts. A "hosting" shell, formed by a platform covered by tensionstructures, is the envelope of modular wooden stand in which all kinds of commercial services can be located: cafeterias, tourist gadgets sales, banks, exchange, and so on. The plainness of design, of forms and of materials is specially aimed at making possible to localize these stands everywhere, without disturbing the view of the monuments which presumably will be nearby. An important problem to solve in the services provision is the right quantity to set. In this case, main parameters were: the amount of people to serve, the widest diffusion

on the most important spots, the exigency of having a flexible offer in relation to possible demand changes, due for instance to seasonal differences, and finally the evaluation of environmental compatibility of the new interventions. All these inputs have been related to the definition of services standards to use in the creation of activities such as retails, urban furniture, information. Anyway, current, available resources have been taken into account, such as, for example, in the definition of the amount of public toilets for one of the pilgrims route. Here, the starting input was the number of all the already currently available items (without considering their location on private or public premise), and, considering all the above mentioned parameters, the resulted standard is an additional toilet every 150 people. This means that in every pilgrim routes kilometer, four toilets are necessary and at least one of them must be fully accessible by handicapped people. The same amount (four items per kilometer) has been esteemed for the telephone boxes requirements. It is also interesting to report data about seats and benches: quantity criteria fix 25 seats per kilometer, each one of them with 45 x 90 minimum size; finally 2-3 drinking fountains per kilometer are provided. Of course for all these elements a quality standard has been set; according to the considered parameters, quality then can be reached when, for each service, uniformity, diffusion, ease, usability and acceptability have been achieved. For what concerns infrastructure facilities, it must be stressed that all pilgrim routes are fully accessible by people on wheelchairs, thanks to the design of suitable ramps. The fully accessibility for all kinds of people is a very important matter because it is likely that most of the pilgrims will be aged people, with walking difficulties. An useful device for people of this kind could be the electric "shuttle bus" service, actually on duty and that will be strengthen.

RESULTS

It is not easy to audit policies, designs, interventions, decisions and controls related to this kind of event. Rome is a city difficult to manage and to rule: traffic, lack of suitable transport services and pollution are its burden. Facing the Jubilee event means for Rome trying to solve these problems and at the same time trying to enhance all the tourist resources, whose consequences in term of income for the city are not secondary. According to this situation, it can be roughly said that policies can be oriented towards the synergy of two goals: on one hand the improvement of the current mobility situation, on the other hand the safeguard of the urban environment.

For what concerns the first aspect, betterment on the mobility current pattern means to create new opportunities for non motorized travel modes, public transport network upgrading, private vehicles shifts reorganization. In this situation, all these objectives must be achieved at the same time for creating affordable accessibility conditions for tourists, but above all for avoiding to city dwellers negative impacts on their everyday mobility. It must be also considered that interventions of this kind, involving resources in term of money, of building operations, of citizens collaboration, cannot be meant as temporary.

Then, with particular regards to the pedestrian mobility it is important to check that, every related choices with the vehicular mobility, ones and considers also the suitable control of local and environmental factors (microclimate, place morphology, cultural context). As can be deduced from what above said, at the moment, these issues are far from be successfully achieved.

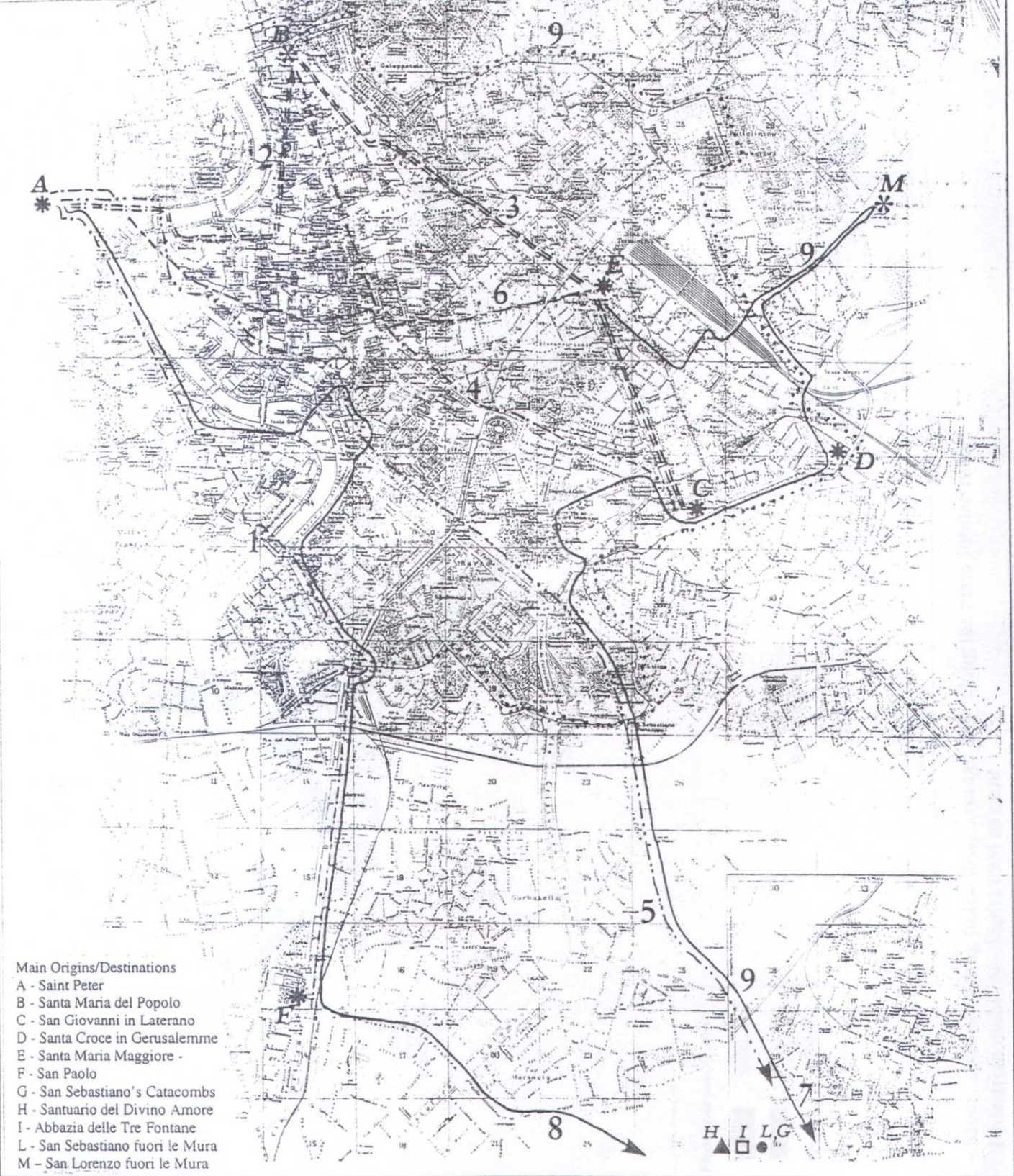
On the basis of these prefixed aims, it is worth to evaluate the state of the art of the global implementation process, checking what has been really done, what is going to be carried out, what will be never built. This allows defining the achieved level of success by the control of programs respect in terms of timetables and contents; always in relation to the starting policies and strategies, and also to put into light the reasons of possible variations. As premise, an outline of tasks and responsibilities must be drafted: besides the mentioned Agency (whose role is to coordinate and to evaluate interventions and implementations), other involved bodies are Rome Municipality and especially its Mobility and Building Departments with executive tasks. The Monument Office surveys the whole implementation process, controlling that every intervention must respect the architectural and contextual features of each location. Consultants and experts are involved in relation to specific problems and competencies in the different phases. A private company controls the works in progress and evaluates the state of the art of each intervention. Such complex framework of involvements, on

one hand guarantees that a multidisciplinary approach is applied in the process, but on the other hand cannot avoid delays due to co-ordination difficulties of many bodies in charge. Delays are currently taking place on many building yards, and this has been quite always caused by modifications, revisions set during the control phases. Many hindrances have been set by the Monument Office, in terms of works that are unsuitable, or disrespectful of the local architectural features. This is, maybe, the most hard obstacle to overcome, because it requires revisions of each design process and of the related tasks and competencies. The most common output of such delays is the total or partial renouncement to some works, giving priority only to those ones which are necessary for a good management of the motorized mobility. Road yards, currently, occupy many areas around Vatican City in order to realize a big part of the proposals for this spot. Very different is the situation in the other basilicas' areas, where many interventions still have to begin. Anyway, the temporariness of many equipments will allow to set many interventions in time for the Jubilee beginning, guaranteeing accessibility and comfort levels for all the pilgrims.

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Main Jubilee Routes

1. Saint Peter- San Paolo
2. Saint Peter- Santa Maria del Popolo
3. San Giovanni in Laterano - Santa Maria Maggiore - Santa Maria del Popolo
4. San Giovanni in Laterano - Coliseum - Santa Maria del Popolo
5. Saint Peter - San Sebastiano fuori le Mura
6. Saint Peter - Santa Maria Maggiore
7. San Sebastiano's Catacombs - Santuario del Divino Amore
8. San Paolo - Abbazia delle Tre Fontane
9. Philippine Visit to the Seven Churches (*in two days*)



Main Origins/Destinations

- A - Saint Peter
- B - Santa Maria del Popolo
- C - San Giovanni in Laterano
- D - Santa Croce in Gerusalemme
- E - Santa Maria Maggiore -
- F - San Paolo
- G - San Sebastiano's Catacombs
- H - Santuario del Divino Amore
- I - Abbazia delle Tre Fontane
- L - San Sebastiano fuori le Mura
- M - San Lorenzo fuori le Mura

Table 1 – The nine Jubilee routes

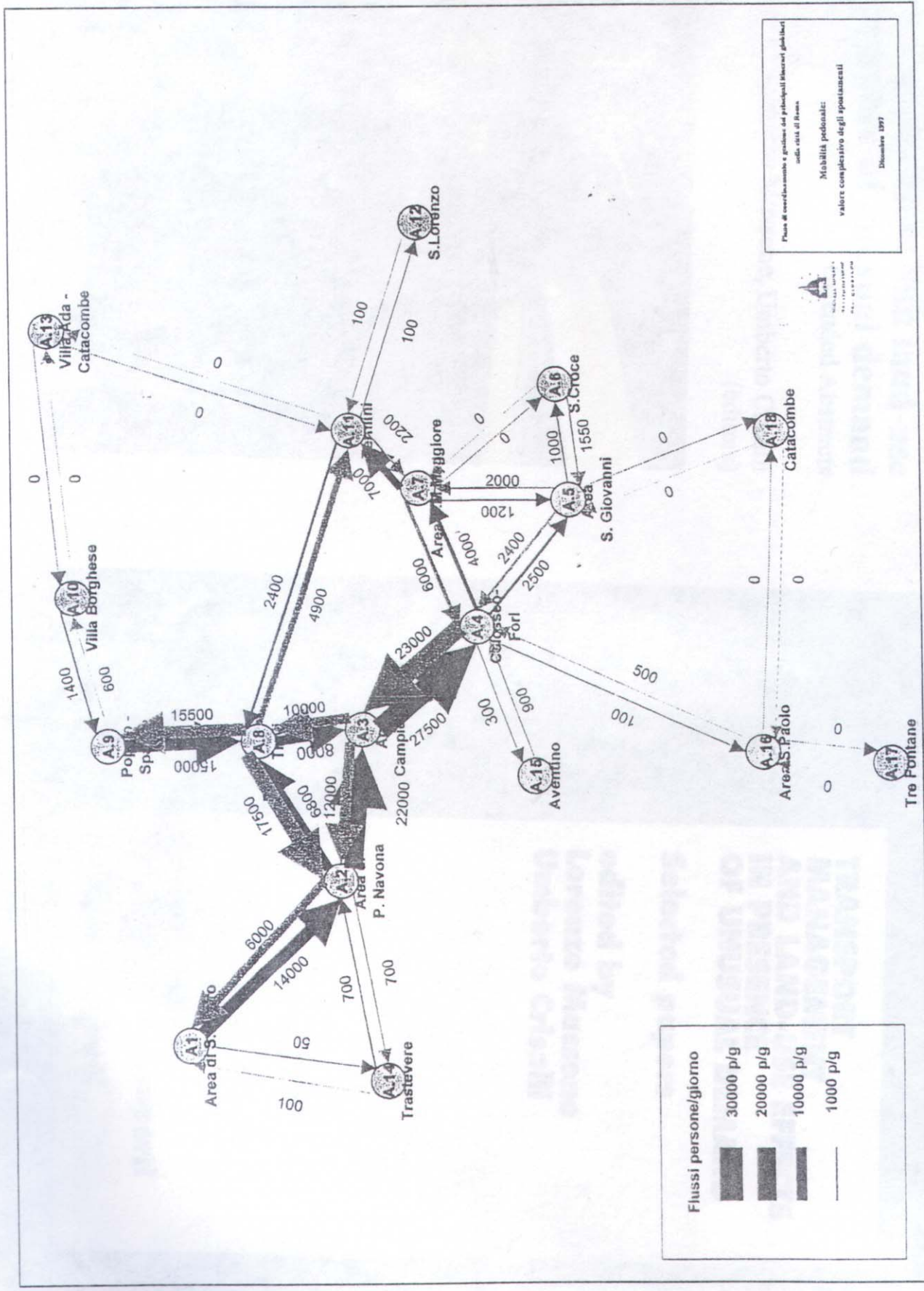


Table. 2 – Modal split according to the daily average flow along the main Jubilee routes
 Pedestrian mobility - Shifts total amount