

SURVEYING VISITORS AND TOURIST ITINERARIES. THE CASE OF THE ARCHAEOLOGICAL AREA OF POMPEII AND HERCULANEUM

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Abstract

The monitoring of inbound tourism flows to important tourist attractions in an area is generally acknowledged as crucial not only for measuring the tourist pressure on the attraction itself, but also for estimating the socio-economic and environmental impact of tourism in all the surrounding area.

The visitor survey on the archaeological area of Pompeii and Herculaneum represents the first application of the Eurostat methodology for the collection of inbound tourism statistics in an open area. The guidelines that the Manual suggests for analysing tourism in the area through the evaluation of visitors' characteristics in a number of significant attractions (the archaeological sites and the Church of Madonna in Pompeii) have been tested here. The paper describes the objectives, the organisation and the main results of a research project promoted by the Italian Ministry of Cultural and Environmental Heritage and developed by CISSET during 1997. It focusses on tourist itineraries made by visitors both within the archaeological area and the whole tourist region where the sites are located (Naples and the Neapolitan Riviera), which is one of the leading tourist destinations in Italy.

Keywords: inbound tourism; open area; open and closed attractions; visitor survey; tourist itineraries; overnight tourists; same-day visitors.

1. Introduction

The importance of measuring tourism flows to leading cultural sites -- which are usually visited by all first-time tourists and same-day visitors -- as representative of the tourist pressure affecting not only the resource, but also the whole surrounding area (city, region, etc.), is now generally acknowledged (Vanhove, 1995; Costa, Manente, 1996).

As a result of new trends in tourism demand, there is a growing need to monitor itinerant visitors. 'Culture' is becoming a mainstream holiday activity in most parts of Europe. The number of cultural visitors has been growing steadily in the last decades, also thanks to the increasing variety of products offered, ranging from classical archaeology, architecture, painting and sculpture, to crafts, industrial archaeology and cultural events (EIU, 1993). On the other hand, long-stay holidaymakers (e.g. beach tourists) are looking for new formulas that combine traditional holidays (e.g. sun & sea) with alternative recreational activities, such as discovering and visiting different cultural attractions during the same trip (museums, historical sites and buildings, etc.). In this context, the concept of 'tourist itinerary' plays a central role.

The implementation of the Eurostat methodology to evaluate the volume and characteristics of tourism demand in an area where one or more attractions are situated is crucial to analyse the interactions between tourism and the local environment. This methodology is at the basis of a project aimed at defining the most suitable management policies and marketing strategies for the development of sustainable tourism.

The paper investigates the organisation and the main results of research work promoted by the Italian Ministry of Cultural and Environmental Heritage and developed by Ciset during 1997. The case study is that of the archaeological area of Pompeii and Herculaneum, one of the most important cultural attractions for domestic and international tourists in Southern Italy, close to Naples and the Amalfi Coast.

The study represents the first application of the data collection methodology recommended by Eurostat in the *Reference Manual on Design and Implementation of Surveys of Inbound Tourism to an Area*, that Ciset developed for the EC Statistical Office. The guidelines the Manual suggests for analysing tourism in an open area (the archaeological area) through the survey of visitors in three significant attractions (the excavations of Pompeii and Herculaneum and the Church of Madonna in Pompeii) have been tested here, under the supervision of the Eurostat responsables.

The study has been planned not only to thoroughly evaluate tourism demand and tourists' perception of local urban and natural environment, but also to identify the itineraries of tourists and same-day visitors both within the archaeological area and the other famous neighbouring resorts.

After a discussion about visitor management problems encountered by famous tourist attractions and about main issues concerning the monitoring of visitor flows in an open area (Sections 2 and 3), the procedures followed in designing the survey plan and the questionnaire forms are described in Section 4. Section 5 analyses the main results of the survey, focussing on tourist itineraries and different visitor profiles. Concluding remarks and an outline of future research are presented in Section 6.

2. Investigating visitors to the archaeological area of Pompeii and Herculaneum. Why and how

The evolution of tourism in most important tourist regions is currently characterised by an evident dichotomy. While popular tourist destinations (both cities and single attractions) suffer a dramatic growth in tourist flows, exceeding their maximum carrying capacity, other relevant but less fashionable neighbouring sites are still excluded from traditional tourist itineraries.

The congestion caused by excessive tourist pressure seriously damages cultural and environmental heritage in the most famous and crowded resorts, and burdens local residents and visitors with rising use-related costs (Gotti, van der Borg, 1995). The marginal role played by other valuable but less well-known sites, which are located in the same tourist region, does not stimulate visitors to choose alternative itineraries and, in some way, contributes to strengthening the negative effects of spatial concentration. On the other hand, the poor development of such attractions, which are usually occasional destinations for 'in-transit tourism' or 'proximity tourism', causes a deterioration in local natural and cultural resources.

In spite of this, there are interesting signs of change. According to new market trends, tourists are increasingly seeking a varied holiday, which combines a number of attractions and leisure opportunities within the same trip. The interest is no longer in visiting a single famous resort or a number of resorts, but also in exploring the 'context' where they are located. Consequently, the satisfaction experienced by the visitor does not merely depend on the quality of each visit made, but also on his/her perception of the whole tourist region. The understanding of such behaviour and of its implications for the area is the basic element for meeting the visitor's expectations.

Starting from these issues, the development of a synergy between traditional, congested destinations and underdeveloped sites/attractions located within the same tourist region, has to be promoted. It represents a powerful tool for managing tourism demand and creating tourist products that appeal to specific market segments, by integrating a mix of activities, facilities and attractive factors that are defined according to local tourism planning.

In Italy and abroad, a number of studies have been focussed on the dichotomy between traditional art cities and small historical centres, as well as between famous museums or monuments and less known attractions (Gotti, van der Borg, 1995; Richards, 1996). Promoting alternative itineraries is suggested as one of the viable strategies to spread demand over space (and time) and to stimulate the development of the surrounding area (region or city). It reduces the pressure on overcrowded sites and creates value for all the players involved in such a complex system. However, until now little attention has been devoted to the development of sustainable tourism in delicate heritage environments, such as archaeological excavations, ancient ruins and castles, which represent an important part of the country's heritage.

The case study discussed here represents a first step forward. It concerns the archaeological area of Pompeii and Herculaneum, the leading historical 'open air museum' in Italy, attracting over 2 million visitors a year¹. The area is located in Campania, in the southern part of the country, and

¹ Just to make a comparison, the Victoria & Albert Museum in London is visited by almost 1.2 million visitors, while Stonehenge by over 600,000 visitors (EIU, 1993).

it is close to Naples, Sorrento, the Amalfi Coast, Capri and Ischia, which are among the most visited destinations by international tourists since the age of the Grand Tour, in the 19th century (Fig. 1).

Fig. 1 The location of the Campania region and of the archaeological area



The originality and, at the same time, complexity of the analysis are explained by the conformation and location of the attraction. The archaeological area consists of two ancient 'cities': Pompeii, which is one of the most famous and congested tourist sites in Italy, and Herculaneum, just as impressive, but less well-known than its neighbour. The area is included in one of the most important tourist regions in Italy (that comprises Naples and the Neapolitan Riviera), from which the majority of visitors to the archaeological excavations originate (mainly day-trippers).

In order to control visitor flows -- in particular excursionist flows -- and thus favour the development of sustainable tourism in the whole area, the planning of suitable management policies is urgently required. It should ensure a more balanced and profitable 'use' of the attractions and of the surrounding area, minimising use-related costs and maximising the benefits coming from reputation and 'property value' gained by famous sites. To be effective, such strategies should be planned at different territorial levels.

The ancient town of Pompeii, which records 1.9 million visitors a year (almost 89% of all visitors registered in the archaeological area), represents the first level of analysis. Just 6% of total visitors to Pompeii spend the night in the local accommodation establishments, while 94% are same-day visitors, who spend just a few hours in the area, and this intensive use causes inevitable 'wear and tear' problems to such delicate a resource.

The second level concerns the interactions between the ancient and the new Pompeii, i.e. the archaeological excavations and the modern town located close to the site. The focus is on the interactions between visitors and residents and then on the benefits but, above all, on the costs

that tourism development brings to the local community (e.g. problems of parking and traffic congestion).

The third level takes into account the visitor flows between Pompeii and Herculaneum. As will be discussed in Section 5, the Pompeii excavations are the leading attraction and the 'node' of the itinerary network within the archaeological area. The majority of people visiting just one site choose this attraction, while most itineraries in the area start from there. Of all people interviewed in the direct survey, 88% visited or had planned to visit Pompeii; 34% visited or were going to visit the Church, while 23% visited or would visit Herculaneum.

Finally, the fourth level of analysis evaluates the archaeological area as part of a wider tourist region including the Neapolitan Riviera (Sorrento, Amalfi, Ravello, etc.) and the urban agglomerations from which excursionists mainly originate (e.g. Naples and Rome).

The inadequacy of information and/or the lack of reliable data on volume, dynamics and characteristics of visitor flows are considered, by public and private organisations, to be one of the main hindrances to the development of such strategies. For example, visitor statistics only record the total volume of individuals entering both archaeological sites, without any distinction by nationality or typology (e.g. tourists and same-day visitors). Furthermore, they do not provide any information concerning visitor's motivations and impressions and the way the visit is organised. On the other hand, data collected at the accommodation establishments of the towns of Pompeii and Herculaneum only record tourists in registered hotel and non-hotel accommodation. People staying in the homes of friends and relatives and, above all, same-day visitors -- who represent the main segment of tourism flows -- are generally omitted.

The project promoted by the Italian Ministry of Cultural and Environmental Heritage, in co-operation with CISET, intends to fill this gap. It aims at collecting a whole range of information on characteristics and trends of tourism demand in the archaeological area of Pompeii and Herculaneum and on the interactions between this area and the whole tourist region. The final goal is to define the actions that should be implemented in order to enhance the quality of the visit, to ensure a better management of visitor flows and to generate positive economic impact for the whole area, by preserving primary natural and cultural resources at the same time.

The organisation of a direct visitor survey at these popular tourist places represents the first step of the study. It has allowed researchers:

1. to analyse the different profiles of visitors by origin, travel and visit behaviour;
2. to identify the itineraries followed within the archaeological area and the importance of such attractions in the decision to visit the Campania region;
3. to select the other tourist resorts visited in the Neapolitan tourist area;
4. to monitor the satisfaction of the visit and the visitors' perception of the natural, urban and social environment where the sites are located .

The project is still in progress and will be further developed during 1998.

3. Measuring inbound visitors at popular tourist places. Main issues

As discussed in the Eurostat Manual, the choice between using secondary data and organising a primary data collection and, in the latter case, the kind of survey (or system of surveys) to be carried out, depends on the area to be monitored and the information to be collected (Eurostat, 1998).

In a small open area, i.e. an area where there is no control mechanism to visitor entry (e.g. a small region, a city or an attraction), a survey at popular tourist places is usually the best solution. It allows researchers to collect a complete range of information on visitor and trip characteristics and on the quality of the travel experience (Tabs. 1 and 2).

Tab. 1 Open area. The suggested survey venue according to the kind of area

Survey venue	Area	OPEN AREA		
		LARGE Region	SMALL Region/City	SMALL Attraction
At entry/exit points		NO	NO	NO
In means of transport		NO	NO	NO
At accommodation establishments		YES	YES	NO
At popular tourist places		YES	YES	YES

Source: Eurostat, Reference Manual, 1998

Tab. 2 Open area. The suggested survey model according to the kind of information to be collected

Information	Area	OPEN AREA		
		LARGE Region	SMALL Region/City	SMALL Attraction
Volume of visitor flows		PLACE or ACCOM	PLACE or ACCOM	PLACE
Visitor and trip characteristics		PLACE or ACCOM	PLACE or ACCOM	PLACE
Quality of travel experience		PLACE or ACCOM	PLACE or ACCOM	PLACE
Expenditure behaviour		PLACE or ACCOM (*)	PLACE or ACCOM (*)	PLACE

Note: PLACE = survey at popular tourist places (open or closed)

ACCOM = survey at accommodation establishments

(*) In this case, the survey at accommodation establishments only provides information on tourists' consumption behaviour

Source: Eurostat, Reference Manual, 1998

The general advantages of such a survey, in comparison with a survey at accommodation establishments, are firstly that both domestic and international visitors may be investigated, as

well as overnight tourists and same-day visitors. Secondly, it can be used for monitoring the attraction itself, measuring volume and characteristics of visitor flows who visit the site, and to evaluate the same flows as representative of the tourist pressure that affects the area in which the attraction is located.

As for disadvantages, if the survey is aimed at measuring visitor pressure in the surrounding area, its value depends first of all on the extent to which visitors interviewed at those places are representative of all people travelling in the area. Consequently, this method may fail to ensure that all inbound visitors -- including those who are in the area but do not visit the selected attractions -- have a known, non-zero probability of being included in the sample.

A second category of problems is represented by duplicate listing of some sampling units. Firstly, a visitor may visit a single attraction more than once or may visit more than one attraction during his/her stay in the area. Consequently, the visitor's probability of being sampled varies as a function of his/her frequency of visit. This bias is specifically defined by Perdue as 'participation bias', instead of 'length of stay bias' as in the tourism literature (Perdue, 1986). The reason is in that while frequency and length of stay are highly correlated, the frequency of visit and the amount of time spent in the survey area are not necessarily the same. It is possible for an individual to visit an area for an extended period without visiting any of the selected attractions, or to visit the same attraction more than once, or more than one attraction, in a relatively short time. For example, a visitor spending four nights in a place has four times the probability of being interviewed at one or more attractions than a visitor spending one night. However, the first may not even visit any of the selected attractions, while the latter may visit two or more of them in a few hours. In this case, it may be necessary to carry out a supplementary survey in order to calculate the likelihood of visitors being interviewed at the selected attraction. Generally speaking, the probability of multiple visits at the same attraction is usually higher in an open tourist site, i.e. a site where there is free entrance (a church, a street, a square, etc.), than in a closed attraction.

A second form of duplicate listing may occur when an individual visits the area under study more than once during the whole survey period, no matter whether he/she visits the attractions or not and, in the first case, the frequency of visit to one or more attractions. This bias is named 'visit bias' (Perdue, 1986): the visitor's sampling probability varies as a function of the number of passages he/she makes within the area under study. Assuming there are no participation bias, each visit by individuals making multiple visits within the area during the survey period is a sampling frame listing. Consequently, the probability of being surveyed for these visitors is substantially higher than for those individuals who only go on one visit.

This kind of bias is relevant when the visitor is the unit of analysis. While the participation bias typically results in an over-estimation of both average visitor expenditure and the economic impact of tourism, failure to correct for visit bias may generally result in over-represented values for some visitor segments, especially for the more frequent visitors.

In the archaeological area investigated, the survey has been organised at two *closed* attractions, the excavations of Pompeii and Herculaneum, and at one *open* attraction, the Church of Madonna in Pompeii, which is located in the urban centre of the town of Pompeii. The choice to also include the latter site, which is an important destination of pilgrimages, was made in order to enhance the monitoring of visitor's perception in the area surrounding the Pompeii excavations.

The solutions adopted to correct the two kinds of problems described above (incomplete coverage of the study population and duplicate listing bias) are discussed in Section 4.1.

4. The visitor survey. Methodology and organisation

The survey was carried out from May to November 1997, which is the time period when, according to official sources, about 70% of total annual visits are concentrated (ENIT, 1996).

About 5,700 face-to-face interviews were conducted among visitors leaving the excavations or the Church, so as also to collect their impressions on the visit. Although personal interviews are very expensive in terms of time, money and staff, they usually ensure the highest response rates and the highest reliability of information collected, for interviewers are able to give maximum assistance to respondents in understanding questions (Eurostat, 1998).

A system of two surveys was implemented:

1. a *pilot* or *preliminary survey*, carried out just before the main survey to test the survey plan and the questionnaire design, to evaluate the probability of each visitor being interviewed and, then, to check whether the selected sample is representative of the study population;
2. the *main survey*, to collect complete information on the visitor and the visit.

Before starting the survey, the secondary data available on volume and characteristics of the population to be investigated was checked. Data on total visitor flows to the excavations, by site and by month, is collected by ENIT (the Italian National Tourist Bureau), but it is not divided by nationality or by typology (tourists and excursionists). The latter distinction is important since tourists and same-day visitors usually have different travel behaviour and also a different socio-economic impact on the local environment

As for same-day visitors, three main categories have to be taken into account, according to the place from where they come to visit the attraction and where they move or go back to after the visit:

- ***true same-day visitors***, i.e. people who visit the archaeological sites or the Church during the day leaving from and returning to their habitual place of residence. For example, a family living in Naples who spend a Sunday visiting Pompeii and go back home on Sunday night (domestic visitors);
- ***indirect same-day visitors***, describing those who visit the sites or the Church leaving from and returning to (round trip) the same vacation site, where they are counted as overnight visitors. For example, a Danish couple holidaying in Sorrento who decide to visit Pompeii;
- ***in-transit same-day visitors***, where those visiting the sites or the Church leave from a place different from the place where they are directed to. The visit is generally a stopover as a part of a trip from home to the holiday destination and vice versa, or from a tourist resort to another tourist resort. An example of the first case is an Italian family living in Rome who decide to visit the excavations on their travel from home to the tourist village where they will spend their holiday. As for the second case, a Danish couple making a tour in Italy who decide to visit Pompeii on their way from Rome to Sorrento.

Each category is expected to choose different itineraries within the archaeological area (e.g. they may only visit Pompeii, or Pompeii and Herculaneum or all three attractions). Furthermore, each type of visitor identifies a different area from where he/she comes (home, holiday resort, etc.): the larger this area, the higher the attractiveness of the cultural resource and then the pressure generated by different demand segments.

4.1. The sampling design

The sampling frame from which the sample was drawn, was composed of all individuals (Italians and foreigners, tourists and same-day visitors) visiting the archaeological sites of Pompeii and Herculaneum during the survey period. As for the Church, the potential sample units were represented by all people visiting the Church for cultural purposes, or for cultural and religious purposes.

This frame ensured a complete coverage of the target population. According to secondary data and to the results of the preliminary survey (see 4.3.), the archaeological excavations and/or the Church of Madonna in Pompeii are the main purposes of visit for almost all people who pass through the towns of Pompeii and Herculaneum for tourism. It means that there are no tourists who pass through the area for reasons other than visiting these attractions.

As for duplicate listing bias, the prospective respondents were qualified by an identification process built into the questionnaire, which allowed the sample to be refined to just those who possess the desired attributes stated for the sample.

The preliminary survey confirmed that visits to more than one attraction were highly probable, while multiple visits to the same site only affected the free attraction, i.e. the Church, where people may pay more than one visit during the survey period.

Taking into account 'visit bias', a visitor may pass through the archaeological area more than once during the whole survey period, independent of the number of attractions he/she visits. Consequently, the probability of being surveyed for these visitors is substantially higher than for those individuals who visit the area just one time.

To avoid both kinds of duplication, a pre-selection was made in order to verify whether the visitor contacted was qualified as respondent (Eurostat, 1998). A question was included at the very beginning of the questionnaire, asking the visitor if he/she had already been interviewed or not. In the first case, the interview was closed and another sample unit was drawn, according to the stated sampling plan. As for the Church, a further selection was made by purpose of visit. Individuals qualified as respondents were those who only visited the Church for cultural purposes or for cultural and religious reasons, thus excluding those who went there just to hear Mass or to pray. This kind of respondent is expected to visit the Church just one time during the their stay. The identification of people to be interviewed has been done through a second filter question placed at the very beginning of the questionnaire, asking people the main purpose for visiting the Church (see 4.2.).

4.1.1. The sampling selection method

The sample was selected by adopting a *two-stage random sampling* technique. This method is the most effective and efficient when dealing with very large or dispersed populations, whose size is not known or varies over time, such as a tourist population (Eurostat, 1998; Smith, 1995).

Two sub-populations, mutually exclusive and that respect a sort of hierarchical order were identified. The time span of seven days, corresponding to a survey week, represented the units of the first stage; people visiting each archaeological site or the Church were the units of the second stage. According to statistical literature (Cochran, 1977; Cannon, 1994), the units of the first stage may be further stratified randomly or systematically, taking into account that visitors usually tend to concentrate on some days of the week (e.g. weekend) more than on others. In this survey no further stratification was adopted, since the data available showed an almost homogeneous distribution of visitor flows over all days of the week, given the different kind of demand segments who visit the sites (e.g. classes, package tours, cruisers, etc.).

In detail, every month included in the survey period (from May to November 1997) was divided into four weeks and a week was drawn randomly from each month, considering both peak and lean periods, for a total of 49 sampling days.

Given a sampling week, in each survey venue the same number of interviews was allocated daily. Every day was then divided into time intervals from a minimum of five to a maximum of eight hours -- according to the number of questionnaires to be distributed in each site -- during which the interviews were carried out². Two workshifts (the first in the morning and the second in the afternoon) were organised for the interviewers, so as to cover the whole opening time of both the archaeological sites and the Church.

The selection of visitors to be interviewed was made by implementing a systematic drawing at random start. The interviewers were trained to stop the first person that passed, every 15 minutes, through an imaginary line drawn in front of them, just outside the venues' exit.

4.1.2. The sample size

About 5,700 interviews were carried out during the survey period. The choice of the sample size was made by taking into account the trade-off between the information to be collected, and the level of detail to which it was to be analysed and disaggregated, and the available resources -- in terms of money, staff and time -- to collect such information. According to Eurostat guidelines, if a detailed analysis of the visitor and the trip has to be carried out, a sample of 6,000-7,000 completed interviews are required.

The distribution of the total interviews between the archaeological sites of Pompeii and Herculaneum was made by using the data on total visitor flows provided by ENIT (ENIT, 1996). There is no data available on visitor flows to the Church and, in more detail, on people visiting the Church for purposes other than just hearing a Mass. So it was initially planned to allocate to this attraction a small share of the interviews stated for Pompeii, and then to correct this allocation according to the results of the preliminary survey. The adjustment process is discussed in Section 4.3.

The procedure implemented for distributing the questionnaires was as follows:

1. in the first step, the share of visitors to Pompeii and Herculaneum on total visitors to both attractions during the survey period was calculated;
2. in the second step, the seasonal distribution of visitor flows in the two archaeological sites was considered by estimating, in each survey venue, the monthly share of visitors on total visitors recorded in the survey period;
3. finally, a share of the questionnaires determined for Pompeii was allocated to the Church of Madonna in Pompeii, according to the same monthly distribution calculated for the archaeological site. A high correlation between the two survey venues was assumed: people visiting the Church for cultural purposes have a high probability of also visiting the other attraction and vice versa.

² During the survey period, the timing of collection was modified week by week, according to the different number of interviews to be carried out in each survey venue, and to the variation in the sites' opening time (which was longer in summer).

4.2. The questionnaire(s)

Three survey questionnaires, one for each survey venue, were prepared starting from a common group of questions. In each questionnaire, specific questions concerning each site were then added.

The introductory sheet includes one filter question common to all survey venues, which verifies if the visitor has qualified to be interviewed, i.e. if he/she has already been contacted in the same or in other survey venues. As mentioned before, a second filter question was added for the Church, which investigates the main purpose of visiting the attraction. Individuals who replied that they visit it only for religious purposes (e.g. to hear Mass) were automatically excluded from the sample.

A third question aims at distinguishing Italians and foreigners, checking the respondent's country/region of residence.

Form 1 firstly focusses on purpose of visit and on visitor's perception of both the attraction (quality of visit, ticket price, etc.) and the area in which it is located (urban and natural environment, accessibility, tourism facilities, etc.). Secondly, it checks whether the respondent has already visited or is going to visit the other survey venues (e.g. the Church and/or Herculaneum, if he/she has been interviewed at Pompeii) and/or other important tourist resorts located in the surroundings of the archaeological area. (Naples, Sorrento, Capri, etc.) Finally, it verifies the willingness of visitors to buy a combined ticket to visit both the archaeological sites, which includes the guided visit and other facilities.

Form 2 identifies above all the kind of visitor who is being interviewed: overnight tourist or same-day visitor and, in the latter case, the kind of same-day visitor (true excursionist, indirect excursionist, etc.). The selection was made by focussing on the place from where he/she has left to visit the attraction and where he/she will move or go back to after the visit (place of residence, holiday resort or other). The form is divided in two parts. In the first, *people departing from home* are divided into three groups:

- those who go back home after the visit (true same-day visitors);
- those who overnight in the place where the attractions are located (overnight tourists);
- those who spend the night after the visit in another place (in-transit same-day visitors).

In the second part, *individuals* who visit the attraction *leaving from a place different from home* are shared into three groups:

- those who leave from and go back to the place where they are spending their holidays (indirect same-day visitors);
- those who spend the night after the visit in the archaeological area (overnight tourists);
- those who are on a tour and, after the visit, move to a place different from where they have left (in-transit visitors: e.g. a group of visitors travelling from Rome to Sorrento who visit Pompeii during a stopover). This category also includes people who sleep on means of transport the night after the visit (on a train, on a ship, etc.).

Common to both parts is a group of questions concerning the travel organisation (main purpose, length of stay, accommodation, package tour or not, etc.), the means of transport used to reach the Campania region and the visited attraction, and the composition of the travel party. Information on transportation is useful for completing the analysis of itinerant visitors, while recording the number of people travelling with the respondent and visiting the attraction is important for assessing the real tourist pressure that affects each site, which is usually larger than that estimated by just counting him/her.

Finally, Form 3 provides basic information about the demographic and socio-economic status of the visitor interviewed (age, sex, education, and professional occupation).

Copies of the whole questionnaire used at the archaeological site of Pompeii and of the introductory sheet prepared for the Church of Madonna in Pompeii are included in the Appendix attached.

4.3. The system of surveys

A preliminary survey was carried out in May 1997 to examine the effectiveness of the survey plan, of the sampling plan and of the questionnaire design and to check the probability of qualified respondents being interviewed. In detail, a pilot week was organised in all three survey venues to test:

- the representativeness of the sample drawn in comparison with the sampling frame;
- the probability of a qualified visitor (cultural/religious visitor) being interviewed at the Church of Madonna in Pompeii ;
- the internal coherence of the questionnaires and the presence of difficult, confusing or misleading questions;
- the ability of interviewers to contact potential respondents;
- the location of the survey points and the effectiveness of the time intervals chosen when to conduct the interviews.

According to the information collected, visitors to the Pompeii excavations were well represented. People contacted at Herculaneum showed more varied visit behaviour than expected before. As for the Church, only 5-10% of total respondents visited the Church for cultural purposes or cultural/religious purposes.

Consequently, the number of questionnaires initially allocated to the Church was reduced proportionately (see 4.1.2.). The difference, instead of being re-allocated to Pompeii, was transferred to the Herculaneum excavations. The decision to over-estimate the volume of visitors to this site, in comparison with data on visitor flows provided by official sources, was taken in order to carry out a thorough analysis of individuals who chose to visit this less well-known attraction. The final number of questionnaires allocated to each survey venue is showed in Tab. 3.

The main survey was carried out during six weeks from June to November 1997. A group of supervisors monitored the interview process and examined the questionnaires collected by interviewers daily. They checked that questionnaires were all completed and that responses were legible and consistent.

5. Visitor patterns and tourist itineraries. The survey results

The results described here represent the first outcome of the analysis Ciset is currently carrying out. The profile of the visitor to the archaeological area (main characteristics, travel and visit behaviour, travel organisation, etc.) is discussed, by distinguishing tourists from same-day visitors and dividing the latter between true excursionists, indirect excursionists and in-transit excursionists.

The main goals are, firstly, to reconstruct the itineraries of visitors within the archaeological area, checking whether a relationship exists between their cultural level and socio-economic status on the one hand and their satisfaction from the visit on the other. Secondly, to analyse the itineraries within the Neapolitan tourist district where the archaeological area is situated, so as to verify whether, and to what extent, the excavations and the Church are included in a multi-destination tour in the Campania region or in Southern Italy. A first overview on independent versus package visitors completes the analysis, in order to check different visit behaviour and the itineraries chosen.

5.1. A general overview

More than 60% of the approximately 5,700 people interviewed are foreign visitors, coming especially from the USA (20%), the UK (14%), Germany (12%), France (9%), Japan (5%) and Australia (4%). Domestic visitors represent about a third of the sample and generally reside in Campania (21%), Lazio, Lombardy and Sicily (over 10% of the total each).

The interest in culture and cultural heritage is the primary purpose for visiting the survey venues (over 80% of total responses) and the excavations of Pompeii and Herculaneum are very important in deciding to visit the Campania region (88%).

Visitors are generally satisfied with the visit and, in the case of the archaeological sites, more than 70% of the interviewees consider the entrance fee reasonable. There is not a direct relationship between satisfaction on the one hand, and cultural level and socio-economic status of respondents on the other. Using the level of education as a proxy of culture and the professional occupation as a proxy of economic status, opinions expressed on quality of visit and on the cost met are substantially the same for all categories investigated. Just the opportunity to visit such famous attractions seems to generate satisfaction, despite the visitors' cultural level.

5.1.1. Attractions visited and itineraries chosen

According to the survey plan, 71% (4053, in absolute values) of all sampled visitors were interviewed at the Pompeii excavations, 15% (862) at Herculaneum and 14% (800) at the Church of Madonna in Pompeii (Tab. 3).

Tab. 3 Distribution of visitors per survey venue and per attraction(s)

Survey venues	Pompeii	Herculaneum	Church of Madonna in Pompeii	Total visitors per attraction(s)
Attraction(s) visited or to be visited				
<i>Absolute values</i>				
Pompeii	2789	0	0	2789
Herculaneum	0	289	0	289
Church	0	0	370	370
Pompeii+Herculaneum	224	477	0	701
Pompeii+Church	878	0	339	1217
Herculaneum+Church	0	9	10	19
Pompeii+Herculaneum+Church	162	87	81	330
Total visitors per survey venue	4053	862	800	5715
<i>Distribution of interviews per survey venue (%)</i>	70.9	15.1	14.0	100.0
<i>Distribution of visitors per attraction(s) (%)</i>				
Pompeii	68.8	0	0	48.8
Herculaneum	0	33.5	0	5.1
Church	0	0	46.3	6.5
Pompeii+Herculaneum	5.5	55.3	0	12.3
Pompeii+Church	21.7	0	42.4	21.3
Herculaneum+Church	0	1.0	1.0	0.3
Pompeii+Herculaneum+Church	4.0	10.2	10.3	5.8
Total visitors per survey venue	100.0	100.0	100.0	100.0

For individuals contacted at the Pompeii excavations, this visit is generally independent of that to the Church and/or to Herculaneum. Almost 69% of them visit only this attraction during the survey period, mainly because of lack of time. They are generally first-time visitors, i.e. individuals who visit the area or the Campania region for the first time. Of those who visit two sites (27%), the majority opt for Pompeii and the Church (22%), while 4% visit all survey venues (Tab. 3). Many foreign visitors have never heard of Herculaneum, probably because tourist guides or tourist brochures do not mention this site or give it less importance than Pompeii. Considering other reasons for only visiting the Pompeii excavations, about 5% are not interested in visiting the other attractions, 2% state the Church and Herculaneum are not included in the programme of the tour (package visitors), while 2% have already visited them in the past.

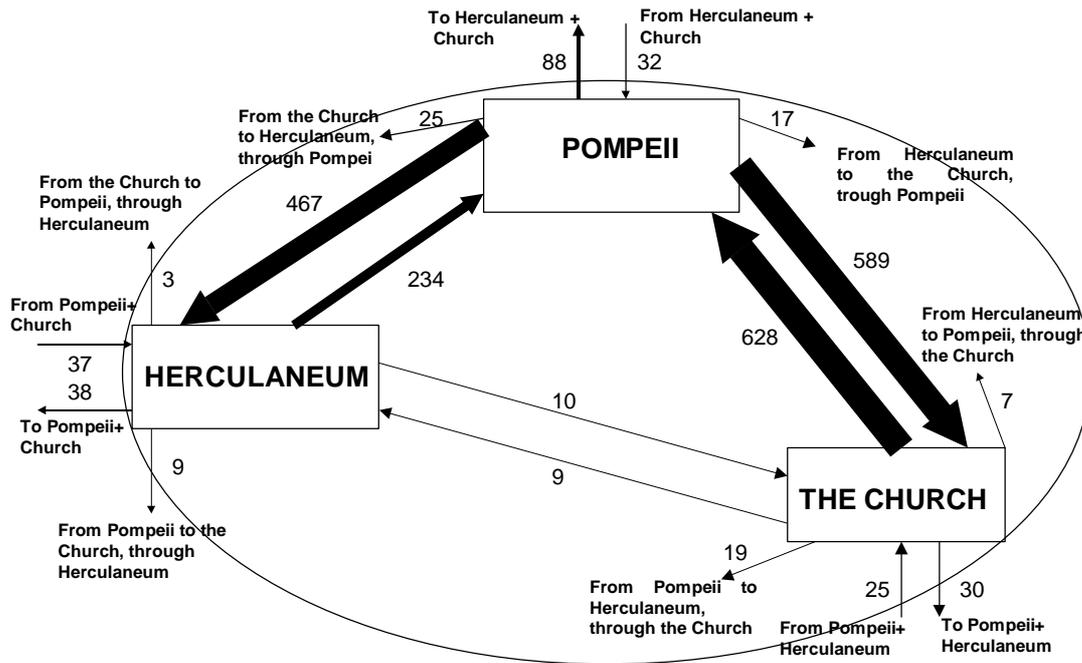
As for the Church of Madonna in Pompeii, 46% of visitors interviewed there only visit the Church, mainly because they already know the archaeological sites as residents in the region (40%) or because they have no time to visit other attractions (37%). Of those who visit two or more sites (54%), about 80% choose the Church and Pompeii, 1% the Church and Herculaneum and 19% state to visit all three attractions (Tab. 3).

People showing the highest attitude to move within the archaeological area are those interviewed at Herculaneum. Just a third visits only this site, since they already know Pompeii and/or the Church (41%), or they have no time to visit them (36.5%). Of those who follow an itinerary within the area (66%), 84% visit Herculaneum and Pompeii, 1% Herculaneum and the Church while 15% both the archaeological sites and the Church (Tab. 3).

If the distribution of itinerant visitors -- i.e. of those who visit at least two sites during their stay in the archaeological area -- is evaluated, independently from the place where they are contacted, the routes followed by different visitor flows may be drawn. The most popular itineraries are

those between Pompeii and the Church, probably because of proximity. Out of 2267³ itinerant visitors, almost 28% of them (628, in absolute values) first visit the Church and then the Pompeii excavations, while 26% start from the archaeological site and then go to the Church (589 visitors)(Fig. 2).

Fig. 2 Itineraries within the archaeological area. Distribution of itinerant visitors for each route (2267 visitors in total. Absolute values)



On the other hand, the route from Pompeii to Herculaneum (the distance between them is about seven miles) ranks third, with a share of 21% (467), followed by that from Herculaneum to Pompeii, with 10% (234). Very few visitors leave from Herculaneum to visit the Church and vice versa. Totally, 85% of itinerant visitors interviewed visit two attractions. The other 15% (330) visit all three sites, with half of them (162) concentrated on routes having Pompeii as starting and ending point (respectively, 88 and 32 visitors) or, more, as a stopover from Herculaneum to the Church and vice versa (17 and 25 visitors).

5.1.2. The role of the Pompeii excavations and of the archaeological area as a whole in the Neapolitan tourist region

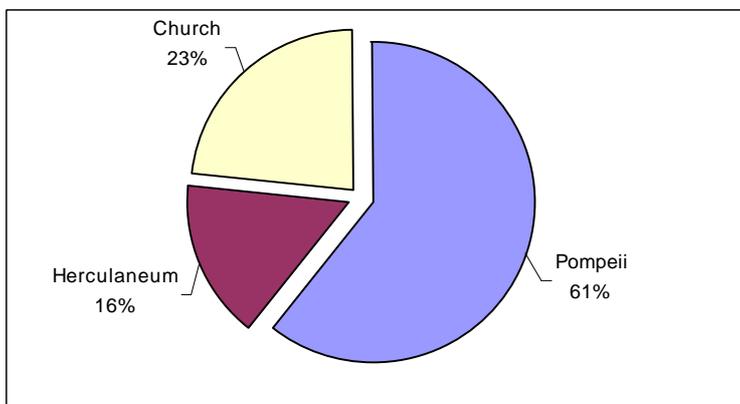
As showed in Figure 2, the Pompeii excavations are the leading attraction and the 'node' of the itinerary network within the archaeological area. The majority of visitors visiting just one site choose this attraction, while most itineraries in the area start from or pass through there. This is

³ The figure is calculated by reducing the total number of visitors interviewed (5715) of those who visit only the attraction where they are contacted (3448 visitors, of whom 2789 at The Pompeii excavations, 370 at The Church and 289 at Herculaneum).

also true for people contacted at Herculaneum: most of those who state to visit both Herculaneum and Pompeii have already visited the Pompeii excavations at the time of interview. In detail, considering all people interviewed, 88% have visited or have planned to visit Pompeii during their stay in the area; 34% have visited or are going to visit the Church, while 23% have visited or will visit Herculaneum.⁴

The central role of Pompeii is confirmed by the distribution of total visits (made and planned) in the area. More than 60% of visits are to Pompeii, 23% at the Church and 16% to Herculaneum, with an average of 1.45 attractions visited by each person interviewed (Fig.3).

Fig. 3 Concentration of visits made and planned during the survey period in each survey venue

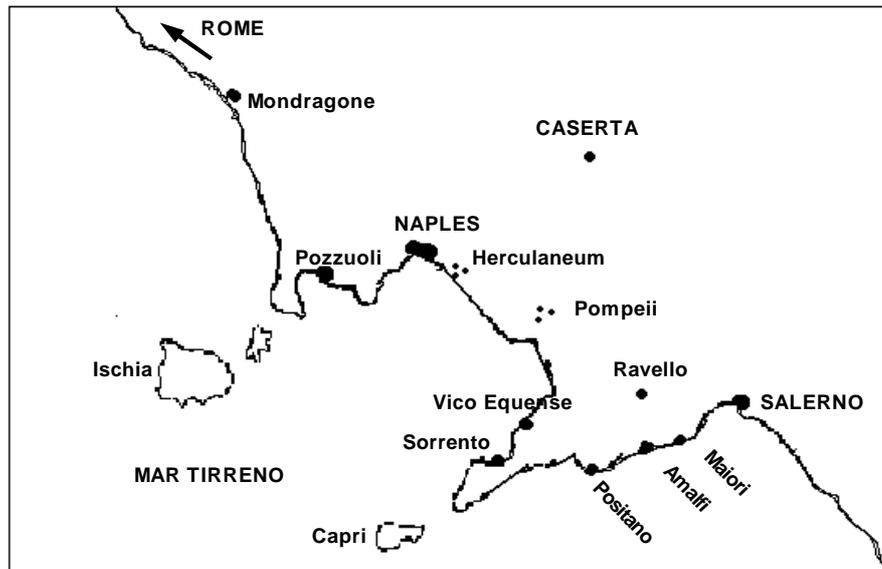


Generally, the visit to the archaeological area is not the main purpose of the trip, even though these attractions are relevant in deciding to visit the Campania region. For more than 80% of people interviewed, the visit is part of a larger itinerary that includes the most famous tourist resorts of the Neapolitan Riviera, such as Naples, Sorrento, Amalfi and the Amalfi Coast, Capri, Positano and Ravello (Fig. 4). In detail, each survey venue is specifically:

- a destination for a daily excursion from the tourist resort (e.g. Sorrento) where visitors are spending their holiday (indirect same-day visitors);
- a stopover on a tour in this district or in Southern Italy (in-transit visitors);
- on a lesser extent, a short excursion for cruisers sailing along the Italian coasts or in the Mediterranean (in-transit visitors);
- a daily excursion from home for people living in Campania or in neighbouring regions (true same-day visitors).

⁴ The total is over 100 because some people visit two or more attractions.

Fig. 4. The most visited tourist destinations in the Neapolitan tourist region



Indirect same-day visitors represent almost a half of total interviewees, followed by in-transit excursionists (36%) and true excursionists (12%). Overnight tourists are just 6% of the total. The proximity of such leading resorts, which are important references in the tourist image of Italy since the age of the Grand Tour, combined with the poor quality of the accommodation establishments in Pompeii and Herculaneum, explains why very few interviewees overnight in the survey area.

However, there are generally good opportunities for the creation of suitable itineraries within the archaeological area, to be offered both to independent and package visitors. More than 80% of visitors interviewed would be willing to buy a combined ticket to visit both the archaeological sites, including the guided visit and other facilities. This project would favour a better distribution of visitor flows between the two sites, above all in peak periods.

5.2. Overnight tourists

Tourists who spend the night in the accommodation establishments of Pompeii or Herculaneum are about 6% of total visitors interviewed, and this data is coherent with that estimated from official sources⁵. They come equally from Italy and from abroad and, in the latter case, primarily from Germany (21%), France (16%) and the USA (13%). More than 50% have already visited or are going to visit attractions other than the one where they have been interviewed. The rest of the sample state either that they have no time to visit them (62%), that they are not interested in them (18%) or that they have never heard of them, so they are not stimulated to plan the visit (6%). The different routes chosen by tourists (e.g. whether they start from Pompeii and then go to Herculaneum or vice versa) and by other visitor segments (true same-day visitors, indirect same-

⁵ According to official sources, if the total number of visitors at the Pompeii excavations is compared with the total number of arrivals in the accommodation establishments of Pompeii, and one supposes that all people who overnight there visit the site, only 4% of total visitors qualify as registered tourists.

day visitors, etc.) have not been identified yet. The analysis will be developed in the second part of 1998.

Only 60% of tourists interviewed were able to express an opinion on the natural and social environment in which the attractions are situated, mainly due to a short stay in the area (more than 50% of the total spend no longer than one night there)(Tab. 4).

Of tourists who express an opinion, scenery and natural environment have the highest rating. Friendliness of local community, access by road, food and catering services are ranked 'good', while safety for tourists, quality of urban environment and cleanliness of urban areas are assessed between 'poor' and 'sufficient'. As for other items (accommodation, access by rail and tourist information), the majority of respondents are not able to judge them. A limited number of people travel by rail, while 40% of people interviewed overnight at Pompeii the night after the visit, so they are not able to check the quality of the accommodation establishments at time of the interview.

Tab. 4 Overnight tourists. Impressions on some relevant aspects and facilities of the area where the attractions are located (% share of responses by rating)

Local aspects	Rating						Total
	Unpleasant	Poor	Sufficient	Good	Excellent	Do not know	
Cleanliness of urban areas	4.2	21.3	39.4	22.2	2.8	10.2	100.0
Quality of urban environment	5.1	24.5	37.5	17.1	2.8	13.0	100.0
Scenery, natural environment	0.5	4.2	12.5	40.7	35.6	6.5	100.0
Safety for tourists	1.9	4.6	35.6	35.2	4.6	18.1	100.0
Access by road and quality of the road network	6.5	12.5	20.4	37.5	2.8	20.4	100.0
Access by train and quality of the rail network	0.0	1.9	2.3	16.7	3.7	75.5	100.0
Hotels and other accommodation establishments	0.9	4.2	15.3	33.8	5.1	40.7	100.0
Food, cuisine and catering services	1.4	4.6	11.6	38.4	9.3	34.7	100.0
Tourist information services	4.2	10.6	13.9	27.8	5.1	38.4	100.0
Friendliness of local people	0.0	1.4	10.6	46.8	22.7	18.5	100.0

More than 80% of tourists visit other important tourist resorts, such as Naples, the Amalfi Coast, Sorrento and Capri. The majority come from a place different from home (e.g. Napoli, Sorrento, Caserta or Rome) and spend the night after the visit in the archaeological area, while just 16% leave from the place of residence. The first are mainly individual tourists who overnight in a hotel (44%) or on a campsite (30%) for no longer than one night and travel by private car (50%) or by train (16%).

5.3. Same-day visitors

As discussed above, the archaeological area is above all an important destination of same-day visitors.

True same-day visitors represent 12% of total interviewees and generally include people living in the Campania region (58%) or in neighbouring regions (Lazio 17%; Puglia 13%), who make an excursion to the archaeological area, generally during weekends. Apart from the site where they are interviewed, 50% of them also go sightseeing to the other two attractions, while the rest of the sample have already visited them or have no time to visit them. There is a poor perception of the local environment, given the very short length of stay (about three-four hours), and that is common to the other categories of excursionists. Only a third visit other tourist resorts within the Neapolitan tourist district, and they are above all people living outside Campania. True excursionists generally travel by private car (61%) and by coach (25%).

Indirect same-day visitors represent the main share of daily visitors to the area under study (52%). They are primarily foreigners (76%) who visit the sites leaving from and going back to the same resort where they are on holiday, and where they are therefore registered as tourists. Almost a third leave from Sorrento, 17% from Rome, 14% from Naples and 4% from Amalfi or Positano. 27% of them have also visited or are going to visit at least one of the other survey venues, while for people who do not visit them the reasons are the same discussed for true same-day visitors. The majority of respondents also make an excursion to other resorts in the Neapolitan tourist district. The most visited destinations are Naples, Sorrento, Amalfi and the Coast, Capri and Positano, followed by Salerno, Mondragone-Baia Domizia, Vico Equense and Maiori (Fig. 4).

About a half of indirect same-day visitors are independent travellers, while 45% apply to a tour operator or a travel agency to buy a package tour, which generally does not include the visit to the archaeological area. They generally stay in a hotel (71%) and travel by coach (29%), by private car (28%) or by train (17%). Of those who travel to the Campania region by plane (16%), they reach Pompeii and Herculaneum by train or by coach.

Finally, **in-transit same-day visitors** (36%) are those for whom the visit to the archaeological area-- and especially to Pompeii -- is either a stopover during a tour in the Neapolitan tourist district, in Campania or in southern regions, or a planned excursion during a cruise in the Mediterranean. Naples is in fact both one of the most important 'homeports' and 'ports of call' along the routes from and to Greece, Turkey, France and Spain. The cityscape and the guided tour of the Pompeii excavations and/or Capri are the traditional excursions planned by most shipping cruise companies.

In-transit excursionists mainly reside abroad (73%) and generally have only enough time to visit Pompeii. 50% also go sightseeing in other tourist resorts in the area (the Amalfi Coast and Sorrento), and they are generally those who are making a tour in the Neapolitan tourist district. Most people interviewed depart from a place different from home, located in Campania or Lazio (Rome), while just 10% leave from home. Of the first, 47% organise the trip by themselves while 42% choose an all-inclusive package, which often includes the entrance fee to Pompeii. More than two thirds stay in a hotel the night before and after the visit, while 10% overnight on a ship or a train. As for the means of transport used to reach the Campania region and the archaeological area, 30% travel by car, 26% by coach and 13% by train. Visitors arriving in Campania by air (11%) or by sea (8%) reach the sites by rented car or by coach.

5.4. Independent and package visitors

Apart from place of origin and length of stay, the way travel is arranged may also identify a different travel and visit behaviour.

Independent or 'self-made' visitors represent 55% of the total sample, while 45% apply to an intermediary or to an association to arrange travel and/or stay. Italians generally organise by themselves (85%); for foreigners, package visitors slightly prevail over independent visitors (52% to 42%).

Self-made visitors appear relatively less 'cultured' than intermediate visitors. Although culture remains the most important reason to visit the archaeological area, 20% of independent visitors are just curious to see the attractions, in comparison with 10% of package visitors. Furthermore, a consistent share of self-made visitors thinks the entrance fee is too expensive, and they are mainly Italians.

Most people who buy a package tour only visit Pompeii, compared with 65% of independent visitors, and their perception of local environment is lower than for the latter. The excursion to the area is made during a holiday (93%) or a business trip (congress tourism: 3%), while for self-made visitors during a holiday (84%) or a visit to friends and relatives (12%).

The main purpose of travel also affects the type of accommodation establishment chosen: independent visitors overnight either in hotels (59%), in home of friends or relatives (18%) or on campsites (11%), while package visitors generally opt for hotel accommodation (83%).

The trip to the archaeological area mainly starts from a tourist resort located in the Neapolitan area or, in case of intermediate visitors, more than a third move from Rome. After the visit, 60% go back to the same resort, 35% move to another place and 5% go home.

Considering package visitors, more than 90% apply to an intermediary (travel agency or tour operator), while the rest have the trip arranged by parish or a recreational association. Of those who use an intermediary, two thirds are group of people (e.g. class, parish, recreational association, etc.), 25% are families or groups of friends and 8-9% individual visitors. The majority arrive to Campania and to the archaeological area by coach (57%), while 16% reach Naples by air and then go to Pompeii and Herculaneum by coach. As concerns self-made visitors, 50% travel by private car and 21% by train.

6. Concluding remarks and future developments

The identification of visitors' characteristics and of visit behaviour is a key-factor in assessing the impact of tourism in the study area. The paper has described the methodology implemented to monitor visitor flows to the archaeological area of Pompeii and Herculaneum and has provided a first sight on visitor profile and routes.

The implementation of policies affecting visitors to these attractions is not independent of the development of suitable management strategies for the whole area. The high number of players and of decision-making centres involved implies co-ordination of the actions taken by all entities who operate locally. Furthermore, the presence of both independent and package visitors requires a special focus on different players, public and private, that can affect their choices and behaviour. The assessment of the importance Pompeii and Herculaneum have as tourism products especially in package tours, require an evaluation of the role of intermediaries as promotional channels of local supply.

In detail, considering the visitor survey, three further elements will be analysed thoroughly during 1998:

- firstly, the relationships between satisfaction of visit and cultural level of visitors, by typology (tourists and same-day visitors). The attention will be focussed on those who feel not very satisfied or completely dissatisfied (4% of the total), so as to understand the reasons of discontent (e.g. entrance fee, purpose of visit, negative perception of local environment);

- the behaviour of itinerant visitors within the archaeological area, divided by typology (overnight tourists vs. same-day visitors, package vs. independent visitors). The aim is to verify the routes chosen within the area (e.g. whether they visit Pompeii first and then go the Church and/or Herculaneum, or vice versa) and the willingness to pay for a combined ticket for both archaeological excavations. Information collected would be very useful in defining 'alternative' itineraries of visit;
- finally, the role of Pompeii and Herculaneum in the tourist itineraries within the Neapolitan tourist district. The idea is firstly to identify the traditional itineraries in which the visit to Pompeii, or to the archaeological area as a whole, is included; secondly, to define some new routes that can be promoted and the visitor segments that seem more disposed to choosing them.

As for marketing analysis, the image of Pompeii and Herculaneum spread by promotion and communication tools (tourist guides, catalogues, brochures, etc.) will be analysed. A study will be undertaken on the perception that intermediaries have of the local product, meaning not only the cultural resources but also the natural and socio-economic environment in which they are located and the quality of tourism facilities offered (accommodation, accessibility, tourist information, etc.). This perception inevitably affects the decision to sell a product or not and, if the first is the case, the channels used to promote it on the market.

The final aim of both visitor survey and marketing analysis is to define the actions to be developed in order to inform and educate visitors both on site, during their stay in the area, and in their city/region/country of residence, when they are expected to plan their visit. An example of the first type of actions is the promotion of alternative routes within the archaeological area, through a better organisation and delivering of available information to visitors (e.g. electronic kiosks). As for marketing actions, to identify the channels/tools to be used to better organise independent and package visitors and to prevent visitor overcrowding: e.g. the media (TV, radio, magazines, etc.), travel operators, Internet.

References

- Cannon, J.C.: Issues in Sampling and Sample Design-A Managerial Perspective, in Ritchie, J.R.B., Goeldner, C.R. (eds.), *Travel, Tourism and Hospitality Research*, J. Wiley & Sons Inc., Second Edition, New York, 1994, pp. 131-143.
- CISSET-UCBAP: *I visitatori di Pompei ed Ercolano. Quale interazione tra turismo e territorio?*, Rapporto finale, 1998.
- Cochran, W.G., *Sampling techniques*, J. Wiley & Sons, New York, 1977.
- Costa, P., van der Borg, J.: Cultural tourism in Italy, *Quaderno CISSET n. 9/95*, 1995.
- Costa, P., Manente, M.: Monitoring excursionist flows: The case of Venice, *Quaderno CISSET, n.13/96*, 1996.
- Eurostat: *Reference Manual on Design and Implementation of Surveys of Inbound Tourism to an Area*, 1998 (forthcoming)
- EIU- The Economist Intelligence Unit: The market for cultural tourism in Europe, *EIU Travel & Tourism Analyst*, No. 6, 1993.
- ENIT: Dati ed introiti dei visitatori negli Istituti d'Antichità e d'Arte dello Stato. 1994-95, *Rapporto N.11*, agosto, Roma, 1996.
- Gotti, G., van der Borg, J.: Tourism in heritage cities, in van der Borg, J. (ed.). Proceedings of the international seminar "Alternative tourism routes in cities of art", 24-24 June 1995, Venice, UNESCO-ROSTE, *Technical Report no. 23*, 1995.
- Goodal, B., Stabler M.: Environmental Auditing in the Quest for Sustainable Tourism: The destination Perspective, *Proceedings of the international conference "Tourism in Europe"*, 8-10 July 1992, Durham, Centre for Travel and Tourism,
- IFTO: *Planning for sustainable tourism. The ECOMOST project*, IFTO, London, 1994.
- Manente, M., Rizzi, D.: I visitatori di Venezia: 1989-1992. *Nota di lavoro n.93.13*, CISSET e Dipartimento di Scienze Economiche, Università di Venezia, 1993.
- Perdue, R.R.: Duplicate listing sampling bias in visitor surveys, *Annals of Tourism Research*, Vol. 13, 1986, pp. 261-278.
- Smith, S.L.J.: Collecting data on tourism, in *Tourism Analysis. A Handbook*, Longman, Second Edition, 1995, pp. 42-63.
- Richards, G. (ed.): *Cultural Tourism in Europe*, CAB International, 1996.
- Salvatore, A.: Il flusso turistico in Campania. Il caso di Pompeii, in Nocifora, E. (ed.), *Il turismo contro l'integralismo*, Ipermedium, Napoli, 1996, pp. 151-163.
- Vanhove, N.: El turismo residencial frente el excursionismo: Brujas, *Estudios Turísticos*, N.126, 1995, pp.91-100.
- Vahnove, N.: Measuring the economic importance of tourism for a city-case study of Bruges (1991), Paper presented at the *TRC Congress*, Bern, 10th-13th April, 1992.

Appendix 1. The questionnaire for the Pompeii excavations

SURVEY OF VISITORS TO THE POMPEII EXCAVATIONS

RESERVED FOR CISET <i>(do not fill)</i>	
Serial number of the questionnaire	_ _ _ _

RESERVED FOR INTERVIEWERS	
First name and family name
Date of the interview (day/month/year)	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Time of the interview (hour and minutes)	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Length of the interview (minutes)	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Good morning/good afternoon. We are carrying out a survey of visitors to the Pompeii excavations. Would you be so kind as to devote us some of your time to fill in this questionnaire?

Have you already been interviewed? *(tick the number corresponding to the right answer)*

If YES, where?	<ul style="list-style-type: none"> • at the Church of Madonna in Pompeii • at the archaeological area of Herculaneum 	1	close the interview
		2	close the interview
If NO		3	go on

1. Where do you actually live?

- in Italy (Region, Province and City)
- abroad (Country of residence)

Form 1. Opinions on the visit and itinerary chosen

2. Why have you visited the Pompeii excavations?

- Cultural interest 1
- Professional interest 2
- Curiosity 3

3. How important was this attraction in your decision to visit the Campania region?

- Very unimportant 1
- Unimportant 2
- Indifferent 3
- Important 4
- Very important 5

4. Did the visit satisfy you?

- Very much 1
- Much 2
- Not a lot 3
- Not at all 4

5. The entrance fee is:

- Too expensive 1
- Reasonable 2
- Cheap 3
- No answer 4

6. Have you already visited or are you going to visit the Church of Madonna in Pompeii and/or the Herculaneum excavations during this trip?

- YES 1
- NO, you only visit Pompeii 2

6.1 If YES, please state what attraction(s) you have visited and/or you are going to visit (*select a. b., or c. and then tick the number that corresponds to the answer*):

- | | | |
|-----------------------------------|--|---|
| a. the Church | • you have already visited the Church | 1 |
| | • you are going to visit the Church | 2 |
| b. Herculaneum | • you have already visited Herculaneum | 3 |
| | • you are going to visit Herculaneum | 4 |
| c. the Church +Herculaneum | • you have already visited both the Church and Herculaneum | 5 |
| | • you have already visited the Church and you are going to visit Herculaneum | 6 |
| | • you have already visited Herculaneum and you are going to visit the Church | 7 |
| | • you are going to visit both the Church and Herculaneum | 8 |

6.2. (Only if the person interviewed has replied NO to question 6)

Why have you decided to visit NEITHER the Church NOR Herculaneum?

- because you reside in the area and you already know them 1
- because you visited them some time ago 2
- because you are not interested 3
- because you have no time to do it 4
- other reasons (specify) 5

6.3. From your experience in Pompeii and/or Herculaneum areas, how would you rate the following local aspects? Please mark each item 1 to 5, where 1= unpleasant, 2= poor, 3= sufficient, 4= good, 5=excellent (Show the list to the respondent and tick the box corresponding to the answer)

- | | 1 | 2 | 3 | 4 | 5 | You don't know |
|---|---|---|---|---|---|----------------|
| • cleanliness of urban areas | | | | | | |
| • quality of urban environment | | | | | | |
| • scenery, natural environment | | | | | | |
| • safety for tourists | | | | | | |
| • access by road and quality of the road network | | | | | | |
| • access by railway and quality of the rail network | | | | | | |
| • hotels and other accommodation establishments | | | | | | |
| • food, cuisine and catering services | | | | | | |
| • tourist information services | | | | | | |
| • friendliness of local people | | | | | | |

7. Have you already visited or are you willing to visit other attractions during this trip?

- YES 1 (go to question 7.1.)
- NO 2 (go directly to question 8)

7.1. If YES, what are these attractions? (multiple choice)

- Naples and Mount Vesuvius 1
- Torre del Greco 2
- Castellammare di Stabia 3
- Sorrento 4
- Positano 5
- Ravello 6
- Amalfi and the Amalfi Coast 7
- Ischia 8
- Capri 9
- Caserta 10
- Paestum 11
- Other (specify) 12

8. If a cumulative ticket for visiting both the archaeological areas of Pompeii and Herculaneum was sold (including the guided visit and other facilities), would you buy it?

- YES 1
- NO 2

Form 2. Characteristics of the trip

a. The place of departure and the arrangements for the trip

9.-10. Where did you come from to visit Pompeii? From your place of residence or from another place? (Fill just one of the following schemes)

9. From your place of residence. If NO, go to question 10. If YES, go on

<p>9.1. What is the place? (Name and province if the respondent resides in Italy; country if he/she resides abroad. See question 1)</p> <p>.....</p> <p>9.2. How far is it from Pompeii?</p> <ul style="list-style-type: none"> • from 0 to 20 Km (e.g. Pagani, Nocera Inf., Castellammare di Stabia) 1 • from 20 to 40 Km (e.g. Naples, Sorrento, Salerno) 2 • from 40 to 80 Km (e.g. Capri, Caserta, Avellino) 3 • from 80 to 150 Km (e.g. Ischia, Potenza, Cassino) 4 • over 150 Km 5 <p>9.3. Where will you spend the next night?</p> <ul style="list-style-type: none"> • at home 1 (go directly to question 11) • in Pompeii 2 • in another resort (specify) 3 <p>.....</p> <p>9.4. If NOT at home, how many nights will you spend in that resort?</p> <ul style="list-style-type: none"> • 1 night 1 • 2-3 night 2 • from 4 to 7 nights 3 • from 8 to 14 nights 4 • from 15 to 21 nights 5 • more than 21 nights 6 <p>9.5. What is the <u>main purpose</u> for staying there? (one choice)</p> <ul style="list-style-type: none"> • Leisure, recreation and holidays 1 • Visiting friends and relatives 2 • Attendance of congresses, fairs, etc. 4 • Health treatments 5 • Religious purposes 6 • Other (specify) 7 <p>.....</p>	<p style="text-align: right;">• Business and professional 3</p> <p>9.6. In what type of accommodation will you stay?</p> <ul style="list-style-type: none"> • Hotel, pension 1 • Tourist village 2 • Campsite 3 • Rented dwelling 4 • Owned dwelling 5 • Home of friends or relative 6 • Monastery or similar establishment 7 • Other (specify) 8 <p>.....</p> <p>9.7. How did you arrange your trip in that resort?</p> <p>⇒ You arranged the trip by yourself 1</p> <p>⇒ You applied to:</p> <ul style="list-style-type: none"> • Tour operator/travel agency/ coach operator 2 • Workers' recreational association 3 • Parish association 4 • Leisure association (e.g. archaeoclub, etc.) 5 • Other (specify) 6 <p>.....</p> <p>9.7.1. If you applied to an operator/association, what kind of service did they arrange for you?</p> <ul style="list-style-type: none"> • return travel only 1 • stay only (accommodation, local transport, etc.) 2 • a package trip (return travel + stay) 3 <p>9.7.2. In the case you purchased the stay or a package trip, was the entrance fee to Pompeii included in the price you paid?</p> <ul style="list-style-type: none"> • YES 1 • NO 2
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Go to question 11

10. From another place, away from home, where you are actually spending your time. If NO, go directly to question 11. If YES, go on

<p>10.1 What is the name of the place? (specify)</p> <p>.....</p> <p>10.2. How far is it from Pompeii?</p> <ul style="list-style-type: none"> • from 0 to 20 Km (e.g. Pagani, Nocera Inf., Castellammare di Stabia) 1 • from 20 to 40 Km (e.g. Naples, Sorrento, Salerno) 2 • from 40 to 80 Km (e.g. Capri, Caserta, Avellino) 3 • from 80 to 150 Km (e.g. Ischia, Potenza, Cassino) 4 • over 150 Km 5 <p>10.3. What is the <u>main purpose</u> for staying there? (one choice)</p> <ul style="list-style-type: none"> • Leisure, recreation and holidays 1 • Visiting friends and relatives 2 • Business and professional 3 • Attendance of congresses, fairs, etc. 4 • Health treatments 5 • Religious purposes 6 • Other (specify) 7 <p>.....</p> <p>10.4. How did you arrange your trip in that resort?</p> <ul style="list-style-type: none"> ⇒ You arranged the trip by yourself 1 ⇒ You applied to: <ul style="list-style-type: none"> • Tour operator/travel agency/ coach operator 2 • Workers' recreational association 3 • Parish association 4 • Leisure association(e.g. archeoclub, etc.) 5 • Other (specify) 6 <p>.....</p> <p>10.4.1. If you applied to an operator/association, what kind of service did they arrange for you?</p> <ul style="list-style-type: none"> • return travel only 1 • stay only (accommodation, local transport, etc.) 2 • a package trip (return travel + stay) 3 	<p>10.4.2. In the case you purchased the stay or a package trip, was the entrance fee to Pompeii included in the price you paid?</p> <ul style="list-style-type: none"> • YES 1 • NO 2 <p>10.5. How many nights did you spend in that resort?</p> <ul style="list-style-type: none"> • 1 night 1 • 2-3 night 2 • from 4 to 7 nights 3 • from 8 to 14 nights 4 • from 15 to 21 nights 5 • more than 21 nights 6 <p>10.6. In what type of accommodation did you stay?</p> <ul style="list-style-type: none"> • Hotel, pension 1 • Tourist village 2 • Campsite 3 • Rented dwelling 4 • Owned dwelling 5 • Home of friends or relative 6 • Monastery or similar establishment 7 • Other (specify) 8 <p>.....</p> <p>10.7. Where will you spend the night after the visit?</p> <ul style="list-style-type: none"> • In the same resort where you spent the previous one 1 • In another place: <ul style="list-style-type: none"> - at home 2 - in another resort (specify) 3 <p>.....</p> <p>10.7.1. If in the SAME RESORT or in ANOTHER RESORT, how many nights are you going to spend there?</p> <ul style="list-style-type: none"> • 1 night 1 • 2-3 night 2 • from 4 to 7 nights 3 • from 8 to 14 nights 4 • from 15 to 21 nights 5 • more than 21 nights 6
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Go to question 11

b. Means of transport used

11. What means of transport did you use to reach Campania?

- Private car, motorcycle 1
- Private car + caravan 2
- Rented car 3
- Camper 4
- Public bus 5
- Coach 6
- Train 7
- Plane 8
- Ship/boat 9
- None of them, because you are resident in the region or you are temporarily here for work reasons (e.g. armed forces in Naples) 10

12. How did you arrive at Pompeii?

- By private car, motorcycle 1
- By private car + caravan 2
- By rented car 3
- By taxi 4
- By camper 5
- By public bus 6
- By coach 7
- By train 8
- Other (specify) 9

c. Travel party

13. Who are you travelling with?

- alone 1 (go directly to question 14)
- with family/friends 2 (go to question 13.1)
- with the class, the parish, a workers' recreational association, etc. 3 (go to question 13.1)
- with the package group organised by a tour operator, a bus operator or a travel agency 4 (go to question 13.1)

13.1. If you are travelling with other people, how many people? (put the total number) |_|_|_|_|

13.2. How old are they? (put the number of people in each age class)

- 0-14 years no. |_|_|_|
- 15-24 years no. |_|_|_|
- 25-44 years no. |_|_|_|
- 45-64 years no. |_|_|_|
- 65 and over no. |_|_|_|

SURVEY OF VISITORS TO THE CHURCH OF MADONNA IN POMPEII

RESERVED FOR CISET (<i>do not fill</i>)	
Serial number of the questionnaire	_ _ _ _

RESERVED FOR INTERVIEWERS	
First name and family name
Date of the interview (day/month/year)	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Time of the interview (hour and minutes)	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Length of the interview (minutes)	_ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Good morning/good afternoon. We are carrying out a survey of visitors to the Church of Madonna in Pompeii. Would you be so kind as to devote us some of your time to fill this questionnaire?

Have you already been interviewed? (*tick the number that corresponds to the right answer*)

If YES, where?	• at the Pompeii excavations	1	close the interview
	• at the Herculaneum excavations	2	close the interview
If NO		3	go on

What is the main reason for you to visit the Church? (*tick the number corresponding to the right answer*)

• Taking part in a religious service only (Mass, Communion, etc.)	1	close the interview
• Cultural interest and participation in a religious service	2	go on
• Cultural interest only	3	go on

1. Where do you actually live?

- in Italy (Region, Province and City)
- abroad (Country of residence)