

# THE ECONOMIC IMPACT OF CULTURAL EVENTS

## A CASE-STUDY OF SALAMANCA 2002, EUROPEAN CAPITAL OF CULTURE



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### Abstract

The artistic and cultural activities have not only a key cultural and social value, but also an undeniable economic impact. Indeed, it is a fact that the cultural sector represents a productive branch which is growing in importance. The cultural factor is frequently used as a key element for regional and/or economic development. In this vein, this article aims to estimate the economic impact of Salamanca 2002 as the European Capital of Culture, using the methodology provided by the impact studies in two stages: first, through estimating private spending generated by the event's cultural tourism; and

second, through calculating the overall economic impact, including the private spending on cultural consumption, public spending directly related to the cultural programme, investment in new equipment and facilities, along with the estimate of the multiplying effects on the overall regional and national economies.

**KEY WORDS** ★ cultural economics ★ economic development ★ models of economic impact ★ multiplying effects

### Economics and culture: a value relationship

Cultural Economics represents a specific disciplinary field, which is consolidating a fertile field for theoretical reasoning and empirical testing of human and institutional behaviour towards present and accumulated culture. Actually, economists have recently paid attention to these issues. Yet, classical authors such as Adam Smith have already argued that professionals such as *musicians, painters, dancers, jesters and comedians* do not contribute to the country's wealth and classified their jobs as non-productive (Smith, 1776: Vol. 2, p. 99). Nowadays Cultural Economics, as a scientific field, nonetheless, is receiving growing institutional and academic acknowledgement in the light of three main factors:

- Culture and cultural activities represent a key source for producing economic flows, income and employment.<sup>1</sup>
- Culture is a field par excellence for government intervention, not only because of the public nature of a great part of its products, but also

because of its utility for identifying and transforming 'places'; and it, therefore, forms part of the strategies for local and/or regional development.<sup>2</sup>

- Finally, and from a theoretical point of view, culture is an excellent field for the implementation of 'new economic improvements' in more heterodox circles than those traditionally studied, such as non-marketable goods, the review of cases in which economic agents are supposedly rational, the economics of information and uncertainty, as well as the analysis and assessment of public institutional behaviour.

Thus, in the disciplinary field of Cultural Economics,<sup>3</sup> there are, generally speaking, three broad analysing areas: performing arts, cultural industries and historic heritage. All the goods comprising these share a common feature, namely, their significance as artistic activities, essences of intelligence or identity signs of the community, which help to define what we could call the *cultural value* of these elements. Nevertheless, there are

several differential features that characterize the specific analysis of each element: first, performing arts are perishable goods or services which are used up at the very moment they are offered;<sup>4</sup> second, cultural industries consist basically of the commercialization of reproducible goods (books, records, films, etc.); and, last, heritage represents an accumulated cultural creation, since it has a historic or estate meaning, that makes reproduction impossible, in so far as they are unique goods that need only maintenance and preservation. Yet, these three analytical areas are obviously interrelated; for instance, a music festival is a perishable cultural good while in progress, but it can nonetheless use elements from historic heritage in its production, and in addition, can be reproduced as a CD in the case of a recording of special concerts.

Likewise, within Cultural Economics there also coexist two methodological approximations: first, a microeconomic one that focuses on the economic description of the cultural heritage and on the study of the behaviour of individuals and institutions regarding culture;<sup>5</sup> second, a macroeconomic one which directs towards the estimate of the flows derived from the cultural sector and, therefore, considers culture as a source of richness and economic development. From this point of view, we may ask ourselves which are the cultural factors that determine economic development. Basically we can indicate the following three factors:

- In the first place, culture and cultural heritage generate a series of economic effects, both direct effects on the cultural sector itself (employment, income, production, etc.) and induced effects in other related sectors (finances, construction, tourism, transport, etc.). Likewise, the cultural factor is being used more and more as a medium of urban transformation and as an element to attract economic activities and new residents. Undoubtedly, this set of effects establishes a tangible determinant on the strategies of economic development of any area.
- In the second place, the integrated elements of cultural heritage may have the consideration of *real estate*, because they represent a type of offer with a unique character that is not reproducible and that is identified with the place where they originate.<sup>6</sup> With this approach, the cultural assets represent a group of resources which are

established in the form of independent space facilities, that one owns or that one does not own, one values or one diminishes, one exploits or one ignores. Otherwise, the private uses of culture are usually presented as services to the consumer which depend on variables of individual interest, such as prices, tastes and incomes, independent of the local situation or the surroundings where the resources of cultural heritage are located.<sup>7</sup> From this perspective, new possibilities for economic development are created for those regions and enclaves that are less benefited, but that count with outstanding cultural and heritage offers, because the demand for cultural tourism may come from other regions with elevated incomes per capita and, consequently, foment the tourist sector as a lever of regional or local economic development.

- Finally, at this moment, culture and cultural heritage benefit from the impulses of cultural tourism, that takes shape as one of the most dynamic components of the tourist sector in general (cf. Richards, 1996; Herrero, 2000) and, therefore, the exploitation opportunities increase for the regions with an attractive cultural offer. Among the reasons for this remarkable rise we can mention, in general terms, the change in the model of tourist behaviour that is focused on the substitution of *escapism* by *enrichment*; in other words, the decline of what we traditionally understood as 'tourism of sun and beach' in favour of a more segmented and demanding tourism in which aspects related to culture, heritage, environment, the discovery of new places, etc. are more and more appreciated. Likewise, to many authors (Harvey, 1989; Richards, 1996; Urry, 1997), the phenomenon of cultural tourism also represents a reaffirmation of the properties of the so called *postmodern era*, in which contemporary human's sensation of being separated from one's roots by the phenomenon of globalization and the empire of the ephemeral, is promoting a search for authenticity and identification in the past and in the vicinity. Likewise, cultural consumption is also being turned into a form of social attribute, in the same way that the cities also find a form of distinction in their cultural facilities. From this point of view one understands both the recovery of numerous hereditary legacies, and the creation

of new cultural offers and leading products. This is followed automatically by a demand for cultural tourism that pursues the consumption of icons.

The event of the European Capitals of Culture is probably a good example of the new trends of cultural tourism, where the prospects of changing the city go beyond the strictly cultural goods aimed at the very organization of the event. The initiative of the European Capital of Culture is mainly culturally rooted, since it was created as a way of boosting the European identity through culture (European Commission, 1985). However, it has gradually been reoriented towards obtaining some kind of profitability. In this new task, cultural tourism attracts spending and creates value; and cultural equipment aims to change cities both inwardly and outwardly.<sup>8</sup>

The starting point of the recent history of the European Capitals of Culture was probably the designation of Glasgow in 1990, which used its nomination to change a city that was in industrial decline. That model has been copied and cited over and over again. It is true that, nowadays, the designation of the European Capital of Culture represents an event of remarkable importance for the press and different institutions. First, its nomination makes headlines, at least on a national and European level, so that cities and countries compete for this designation, with the aim of confirming their cultural image and their position in the system of European cities. And second, because the institutional organization reaches a very high level of complexity, due to both the meanings of the very cultural programme of the event, which is becoming increasingly diverse and wide-ranging, and its attempt to produce economic return on the medium and long run of its nomination, and its purchase as an intangible asset. The institutional formulas of management generally imply the shared participation of several official bodies and private economic agents, with interesting (and increasingly important) experiences of the business sponsorship context and the civil society's participation via voluntary-service organizations.<sup>9</sup>

Strictly speaking, the European Capitals of Culture can be considered as *macrofestivals*,<sup>10</sup> since

the main body of their cultural programme belongs to the context of the performing arts and live shows. Nonetheless, they also tend to integrate elements of the historic heritage, not only as a mere tourist appeal, or as estimating new cultural equipment, but also as the typical processes of cultural industries, especially and increasingly in the activities of editing books and reproducing music and videos. Therefore, the European Capitals of Culture represent a very complex analytical matter, since they are made up of a varied group of supplies and diverse cultural goods (alive, accumulated and reproducible culture), which demand analytical approaches that are appropriate according to its essence. Yet, there is another complexity to be taken into account in the analysis of its economic consequences, since the event not only involves the development of a concrete cultural programme, but also the profitability in the long run of the designation of the city in terms of economic development and city marketing. Along with the cultural organization itself there is a need for a remarkable effort in the form of creating new cultural facilities, urban redesign, tourist equipment and communications in the city.

In this vein, this research focuses on a partial but essential aspect of this event, namely, the estimate of the economic impact on Salamanca, the European Capital of Culture nominated in Spain in 2002. In order to do so we have used the results provided by a representative survey of visitors of the complete cultural programme, and we have applied the methodology of economic impact studies. We also intend to validate these methods in the calculation of the economic effects of a cultural event, as well as to present results that are comparable to other events of the same kind.<sup>11</sup>

Thus, independent of the cultural value of the scheduled performances and of the nomination's significance in the long run for the city of Salamanca, we focus on estimating the profitability in the short run of this cultural event. In doing so, we first present the methodology of economic impact studies and its concrete application to Salamanca 2002; in the second place, the exploration of the main results of the estimate. Finally, we conclude with a synthesis of the most significant conclusions.

## The impact studies methodology and its application to cultural events

The economic impact studies, also known as 'effects method', try to estimate the economic importance of the arts and to analyse the activities and earning flows related to the existence of a concrete cultural activity (Martinello and Minnon, 1990). Although their definition may differ from case to case, the main goal of these studies is to measure the effects derived from the presence or existence of an activity or a cultural organization in a concrete geographic area and over a specific period of time. All in all, it consists of presenting the big flows generated by the cultural activity in the context of the local and/or regional economy (Greffe, 1990). The usual approach of this type of study is to estimate the size of the spending flows which give rise to the cultural sector and to measure its overall impact. However, such studies are not always limited to the earnings volume, but are complemented very often by analysis of the employment or tax impacts (Heilbrun and Gray, 1997).

Impact studies are not especially complicated from a conceptual point of view, although they present numerous technical difficulties which require the use of different sources of information, surveying the cultural audience, and a detailed and careful analysis avoiding tendencies towards overmeasuring effects. There are a number of empirical applications of this methodology, and as a first contribution to it in the field of cultural festivals we can mention the studies of Devesa (2005) and Capaul (1988) in Spain on the film festivals of Valladolid and San Sebastian, respectively; and abroad, the studies of O'Hagan et al. (1989) on the Opera Festival of Wexford (Ireland) and the Scottish Tourist Board (1996) on the famous Edinburgh Festival. Also notable is the study of Van Puffelen (1987) on the economic impact of the cultural sector on the city of Amsterdam and that of Stanley et al. (1998) on the economic impact of two temporary exhibitions on Renoir and Barner in Canada. More recent works worth mentioning are the studies carried out since 1999 by the Guggenheim Museum of Bilbao (Guggenheim Bilbao, 2003) and its impact on the Basque Country's economy. Among the pioneer studies on this subject it is worth citing the study by the National Endowment for the Arts (1977) on the

impact of the arts on the city of Baltimore (USA), and the study carried out by the Port Authority of New York and New Jersey (1983) on the economic significance of the cultural sector in the metropolitan area of New York and New Jersey.

The economic impact studies tend to adopt a common methodology although there are several differences in application depending on the flows and agents under analysis. Hence, generally speaking, there are three different types of measurable impacts or effects (Seaman, 2003): (a) the *direct expenses*, corresponding to the expenses accrued by the cultural activity or institution analysed under different headings (wages, purchases, rents, implementation of programmes, etc.) in the geographic area under study and in a concrete period of time; (b) the *indirect expenses*, defined as expenses accrued by the audience as a consequence of the consumption of the concrete cultural good (accommodation, meals, transport, purchases, tickets, etc.); and (c) the *induced effects*, which are all those impacts not included in the previous categories and which are spread out or expanded by the rest of the economic system, inside or outside the area under study.

In the area of indirect expenses (that is, the estimate of visitors' spending), special attention has to be paid to two matters: first, the problems of the double-entry accounting of several items (for instance, tickets, which are an expense for the audience and a source of funding for the cultural programme); and, second, the process of selecting the sample of individuals to be considered in measuring the net increase of the consumption caused by the event. We refer to the inclusion only of foreign tourists or also of local audience members if the cultural consumption is unusual and not substitutive of other expenses, and to the principal focus on the essence of cultural consumption (that is, the consideration only of travels and visits with a single purpose, i.e. the cultural event).<sup>12</sup>

Regarding induced effects, these may differ according to different studies: some authors focus on the effects on the local, regional or national economies, namely, on the multiplying effects on the economic system; other authors address more qualitative issues, such as the increase in the human capital of society, improvement to the quality of life or the appeal of new activities and jobs. These effects are much more difficult to measure, and for

this reason, this type of study is often only descriptive. In this research we will focus on the first of these approaches, that is, on the calculation of the economic effects in the short run of the Salamanca 2002 cultural event, using the tool of the economic multiplying coefficients. In this sense, we can use the approach of the input–output analysis, in which sectorial multipliers derived from the Input–Output Tables (IOT) are used to estimate the impact of the overall spending generated by Salamanca 2002, both in the regional and national economies, and abroad.

The IOT are an economic instrument which allow us to record the economic structure of a territorial economic structure, and to detect the relationship between the different economic agents which act in the system. The IOT are made up of three major sections or matrixes: (a) the *Matrix of Intermediate Demand*, which synthesizes the exchanges produced between the different productive branches of the economy; (b) the *Matrix of Primary Inputs*, which is made up by the wages and profits; and, (c) the *Matrix of Final Demand*, which reflects the final destinies of the produced resources, namely the resources not consumed by the different activities branches.

The most important matrix for the input–output analysis and for the determination of the multipliers is the Matrix of Intermediate Consumption, because it reflects the intersectorial relationship between the different activities branches of an economy. Each element  $x_{ij}$  includes the purchases that sector  $j$  makes to sector  $i$ , or in other words, the sales that sector  $i$  makes to sector  $j$ .<sup>13</sup>

Starting from the matrix of intermediate consumption and using the concept of technical coefficient, which is a fundamental element of analysis of Leontief,<sup>14</sup> we come to the Inverse Matrix of Leontief (I-A)<sup>-1</sup>, composed by the elements  $\alpha_{ij}$  that include the total productive efforts that branch  $i$  has to realize if it wants to satisfy a unitary increase in the final demand of products of branch  $j$ , including both direct and indirect or induced effects (Payeras and Sastre, 1994: 25; Figuerola, 2000: 163). The sum of the elements of the column  $j$  of that matrix expresses how much the global production of the productive system has to increase in order to satisfy an increase of one unit in the final demand of products of the branch  $j$ . In other words, in which way  $j$  diffuses its own final

demand during the productive system. Therefore it is the multiplier of the production of sector  $j$  (Pulido and Fontela, 1993: 74).

$$M_j^\alpha = \sum_i \alpha_{ij} \quad \text{multiplier of branch } j$$

Logically, if we want to estimate the real impact that generates a determined increase in the final demand on the interior productive fabric, we must use the inverse matrix of the interior technical coefficient. These only take into account the relations between the agents of the interior of the territory, because the imports of intermediate consumption are leakages, which reduce the multiplier effects (Cuadrado and Arranz, 1996: 194). In the same way we can calculate the impacts on the rest of the national economic system and on the system abroad. This is made possible by the progress in the Input–Output Tables that represent the disintegrated information in different territorial levels. In our case-study, that is the estimate of the economic impact of the Cultural Capital Salamanca 2002, we will use the input–output multipliers derived from the IOT of Castilla y León for the year 2000, as these are the latest tables available and the most adequate for our study (Junta de Castilla y León, 2003). Therefore we will use the sectorial multipliers of the construction (in the case of facilities and equipment expenses) and of the service sectors (in the case of the cultural expenses). We have to indicate that these multipliers were obtained as the sum of the multipliers of the activity branches that belong to the corresponding sector (agriculture, industry, construction and services) adjusted by its participation in the total product of the sector, as they appear in Table 1.

In any case, the explicit application of the impact studies methodology to Salamanca 2002 as the European City of Culture demands a series of operative changes to adapt it to the peculiarity of a cultural event of this nature. The first one consists of the need to differentiate between those expenses exclusively related to the development of the cultural programme of Salamanca 2002, which we will call generically *cultural spending*, and those others derived from the added effort to create new cultural facilities and tourist equipment, that we will call *spending on facilities and equipment*. A study oriented towards the estimation of the economic

**Table 1** Input–output multipliers of the economy in Castilla y León in 2000

	Castilla y León	Spain	Overall
Agriculture	1.47200055	1.90965015	2.11237703
Industry	1.37190636	1.99985195	2.72699990
Construction	1.54555201	1.99157856	2.20506802
Services	1.27263532	1.46745469	1.55972625

Source: Junta de Castilla y León (2003) and own elaboration.

effects of a genuine cultural festival should consider exclusively the first item mentioned, which is, itself, made up of the public spending on the creation of cultural supply (festival programme) and the private spending associated with cultural consumption (visitors and audience). All this taking into account the cultural infrastructures which are given, that is, *ceteris paribus*, the equipment. Nevertheless, an event like the European City of Culture, especially over the last few years, also entails a significant public effort in restoration and creation of new cultural equipment, such as tourist equipment and

trade, by the public sector. This has been the case in Salamanca 2002, so that the *cultural spending* and the *spending on equipment and facilities* are two items that are inevitably to be considered in the analysis of the economic impact of an event like the one under analysis. For this reason, the distribution of direct, indirect and induced expenses of the model of economic impact applied to Salamanca 2002 is as follows (see also Figure 1):

- The *direct expenses* of the impact model will be both the group of expenses on equipment and

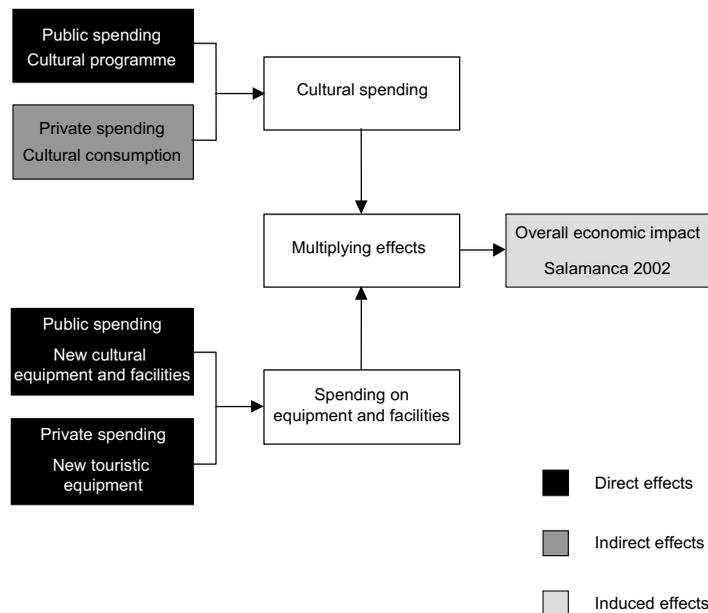
**Figure 1** Economic impact of Salamanca 2002, European City of Culture

Table 2 Spending on equipment and facilities in Salamanca 2002

Spending on equipment and facilities	Euros
Santo Domingo Exhibition Room	2,585,182.49
Liceo Theatre	7,875,156.47
Salamanca Arts Centre	9,124,307.74
Drama Centre	12,797,147.28
Sánchez Paraiso Multipurpose Palace	14,177,236.91
<b>OVERALL PUBLIC SPENDING</b>	
New cultural facilities	46,559,030.89
<b>OVERALL PRIVATE SPENDING<sup>a</sup></b>	
New touristic equipment	74,374,146.41
<b>OVERALL SPENDING ON FACILITIES AND EQUIPMENT</b>	120,933,177.30

Note: <sup>a</sup> Estimated from the subsidy records of the agency for the Economic Development of Castilla y León.

Source: Consorcio Salamanca 2002 (2003).

facilities associated with the event of Salamanca 2002 (cultural facilities and tourist equipment), as well as the public expenses derived from the development of the main cultural programme, that is, those implemented by the Salamanca 2002 Consortium.<sup>15</sup>

- The *indirect expenses* of the impact model refer to the expenses made by the tourists and the audience to the different cultural events of the European Capital of Culture and have been obtained through the basic survey of this research (see Herrero et al., 2004).<sup>16</sup> A *reducing coefficient* will be applied to this information, taking into account multiple versus single-purpose motivation of the cultural visits; and a *repetition coefficient* to reduce the duplicities of visitors who have come on several occasions to the events of the cultural programme. The resulting information constitutes the items called *Private Spending on Cultural Consumption in Salamanca 2002*.
- Finally, the *induced effects* of the former expenses on the regional and national economies will be obtained through the input–output multipliers elaborated from the Input–Output Tables of Castilla y León in 2000, the latest data available for the region. This information will be called *Overall Economic Impact of Salamanca 2002*.

## Results of the study of the economic impact of Salamanca 2002, European Capital of Culture

### *Direct impact: spending on equipment and facilities and public spending on cultural supply*

As we have mentioned above, both the volume of investment in new cultural facilities and tourist equipment carried out in the city due to the event, along with the public spending carried out in the implementation of the cultural programme of the European Capital of Culture, will be included in the direct economic impact of Salamanca 2002. Table 2 shows the group of nominal expenses of the first group and refers, first, to the public investments in restoration and/or the creation of cultural facilities, which were to be the venue of the main cultural events and exhibitions of Salamanca 2002. All the territorial and public administrations, channelled through the Salamanca City Council, which is eventually the holder of the designation of the European Capital of Culture on behalf of the European Union, have participated in the funding of those facilities. The use of these elements belonged to the Salamanca 2002 Consortium during that year. Moreover, these elements constitute, obviously, a profitable asset in the long run for the

**Table 3** Annual and accumulated budget (€) of Salamanca 2002 Consortium

Year	2000	2001	2002 <sup>a</sup>	TOTAL
<b>EXPENSES</b>				
Staff	251,644	884,441	1,546,038	2,682,123
Cultural programme	1,364,297	1,873,969	19,892,503	23,130,769
Equipment	412,294	444,042	4,021,324	4,877,660
Publicity and promotion	210,354	683,883	2,779,093	3,673,330
Other expenses	562,488	600,869	3,626,968	4,790,325
Overall expenses	2,801,077	4,487,204	31,865,926	39,154,207
<b>EARNINGS</b>				
Institutional funding	2,740,627	4,303,253	15,474,802	22,518,682
Private sponsorship and patronage	0	0	14,849,839	14,849,839
Others earnings (tickets, sales, etc.)	60,450	183,951	1,541,285	1,785,686
Overall earnings	2,801,077	4,487,204	31,865,926	39,154,207

Note: <sup>a</sup> The data of the Salamanca 2002 Consortium and Cultursa are included.

Source: Consorcio Salamanca 2002 (2003).

city in terms of its economic and cultural development. In this section we will only consider the overall investment figure (€46.5m) as one of the components of the economic impact of Salamanca 2002 in the short and medium runs.

Table 2 includes the private effort carried out in providing new tourist equipment to the city of Salamanca, which has mainly consisted of the modernization of hotel facilities and the building of new ones, so that the accommodation capacity of the city has doubled, especially in the top categories. This response of the private sector is based not only on the boost of the European Capital of Culture, but also on the profits forecast in the medium run from Salamanca's position in the European and national hierarchies of cultural cities and venues. The figure of private investment (€74.3m), however, is taken in this section as a direct factor of equipment and facilities which influences the economic impact of Salamanca 2002 in the short and medium terms.

Finally, we consider within the group of direct effects of Salamanca 2002 probably the most justified public expense, namely, that of organizing the cultural programme of the European Capital of Culture. Hence, we mainly refer to the data of the

implemented budget of the Salamanca 2002 Consortium<sup>17</sup> in an accumulated sense, that is, from the moment of its creation, remembering that all its expenses have been committed to organizing the cultural programme of the European Capital of Culture in its broadest sense. Table 3 shows this budget information in nominal terms and we must observe that in 2001 and especially in 2002, all the expenses carried out by the firm Cultursa, a public limited corporation whose only shareholder is the very Salamanca 2002 Consortium, created ad hoc to implement quickly the funding of the cultural events of 2002, are also included. For mere analytical purposes, in the calculation of the overall economic impact we have excluded the sale of tickets and goods of the Salamanca 2002 Consortium, in order to avoid duplicities in the estimate of expenses, since this type of payment is already to be considered in the estimate of the tourist cultural consumption, measured through the survey carried out through the survey of the audience. Thus, the overall public spending on the cultural supply of Salamanca 2002 amounts to €37.3m, a figure which will be considered as a direct element in the estimate of the overall economic impact of the European Capital of Culture.

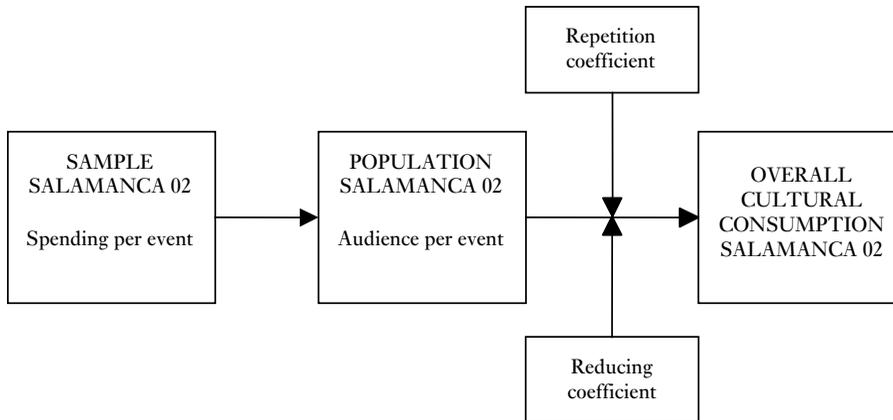


Figure 2 Process of estimating the private spending on cultural consumption

*Indirect impact: private spending on cultural consumption*

The indirect effect is the overall spending by visitors and audience to Salamanca 2002, that is, the spending on accommodation, transport, meals, shopping, etc. motivated by the attendance at different events of the European Capital of Culture. The overall spending will result from multiplying the spending per person by the overall number of members of the audience or spending units. This calculation, however, is not that easy, since there is a need to solve first certain methodological difficulties. The first of these is caused by ignoring the departure point of the audience members registered in the cultural programme of Salamanca 2002; and, therefore, we cannot exclude from the overall estimate the payments effected by the local audience and consider only the expenditures of foreign tourists. Although, in effect, we could consider this itemization, as for the inhabitants of the city their attendance at the events of the European Capital of Culture would only involve a change in the components of their cultural consumption, in this research we will join both sources of spending, local and foreign, for two reasons: first, Salamanca 2002 programme had an unusual nature and is likely to have prompted local citizens to participate actively and increase their cultural consumption; second, since the main expenditure by the local audience has been

dedicated to tickets, an item that, as we have already seen in Table 3, does not represent accurately a large amount of the overall spending on cultural events, we will not run the risk of producing a disproportionate overmeasurement.

Once this difficulty is solved, the estimate of the overall spending on cultural consumption at Salamanca 2002 follows the sequence shown in Figure 2, where the spending amount per visitor and event obtained from the sample of the survey<sup>18</sup> is taken as a starting point, and applied to the overall audience of the European Capital of Culture in proportion to the visits officially registered for each group of events. In the process of estimation there are two coefficients which will be applied to overmeasuring the spending: a repetition coefficient to avoid multiplicities in the visits of the same tourist; and a reducing coefficient, to ensure that the visit is mainly motivated by the event of the European Capital of Culture (single-purpose travels).

First, as to the calculation of the number of persons who participated in Salamanca 2002, we officially know that a total of 1,927,444 tickets has been counted (Consorcio Salamanca 2002, 2003), but we do not know how many of those tickets were held by different people, which is a key figure for estimating the overall indirect spending and for avoiding duplicities in the spending per visitor. As we have already said, in order to calculate a more realistic figure for the number of people who

participated in the events of Salamanca as the European Capital of Culture in 2002, we have produced a *repetition coefficient* by using the questionnaire of this research, in which we asked each visitor if he/she had participated or intended to participate in any other event of the cultural programme. Thus, we have considered that those who replied affirmatively (72.06 percent) had attended at least two shows, reducing the total of tickets proportionally.<sup>19</sup> Nonetheless, in order to give a more precise figure, the reduction has been carried out for the registered population in each of these six categories of events in which we have divided the cultural programme. These data can be seen in Table 4.

Therefore we have considered that a maximum of 1,204,314 different persons participated in the events of Salamanca 2002, a base from which we have been able to work out estimates of the overall indirect spending, from the grid of average spending per visit and event. Hence, the overall indirect spending measured through the cultural consumption of the audience of the European Capital of Culture slightly exceeds €368m (cf. Table 4).

Nevertheless, there is a final question: Can those €368m be exclusively assigned to the event of Salamanca as the European Capital of Culture? As we mentioned above, only those expenses directly caused by the cultural event can be considered as real cultural expenses, and therefore it is necessary to estimate and ask visitors for their motivation for

participating in Salamanca. Hence, we have also used the research questionnaire in which we asked those polled to value from 1 to 5 their reasons for visiting Salamanca, one of the possible responses being explicitly attendance at the events of the programme of Salamanca as the European Capital of Culture. Thus, we can consider that the audience members who disagreed or totally disagreed with this affirmation (25.85 percent) had not visited Salamanca for being the European Capital of Culture, and their spending cannot be considered a direct consequence of the event (0 percent). Those who were uninterested in the city (17.23 percent) had different reasons, including the fact that Salamanca was the European Capital of Culture in 2002, and we can even consider as a hypothesis that 50 percent of their payments resulted from that cultural event. Finally, the spending of those who agreed or totally agreed with the motivation of Salamanca as the European Capital of Culture represent an expenditure directly derived from the event (100 percent). In consequence, we can produce the following *reducing coefficient*:

$$RC = (0.5692 \times 1) + (0.1723 \times 0.50) + (0.2585 \times 0) = 0.6554$$

According to the estimates, in this more realistic setting, only 65.54 percent of the spending of those polled can properly be assigned to the events of Salamanca 2002, so that the overall indirect effect would be €241,496,062.

**Table 4** Number of tickets in Salamanca 2002

	Tickets	% people repeating their visits	Reduced population	Average spending of the sample	Overall spending (€)
Drama	62,295	66.67	41,529	79.38	3,296,572
Audiovisual presentations	18,557	70.00	12,062	90.12	1,087,027
Open city	731,075	80.95	435,172	485.50	211,276,006
Meetings, conferences and communications	12,272	60.00	8,590	528.33	4,538,355
Exhibitions	1,011,053	71.36	650,309	194.81	126,686,696
Music	92,192	77.10	56,652	380.50	21,556,086
<b>Total</b>	<b>1,927,444</b>		<b>1,204,314</b>		<b>368,440,742</b>

Source: Consorcio Salamanca 2002 (2003) and own elaboration.

### *Induced impact: overall economic effect of Salamanca 2002*

The induced effects can be defined as the group of consequences on the productive fabric of an economic system derived from the financial injections involved by the former categories: the direct and indirect effects of the cultural event, namely, in our case-study, both the spending on equipment and facilities and the cultural spending of Salamanca 2002. The induced impact is estimated through the concept of the spending multiplier, following the methodology explained in previous sections. We will use the input-output multiplier derived from the Input-Output Tables of Castilla y León in 2000, distinguishing also the impact on the city of Salamanca and the Autonomous Community of Castilla y León from the impact on the rest of Spain and abroad. This is the reason why we have calculated the inner multipliers (that is, those estimating the economic effects on the region), the multipliers on the rest of Spain, and the overall multipliers of the system (which estimate the effect on the overall economic system, nationally and abroad).<sup>20</sup>

However, let us clarify something before presenting the results. Although we have used the sectoral multiplier of the construction sector to estimate the spending in new cultural facilities and tourist equipment, since this spending mainly deals with the spending on equipment facilities and civil construction, in the item concerning the cultural spending of Salamanca 2002 we have used the

sectoral multiplier of the service sector, because the main part of the expenses considered in this group (expenses of the Consortium and expenses of the visitors) is related to different branches of this sector of the activity: cultural programme, publicity, accommodation, catering, travel costs, etc.<sup>21</sup>). Hence, on the one hand Table 5 shows the economic impact of the spending on equipment and facilities of Salamanca 2002, that amounts to €266.6m, of which 70.09 percent (€186.9m) have an effect on the Autonomous Community of Castilla y León, 20.23 percent (€53.9m) on the rest of the country, and 9.68 percent (€25.8m) abroad. On the other hand, Table 6 shows the estimate of the economic impact of the cultural spending of Salamanca 2002, amounting to €434.9m, 81.59 percent for Castilla y León (€354.8m), 12.49 percent for the rest of Spain (€54.3m) and 5.92 percent (€25.7m) abroad. This stresses the fact that the economic impact of the cultural spending in the region is bigger than the spending on equipment and facilities, while the opposite situation is the case in the rest of Spain and abroad (see Table 7). Besides, it is shown that the 'leakages' to the exterior are lesser in the case of real cultural activities than in the case of those related to the tourist and cultural facilities and equipment.

In short, if we add the impact of cultural spending and spending on equipment and facilities, the event of Salamanca as the European Capital of Culture has generated €541.7m to Castilla y León, €108.2m to the rest of Spain and €51.5m abroad; in other words, a distribution of 77.22 percent,

**Table 5** Economic impact (€) of the spending on equipment and facilities in Salamanca 2002

Overall investment in cultural and touristic infrastructures (spending on equipment and facilities)	€120,933,177
Inner sectoral multiplier <sup>a</sup>	1.545552012
Spain sectoral multiplier <sup>a</sup>	1.991578563
Overall sectoral multiplier <sup>a</sup>	2.205068019
Effect on Castilla y León	€186,908,515
Effect on the rest of Spain	€53,939,408
Effect on the rest of the World	€25,817,958
Overall economic effect	€266,665,881

*Note:* <sup>a</sup> Multiplier of the construction sector.

*Source:* Junta de Castilla y León (2003) and own elaboration.

**Table 6** Economic impact (€) of cultural spending in Salamanca 2002

	Realistic setting
Direct effect	€37,368,521
Indirect effect	€241,476,062
Direct + Indirect effects (cultural spending)	€278,844,583
Inner sectoral multiplier <sup>a</sup>	1.272635317
Spain sectoral multiplier <sup>a</sup>	1.467454685
Overall sectoral multiplier <sup>a</sup>	1.559726252
Effect on Castilla y León	€354,867,464
Effect on the rest of Spain	€54,324,326
Effect on the rest of the World	€25,729,426
Overall economic effect	€434,921,216

Note: <sup>a</sup> Multiplier of the service sector.

Source: Junta de Castilla y León (2003) and own elaboration.

**Table 7** Territorial distribution (%) of the overall economic impact (EI)

	On Castilla y León	On the rest of Spain	On the rest of the World	GLOBAL
EI spending on facilities and equipment	70.09	20.23	9.68	100.00
EI cultural spending	81.59	12.49	5.92	100.00
OVERALL EI	77.22	15.43	7.35	100.00

**Table 8** Sectoral distribution (%) of the overall economic impact (EI)

	On Castilla y León	On the rest of Spain	On the rest of the World	GLOBAL
EI spending on facilities and equipment	34.50	49.82	50.08	38.01
EI cultural spending	65.50	50.18	49.92	61.99
OVERALL EI	100.00	100.00	100.00	100.00

15.43 percent and 7.35 percent respectively, whereas the overall economic effect has been €701.5m. The sectoral distribution of the overall economic impact is included in Table 8, which also shows that 61.99 percent of the economic impact of Salamanca 2002 is related to the very event, understood as a concrete cultural creation and its associated consumption; whereas the rest, 38.01 percent, is related to the economic impact of the new cultural facilities and tourist equipment. Once again, if we consider only the overall economic effect of the European City of Culture in Castilla y León, the effect of the region's cultural spending is proportionally bigger than in the rest of the country and abroad (65.50 percent

compared to 50.18 percent and 49.92 percent respectively), and lower than the impact of the spending on equipment and facilities (34.50 percent compared to 49.82 percent and 50.08 percent respectively). This is an interesting result which stresses the fact that the weight of cultural events on the local and regional economies is bigger than the spending on equipment, facilities and civil work, which may have important impacts on the use of the cultural factor for the elaboration of regional and local development strategies. Finally, the summary of these effects and their chronological evolution in the process of estimating the overall economic impact of Salamanca 2002 can be seen in Figure 3.

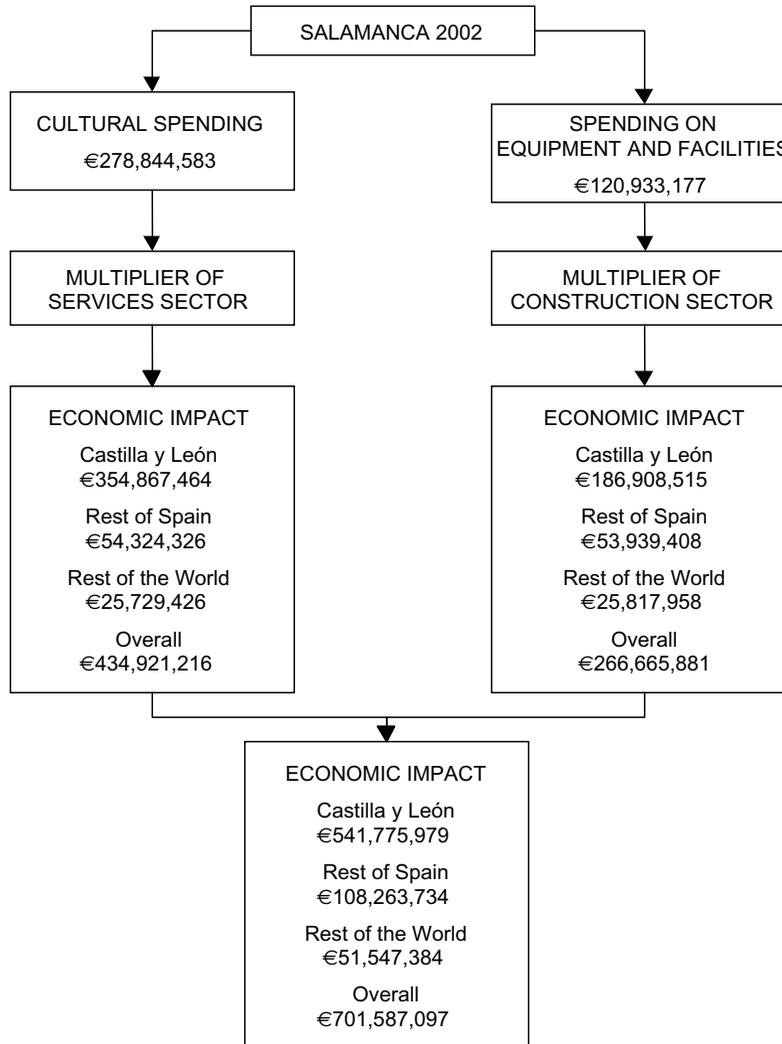


Figure 3 Estimate of the economic impact of Salamanca 2002. Main results

## Conclusions

Nowadays culture plays a double role: on the one hand, it backs collective remembrance and society identification; and on the other hand, it is a source of richness and generates economic activities. The more prominent example of this phenomenon is, undoubtedly, cultural tourism, only in that case *culture*, as a sign of identity, knowledge and national histories, becomes merchandise, namely, a good that

can be demanded and consumed. By doing so, cultural tourism can be, in the first place, a factor for richness and therefore economic development; and in the second place, a boost to the urban regeneration of cities, whose heritage recovery and new cultural facilities become a way to make them stand out from other areas and a factor for changing their city image to make it more appealing and representative of the quality of life.

With this approach it seems coherent to consider

the cultural heritage as a version of stock capital of an economic system, that is, as a productive factor. In this way and following David Throsby (1999), the cultural capital as a set of tangible and intangible elements that express the inventiveness, the history or the identification process of a society, can be understood as a permanent resource, an asset that produces incomes in the shape of flows of goods and derived services, and that can be depreciated if it is neglected, or accumulated if it is improved and invested. Thus, here lies the importance, at this moment, of rescuing the cultural heritage and generating new cultural supplies, not only for the recovery of its symbolic value to society, but also as a way to achieve a financial return on assets through the derived flows of incomes and consumption. Therefore culture and cultural heritage are an economic phenomenon, because they are involved in the function of the economy's production and can contribute to the economic development of society.

However, given the intrinsic nature of this kind of element, which usually takes shape as a unique resource which can hardly be replaced, we must point out that it is not only important to rescue, but also to value the complete set of assets and services derived from the cultural heritage and which may be demanded and consumed by the public. In this objective, the actions must be more imaginative than the mere recovery of the heritage because they deal with the authentic creation of complementary cultural supplies. These have an influence on creative tourism, on the loyalty of visitors and on the strategy of differentiation of cities through the equipment and facilities of the cultural capital. In this context, cultural festivals represent an example of intervention that is ever more used by those responsible and by cultural mediators in the cities and regions. Maybe the most significant cultural example of this new trend is the event of the European Capitals of Culture, where the prospects of changing the city go beyond the strictly cultural goods aimed at the very organization of the event. The initiative of this event is mainly culturally rooted, but it has gradually been reoriented towards obtaining some kind of profitability. In this new task, cultural tourism attracts spending and creates value; and cultural equipment aims at changing cities both inwardly and outwardly.

Taking into account these considerations, in this article we have assessed the overall economic impact

of the European Capitals of Culture, such as the city of Salamanca (Spain) in 2002. We have considered that their economic impact is not only a consequence of their cultural planning and visitors' spending, but also a consequence of an effort to invest in the city's equipment and facilities.<sup>22</sup> Thus, the results of this research are salient in so far as they demonstrate, on the one hand, that cultural events are a remarkable source of richness, according to the dimension of the overall economic impact of Salamanca 2002. Also because, on the other hand, it has been shown that the effects of the strictly cultural expenditures are mostly concentrated in the nearby event's environments, both locally and regionally, whereas the impact of those expenditures on facilities represents a more widespread coverage. This effect is important in order to evaluate the cultural factor as a determining element of the strategies for local and regional economic development, since the impact of the activities related to a cultural event concentrate essentially on the local productive fabric. Nevertheless, we must consider that the dimension of these effects is determined to a large extent by the capacity to attract tourists to that event, because the economic impact is especially noticed in the sectors of catering, hotels, restaurants and journeys. However, it is worthwhile asking how much of the added value of the strictly cultural activities (programme scheduling and cultural supply) is related to the local productive fabric.

Nevertheless, these figures, although important in demonstrating that the cultural activities and the associated tourism generate important economic flows for the regional and national economies, are not to be taken for granted unless a comparison is drawn. Hence, and, even being reasonably cautious in the comparison of different case-studies and probably also with the methodology used, we can use these results as an element for comparison: namely, the estimate of the economic impact of the cultural activities and the tourist appeal of the Guggenheim Museum of Bilbao, whose profit size in 2002 amounted to €162.3m, or €816.7m if we accumulate its impact over the seven years of its existence.<sup>23</sup> As a result, taking only the impact of the strictly cultural spending of Salamanca 2002, its effect has been 2.7 times superior to that generated by the Guggenheim Museum in the same year, as 53.3 percent if we accumulated its impact over the

years of its existence. This means that the event of a macrofestival like this can be as profitable in the short term as the impact of the new cultural facility, as in the well-known case of Bilbao's Guggenheim Museum.

Last but not least, this article has also aimed to prove that the economic impact models are reliable as a method for estimating those economic flows derived from a cultural event. However, we must take into account some restrictions of this method: some are related to the nature of the input–output analysis, that considers only functions of production of constant returns on scale, while others are related to the type of instruments accessible in the input–output tables, especially the regional, national and overall multipliers. However, what we really should need to know is the coefficient multiplier on the local economy. With all this we must insist on the fact that the reliability of the estimates to a large extent depends on the attention to detail with which the fieldwork has been carried out in order to avoid the overmeasurement of the results. It also depends on the explicit exposition of the underlying hypothesis of the research, with the aim of making the results comparable with those of other similar studies. By doing so, the characteristic of this research lies in the estimate of the economic impact of a cultural event with a strong complementary investment in new cultural and tourist infrastructure, equipments and facilities. The calculation of the strictly interested consumers in the cultural programme, either foreign visitors or local visitors, is assured due to the unique character of the cultural event. In any case, the results are valid in the short and medium terms and these figures can establish the first step of a potential cost–benefit analysis of the investments made and, therefore, of the long-term estimate of the cultural event.

## Notes

<sup>1</sup> According to García et al. (2000) approximately 4.5% of the GDP goes to the Spanish culture and leisure industry. Throsby (1994) points out that the size of the cultural sector in the United States is 2.5% whereas in France it stands at 3.7%, according to Benhamou (1996). With all this, the importance of the cultural sector has an essentially local impact, above all in the enclaves with an

urban character. See in this respect the experiences collected in Scott (2000) and Dziembowska and Funck (2000).

- <sup>2</sup> As examples of this we refer to the different case-studies in Bianchini and Parkinson (1994), as well as Hall's (2000) account of creative cities and economic development.
- <sup>3</sup> Some of the reference works on the analytic stance of Cultural Economics are Throsby (1994; 2001), Benhamou (1996), Hutter and Rizzo (1997), Towse (1997; 2003), Blaug (2001) and Herrero (2001). A contribution from the Spanish scientific context to the state of the art for this new discipline can be seen in Herrero (2002).
- <sup>4</sup> Let's consider, for instance, the performance of a theatre play or a musical concert. Their consumption and production are carried out at the same moment: when it takes place.
- <sup>5</sup> As a representative example of this analytic field the estimate studies may indicate the willingness to pay respect to the cultural and historic heritage which, due to its own nature, fulfils the requests of non-market public goods. See also, for example, Navrud and Ready (2002) and Sanz et al. (2003).
- <sup>6</sup> This description is quite clear in the case of the historic heritage. We can also extend this to the case of the live events from the moment that the performing arts centres function in a space monopoly regime that can hardly be substituted. This is much more emphasized in the case of consolidated festivals and elite representations.
- <sup>7</sup> In order to establish an extreme example, the demand for tourism to the Egypt pyramids basically depends on the relation of prices, incomes and preferences of western tourists, more than on the internal demands.
- <sup>8</sup> Effectively, the new field of study of city marketing (see Kotler et al., 1993) indicates how cities elaborate their promotion strategies, not only orienting them towards the exterior, to attract new residents and new economic activities, but also in order to change the image towards the interior, to satisfy the own citizens and their identification with the city.
- <sup>9</sup> For a detailed account of the role of the European Capitals of Culture and its recent evolution see Richards (2000; 2001).
- <sup>10</sup> Understood as a group of events programmed during the whole year of the celebration of the cultural capital, therefore with a duration superior to a more common cultural festival.
- <sup>11</sup> This research is set within the activities of the ATLAS programme and its study of the cultural tourism of Rotterdam, Oporto and Salamanca, as European Capitals of Culture, the first two held in 2001. For a more detailed account see Richards et al. (2002) and Herrero et al. (2004). The research on Salamanca 2002 was financed by Turespaña, Secretaría de Estado de Comercio e Industria (Department of Commerce and Industry), Ministerio de Economía (Ministry of Economics) (Spain).

- <sup>12</sup> For a more detailed account see Devesa et al. (2002) and Devesa (2005).
- <sup>13</sup> For more detailed information about the input–output methodology consult Pulido and Fontela (1993); Cuadrado and Arranz (1996); Uriel (1997); and Muñoz (2000).
- <sup>14</sup> The technical coefficients are defined as the quotient between the purchases made by branch  $j$  to branch  $i$  between the effective production of the sector  $j$ :  $a_{ij} = \frac{x_{ij}}{X_j}$
- <sup>15</sup> We insist once more on the joint consideration of the costs of facilities and equipment and the costs for the cultural programme, given the exceptional situation of a cultural event of this kind, where the main part of the new cultural infrastructures has been created for cultural capital.
- <sup>16</sup> The fieldwork was permanently realized during the whole period of the cultural programme and the system of sampling that was used was the conglomeration within the six different categories of events in which the cultural programme was classified (Music, Performing Arts, Audiovisuals, Exhibitions, Congresses and ‘Open City’). The number of conglomerations within each category was chosen taking into account the number of programmed spectacles and the expected demand of visitors. The final number of valid surveys was 512, once polished for errors and protests, which leads us to an error of  $\pm 4.33$  with a 95% level of confidence.
- <sup>17</sup> It is worthwhile noting that there have been other public and private agents that have contributed to the cultural programme of Salamanca as the European City of Culture in 2002 (Caja Duero, University de Salamanca, etc.), but their analysis has not been included in this research. Nonetheless, the most important aspect of that cultural programme obviously has been the one created by the Salamanca 2002 Consortium.
- <sup>18</sup> For a more detailed account see Herrero et al. (2004).
- <sup>19</sup> The calculation in this case is as follows: Real audience =  $[0.28 + 0.72/2] \times$  Official audience. Obviously, there may indeed be individuals who attended three or more cultural events, so that the calculation carried out can be considered at least as a minimum repetition coefficient.
- <sup>20</sup> In this way we will be able to estimate the impact on four levels of disintegration: regional, rest of Spain, abroad and total. See the corresponding multiplier coefficients in Table 1.
- <sup>21</sup> However, it is true that some groups do not affect precisely the service sector, such as the personnel costs or the costs on equipment, but its proportion on the total cultural costs is very small. See Table 3.
- <sup>22</sup> Assuming, as we have shown in this article, that many investments in cultural and tourist infrastructure would not have been carried out without the nomination of European Capital of Culture.
- <sup>23</sup> Cf. Guggenheim Bilbao (2003).

## References

- Benhamou, F. (1996) *L'économie de la culture*. Paris: Editions La Découverte.
- Bianchini, F. and Parkinson, M. (eds) (1994) *Cultural Policy and Urban Regeneration. The West European Experience*. Manchester: Manchester University Press.
- Blaug, M. (2001) ‘Where are we Now in Cultural Economics’, *Journal of Economic Surveys* 15 (2): 123–43.
- Capaul, M. (1988) ‘El impacto económico del Festival Internacional de Cine de San Sebastián’, *Estudios Empresariales* 67: 47–54.
- Consortio Salamanca 2002 (2003) *Balance ‘Salamanca 2002, Ciudad Europea de la Cultura’*, mimeo, Salamanca.
- Cuadrado, J.R. and Arranz, A. (1996) ‘Los impactos económicos del turismo desde la perspectiva del análisis input–output’, in A. Pedreño (dir.) and V. Monfort (coord.) *Introducción a la Economía del Turismo en España*, pp. 181–216. Madrid: Civitas.
- Devesa, M. (2005) ‘Economía de los festivales culturales: la dimensión económica y social de la Semana Internacional de Cine de Valladolid’, doctoral thesis, Departamento de Economía Aplicada, Universidad de Valladolid.
- Devesa, M., Herrero, L.C., Sanz, J.A. and Bedate, A. (2002) ‘The Economic Impact of the Valladolid International Film Festival’, paper presented at the 12th International Conference on Cultural Economics, Rotterdam, The Netherlands.
- Dziembowska, J. and Funck, R. (2000) ‘Cultural Activities as a Location Factor in European Competition Between Regions: Concepts and Some Evidence’, *Annals of Regional Science* 34: 1–12.
- European Commission (1985) *Resolution of the Ministers Responsible for Cultural Affairs Concerning the Annual Event ‘European City of Culture’*, Doc 7081/84, Brussels: EC.
- Figuerola, M. (2000) *Introducción al estudio económico del turismo*. Madrid: Ed. Civitas.
- García, M.I., Fernández, Y. and Zofío, J.L. (2000) *La Industria de la Cultura y el Ocio en España*. Madrid: Fundación Autor.
- Grefte, X. (1990) *La valeur économique du Patrimoine. La demande et l'offre de monuments*. Paris: Ed. Anthropos.
- Guggenheim Bilbao (2003) *Impacto Económico de las actividades del Museo Guggenheim Bilbao en la economía del País Vasco en el año 2002*, mimeo, Bilbao.
- Hall, P. (2000) ‘Creative Cities and Economic Development’, *Urban Studies* 37 (4): 639–49.
- Harvey, D. (1989) *The Condition of Postmodernity*. Oxford: Basil Blackwell.
- Heilbrun, J. and Gray, M. (1997) *The Economics of Art and Culture. An American Perspective*. Cambridge: Cambridge University Press.

- Herrero, L.C. (coord.) (2000) *Turismo Cultural: el Patrimonio Histórico como fuente de riqueza*, Valladolid: Fundación del Patrimonio Histórico de Castilla y León.
- Herrero, L.C. (2001) 'Economía del Patrimonio Histórico', *Información Comercial Española* 792: 151–68.
- Herrero, L.C. (2002) 'La Economía de la Cultura en España: una disciplina incipiente', *Revista Asturiana de Economía* 23: 147–75.
- Herrero, L.C., Sanz, J.A., Bedate, A.M., Devesa, M. and del Barrio, M.J. (2004) *Turismo cultural e impacto económico de Salamanca 2002, Ciudad Europea de la Cultura*. Madrid: Civitas.
- Hutter, M. and Rizzo, I. (1997) *Economics Perspectives on Cultural Heritage*. London: Macmillan Press.
- Junta de Castilla y León (2003) *Tablas Input–Output de 2000 y Contabilidades Regionales de los años 1996 a 2000 de Castilla y León*. Valladolid: Consejería de Hacienda.
- Kotler, P., Haider, D.H. and Rein, I. (1993) *Marketing Places. Attracting Investment, Industry and Tourism to Cities, States and Nations*. New York: The Free Press.
- Martinello, M. and Minnon, M. (1990) 'Les études d'impact: objectifs et méthodes', in R. Wangermee (coord.) *Les malheurs d'Orpheus. Culture et profit dans l'économie de la musique*. Brussels: Pierre Mardarga Editeurs.
- Muñoz, C. (2000) *Las Cuentas de la Nación. Introducción a la Economía Aplicada*. Madrid: Civitas.
- National Endowment for the Arts (1977) 'Economic Impacts of the Arts and Cultural Institutions: a Model Assessment and Case Study in Baltimore', NEA Research Division, Report 6, October, Washington, DC.
- Navrud, S. and Ready, R.C. (eds) (2002) *Valuing Cultural Heritage: Applying Environmental Valuation Techniques to Historic Buildings, Monuments and Artifacts*. Cheltenham: Edward Elgar.
- O'Hagan, J., Barret, A. and Purdy, M. (1989) *The Economic and Social Contribution of the Wexford Opera Festival*. Dublin: Trinity College.
- Payeras, M. and Sastre, F. (1994) 'El multiplicador turístico: su aplicación a la economía balear', *Papers de Turisme* 6 (16): 17–29.
- Port Authority of New York and New Jersey (1983) *The Arts as an Industry: their Economic Importance to the New York and New Jersey Metropolitan Area*. New York.
- Pulido, A. and Fontela, E. (1993) *Análisis Input–Output. Modelos, datos y aplicaciones*. Madrid: Pirámide.
- Richards, G. (ed.) (1996) *Cultural Tourism in Europe*, Wallingford: CAB International.
- Richards, G. (2000) 'The European Cultural Capital Event: Strategies Weapon in the Cultural Arms Race?', *International Journal of Cultural Policy* 6 (2): 159–81.
- Richards, G. (2001) 'El desarrollo del turismo cultural en Europa', *Estudios Turísticos* 150: 3–14.
- Richards, G., Hitters, E. and Fernandes, C. (2002) *Rotterdam and Porto, Cultural Capitals 2001: Visitor Research*. Arnhem: Association for Tourism and Leisure Education.
- Sanz, J.A., Herrero, L.C. and Bedate, A.M. (2003) 'Contingent Valuation and Semiparametric Methods: a Case Study of the National Museum of Sculpture in Valladolid, Spain', *Journal of Cultural Economics* 27 (3–4): 241–57.
- Scott, A.J. (2000) *The Cultural Economy of Cities: Essays on the Geography of Image Producing Industries*. London: Sage.
- Scottish Tourist Board (1996) 'Edinburgh Festivals Economic Study', mimeo, Edinburgh.
- Seaman, B. (2003) 'Economic Impact of the Arts', in R. Towse (ed.) *A Handbook of Cultural Economics*, pp. 224–31. Cheltenham: Edward Elgar.
- Smith, A. (1776) *An Inquiry into the Nature and Causes of the Wealth of Nations*. Translation into Spanish: *Investigación de la naturaleza y causas de la riqueza de las naciones*, Spanish edition of 1794, reproduced as a facsimile by the Consejería de Educación y Cultura de la Junta de Castilla y León, Valladolid.
- Stanley, D., Rogers, J., Smeltzer, S. and Perron, L. (1998) *Win, Place or Show. Gauging the Economic Success of the Renoir and Barnes Art Exhibits*. Quebec: Canadian Heritage.
- Throsby, D. (1994) 'The Production and Consumption of the Arts: a View of Cultural Economics', *Journal of Economic Literature* 32: 1–29.
- Throsby, D. (1999) 'Cultural Capital', *Journal of Cultural Economics* 23 (1–2): 3–12.
- Throsby, D. (2001) *Economics and Culture*. Cambridge: Cambridge University Press.
- Towse, R. (ed.) (1997) *Cultural Economics: the Arts, the Heritage and the Media Industries*, 2 vols. Cheltenham: Edward Elgar.
- Towse, R. (ed.) (2003) *A Handbook of Cultural Economics*. Cheltenham: Edward Elgar.
- Uriel, E. (1997) *Contabilidad nacional*. Barcelona: Ariel.
- Urry, J. (1997) *Consuming Places*. London: Routledge.
- Van Puffelen, F. (1987) 'L'impact économique des arts à Amsterdam: méthodologie, résultats et questions', *Economie et Culture. 4a Conférence Internationale sur l'économie de la Culture*, Vol. 4, pp. 297–304. Paris: La Documentation Française.

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