ELSEVIER

Contents lists available at ScienceDirect

# **Tourism Management Perspectives**

journal homepage: www.elsevier.com/locate/tmp



# The Lucca Comics and Games Festival as a platform for transformational cultural tourism: Evidence from the perceptions of residents



Enrica Lemmi<sup>a</sup>, Pier Luigi Sacco<sup>b,e,f,g,\*</sup>, Alessandro Crociata<sup>c</sup>, Massimiliano Agovino<sup>d</sup>

- <sup>a</sup> University of Pisa and Fondazione Campus, Lucca, Italy
- <sup>b</sup> IULM University, Milan, Italy
- <sup>c</sup> GSSI Gran Sasso Science Institute, L'Aquila, Italy
- <sup>d</sup> Parthenope University, Naples, Italy
- e Harvard University, Cambridge, MA, United States
- f metaLAB (at) Harvard, Cambridge, MA, United States
- g FBK-IRVAPP, Trento, Italy

#### ARTICLE INFO

# Keywords: Comics and games festivals Perceptions of residents Transformational cultural change Heritage cities Urban identity

#### ABSTRACT

There is ample literature on residents' perceptions of the costs and benefits of tourism activities. Much less attention has been provided to residents' perceptions of transformational cultural events redefining local identity and tourism demand. We examine one such case study, the Lucca Comics and Games (LCAG), whose interest also derives from the fact that Lucca is an established Italian heritage city, with relevant attraction capacity for traditional heritage tourism. We have administered a questionnaire to a sample of the local population (411 interviews), with high educational and cultural access levels. We find that LCAG-related tourism is perceived to have differential impact with respect to tourism in general on several dimensions of interest, both in terms of perceived costs and benefits, also as an effect of cognitive biases. Our results provide interesting implications in terms of the role of transformational cultural events such as LCAG in driving change in heritage cities.

# 1. Introduction

Italian heritage cities, as well as many other European ones, are characterized by a significant tension between their traditional cultural identity, firmly rooted into their historical heritage, and the opportunities generated by new forms of cultural consumption and tourism (Pechlaner, 2000). Today, tourists increasingly perceive themselves no longer as a passive audience but as prosumers who consider travel experiences an occasion for creative, pro-active personal storytelling (Chronis, 2012). This scenario calls for a deep rethinking, not only in terms of how tourist products and services are designed and offered, but especially in terms of questioning the nature of the heritage city itself (Gospodini, 2004). A significant shift is occurring, from the citymonument perspective, with its emphasis on physical heritage and on somewhat stereotyped experience paths and narratives, to heritagebased creative ecosystems (Richards & Wilson, 2006), where the identity of the city naturally evolves through the interaction with visitors, and the creative contamination between local and outside narratives (Ennen, 2000). However, it is not always the case that events with strong touristic appeal such as festivals improve the tourist destination image, not even for actual participants (Boo & Busser, 2005). More insight is therefore needed to understand the complex relationship between such events and city image, both from the viewpoint of tourists and of residents.

Lucca is a particularly interesting case study in this respect. It mixes a very traditional Italian heritage city identity with its being home to a major event of prosumer culture in Europe, the Lucca Comics and Games Festival (LCAG), that can be regarded as one of the tourist hallmark events in Italy (Chirieleison & Scrucca, 2017). LCAG brings to the city a huge European pool of fans - more than 400.000 presences with 220.000 sold tickets, for a city of about 82.000 inhabitants. Such visitors are not primarily interested in traditional heritage, but rather in the contemporary narratives of comics, cartoons, gaming, cosplay, and so on. The event's impact in economic terms is clearly relevant, and it contributes substantially to Lucca's visibility and city branding, especially in the teenagers and young adults age groups. But how does it cope with the city's traditional positioning as a refined, somewhat aristocratic heritage city – and especially, how do the residents perceive and evaluate such a tension? This is the topic of the present paper, which opens a new sub-theme in the rich literature on the attitude of residents toward the tourism sector and activities (Sharpley, 2014).

The study of residents' perceptions toward tourism has produced a

<sup>\*</sup> Corresponding author at: Department of Humanities, IULM University Milan, Via Carlo Bo, 1, 20143 Milan, Italy.

E-mail addresses: enrica.lemmi@fondazionecampus.it (E. Lemmi), pierluigi.sacco@iulm.it, pierluigi.sacco@fas.harvard.edu (P.L. Sacco).

huge amount of research, although somewhat biased toward rural environments and emerging tourist destinations rather than urban ones (Schofield, 2011). Therefore, there is still room, and need, for further research to attain a reliable understanding of the phenomenon as a basis for effective public planning (Petrova & Hristov, 2016). A common, intuitive finding from the literature is that generally residents who are more favorable to tourism are those who benefit from it the most, and vice versa for unfavorable ones (e.g. Kayat, Sharif, & Karnchanan, 2013). Perceived benefits mediate the relationship between community attachment and involvement, and support to sustainable tourism development (Lee, 2013). On the other hand, residents of emerging tourist destinations tend to de-emphasize the negative externalities of tourism with respect to more established destinations. even in the case of heritage cities (e.g. Da Cruz Vareiro, Remoaldo, & Cadima Ribeiro, 2013). Residents' informational basis, however, may be fragmentary and biased (Upchurch & Teivane, 2000).

The case of Lucca presents, as anticipated, an interesting specificity in this respect, as it deals with residents' perception of a huge visitors' flow which is however *not* directly related to the city's established identity, but rather at odds with it. Therefore, in this case the evaluation of the relative costs and benefits of LCAG does not have simply to do with weighing the economic benefits of the event against its costs and negative externalities, but also on its perceived transformational impact on the city image and identity itself (Pavlovich, 2014). Every year, when LCAG closes, there is a lively debate in the local community and media about the pros and cons of the Festival, and the identity issue plays a significant role in it. This case study thus allows us to gain some insight into the nature of the heritage-innovation dynamic tension from the viewpoint of city residents.

To this purpose, we have specifically designed a questionnaire administered to a sample (411 interviews) of the local population. It covers issues such as perceptions of social and economic value, identity, and citizens' involvement. Moreover, we have conducted in-depth interviews with the Festival management and artistic direction. We are particularly interested in exploring the social sustainability of the developmental impulse of LCAG on the city. This leads us to inquire about the capacity of the local community to tap into LCAG's potential as a driver of social and cultural change, intercultural dialogue, and ultimately of deployment of innovative forms of heritage tourism.

### 2. Literature background

The literature on residents' perceptions of the impacts of tourism is too extensive to be surveyed here, however briefly. Nevertheless, it is worth mentioning some findings from previous studies. The everyday life of residents is influenced by tourism in at least three respects, both on the positive and negative sides (Prayag, Hosany, Nunkoo, & Alders, 2013). At the economic level, tourism may create jobs in related sectors, as well as additional income and local tax revenues. At the sociocultural level, it can revive traditional crafts and skills, and to bring fresh attention upon local tangible and intangible heritage. However, it can also cause an increase in crime rates (Dyer, Gursoy, Sharma, & Carter, 2007), prompt changes in local traditional culture that may threaten its authenticity (Gu & Ryan, 2008), and put residents under stress (Bimonte & Faralla, 2016). At the environmental level, it may endanger the sustainability of parks and wildlife, and increase air, water and noise pollution (see Andereck, Valentine, Knopf, & Vogt, 2005 for a critical review on each dimension).

Early work in the field already showed, however, that the relationship between tourism development, economic development and residents' expectations and perceptions about the impact of tourism activity on the area may be complex (e.g. Johnson, Snepenger, & Akis, 1994). For instance, there could be negative tradeoffs between local community orientation and positive perceptions of tourism (Williams & Lawson, 2001), but proactive community commitment seems to play on the contrary in favor of constructive attitudes toward tourism (Jackson

& Inbakaran, 2006). Also different forms of tourism may elicit different attitudes (Ritchie & Inkari, 2006). Several studies take the lead from Social Exchange Theory (SET); see Nunkoo and Gursoy (2012) for a recent literature review. SET, as applied to the tourism sector, postulates that individuals correctly evaluate the costs and benefits of tourism, including non-economic ones (Wang & Pfister, 2008), and decide accordingly. Thus, if perceived benefits exceed perceived costs, locals will be inclined to participate in the exchange and consequently support tourism, and vice versa. For instance, Jurowski and Gursoy (2004) show that resident heavy users of tourist attractions close to them are more disturbed by tourism than those living away from them. Building on the work of Gursov, Jurowski, and Uvsal (2002), Gursov and Rutherford (2004) develop a structural model that identifies nine basic determinants of residents' support, five of which interacting. However, starting from a similar approach Ko and Stewart (2004) find much less clear-cut results. Moreover, the number of relevant intervening variables and their interdependencies are substantially affected by the socio-economic context. For example, Nunkoo and Ramkissoon (2011), following an analogous approach, find that, for a Mauritius case study, residents' support is directly influenced by three variables, and indirectly by a complex pattern of interdependencies. Thus, every place seems to have specific cultural characteristics influencing residents' attitudes toward tourism (Twining-Ward & Butler, 2002). The quest for a 'universal' explanatory model is therefore bound to be difficult (Vargas-Sánchez, Porras-Bueno, & Plaza-Mejía, 2011). Peng, Chen, and Wang (2014) develop for instance an alternative framework of analysis for emerging tourist destinations in terms of relative deprivation theory, showing that most relatively deprived residents are also likely to be the ones showing more negative attitudes toward tourism. Stylidis, Biran, Sit, and Szivas (2014) bring attention toward the role of contextual factors of place image in determining residents' attitudes.

In lack of a common explanatory framework, there has been a proliferation of studies exploring the most diverse socio-cultural environments. A preferential focus has been put, as already remarked, on rural or emerging destination environments, possibly as a consequence of the relevance of such studies for local development planning (Harrill, 2004) and local consensus building (Oviedo-Garcia, Castellanos-Verdugo, & Martin-Ruiz, 2008) purposes. For instance, Tovar and Lockwood (2008) focus upon the social sustainability of tourism in an Australian rural environment. Chuang (2013) finds strong evidence of local residents' support in a similar Taiwanese rural environment. Su and Wall (2014) analyze residents' attitudes in a Chinese heritage city, where the notion of heritage itself is subject to a complex process of cultural redefinition. Harrill, Uysal, Cardon, Vong, and Dioko (2011) examine the polarization of residents' attitudes toward the gaming tourist industry in Macao in a growth machine theory perspective. Garau-Vadell, Díaz-Armas, and Gutierrez-Taño (2014) focus on residents' perceptions in two major Spanish island tourist destinations, Mallorca and Tenerife. A general lesson that can be taken from such studies, beyond the many local specificities, is that residents' attitudes vary with the stage of the life cycle of the local tourism industry (Vargas-Sánchez, Oom Do Valle, Da Costa Mendes, & Silva, 2015), and that in rural or emergent tourist destinations where congestion effects are less binding, the overall perception tends to be relatively more positive, although with significant differentiations and nuances. One can expect that less positive attitudes are to be found in congested, historically consolidated tourist destinations, but there has been to date not enough research in these contexts to allow a reliable comparison.

The analysis of a diverse enough spectrum of case studies also casts doubt on perspectives, such as SET, which regard residents' attitudes as the outcome of a rational cost-benefit analysis. Sdrali, Goussia-Rizou, and Kiourtidou (2015) show for example how, in a Greek case study, residents are only partially aware of the nature and entity of nonmonetary benefits and costs of tourism activity. In our study, we find further confirmation of such cognitive biases – a particularly remarkable result in view of the high educational level of our sample



Fig. 1. The province of Lucca.

respondents.

# 3. Methodology

# 3.1. The area of study

Our study focuses upon the Province of Lucca, in Central Italy (see Fig. 1). The town of Lucca, the Province's capital, home of the famous composer Giacomo Puccini, is one of the most renowned art cities at the national level. Tourism is one of the main drivers of the local economy, and a key strength of Lucca as a tourist destination is its environmental quality and its rich historical and architectural heritage. The exquisite mix of beautiful and varied landscapes and deep stratifications of cultural landmarks from different historical periods, including its perfectly preserved, fully walkable system of walls that offers a unique top-down perspective on the historical urban fabric, make of Lucca one of the most fascinating heritage tourism experiences in the country. Adding to the picture the excellent quality of local food and wine and the rich program of musical activities and cultural events, Lucca ranks high as to tourist attractiveness in many segments of the market spectrum. Among the weaknesses, however, one has to point out that the local tourism industry has not been particularly active in catching up with the

increasing standards dictated by the intensifying global competition. This is due to the fact that local residents, and especially so those of the town's historical core, tend to be defensive in the face of changes, and weakly inclined to embrace a tourist-friendly attitude. As a consequence, the issue of locals' hostility toward any initiative that interferes with the everyday routine of the inhabitants is a reason for concern as regards tourist development strategies.

Lucca Comics & Games is a yearly fair devoted to comics, animation, gaming (role games, board games, card games, etcetera), videogames and more generally to all things fantasy and science fiction. It takes place in Lucca between end of October and beginning of November, and is considered among the most important events in the field in Europe. It has been estimated that in the 2011 edition, 155.000 tickets have been sold, with a peak of 50.000 visitors in the single day of Sunday, October 30, for a total city revenue of about 24 million euros. The 2012 edition escalated to 182.217 tickets (computing multi-day subscriptions as separate day tickets), which would yield a total of 212.217 attendees also including the 7.727 passes for staff and exhibitors, with a peak of 56.000 for the day of Saturday, November 3. In 2013, the record figures were broken again: 217.646 tickets sold (including multi-day subscriptions computed as above), with more than 70.000 attendees on both Friday 1, and Saturday November 2. Moreover, still in 2013, the

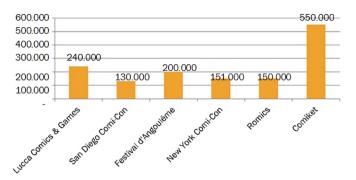


Fig. 2. A comparison between the main events in the field worldwide, 2014 data.

event organizers have estimated a total number of attendees, including those with free tickets and participants to free events, of more than 380.000. The figures have kept on rising also in the following years.

Fig. 2 compares the total number of tickets sold in 2014 for the main initiatives in the field worldwide. After Tokyo's *Comiket* with its about 550.000 tickets, LCAG comes second with 240.000. The French Festival d'Angoulême is third with 200.000, followed by New York's *Comicon* (151.000), Rome's *Romics* (150.000), and San Diego's *Comicon* (130.000). LCAG can therefore be considered the second event in the field at the global level for attendance, and the first in the Western world.

Even the 2015 figures confirm that the rising trend sees no stop. Provisional data published by the local newspaper *Il Tirreno* in its November 2, 2015 edition, report a total sale of 220.000 single day tickets, plus 17.350 2-day subscriptions, 5.824 3-day subscriptions and 3.402 all-days subscriptions.

Evidently, then, LCAG is a major event in its field at the global scale, and therefore qualifies as a milestone in the yearly programming of tourism events for a mid-sized town like Lucca. LCAG then qualifies as an event of special interest in terms of its role in defining Lucca as a tourist destination, because of a number of relevant externalities it generates:

- LCAG attracts a large number of visitors with a high educational level, who cause no security threats and come to town with the goal of cultivating their passion and to improve their knowledge and expertise in the field. LCAG promotes a large number of forms of sociability, which improve cultural dialogue among people from different countries and backgrounds, who meet to devote themselves to their common interests.
- The revenues for the local hospitality and visitor services sectors (hotels, restaurants, etc.) and for the local businesses are considerably boosted by the event, not only in town, but also in the nearby provincial territory.
- 3. LCAG creates job opportunities for young people, both as staff of the event itself and in other companies or businesses which are positively affected by it. During the event, a certain number of temporary stores are opened as well, with a further increase of the revenues for the local economy.
- 4. In terms of tourism promotion, visitors who reach Lucca to attend the event also have a chance to appreciate Lucca's amenities and thus function as testimonials in the rest of Italy, in Europe, and even outside Europe. The presence of a LCAG special pavilion devoted to children also appeals to family tourism, which is a key target for Lucca as a tourist destination also in the rest of the year.
- LCAG promotes both the publishing industry (comics and books) and alternative, experimental and fan-driven instances of performing arts such as cosplay, role games, etcetera.
- LCAG also serves as a key global platform for the presentation of large projects, technological devices, and products by all of the top

- global players in the field, many of which have their own (often high-budget) pavilions at the event.
- 7. LCAG brings to town many major artistic and literary personalities: Illustrators, 3D artists, writers, game designers, game playwrights, who not only present their projects and activity, but directly interact with the public.
- 8. Even at the end of the event, LCAG keeps on positively influencing Lucca's tourist attractiveness, as visitors often return to town along the year to participate in reunions with other people they knew at the event, thus contributing to the de-seasonalization of tourist flows.

There is therefore reason to believe that not only LCAG causes a strongly positive impact on the local economy, image and reputation, but should also be considered an asset that the city needs to preserve, cultivate, and further promote. However, LCAG, because of its scale, can also be regarded as a periodical shock to the town's quiet routine, and at the same time as an event that oddly matches with Lucca's traditional profiling as a cozy, traditional heritage city more versed into highbrow, historical culture than in the popular culture so impressively championed by LCAG. It is therefore of particular interest to evaluate the extent to which this tension reflects in the perceptions and evaluations of the local residents.

#### 3.2. Conceptual framework and objectives

In this study, we aim at evaluating the perception of residents as to the impact of LCAG on a variety of dimensions of interest for the local community, from impacts on the local economy to impacts on social life and perceived quality of life, to impacts on Lucca's local identity as a heritage city. Due to the relatively scarce literature on the analysis of residents' perceptions in European heritage cities, rather than committing to a pre-existing framework, our approach sets a more basic, pre-theoretical goal. The paper's objective is to present a first, tentative analysis based on a simple tailor-made instrument that measures residents' attitudes on several different issues in terms of a simple comparative scale. Our study should therefore be considered as instrumental to the development of a full-fledged theoretical approach, rather than as a foundational work. Although largely under-explored, the issue of residents' perceptions in heritage cities has a major relevance in the future development of the field, and providing some basic empirical benchmark, as we do in this paper, may be a useful first step.

Accordingly, the instrument that we use to measure residents' attitude is not a psychometric scale for residents' attitudes that needs statistical validation and calibration. Rather, it is a questionnaire on perceived impacts that makes no inference as to the reasons and motives behind residents' evaluations but merely measures their intensity. This first level of evidence is in our opinion a constructive basis for the future elaboration of a more profound theory that investigates the causes and structure of residents' attitudes toward tourist activities, that entail some form of cognitive dissonance in terms of the heritage city's socially established identity. This deeper level of analysis will call for the elaboration of a proper psychometric scale, a tool that is much needed in this specific area of analysis, and will be the object of future research.

# 3.3. Sample, procedure and descriptive statistics

In this exploratory analysis, we used micro data from a structured questionnaire administered in 2015 to a sample (411 interviews) of residents. A convenience sampling approach was used, as registration with the panel and participation in this specific survey were voluntary. While this could result in overrepresentation of people intrinsically motivated to fill out the survey, and more generally in lack of statistical representativeness of Lucca's whole resident population, this sample is of particular interest in our view, in that it provides us with a first look at the attitudes of locals who have a potential positive bias toward

**Table 1**Socio-economic and cultural characteristics.

Variables	
Gender ( $n = 391$ ): mean (SD)	
Male	0.478 (0.500)
Female	0.522(0.500)
Age ( $n = 402$ ): mean (SD)	
18–25	0.326(0.469)
26–35	0.206(0.405)
36–45	0.152(0.359)
46–55	0.129(0.336)
56–65	0.097(0.296)
66–75	0.09(0.286)
Education ( $n = 402$ ): mean (SD)	
Elementary School	0.057(0.233)
Middle School	0.179(0.384)
High School	0.515(0.500)
University Degree	0.231(0.422)
Master and/or Ph.D.	0.017(0.131)
Employment (n = 200); mean (CD)	
Employment ( $n = 388$ ): mean (SD) Unemployed	0.157(0.364)
Employee	0.351(0.478)
Self employed	0.149(0.357)
Blue collar	0.052(0.221)
Businessman	0.09(0.287)
Retired	0.180(0.385)
Housewife	0.021(0.142)
Income(n = 346): mean (SD)	
0€ - 9999€	0.373(0.484)
10,000 €- 19,999€	0.329(0.471)
20,000 €- 39,999€	0.176(0.382)
over 40,000€	0.121(0.327)
	(111
Movies( $n = 358$ ): mean (SD)	0.17(0.277)
Never	0.17(0.377)
Frequently Very often	0.659(0.475) 0.170(0.377)
very often	0.170(0.377)
Theatre( $n = 341$ ): mean (SD)	
Never	0.352(0.478)
Often	0.528(0.50)
Very often	0.120(0.326)
Museums and exhibitions ( $n = 345$ ): mean (SD)	
Never	0.238(0.426)
Often	0.617(0.426)
Very often	0.145(0.353)
Concerts( $n = 344$ ): mean (SD)	
Never	0.273(0.446)
06	0.596(0.491)
Often	
Very often	0.131(0.338)
Very often	0.131(0.338)
	0.131(0.338) 0.144(0.352)
Very often Books( $n = 389$ ): mean (SD)	

LCAG with respect to the average resident. For the purpose of our analysis, this is a feature of special interest, as we aim at understanding how residents who are most likely to develop a positive inclination toward LCAG and to attend it (mostly young, well-educated), relate LCAG to the broader issue of the city's cultural identity. Nevertheless, it will be interesting to compare the results we present here with those from a statistically representative sample of residents.

Summary statistics for our sample are reported in Table 1. In particular, we report some basic statistics: mean and standard deviation (SD). The *sample mean* is the average and is computed as the sum of all the observed outcomes from the sample divided by the total number of events. In math terms,  $\bar{x} = \frac{1}{n} \sum_{i=1}^{n} x$  where n is the sample size and the x are the observed values. In statistics, the standard deviation (SD) is a measure that is used to quantify the amount of variation or dispersion of a set of data values. A low standard deviation indicates that the data points tend to be close to the mean (also called the expected value) of

the set, while a high standard deviation indicates that the data points are spread out over a wider range of values. The formula for the sample standard deviation is:  $SD = \sqrt{\frac{\sum_{i=1}^{n}(x_i - \overline{x})^2}{n-1}}$  where  $\{x_1, x_2, ..., x_n\}$  are the observed values of the sample items,  $\overline{x}$  is the mean value of these observations, and n is the number of observations in the sample.

Total figures vary for different sampled characteristics as not all respondents completed all fields (e.g. a relevant amount of responders declined to disclose their income group). 47.8% of subjects are male, and the modal age group (about 33%) is 18-25. A fair share of the adults (15%) belongs to the 36-45 age group, and an additional 13% is in age group 46-55. Therefore, our sample focuses upon relatively 'young' residents, who are both more likely to be aware of LCAG, and to be familiar with it. This entails a significant departure from the actual demographic composition as available from the City's official statistics as of 2015. In particular, our sample is strongly biased in favor of young residents (18-25; 32.6% of our sample versus 7% of actual residents) and young adults (20.6% of our sample versus 10.3% of actual residents). The sample is fairly representative of the 36-45 age group (15.2% of our sample versus 14.7% of actual residents). It under-represents older age groups (46-55: 12.9% of our sample versus 16.4% of actual residents; 56-65: 9.7% of the sample versus 12.6% of residents; 66-75: 9% of the sample versus 11.9% of residents). This may seem a shortcoming of the study, but for reasons that will become clear in the later analysis it is a way to put our main research question, namely the relationship between LCAG and Lucca's identity as a heritage city, under a stricter test than a fair demographic representation of the resident population would allow.

The majority of the sample has either a high school degree (51.5%) or a university degree (23%). Moreover, 35% of the sample are employees, 15% is self-employed, another 15% is unemployed. In terms of income, 37% declares to be in the lowest income class (0 $\varepsilon$  - 9999 $\varepsilon$ ), whereas 12% place themselves in the top income class (over 40,000 $\varepsilon$ ).

Cultural access is high on average. Interviewees often attend cinema (66%), theatre (53%), museums and exhibitions (61%), music concerts (60%), and read books (56%). Our sample thus reflects a self-selected, knowledgeable resident base, interested in art, culture, and heritage – not exactly the classical average sample for a provincial Italian town. Respondents can thus be assumed to have a sound perception of the impact of such activities (and of related forms of cultural tourism) upon the city's cultural vibrancy and social sustainability.

Interviewed residents have not been previously filtered for their acquaintance with LCAG – although, as remarked, ours is a skewed sample privileging young residents. In Table 2, we find the relevant data on residents' awareness and opinions. 84% are aware of LCAG, and 36% report to have been introduced to it by friends, whereas 22% to have been informed through the internet. 29.5% declares having attended LCAG between 5 and 10 times. 74.5% visited with friends, 19% with relatives. Moreover, LCAG visitors like the Festival: About 52% declares appreciation, and 47% strong appreciation. About 51% wishes LCAG to continue, with further improvements; 38% is happy with the status quo. Among those who never visited, 63.4% declare they would like to – there is, therefore, still a large untapped pool of future local visitors of LCAG even in the potentially better-disposed age groups despite the outstanding success.

Results in Table 2 clearly indicate that residents are interested in LCAG and generally appreciate it. But do they also regard LCAG as an asset for Lucca? As shown in Table 3, 71% thinks so, and about 65% sees LCAG as a key channel to make Lucca visible both nationally and worldwide. About 74% wishes LCAG to turn Lucca into Europe's leading city for comics and games, and 78.4% appreciates LCAG's potential as a platform for young entrepreneurship in culture, creativity, and tourism.

# 4. The pros and cons of LCAG

We now examine the effects of LCAG, and of tourism more

Table 2
Knowledge of LCAG.

Variables	
Do you know LCAG? ( $n = 388$ ): mean (SD)	
No	0.162(0.369)
Yes	0.838(0.369)
How do you know LCAG? (n = 388): mean (SD)	
Advertising	0.191(0.393)
Newspapers	0.036(0.187)
Radio	0.005(0.072)
Television	0.026(0.159)
Internet	0.222(0.416)
Friends	0.358(0.480)
Other	0.162(0.369)
Have you been to LCAG? $(n = 339)$ : mean (SD)	
Never	0.257(0.437)
Once	0.206(0.405)
2–4 times	0.239(0.427)
5–10 times	0.295(0.457)
I visit it every year	0.003(0.054)
With whom did you go to LCAG? ( $n = 208$ ): mean (SD)	
Alone	0.067(0.251)
Friends	0.745(0.437)
Relatives	0.188(0.391)
If you've never been to LCAG, would you like to visit? ( $n = 112$ ): mean (SD)	
Yes	0.634(0.484)
No	0.366(0.484)
(For actual visitors) Did you like it? $(n = 221)$ : mean (SD)	
No	0.014(0.116)
Fair enough	0.516(0.501)
Much	0.471(0.500)
I would like LCAG $(n = 327)$ : mean (SD)	
To be over	0.034(0.181)
Continue as it is	0.382(0.487)
Continue with improvements	0.508(0.501)
Continue with different formula	0.073(0.261)
Other	0.003(0.055)

Table 3 LCAG as a resource for Lucca.

Variables	
Is LCAG a resource for Lucca? ( $n = 333$ ): mean (SD)	
No	0.015(0.122)
Fair enough	0.276(0.448)
Yes	0.709(0.455)
Does LCAG contribute to Lucca's visibility	
nationally and worldwide? (n = 333): mean (SD)	
No	0.006(0.077)
Fair enough	0.342(0.475)
Yes	0.652(0.477)
Would you like LCAG to turn Lucca into Europe's top city for comics and games? ( <i>n</i> = 332): mean (SD)	
No	0.012(0.109)
Fair enough	0.250(0.434)
Yes	0.738(0.440)
Would you like LCAG to open up new opportunities in Lucca	
for young entrepreneurs in the cultural, creative and tourism fields? $(n = 334)$ : mean (SD)	
No	0.006(0.077)
Fair enough	0.210(0.408)
Yes	0.784(0.412)

generally, on various dimensions of Lucca's social, economic and cultural environment as evaluated by our sample of respondents. Our questionnaire contains 35 different questions. Each of them is formulated so as to appreciate the differential response on the effect of tourism in general terms, and the effect of LCAG-related tourism. Each question gave three possible options as answers: No contribution; some contribution; high contribution. The 35 questions have been aggregated in seven groups, so as to single out specific sources of advantage/disadvantage of general vs. LCAG-related tourism. In particular, we have

singled out six different sources of advantage (i.e., Tourism and urban attractiveness, Tourism and urban human capital, Tourism and urban physical capital, Tourism and urban social capital, Tourism as a driver of economic development inside the territory of Lucca, and Tourism as an economic driver outside the territory of Lucca) and one of disadvantage (i.e., Tourism as a source of diseconomies), each of which grouping a certain number of questions. Because no other study has previously analyzed the perception of the residents as to the costs and benefits of tourism activities, we evaluate the goodness of selected items using statistical techniques. In particular, we use the Cronbach's Alpha reliability coefficient to measure the internal consistency of the seven-item scale of resident perception on tourism generated by LCAG (Chen & Hsu, 2001; Kim, Kim, & Bolls, 2014; Pabel & Pearce, 2016; Zaichkowsky, 1985).

It has been proposed that Cronbach's Alpha can be viewed as the expected correlation of two tests that measure the same construct. By using this definition, it is implicitly assumed that the average correlation of a set of items is an accurate estimate of the average correlation of all items that pertain to a certain construct (Nunnally, 1978).

Cronbach's Alpha will generally increase as the intercorrelations among test items increase, and is thus known as an internal consistency estimate of reliability of test scores. Cronbach's Alpha is a function of the number of items in a test, the average covariance between itempairs, and the variance of the total score. Because intercorrelations among test items are maximized when all items measure the same construct, Cronbach's alpha is widely believed to indirectly indicate the degree to which a set of items measures a single unidimensional latent construct. It is easy to show, however, that tests with the same test length and variance, but different underlying factorial structures can result in the same values of Cronbach's alpha. Indeed, several scholars have shown that alpha can take on quite high values even when the set of items measures several unrelated latent constructs (Cortina, 1993; Revelle, 1979; Schmitt, 1996). As a result, alpha is most appropriately used when the items measure different substantive areas within a single construct.

The average Cronbach's Alpha is 0.8290 (average test scale of each table or total test score summing the scores of different items) suggesting a very good level of internal consistency. In addition, the Cronbach's Alpha for the respective item is always in the range [0.80; 0.90]; this result confirms a good internal consistency associated with each item.

The six sources of advantage are the following:

#### 1. Tourism and urban attractiveness

- Tourism makes Lucca more vibrant, animated, and pleasant (from now on, More vibrant)
- Tourism attracts cool people who may contribute to the city's future development (Attracting cool people)
- Tourism attracts many young people (Attracting young people)
- Tourism attracts many foreign people (Attracting foreigners)
- Tourism may help the city to become more open to novelty and more cosmopolitan (Open and cosmopolitan city)
- Tourism contributes to foster initiative to make Lucca cleaner and cozier (More clean and cozy)

# 2. Tourism and urban human capital

- Tourism encourages Lucca residents to be more culturally active and to cultivate more cultural interests (More proactive residents)
- Tourism makes Lucca residents more proud of their city and of its cultural attractions (*Prouder residents*)
- Tourism contributes to the evolution of Lucca's cultural identity (Urban cultural identity)

# 3. Tourism and urban physical capital

**Table 4**Tourism and urban attractiveness development.

Tourism and urban attractiveness development	No contribution (%)	Medium-high contribution (%)	High contribution (%)	Alpha
More vibrant	1.43	38.11	60.46	0.8313
More vibrant (LCAG)	1.73	29.19	69.08	0.8300
Attracting cool people	1.99	60.11	37.89	0.8332
Attracting cool people (LCAG)	2.29	62.75	34.96	0.8313
Attracting young people	3.13	51.85	45.01	0.8243
Attracting young people (LCAG)	0.57	23.5	75.93	0.8268
Attracting foreigners	1.14	29.06	69.8	0.8395
Attracting foreigners (LCAG)	2.01	49.28	48.71	0.8389
Open and cosmopolitan city	2.85	47.86	49.29	0.8238
Open and cosmopolitan city (LCAG)	2.89	44.8	52.31	0.8261
More clean and cozy	10.95	70.89	18.16	0.8284
More clean and cozy (LCAG)	10.14	70.72	19.13	0.8375
Test scale (alpha)				0.8429

- Thanks to tourism, Lucca invests in structural ameliorations that would otherwise not be carried out (More structural investments)
- Tourism contributes to the restoration of heritage buildings with historical and artistic value (Heritage restoration)
- Tourism improves the quality and variety of the city's commercial outlets (Improved shop quality)
- 4. Tourism and urban social capital
- Tourism provides concrete benefits to the city's social life (Social benefit)
- Tourism favours dialogue with people with different cultural backgrounds (Intercultural dialogue)
- 5. Tourism as a driver of economic development inside the territory of Lucca
- The economic impact of tourism benefits the whole local community (Community impact)
- Tourism generates concrete benefits for my family (Family benefits)
- Tourism plays a key role in the future of the city (Future of the city)
- My family's standard of life is better thanks to tourists' expenditures in the city (Improving household standards)
- The tourism sector is a key driver of the Lucca territory's economic system (Economic driver)
- The tourism sector generates employment in the Lucca territory (Employment generator)
- Thanks to tourism, people spend more money in buying goods and services from the Lucca territory (More spending)
- Thanks to tourism, there are more investments in the Lucca territory (More investment)
- Tourism improves the quality of public services (Public services improvement)
- The benefits of tourism are overall bigger than the costs and inconveniences that it entails for Lucca residents (Net benefits)
- 6. Tourism as an economic driver outside the territory of Lucca
- A good deal of the economic impact of tourism in Lucca benefits companies and families that are not located in the Lucca territory (Outside benefits)
- Tourism creates more jobs for foreigners and non-resident families than for residents (Outside job opportunities)

The disadvantages block is the following:

1. Tourism as a source of diseconomies

- Tourism only benefits a limited number of people in the city (Limited benefit)
- The prices of many goods and services in the city have increased because of tourism (Inflation)
- Tourism threatens the city's cultural identity and its authenticity (Identity threats)
- Tourism interferes with the residents' daily life and habits and impedes them (Nuisance)
- Tourism endangers the conservation of heritage buildings (Heritage conservation threats)
- Tourism endangers the city's and the Lucca territory's environmental quality (Environmental risk)
- Tourism increases vandalism and criminality in the city (Vandalism)
- Tourism generates waste that makes the city dirtier and less livable (More waste)
- Tourism make city traffic more chaotic and stressful (More chaos)

# 4.1. Benefits of LCAG

The urban attractiveness dimension results are reported in Table 4. There is an overall alignment between perceived beneficial effects of tourism in general vs. LCAG-related ones, although some interesting differences emerge. We will mainly focus upon answers where the contribution of both general and LCAG-related tourism is deemed to be high. There are some differences with respect to the vibrancy dimension: Around 70% of respondents believes LCAG to be an event providing a high contribution to the city's vibrancy, whereas only 60% thinks this is the case for tourism in general. Moreover, about 63% thinks that LCAG contributes to bring to Lucca interesting people who may benefit its future development. Interestingly - and as expected about 76% thinks that LCAG is quite effective in bringing young people to the city, against 45% for tourism in general, thus confirming the gap between the conventional profiling of Lucca as an art and heritage tourist destination and the pop culture one connected to LCAG. On the contrary, respondents feel that LCAG does not give an equally high contribution in bringing foreigners to Lucca (only about 49% think affirmatively), whereas tourism in general does (70% think affirmatively). As to the other items, there are no major differences between tourism in general and LCAG-related tourism, for instance as to making Lucca more cosmopolitan, or cleaner and cozier. To sum up, it seems that LCAG's main contribution is regarded by residents in terms of its capacity to appeal to young people and to make Lucca more vibrant and dynamic rather than to improve Lucca's international profile, and this despite the Festival's high international visibility.

Table 5 groups items related to the cultural capital dimension of tourism. Also here, we find an alignment between the two types of tourism. A 41% believe that LCAG makes a relevant contribution in fostering residents' cultural interests, against 38% for tourism in

**Table 5**Tourism and urban cultural capital development.

Tourism and urban cultural capital development	No contribution (%)	Medium-high contribution (%)	High contribution (%)	Alpha
More proactive residents	2.89	59.25	37.86	0.8231
More proactive residents (LCAG)	3.5	55.39	41.11	0.8123
Prouder residents	3.44	47.85	48.71	0.842
Prouder residents (LCAG)	2.89	50.87	46.24	0.8012
Urban cultural identity	7.43	60	32.57	0.8433
Urban cultural identity (LCAG)	8.64	61.1	30.26	0.8442
Test scale (alpha)				0.8234

**Table 6**Tourism and urban physical capital development.

Tourism and urban physical capital development	No contribution (%)	Medium-high contribution (%)	High contribution (%)	Alpha
More structural investments	13.79	65.23	20.98	0.856
More structural investments (LCAG)	11.01	64.93	24.06	0.8247
Heritage restoration	12.54	65.31	22.16	0.8432
Heritage restoration (LCAG)	19.65	65.1	15.25	0.8346
Improved shop quality	11.17	60.17	28.65	0.8433
Improved shop quality (LCAG)	11.24	64.27	24.5	0.82790
Test scale (alpha)				0.8332

general. The fresh, innovative character of LCAG is thus seen as a driver of renewal.

More differences emerge when considering the effect of tourism on physical capital. Table 6 shows how LCAG is strongly felt to contribute to investment and structural amelioration of the city with respect to tourism in general (with a positive 4% gap). On the contrary, again as expected, respondents believe that LCAG does little for the restoration of heritage buildings. Only 24,5%, against 29% of tourism in general, feels that LCAG provides a stimulus to the improvement of the quality and variety of the city's commercial outlets. Given the event's seasonality, it can be expected that Lucca's commercial supply accommodates the tastes and preferences of the event's public only momentarily. Moreover, LCAG has its own commercial points, selling strongly themed products, and permanent commercial outlets can do little to outcompete them in such fairly specialized market niches.

In terms of social capital, Table 7 reports very little differential perception by residents as to the capacity to generate social value by tourism in general vs. LCAG. We conclude that both tourism in general and LCAG are believed to provide a very high contribution to the city's intercultural dialogue, and more generally to the city's social life.

Table 8 reports results concerning the economic development impact of tourism for the territory. We again observe a strong alignment between the two types of tourism for most items. More specifically, respondents believe that LCAG has a relevant economic impact, that strongly contributes to Lucca's job creation (a 4% positive gap with respect to tourism in general). Moreover, it is regarded as a major economic driver, even more than tourism in general. This result, which seems to reflect a cognitive bias in the evaluation of respondents, who focus upon LCAG's benefits more distinctively than on the economic impacts of all other tourist activities in the city, is consistent with the perception of LCAG as a key economic asset by Lucca residents.

Finally, Table 9 yields results about tourism as a source of spillovers

favoring families and companies outside the Lucca territory. Respondents are convinced that LCAG in particular gives relevant benefits to companies outside Lucca (11% against 7.6% of tourism in general), as well as in favoring job creation for foreigners and non-resident families (9% against 6% of tourism in general).

# 4.2. Costs of LCAG

We now come to the costs connected to LCAG. Table 10 singles out 9 items that are felt to generate dis-economies. In general, respondents are convinced that LCAG generates much more dis-economies than tourism in general. 20% believe that benefits affect only a limited part of the local community, against 17.7% of tourism in general. 32,4% feel that LCAG has a relevant impact in terms of price increases, whereas 25,7% think it has a major effect in threatening the city's cultural identity and authenticity, against 10% for tourism in general.

About 15% think that LCAG's contribution to waste creation and in making the city less livable is very relevant. There is also a major difference in terms of LCAG's perceived effect upon city traffic. In this case, about 43% say that LCAG worsens traffic problems, making the city more chaotic, against 15.5% for tourism in general.

It is interesting to remark how the negative environmental effects of a temporary, short-lived event are felt as more serious than these of a year-round activity. As for perceived economic benefits, this is an effect of a possible salience bias of LCAG as a tourist-oriented activity within the general picture of tourism in Lucca.

An important source of negative perception by residents is linked to LCAG's impact in terms of city congestion. This is a somewhat inevitable consequence of an event that attracts in the space of a few days several hundred thousand visitors to a town of less than one hundred thousand residents, although there is certainly room for organizational and logistic improvements.

**Table 7**Tourism and urban social capital development.

Tourism and urban social capital development	No contribution (%)	Medium-high contribution (%)	High contribution (%)	Alpha
Social benefit	2.59	51.72	45.69	0.8234
Social benefit (LCAG)	2.91	49.13	47.97	0.8989
Intercultural dialogue	5.13	52.42	42.45	0.8665
Intercultural dialogue (LCAG)	5.73	52.72	41.55	0.8421
Test scale (alpha)				0.8345

**Table 8**Tourism as a driver of economic development inside the territory of Lucca.

Tourism as a driver of economic development inside the territory of Lucca	No contribution (%)	Medium-high contribution (%)	High contribution (%)	Alpha
Community impact	2.02	55.04	42.94	0.8236
Community impact (LCAG)	2.88	53.31	43.52	0.8198
Family benefits	32.09	46.42	21.49	0.8204
Family benefits (LCAG)	32.75	46.38	20.87	0.8218
Future of the city	0.57	28.37	71.06	0.8167
Future of the city (LCAG)	1.45	33.53	65.03	0.8136
Improving household standards	32	51.14	16.86	0.8306
Improving household standards (LCAG)	33.05	48.56	18.39	0.8312
Economic driver	1.71	53.71	44.57	0.8187
Economic driver (LCAG)	2.01	48.14	49.86	0.8190
Employment generator	1.42	62.39	36.18	0.8228
Employment generator (LCAG)	2.59	58.21	39.19	0.8206
More spending	4.87	62.75	32.38	0.8152
More spending (LCAG)	2.88	66.86	30.26	0.8132
More investment	5.22	69.57	25.22	0.8159
More investment (LCAG)	4.37	70.26	25.36	0.8149
Public services improvement	21.55	64.37	14.08	0.8154
Public services improvement (LCAG)	22.9	63.77	13.04	0.8168
Net benefits	9.48	57.76	32.76	0.8242
Net benefits (LCAG)	10.4	55.49	34.1	0.8258
Test scale (alpha)				0.8276

The main lesson that we seem to learn from the above analysis is that residents are quite consistent in evaluating the perceived benefits and costs of LCAG (as confirmed by the associated Cronbach's Alpha values). However, what is of particular interest is the interpretation that they give of such costs and benefits. In abstract terms, the sample almost unanimously recognizes that the net benefits of LCAG are positive and even strong, and that the event is helping the city to improve to a significant extent in all the relevant spheres: Economically, socially, and culturally. But once the cost-benefit analysis is referred to the role of LCAG in the future development of the city, it is as if a different set of criteria would take over and drive the evaluation. Despite the unquestionable net benefits, this is not enough to inscribe LCAG as a key pillar of Lucca's cultural identity and to consider it as a community asset to cherish and develop, and possibly to make of it the main innovation driver of the city's future development strategy. In this regard, we notice a striking difference with respect to other examples where similar, cutting edge digital culture events have effectively managed to transform the long-term developmental trajectory of the city and to re-orientate its cultural identity accordingly, as in the case of Ars Electronica and Linz (Sacco, Ferilli, Tavano Blessi, & Nuccio, 2013). This may prove a major weakness in terms of foregone opportunities, in a moment where the global tourism industry is steadily moving toward a massive experimentation of advanced digital tools to improve tourist experience (Han, Tom Dieck, & Jung, 2017). In the case of Lucca, where all the key technologies and players are spontaneously represented every year at the highest level, and where, consequently, opening a conversation about making of Lucca an advanced laboratory for digitally mediated heritage tourism experience would be relatively easy and natural, nothing of this sort is happening. And a possible explanation is likely to be found in the huge gap still existing, at the level of Lucca's socially established cultural identity, between the traditional image and the new one that is emerging as a consequence of the continued presence and operation of LCAG. If this tension is not effectively solved, Lucca's remarkable potential comparative advantage determined by the presence of LCAG could vanish without ever deploying its as yet unexploited, long-term developmental potential.

#### 5. Discussion

Unlike most traditional visitor studies, in this paper we tackle an important but rarely posed question: To what extent a highly successful event such as LCAG creates a tension between Lucca's identity as a traditional art and heritage city and the juvenile, pop culture oriented profile which is inevitably associated to a massive comics and games event? Given that, as remarked in the introduction, Lucca's resident population generally shows a lacking propensity to accommodate the demands of the local tourism industry, it is easy to conjecture that a representative sample of the population would raise serious doubts and concerns about LCAG's impact on Lucca's cultural and urban identity, and an indirect proof of this comes from the controversies that invariably surface on the local media every year at the end of the event.

However, our sample is not representative of the average resident, but focuses upon relatively young, well-educated visitors, most of whom have attended and appreciate LCAG, with a relevant portion being made of longtime aficionados. Moreover, among those in the sample who never attended LCAG, we have a very significant portion that declares an interest in future attendance. We can therefore conclude that our sample is, on the one hand, very close to LCAG's actual target of local visitors, and is mainly made of people who are appreciative or at least sympathetic. Our sample largely acknowledges the benefits of LCAG in many different regards: Economic impact, stimulus to the city's cultural vibrancy, opportunity for cultural dialogue. On many dimensions, they also recognize how LCAG's benefits are also larger than those of the tourism industry in general, although in many cases there is an alignment in the perception of the benefits of both. On the other hand, the sample also points out how the scale of LCAG is also

 Table 9

 Tourism as an economic driver outside the territory of Lucca.

Tourism as economic driver outside the territory of Lucca	No contribution (%)	Medium-high contribution (%)	High contribution (%)	Alpha
Outside benefits	21.7	70.67	7.62	0.8278
Outside benefits (LCAG)	16.27	72.78	10.95	0.8334
Outside job opportunities	27.54	66.09	6.09	0.8789
Outside job opportunities (LCAG)	23.03	67.93	9.04	0.8013
Test scale (alpha):				0.8321

**Table 10**Tourism as a source of diseconomies.

Tourism as a source of diseconomies	No contribution (%)	Medium-high contribution (%)	High contribution (%)	Alpha
Limited benefit	10.89	71.35	17.77	0.8100
Limited benefit (LCAG)	10.34	69.54	20.11	0.8123
Inflation	10.66	63.4	25.94	0.8532
Inflation (LCAG)	9.06	58.48	32.46	0.8076
Identity threats	21.55	64.37	14.08	0.8456
Identity threats (LCAG)	22.9	63.77	13.04	0.8765
Nuisance	30.09	60.17	9.74	0.8733
Nuisance (LCAG)	21.1	53.18	25.72	0.8189
Heritage conservation threats	42.98	49.57	7.45	0.8001
Heritage conservation threats (LCAG)	37.75	52.74	9.51	0.8765
Environmental risk	42	53.71	4.29	0.8321
Environmental risk (LCAG)	34.87	58.21	6.92	0.8544
Vandalism	46.13	49.86	4.01	0.8111
Vandalism (LCAG)	40.06	53.6	6.34	0.8066
More waste	28.41	64.06	7.54	0.8235
More waste (LCAG)	16.91	68.22	14.87	0.8765
More chaos	21.04	63.4	15.56	0.8097
More chaos (LCAG)	7.83	49.57	42.61	0.8022
Test scale (alpha)				0.8109

a cause of organizational and logistical stress for a medium-sized town such as Lucca, whose total inhabitants amount to one-third of each year's total number of visitors of the last editions, with the inevitable consequences in terms of congestion and inconvenience for the residents' daily routine. What might appear as a limitation of our study, namely the fact that the sample is not statistically representative of the resident population, turns out here to be an important feature that allows us to explore the tension between socio-economic impact and local identity in a subsample of the population that is not prejudicially negative toward the event. The rationale behind this choice is that in heritage cities, the bias toward the preservation of the status quo may be so strong to make the public opinion generally hostile toward initiatives that clash with the traditional local identity. It is therefore important to discern whether the local public discourse is shaped by a generational clash between older, traditionalist residents and younger ones more open to experimentation and transformation, or whether to the contrary there is a widely consensual identification of local identity with tradition. Exploring in depth the perceptions and attitudes of the residents who are potentially more inclined to change is therefore of special interest, and this is the vantage point we choose here.

The most significant finding from the survey is that even this very sympathetic, well informed, highly educated sample of residents finds that there is a potential threat to Lucca's cultural identity in the tension between the traditional arts and heritage profile and the pop culture one determined by LCAG. The juxtaposition of the two dimensions is seen as odd and dystonic rather than as a stimulus to the evolution of the city image and identity in innovative ways, even by those locals who enjoy pop culture itself. There is a tendency to associate the promotion and preservation of heritage to a freezing of the status quo rather than to a dynamic relationship with social and generational change. This attitude seems to be largely representative of the public opinion of locals in the more general context of Italian heritage cities, although no systematic research in this regard has been conducted so far.

The most striking consequence of this state of things is the fact that, despite LCAG makes of Lucca one of the key places in the world where one can get updates and sneak peeks into the future of digital technology as applied to the experience and perception of spaces (augmented reality, gamification, smart devices etcetera), and although there is a clear global trend that marks digital access to, and experience of, heritage as one of the main fields of innovative development of such technologies in the coming years, none of the above can be traced so far in the approach of Lucca in presenting its heritage to the tourists. In terms of its approach to smart digital heritage tourism, Lucca is as

lagging behind and lacking vision and strategy as most comparable Italian heritage cities. The results of our research provide a clue for an explanation: Even the most progressive and open-minded part of the local community still sees the digital and art and heritage spheres as separated and even dialectically opposed. However, it is clear that such a state of things is a major untapped opportunity, and that a consistent integration of the strategic benefits of LCAG as a catalyst of an innovative approach to Lucca's heritage tourism is probably, in a long-term perspective, even more important than the direct economic impact of the event on the local economy. To seize the opportunity, however, a major change in mindset is called for, and if this is not straightforward for the particular type of residents surveyed in this study, it is quite likely to be even less so for the average Lucca resident.

This poses a key policy challenge for the local administration, and especially so in view of the fact that LCAG is controlled and managed by publicly owned companies whose main shareholder is the City of Lucca itself. Regarding LCAG as a source of local revenue and as a mere tourism attractor is reductive in a public policy perspective. The fact that the public administration controls such a successful and potentially transformational event provides a unique chance to endow Lucca with an innovative positioning and attractiveness model for (digital) heritage tourism. Our results suggest that the key step to be done to start the process is to engage the local citizenship into a more pro-active, open minded attitude toward the relationship between heritage and social, technological and cultural change.

# 6. Conclusions

Our analysis shows that LCAG is, in the perception of residents, a major driver of both tourism-related benefits and costs. Its economic impact is appreciated, as well as its capacity to make the city more energetic and vibrant. Organ, Hoenig-Lewis, Palmer, and Probert (2015) show for instance how, in the case of food festivals, attendance can have a long lasting, positive effect on the dispositions of visitors toward future choices, and this also turns out to be the case for LCAG resident visitors. Nevertheless, residents aren't entirely happy about the event externalities in terms of local prices, pollution, and also of the event's tendency to change the cultural identity of the city. It is significant that the negative effects, and the latter one in particular, emerge even in a sample population that is mainly composed of highly educated and culturally active people who are generally very sympathetic to LCAG. The tension between the cultural identity of the heritage city and the transformational character of a pop culture event such as LCAG is not perceived only by the elderly population, but also by

those who frequently attend LCAG and appreciate it. The sense of a transformational cultural event such as LCAG, however successful and beneficial to the local economy, is therefore to be understood and analyzed also in terms of its impact on the city's cultural identity in the long term, and eventually touches upon the local community's shared notion of heritage itself, and particularly so as to its performative dimension (Zhu, 2012). For this reason, an in-depth analysis of residents' motivations and attitudes by means of a suitably developed psychometric instrument may lead to new, crucial insights both in terms of understanding actual attitudes and in designing socially sustainable future tourism development policies.

The above finding is important also in terms of evaluating how cultural and creative production may act as a developmental driver in heritage cities. Despite obvious and widely recognized benefits, cultural change is also perceived as a threat and may generate local resistances even in the most favorably oriented local stakeholders. Our results therefore suggest that it is very important to involve residents in transformational activities such as LCAG not only as an audience, but increasingly as the event's co-creators and co-producers, in order to encourage a less defensive attitude toward cultural change (Palmer, Koenig-Lewis, & Medi Jones, 2013), and to foster a more conscious and informed approach (Chiabai, Paskaleva, & Lombardi, 2013). The idea that the identity of the city is best preserved by freezing its traditional image is illusory, in that passive resistance to change inexorably undermines tradition by depriving it of any intrinsic meaning. LCAG can certainly contribute to renew Lucca's cultural heritage, for instance by providing a platform for developing local skills and competences for the creation of digital narratives around the city heritage, and to develop a smart specialization in the field for local companies and young businesses (Graham, 2002). But it will be important to support this process by means of innovative cultural and touristic policies aiming not only at visitors, but also (and maybe especially) at residents.

# References

- Andereck, K. L., Valentine, K. M., Knopf, R. C., & Vogt, C. A. (2005). Residents' perceptions of community tourism impacts. *Annals of Tourism Research*, 22(4), 1056–1076.
- Bimonte, S., & Faralla, F. (2016). Does residents' perceived life satisfaction vary with tourist season? A two-step survey in a Mediterranean destination. *Tourism Management*, 55(1), 199–208.
- Boo, S., & Busser, J. A. (2005). Impact analysis of a tourism festival on tourists destination images. Event Management. 9(4), 223–237.
- Chen, J. S., & Hsu, C. H. C. (2001). Developing and validating a riverboat gaming impact scale. *Annals of Tourism Research*, 28(2), 459–476.
- Chiabai, A., Paskaleva, K., & Lombardi, P. (2013). E-participation model for sustainable cultural tourism management: A bottom-up approach. *International Journal of Tourism Research*, 15(1), 35–51.
- Chirieleison, C., & Scrucca, L. (2017). Event sustainability and transportation policy: A model-based cluster analysis for a cross-comparison of hallmark events. *Tourism Management Perspectives*, 24, 72–85.
- Chronis, A. (2012). Tourists as story-builders: Narrative construction at a heritage museum. *Journal of Travel & Tourism Marketing*, 29(5), 444–459.
- Chuang, S. T. (2013). Residents' attitudes toward rural tourism in Taiwan: A comparative viewpoint. *International Journal of Tourism Research*, 15(2), 152–170.
- Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. The Journal of Applied Psychology, 78(1), 98–104.
- Da Cruz Vareiro, L. M., Remoaldo, P. C., & Cadima Ribeiro, J. A. (2013). Residents' perceptions of tourism impacts in Guimarães (Portugal): A cluster analysis. *Current Issues in Tourism*, 16(6), 535–551.
- Dyer, P., Gursoy, D., Sharma, B., & Carter, J. (2007). Structural modelling of residents' perceptions of tourism and associated development on the sunshine coast, Australia *Tourism Management*, 28(2), 409–422.
- Ennen, E. (2000). The meaning of heritage according to connoisseurs, rejecters and takeit-or-leavers in historic city centres: Two Dutch cities experienced. *International Journal of Heritage Studies*, 6(4), 331–349.
- Garau-Vadell, J. B., Díaz-Armas, R., & Gutierrez-Taño, D. (2014). Residents' perceptions of tourism impacts on island destinations: A comparative analysis. *International Journal of Tourism Research*, 16(6), 578–585.
- Gospodini, A. (2004). Urban morphology and place identity in European cities: Built heritage and innovative design. *Journal of Urban Design*, 9(2), 225–248.
- Graham, B. (2002). Heritage as knowledge: Capital or culture? *Urban Studies*, 39(5–6), 1003–1017.
- Gu, H., & Ryan, C. (2008). Place attachment, identity and community impacts of tourism The case of a Beijing hutong. *Tourism Management*, 29(4), 637–647.
- Gursoy, D., Jurowski, C., & Uysal, M. (2002). Residents' attitudes. A structural modelling

- approach. Annals of Tourism Research, 29(1), 79-105.
- Gursoy, D., & Rutherford, D. G. (2004). Host attitudes toward tourism: An improved structural model. *Annals of Tourism Research*, 31(3), 495–516.
- Han, D. I., Tom Dieck, M. C., & Jung, T. (2018). User experience model for augmented reality applications in urban heritage tourism. *Journal of Heritage Tourism*, 13(1), 46–61.
- Harrill, R. (2004). Residents' attitudes toward tourism development: A literature review with implications for tourism planning. *Journal of Planning Literature*, 18(1), 1–16.
- Harrill, R., Üysal, M., Cardon, P. W., Vong, F., & Dioko, L. (2011). Resident attitudes towards gaming and tourism development in Macao: Growth machine theory as a context for identifying supporters and opponents. *International Journal of Tourism Research*, 13(1), 41–53.
- Jackson, M. S., & Inbakaran, R. J. (2006). Evaluating residents' attitudes and intentions to act toward tourism development in regional Victoria, Australia. *International Journal* of Tourism Research, 8(5), 355–366.
- Johnson, J. D., Snepenger, D. J., & Akis, S. (1994). Residents' perception of tourism development. Annals of Tourism Research, 21(3), 629-642.
- Jurowski, C., & Gursoy, D. (2004). Distance effects on residents' attitudes toward tourism. Annals of Tourism Research, 31(2), 296–312.
- Kayat, K., Sharif, N. M., & Karnchanan, P. (2013). Individual and collective impacts and residents' perceptions of tourism. *Tourism Geographies*, 15(4), 640–653.
- Kim, S. B., Kim, D. Y., & Bolls, P. (2014). Tourist mental-imagery processing: Attention and arousal. Annals of Tourism Research, 45, 63–76.
- Ko, D. W., & Stewart, W. P. (2004). A structural equation model of residents' attitudes for tourism development. *Tourism Management*, 23(5), 521–530.
  Lee, T. H. (2013). Influence analysis of community resident support for sustainable
- tourism development. *Tourism Management*, 34(1), 37–46.

  Nunkoo, R., & Gursoy, D. (2012). Residents support for tourism. An identity perspective.
- Annals of Tourism Research, 39(1), 243–268.
- Nunkoo, R., & Ramkissoon, H. (2011). Developing a community support model for tourism. Annals of Tourism Research, 38(3), 964–988.
- Nunnally, J. C. (1978). Assessment of reliability. In: Psychometric theory (2nd ed.). New York: McGraw-Hill.
- Organ, K., Hoenig-Lewis, N., Palmer, A., & Probert, J. (2015). Festival as agents for behaviour change: A study of food festival engagement and subsequent food choices. Tourism Management. 48(1), 84–99.
- Oviedo-Garcia, M. A., Castellanos-Verdugo, M., & Martin-Ruiz, D. (2008). Gaining residents' support for tourism and planning. *International Journal of Tourism Research*, 10(2), 95–109.
- Pabel, A., & Pearce, P. L. (2016). Tourists' responses to humour. Annals of Tourism Research, 57, 190–205.
- Palmer, A., Koenig-Lewis, N., & Medi Jones, L. E. (2013). The effects of residents' social identity and involvement on their advocacy of incoming tourism. *Tourism Management*, 31(1), 142–151.
- Pavlovich, K. (2014). A rhizomic approach to tourism destination evolution and transformation. *Tourism Management*, 41(1), 1-8.
- Pechlaner, H. (2000). Cultural heritage and destination management in the Mediterranean. *Thunderbird International Business Review*, 42(4), 409–426.
- Peng, J., Chen, X., & Wang, J. (2014). Applying relative deprivation theory to study the attitudes of host community residents toward tourism: The case study of the Zhangjiang National Park, China. Current Issues in Tourism. http://dx.doi.org/10. 1080/13683500.2013.877876.
- Petrova, P., & Hristov, D. (2016). Collaborative management and planning of urban heritage tourism: Public sector perspective. *International Journal of Tourism Research*, 18(1), 1–9.
- Prayag, G., Hosany, S., Nunkoo, R., & Alders, T. (2013). London residents' support for the 2012 Olympic games: The mediating effect of overall attitude. *Tourism Management*, 36(1), 629–640.
- Revelle, W. (1979). Hierarchical cluster analysis and the internal structure of tests. *Multivariate Behavioral Research*, 14(1), 57–74.
- Richards, G. W., & Wilson, J. (2006). Developing creativity in tourist experiences: A solution to the serial reproduction of culture? *Tourism Management*, 27(6), 1209–1223.
- Ritchie, B. W., & Inkari, M. (2006). Host community attitudes towards tourism and cultural tourism development: The case of the Lewes District, southern England. International Journal of Tourism Research, 8(1), 27–44.
- Sacco, P. L., Ferilli, G., Tavano Blessi, G., & Nuccio, M. (2013). Culture as an engine of local development processes: System-wide cultural districts. II: Prototype cases. *Growth and Change*, 44(4), 571–588.
- Schmitt, N. (1996). Uses and abuses of coefficient alpha. Psychological Assessment, 8(4), 350–353.
- Schofield, P. (2011). City residents' attitudes to proposed tourism development and its impacts on the community. *International Journal of Tourism Research*, 13(3), 218–233.
- Sdrali, D., Goussia-Rizou, M., & Kiourtidou, P. (2015). Residents' perceptions of tourism development as a vital step for participatory tourism plan: A research in a Greek protected area. *Environment, Development and Sustainability*, 17(4), 923–939.
- Sharpley, R. (2014). Host perceptions of tourism: A review of the research. *Tourism Management*, 42(1), 37–49.
- Stylidis, D., Biran, A., Sit, J., & Szivas, E. M. (2014). Residents' support for tourism development: The role of residents' place image and perceived tourism impacts. *Tourism Management*, 45(1), 260–274.
- Su, M. M., & Wall, G. (2014). Community participation in tourism at a world heritage site: Mutianju Great Wall, Beijing, China. *International Journal of Tourism Research*, 16(2), 146–156
- Tovar, C., & Lockwood, M. (2008). Social impact of tourism: An Australian regional case study. *International Journal of Tourism Research*, 10(4), 365–378.
- Twining-Ward, L., & Butler, R. (2002). Implementing STD on a small island: Development

and use of sustainable tourism development indicators in Samoa. Journal of Sustainable Tourism, 10(5), 363-387.

Upchurch, R. S., & Teivane, U. (2000). Resident perceptions of tourism development in Riga, Latvia. Tourism Management, 21(5), 499–507.

Vargas-Sánchez, A., Oom Do Valle, P., Da Costa Mendes, J., & Silva, J. A. (2015). Residents' attitude and level of destination development: An international comparison. *Tourism Management*, 48(1), 199–210.

Vargas-Sánchez, A., Porras-Bueno, N., & Plaza-Mejía, M. (2011). Explaining residents' attitudes to tourism. Is a universal model possible? *Annals of Tourism Research*, 38(2), 460–480.

Wang, Y., & Pfister, R. E. (2008). Residents' attitudes toward tourism and perceived personal benefits in a rural community. *Journal of Travel Research*, 47(1), 84–93.
Williams, J., & Lawson, R. (2001). Community issues and resident opinion of tourism. *Annals of Tourism Research*, 28(2), 269–290.

Zaichkowsky, J. L. (1985). Measuring the involvement construct. *Journal of Consumer Research*, 12, 341–352.

Zhu, Y. (2012). Performing heritage: Rethinking authenticity in tourism. Annals of Tourism Research, 39(3), 1495–1513.



Enrica Lemmi is Associate Professor of Human Geography at the University of Pisa and Coordinator of Fondazione Campus, Lucca, one of Italy's main institutions for tourism higher education and research.



**Alessandro Crociata** is Post-doc Researcher at University of Chieti-Pescara and Visiting Lecturer at GSSI, L'Aquila.



**Massimiliano Agovino** is Assistant Professor of Economics at Parthenope University, Naples.



Pier Luigi Sacco is, Professor of Cultural Economics at IULM University, Milan, Director of FBK-IRVAPP in Trento, Visiting Scholar at Harvard University and Senior Researcher at metaLAB (at) Harvard, Cambridge MA.