

“Universalities in Choices of Beautiful City Destinations”

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Abstract

Millions of tourists annually are motivated to visit cities considered to be the most beautiful in the world. Two research questions arise: Do statistically consistent rankings of beautiful cities emerge when multiple opinion surveys are compared? Do the rankings differ to a statistically significant degree when disaggregated by salient demographic characteristics? While numerous past tourism studies have researched the importance of demographic variables, a paucity of research focuses directly on beautiful city tourism. To answer the two research questions, several worldwide surveys are analyzed that ask for rankings of the world’s most beautiful cities. The analyses reveal a remarkably high degree of statistical consistency in the rankings of beautiful cities. Contrary to previous research studies, almost no significant differences are found on the basis of numerous demographic characteristics.

1. INTRODUCTION

Though extensive grey literature exists on which cities the respondents to surveys say are the most beautiful in the world, rigorous research is lacking on whether there are notable consistencies in those surveys’ findings. For example, we might anticipate that any random group of people asked to name the world’s most beautiful cities would likely include Paris on the short list – but would they do so to a statistically significant degree? If the answer turns out to be “yes”, what other cities would predictably be on the short list, and how can that predictability be profitably utilized by the tourism industry?

Digging deeper, based on the extensive research literature on demographic differences in travel preferences, we might anticipate statistically significant differences in the choices of the most beautiful cities derived from the demographic characteristics of the survey respondents. That is, are there statistically significant differences in the rankings of beautiful cities based on characteristics such as gender, age, education, nationality, and personality?

The answers to these questions would not be trivial. Beautiful cities are of special importance to people everywhere, as numerous research studies have shown. A few examples of past findings (in their authors’ own words) follow:

“Cities around the world have attempted to leverage public investments in leisure spaces and beautification to spur demographic change and economic development” (see Carlino, Saiz, 2008 in the References section below).

“Beauty in the built environment was seen as being important for civic pride and for attracting people to an area, and there is a strong consensus for striving for more beauty” (Lovene, Smith, Seresinhe, 2019).

“We would like readers to take away from this report a sense that the public recognizes the time and attention that the subject of beauty deserves and that they are ready to see public figures and influencers taking beauty seriously ... They believe that beauty is important in their local area and there is a strong consensus for striving for more beauty in neighborhoods, towns and cities” (CABE, 2020).

“The findings confirm that perceived beauty or aesthetic character of a location has a positive and significant effect on perceived community satisfaction” (Florida, Mellander, Stolarick, 2009). *Additionally, in a later study by these authors,* “The findings show that place-based factors, in particular the beauty and physical appeal of the current location, explain more of the desire to stay than do community economic conditions or individual demographic characteristics” (Florida, Mellander, Stolarick, 2011).

“It is important to note that respondents who felt their cities were “beautiful” also were happier. Aesthetics clearly do matter” (Leyden, Goldberg, Michelbach, 2011).

“Our study demonstrates that every aesthetic response to the environment is derived from a communication between contemplative feeling, sensual desire and an immediate state of involvement” (Nia, Atun, 2016). *Similarly,* “I believe the way is at last opened from the traditional philosophy of aesthetics to a healthy and concrete psychological theory...The beautiful object possesses those qualities which bring the personality into a state of unity and self-completeness.” (Puffer, 1905)

Beautiful cities do matter. Yet, as stated at the outset, little research has focused on two overarching questions on travel preferences:

1. Do statistically consistent rankings of beautiful cities emerge when multiple opinion surveys are compared?
2. Do the rankings differ to a statistically significant degree when disaggregated by often-researched demographic characteristics, such as gender, age, education, nationality, and personality?

This study looks to rectify that paucity of research.

2. QUESTIONS TO BE ANSWERED

The study encompasses seven salient questions. Since most of the seven have multiple sub-questions, a total of 16 questions and sub-questions will be answered.

Q₁. Concerning opinion surveys in which respondents are asked to name the world's most beautiful city...

Q_{1a}. Do surveys consistently show that respondents have statistically similar rankings of the world's most beautiful cities?

Q_{1b}. Do surveys consistently show that travel experts and the general public have statistically similar rankings of the world's most beautiful cities?

Q₂. Do opinions on the world's most beautiful cities differ significantly on the basis of gender?

Q₃. Do opinions on the world's most beautiful cities differ significantly on the basis of age, using three cohorts:

Q_{3a}. Under 30 years old compared to 30 to 49 years old?

Q_{3b}. Under 30 years old compared to 50 years and older?

Q_{3c}. 30 to 49 years old compared 50 years and older?

Q₄. Do opinions on the world's most beautiful cities differ significantly on the basis of level of education, using three cohorts:

Q_{4a}. High-school degree or less compared to a college degree (e.g., B.A., B.S.)?

Q_{4b}. High-school degree or less compared to a postgraduate degree (e.g., Masters, Ph.D.)?

Q_{4c}. College degree compared to a postgraduate degree?

Q₅. Do opinions on the world's most beautiful cities differ significantly on the basis of nationality, as measured three ways:

Q_{5a}. The language spoken by the individual?

Q_{5b}. The number of countries in which the individual has lived?

Q_{5c}. The continent in which the individual grew up?

Q₆. Do opinions on the world's most beautiful cities differ significantly on the basis of the number of countries visited in one's lifetime?

Q₇. Do opinions on the world's most beautiful cities differ significantly on the basis of personality, as measured by the Big Five Personality Factors (BFF). [For more information on the Big Five Personality Factors, see for example https://en.wikipedia.org/wiki/Big_Five_personality_traits.]

Q_{7a}. Openness (*inventive/curious compared to consistent/cautious*)?

Q_{7b}. Conscientiousness (*efficient/organized compared to extravagant/careless*)?

Q_{7c}. Extraversion (*outgoing/energetic compared to solitary/reserved*)?

Q_{7d}. Agreeableness (*friendly/compassionate compared to challenging/callous*)?

Q_{7e}. Neuroticism (*sensitive/nervous compared to resilient/confident*)?

3. RESEARCH METHODS

3.1 Data Sources

The seven questions will be answered using survey responses from three sources: Ranker.com (2020), CitiesBeautiful.org (2020), and Flight Network (2019). In contrast to numerous other beautiful city opinion surveys, these

three surveys embody the opinions of thousands of participants rather than a few members of an editorial staff, and at least 25 cities rather than as few as 10 cities.

'The Most Beautiful Cities in the World' (Ranker.com 2020): Visitors to the Ranker.com webpages can rate items in various lists, including a list of 135 beautiful cities worldwide. Ranker.com derives an overall ranking of the items using an algorithm based on the number of upvotes, the ratio of upvotes to downvotes, how often the item is ranked, and where in the list the item is ranked. At the time of the study, the ranking of the most beautiful cities in the world was based on approximately 62,000 votes cast by approximately 4,600 webpage visitors from November 2019 onward.

'The World's Most Beautiful Cities' (Flight Network 2019): Flight Network investigated the world's most beautiful cities by "asking the experts — 1000+ Travel Writers, Travel Bloggers and Travel Agencies from all around the globe, who have seen and experienced the best the planet has to offer." The rankings from each individual respondent were combined into a ranked list of the 50 most beautiful cities in the world.

'Civic Beauty Ranking Test' (CitiesBeautiful.org 2020): CitiesBeautiful.org is an educational website for promoting a greater understanding and appreciation of beautiful cities everywhere. Among the website's features is a Ranking Test with which visitors can determine which of 15 categories of civic beauty resonate with them the most. When completing the Ranking Test, respondents are asked to select the most beautiful city from a pull-down list of 25 cities on six continents. Additionally, the Ranking Test includes questions on each test taker's gender, age, level of education, number of countries lived in, home continent, number of countries visited, and BFF profile. As of January 2020, the number of valid survey responses from unique visitors worldwide was 330.

3.2 Analysis Procedure

Survey responses from all three of these sources will be used in answering the first question. The remaining six questions will be answered using solely the CitiesBeautiful.org survey, as neither of the other two sources report demographic information on their survey respondents.

Again, the total count of questions and sub-questions (e.g., Q_{1a} , Q_{1b}) to be answered is 16. Due to a large number of variables encompassed by these questions and sub-questions, a total of 28 statistical analyses will be performed. For all tests, the accepted statistical standard will be a p -value less than .05 (though results with a p -value below .1 will be noted).

Q_1 will be answered using Spearman's rank correlation coefficient, *a.k.a.* Spearman's Rho (specifically, utilizing the RANK.AVE, CORREL, and TDIS functions in Microsoft Excel). Three comparisons will be made: Ranker.com vs. Flight Network (43 cities in common), Ranker.com vs. CitiesBeautiful.org (23 cities in common), and Flight Network vs. CitiesBeautiful.org (21 cities in common).

The other six questions, Q_2 through Q_7 , will all be answered using Pearson's Chi-Square test (specifically, the CHISQ.TEST function in Microsoft Excel). A similar procedure will be used in each case. An example, for Q_2 in particular, is shown in Table 1 on the next page. The table shows the number of persons in the CitiesBeautiful.org survey who named the given city as the most beautiful in the world, stratified by gender. For example, Barcelona was cited by 13 female survey respondents and 6 male respondents as being the most beautiful city in the world, London was cited by 8 females and 5 males, and so on.

Table 1. The number of respondents who ranked each city as the world's most beautiful, stratified by gender.

City	Female	Male
Amsterdam	12	12
Athens	6	2
Barcelona	13	6
Budapest	5	3
Buenos Aires	2	3
Cape Town	3	1
Chicago	0	2
Fez	5	1
Hong Kong	2	4
Istanbul	6	5
Jaipur	0	0
Jerusalem	5	1
Kyoto	5	2
London	8	5
Melbourne	1	1
Paris	51	21
Prague	11	9
Rio de Janeiro	8	8
Rome	24	11
San Francisco	10	6
Seoul	1	3
St. Petersburg	2	4
Sydney	6	2
Vancouver	7	5
Washington, D.C.	2	3
Sample Size	195	120

All the survey questions can be reviewed at the CitiesBeautiful.org (2020) website. The definitions of the variables are self-evident for most of the variables, with the exception of Language Spoken and the Big Five Personality Factors (BFF). The Language Spoken by survey respondents was determined by whether they took the Ranking Test at the English version or the Spanish version available at the CitiesBeautiful.org website. (A French version is also available but the sample size was too small for inclusion in this study). The BFF counts were based on a BFF test with a 10-point response format, which again can be reviewed at the CitiesBeautiful.org (2020) website. Respondents were bifurcated by those rating themselves on the 1 to 5 left side of the spectrum versus those on the 6 to 10 right side.

4. RESEARCH FINDINGS

The results of the correlation analyses for question Q_{1a} are summarized in Table 2. Each of the three analyses were statistically significant. Thus **the answer to Q_{1a} is Yes** – surveys do consistently show that respondents have statistically similar rankings of the world's most beautiful cities.

Table 2. The results of the Spearman's Rho correlation analyses for Q_1 .

Question	Sub-Variable 1 (Sample Size)	Sub-Variable 2 (Sample Size)	Spearman's Rho Coefficient	Spearman's Rho p-Value	Answer to the Question
Q_{1a}	Ranker.com (43)	Flight Network (43)	.491	.00083***	Yes
	Ranker.com (23)	CitiesBeautiful (23)	.791	.00001***	Yes
	Flight Network (21)	CitiesBeautiful (21)	.612	.00321***	Yes
Legend: * = significant at $p < 0.1$, ** = significant at $p < 0.05$, *** = significant at $p < 0.01$					

Q_{1b} posits consistently similar rankings of beautiful cities by the general public and travel experts. Based on their sample sizes and survey methodologies, the Ranker.com and CitiesBeautiful.org surveys are considered to reliably represent the general public's opinions on beautiful cities. The Flight Network survey is considered to reliably represent travel experts' opinions. In Table 3 the Ranker.com and CitiesBeautiful.org surveys both have significant p -values with the

travel experts of the Flight Network survey. Accordingly, **the answer to Q_{1b} is also Yes** – surveys do consistently show that travel experts and the general public have statistically similar rankings of the world’s most beautiful cities.

Turning to questions of Q₂ through Q₇, Table 3 summarizes all the statistical findings. No statistically significant differences were found for a *p*-value less than .05 except for the BFF of conscientiousness. Therefore, **the answer to Q_{7b} is Yes but the answers to all the remaining questions are No.**

Table 3. The results of the Chi-Square tests for Q₂ to Q₇.

Question	Variable	Sub-Variable 1 (Sample Size)	Sub-Variable 2 (Sample Size)	Chi-Square <i>p</i> -Value	Answer to the Question
Q ₂	Gender	Female (195)	Male (120)	.550	No
Q _{3a}	Age	Under 30 Years (108)	30 to 49 Years (92)	.128	No
Q _{3b}		Under 30 Years (108)	50 Years and Older (111)	.069*	No
Q _{3c}		30 to 49 Years (92)	50 Years and Older (111)	.882	No
Q _{4a}	Level of Education	High School (65)	College (149)	.341	No
Q _{4b}		High School (65)	Postgraduate (92)	.983	No
Q _{4c}		College (149)	Postgraduate (92)	.565	No
Q _{5a}	Language Spoken	English (222)	Spanish (76)	.235	No
Q _{5b}	Number of Countries Lived In	One Country (174)	More Than One Country (127)	.347	No
Q _{5c}	Continent Where Grew Up	Asia/Australia/Polynesia (41)	Europe (106)	.219	No
		Asia/Australia/Polynesia (41)	North America (93)	.763	No
		Asia/Australia/Polynesia (41)	South America (58)	.199	No
		Asia/Australia/Polynesia (41)	Africa (21)	.145	No
		Europe (106)	South America (58)	.819	No
		Europe (106)	North America (93)	.776	No
		North America (93)	South America (58)	.476	No
		Africa (21)	Europe (106)	.106	No
		Africa (21)	North America (93)	.167	No
Africa (21)	South America (58)	.109	No		
Q ₆	Number of Countries Visited	0 to 9 Countries (157)	10 Or More Countries (152)	.509	No
Q _{7a}	Big Five Personality Factors (BFF)	Open (170)	Not Open (139)	.393	No
Q _{7b}		Conscientious (165)	Not Conscientious (146)	.013**	Yes
Q _{7c}		Extraverted (133)	Not Extraverted (188)	.828	No
Q _{7d}		Agreeable (177)	Not Agreeable (145)	.734	No
Q _{7e}		Neurotic (154)	Not Neurotic (165)	.545	No

Legend: * = significant at *p* < 0.1, ** = significant at *p* < 0.05, *** = significant at *p* < 0.01

5. DISCUSSION

5.1 Relation to Findings of Past Studies

The purpose of this study has been to determine whether rankings of beautiful cities are statistically consistent across multiple surveys, and to explore whether these rankings are affected by demographic characteristics such as gender, age, education, nationality, and personality.

In previous research literature, no studies have investigated whether the rankings of beautiful cities by the general public, travel experts, and the combinations thereof, are statistically similar. The present study demonstrated that there are statistically significant similarities in the rankings of beautiful cities from alternative survey sources, utilizing data collected from both travel experts and the general public.

Similarly, no previously published studies have analyzed whether beautiful city rankings are affected by the number of countries the respondent had visited, as was done in this study with question Q₆. The Q₆ finding that there are no significant differences between those who have visited many countries and those who have visited few countries is also consistent with the findings of question Q₁. That is, the city rankings of the travel experts of the Flight Network survey (who presumably have traveled extensively) are not statistically different than the travel rankings of the general public respondents of CitiesBeautiful.org (one-third of whom have visited 5 countries or fewer).

Regarding the remaining questions, comparisons to past studies can be problematic given that past studies (1) utilized different definitions of variables and adopted different survey methodologies, and (2) the current study is the first to specifically explore whether gender, age, level of education, nationality (measured in terms of language spoken, number of countries lived in, and continent where grew up), and the Big Five Personality Factors (BFF) affect beautiful city rankings.

That said, past studies have generally found statistically significant differences with regard to gender, age, level of education, and nationality. The current study, however, did not find statistically significant differences for any of these variables when it came to the rankings of beautiful cities.

Concerning BFF, past studies have reported significant effects with regard to openness, agreeableness, and neuroticism, but not extraversion nor conscientiousness. The current study found significant effects only for conscientiousness. The past studies and current study thus agree only on extraversion having no significant effect.

5.2 Unique Findings of This Study

Again, per question Q₁, there were highly statistically significant similarities in the rankings of beautiful cities from three diverse data sets, utilizing data collected from both travel experts and the general public.

Of the 28 statistical analyses performed in this study, conscientiousness was the only variable that demonstrated statistical significance. What might explain 27 non-statistically significant findings plus only one significant finding? Here is one possible explanatory postulate: **An individual's choice for the world's most beautiful city will be based on a synthesis of numerous sensory, emotional, intellectual and even spiritual factors – a synthesis too complex to be explained by singularly examining gender, age, education, or the other traditional variables analyzed in this study.**

As a potential case in point, CitiesBeautiful.org researched “common threads” in theories of civic beauty in diverse disciplines (architecture, city planning, aesthetic philosophy, behavioral psychology, etc.) from the Ancient Greeks to the present. The research led to 15 categories of civic beauty utilized in the website's previously cited Ranking Test. Nearly 2,000 beautiful sites in 25 cities worldwide have been linked to these 15 categories and mapped at the website. Arguably, an individual's choice of beautiful cities will be driven at least in part by which of the 15 categories resonate with the individual the most, second-most, third-most and so on through all 15 categories – that is, a 15-dimensional synthesis. The greater the number of beautiful sites that a city has in the 15 categories favored most by an individual, the greater the likelihood of that individual naming that city as the most beautiful.

Whether peoples' choices of beautiful cities are driven by a 15-dimensional synthesis or a fewer number of vectors, the current study reveals that beautiful city rankings cannot be explained by analyzing one demographic variable at a time.

5.3 Applications

The paramount finding of this study is that the results of future surveys ranking beautiful cities worldwide have a high statistical probability of closely resembling the rankings in the current study – irrespective of the gender, age, education, nationality and personality (save conscientiousness) characteristics of the survey respondents.

Table 4 displays the normalized ranking (on a scale of 1 to 47) of each city for each of three opinion surveys analyzed herein; also calculated is the average normalized ranking for each city. (The original rankings at each website required mathematical normalization for “apples to apples” comparisons because of the substantial difference in the total number of cities ranked at each, e.g., Ranker.com encompasses 135 cities versus 25 at CitiesBeautiful.org.) The total of 47 cities in the three data sets are ordered from the most beautiful to the least beautiful based on the average normalized rankings. Paris emerges as the city most frequently named as the most beautiful, followed by Venice in second place, then Rome in third place, and so on. **Table 4 thereby predicts the approximate rankings of these 47 beautiful cities in all future opinion surveys of the world's most beautiful cities.**

Table 4. Predicted approximate ordering of 47 beautiful cities in future ranking surveys.

City	Normalized Rankings			Average Ranking
	Ranker.com	Flight Network	CitiesBeautiful.org	
Paris	2.4	1.0	1.0	1.5
Venice	1.0	3.8		2.4
Rome	1.5	9.5	2.9	4.6
Barcelona	1.9	5.7	9.0	5.5
Amsterdam	3.8	12.3	4.8	7.0
Prague	1.9	13.7	7.1	7.6
London	4.8	2.9	16.5	8.1
Lisbon	5.7	11.3		8.5
Vancouver	7.6	4.8	18.9	10.4
Rio de Janeiro	6.6	14.6	12.8	11.3
Vienna	4.3	18.4		11.3
New York	21.2	1.9		11.6
Istanbul	4.8	16.5	14.6	12.0
San Francisco	18.4	7.6	10.9	12.3
Tokyo	8.5	17.5		13.0
Quebec City	6.6	22.2		14.4
Sydney	9.5	8.5	26.4	14.8
Toronto	9.9	20.3		15.1
Singapore	20.7	10.4		15.6
Bruges	7.1	25.0		16.0
Edinburgh	9.5	15.6		12.5
Budapest	3.4	29.7	1.0	11.3
Kyoto	5.2		28.3	16.7
Cape Town	11.3	6.6	36.3	18.1
Madrid	10.4	25.9		18.2
Hong Kong	12.3	23.1	20.7	18.7
Dubai	14.2	27.8		21.0
Zurich	12.8	31.6		22.2
Dubrovnik	6.2	39.5		22.9
St. Petersburg	2.9	33.4	32.5	22.9
Buenos Aires	16.0	19.3	34.4	23.2
Havana	23.6	26.9		25.2
Berlin	16.0	34.4		25.2
San Sebastian	12.8	40.5		26.6
Athens	14.2	48.0	22.6	28.3
Jerusalem		28.7	30.6	29.7
Bergen	14.6	45.2		29.9
Dublin	17.9	43.3		30.6
Bangkok	24.0	41.4		32.7
Melbourne	23.6		44.2	33.9
Seoul	24.5	38.6	40.0	34.4
San Diego	48.0	21.2		34.6
San Miguel de Allende	32.0	37.7		34.8
Chicago	38.1	24.0	42.4	34.8
Hanoi	42.8	35.3		39.1
Jaipur	30.6	46.1	48.0	41.6
Washington DC	45.7		38.1	41.9

5.4 Further Research

What is it about Paris, Barcelona, Rome, Amsterdam, etc., that will almost always place them in the top ranks of surveys of the world's most beautiful cities? Possible research questions could include superlative architecture, unique landmarks (e.g., the Parthenon, Hagia Sofia, Eiffel Tower), deep historical traditions, compelling cultural amenities,

“famous for being famous” self-perpetuating reputations, and so on. In future research, it will be valuable to explore exactly which aspects of these urban environments are most strongly associated with the perception of beauty.

Further research could also address the postulate offered previously: “An individual’s choice for the world’s most beautiful city will be based on a synthesis of numerous sensory, emotional, intellectual and even spiritual factors – a synthesis too complex to be explained by singularly examining gender, age, education, or the other traditional variables analyzed in this study”. One starting point could be CitiesBeautiful.org’s 15 categories of civic beauty.

Several academic disciplines could benefit from further research on what makes cities beautiful: architecture (as exemplified by the previously cited Iovene, Smith, and Seresinhe 2019); city planning (e.g., per the Commission for Architecture and the Built Environment [CABE] 2020); sociology (Florida, Mellander, and Stolarick 2009); economic development (Carlino and Saiz 2008); behavioral psychology (Nia and Atun 2016 and Puffer 1905); tourism, environmental psychology, landscape architecture, and historic preservation, among others.

Such research on beautiful cities should continue to prove rewarding because, in the end, beautiful cities do fundamentally matter to humankind. As expressed by the Italian poet Dante Alighieri: “Beauty awakens the soul to act.” (Alighieri 1472).

REFERENCES

- Alighieri, D. 1472. “Purgatorio, Canto XVIII, 19 – 21”. <https://www.gutenberg.org/files/8795/8795-h/8795-h.htm>
[“Beauty awakens the soul to act” is the widely used paraphrase of this (translated) original: “The soul, which is created quick to love, responds to everything that pleases, just as soon as beauty wakens it to act.”]
- Commission for Architecture and the Built Environment. 2010. “People and places: Public attitudes to beauty”, *Ipsos MORI Social Research Institute on behalf of the Commission for Architecture and the Built Environment*. <https://www.designcouncil.org.uk/sites/default/files/asset/document/people-and-places.pdf>
- Carlino, G. and Saiz, A. 2008. “Working Paper No. 08-22—City Beautiful”, *Research Department of the Federal Reserve Bank of Philadelphia*. <https://www.philadelphiafed.org/-/media/research-and-data/publications/working-papers/2008/wp08-22.pdf>
- CitiesBeautiful.org. (2020). “Civic beauty ranking test”. *CitiesBeautiful.org*. <http://citiesbeautiful.org/civic-beauty-ranking-test>
- Flight Network. 2019. “The world’s 50 most beautiful cities”. *Flight Network*. <https://web.archive.org/web/20191221223155/https://www.flightnetwork.com/blog/worlds-most-beautiful-cities/>
- Florida, R., Mellander, C. and Stolarick, K. 2009. “Beautiful places: The role of perceived aesthetic beauty in community satisfaction”. *Journal of Regional Studies* 45 (1): 33-48.
- Florida, R., Mellander, C. and Stolarick, K. 2011. “Here to stay—The effects of community satisfaction on the decision to stay”. *Spatial Economic Analysis* 6 (1): 5-24.
- Iovene, M., Smith, N. and Seresinhe, C. 2019. “Of streets and squares - Which public places do people want to be in and why”. *Cadogan, Create Streets*. https://issuu.com/cadoganlondon/docs/of_streets_and_squares_26_march_wit?e=32457850/68741701
- Leyden, K., Goldberg, A. and Michelbach, P. 2011. “Understanding the pursuit of happiness in ten major cities”. *Urban Affairs Review* 47 (6): 861-888.
- Nia, H., and Atun, R. 2016. “Aesthetic design thinking model for urban environments: A survey based on a review of the literature”. *Urban Design International* 21: 195–212.
- Puffer, E. 1905. *The Psychology of Beauty*. Boston, MA: Houghton Mifflin.
- Ranker Travel. 2019. “The most beautiful cities in the world”. *Ranker.Com*. <https://www.ranker.com/list/most-beautiful-cities-in-the-world/ranker-travel>