

# Tourist Survey on Perceived Climate Comfort in Cultural Heritage Tourism

## 1. Survey Description

**Table S1.** Questionnaire Information on the Socio-Demographic and Travel Characteristics of Surveyed Tourists

Category	Option	Number (N)	Percentage (%)
<b>Gender</b>			
	Male	3887	44.3
	Female	4862	55.4
	Other / Prefer not to disclose	35	0.3
<b>Age</b>			
	18-24 years	2547	29.0
	25-34 years	3158	36.0
	35-44 years	1662	18.9
	45-59 years	1048	11.9
	> 60 years	369	4.2
<b>Educational Attainment</b>			
	High school or below	1157	13.2
	Junior college	1810	20.6
	Bachelor's degree	4479	51.0
	Master's degree or above	1338	15.2
<b>Place of Origin</b>			
	Local tourists from Nanchang	1016	11.6
	Tourists from other cities in Jiangxi Province	3075	35.0

	Tourists from outside Jiangxi Province	4496	51.2
	Overseas and Hong Kong/Macao/Taiwan tourists	197	2.2
<b>Travel Motivation (Multiple Choice)</b>			
	Historical and Cultural Sightseeing	5522	62.9
	Revolutionary Cultural Experience	3461	39.4
	Historic District Visitation	4188	47.7
	Museum /Memorial Hall Visits	3097	35.3
	Ancient Architectural Site Visits	2634	30.0
	Urban Leisure Experience	3737	42.5
	Family / Parent-Child Travel	1597	18.2
	Work / Conference Visit	632	7.2
	Other	258	2.9
<b>Main Heritage Types Visited (Multiple Choice)</b>			
	Historic Architecture	4855	55.3
	Revolutionary Cultural Heritage	3126	35.6
	Historic and Cultural Districts	4502	51.3
	Museums / Memorial Halls	3785	43.1
	Archaeological Site Heritage	1868	21.3
	Religious Cultural Spaces	1029	11.7
	Intangible Cultural Heritage Experience	1598	18.2
<b>Length of Stay</b>			
	Less than half a day	879	10.0
	1day	2871	32.7
	2-3 days	3568	40.6
	4-7 days	1208	13.8

	More than 7 days	258	2.9
<b>Mode of Travel</b>			
	High-speed rail / Train	4636	52.8
	Airplane	1543	17.6
	Private car	1753	20.0
	Long-distance coach	408	4.6
	Urban public transportation	352	4.0
	Other	92	1.0
<b>Travel Companions</b>			
	Traveling alone	1073	12.2
	Traveling with friends	2741	31.2
	Family travel	2512	28.6
	Traveling with partner	1316	15.0
	Group tour	1142	13.0
<b>Whether Traveling with Children</b>			
	No children	6405	72.9
	One child	1318	15.0
	Two children	834	9.5
	Three or more children	227	2.6
<b>Level of Attention to Weather Conditions</b>			
	Very concerned	2108	24.0
	Moderately concerned	3365	38.3
	Neutral	2315	26.4
	Slightly concerned	768	8.7
	Not concerned at all	228	2.6
<b>Whether Travel Arrangements Were Adjusted Due to Weather Conditions</b>			

	Yes	4119	46.9
	No	4665	53.1
<b>Main Adjustment Strategies</b>			
	Changing visitation time	1248	14.2
	Shortening outdoor stay duration	905	10.3
	Increasing indoor venue visits	794	9.0
	Choosing nighttime visitation	688	7.8
	Temporarily canceling certain attractions	484	5.5
	No adjustment	4665	53.1
<i>Note:</i> Sample size $N=8,784$ . Travel motivations, main heritage types visited, and primary visitation destinations were measured as multiple-choice items; therefore, the percentages are not mutually exclusive. All remaining variables were measured as single-choice items.			

This study collected data using a purpose-designed tourist questionnaire to investigate visitors' weather experiences, perceived climate comfort, and behavioral adaptation during cultural heritage tourism in Nanchang. The questionnaire covered respondents' socio-demographic characteristics, place of residence, travel motivations, modes of transportation, length of stay, cultural heritage visitation experiences, attention to weather conditions, weather adaptation behaviors, and perceived climate comfort ratings.

Considering that Nanchang is both an important cultural tourism destination in Jiangxi Province and a major regional transportation hub, high-speed rail, conventional rail, and air travel constitute the primary means by which non-local tourists arrive in, depart from, and transfer through the city. Therefore, this study adopted an intercept survey approach at transportation hubs, conducting questionnaire surveys at Nanchang's major railway passenger stations and Nanchang Changbei International Airport. Survey locations included waiting halls, boarding areas, arrival exits, and transfer zones where tourist flows are highly concentrated. Selecting transportation hubs as survey sites enabled the research team to reach visitors from diverse origins with different travel itineraries and lengths of stay, thereby improving the representativeness and coverage of the sample.

The survey was conducted between 30 June and 30 August 2025, covering the peak summer tourism season as well as the period characterized by high temperatures and humidity in Nanchang. To maximize spatial coverage and survey efficiency, a team of four researchers simultaneously carried out field investigations at different transportation nodes. Before administering the questionnaire, investigators explained the purpose of the study, the anonymous nature of participation, and the intended use of the data, and invited tourists to participate only after obtaining their informed consent. Both paper questionnaires and QR-code-based online questionnaires were used to facilitate participation and improve response rates.

Eligible respondents were visitors aged 18 years or older who had completed at least one cultural heritage-related visit in Nanchang and were in the process of departing from or transferring through the city. This sampling strategy ensured that respondents had recent first-hand experiences of cultural heritage tourism and were therefore able to provide informed evaluations of weather conditions and climate comfort during their visits.

Participants were instructed to answer the questionnaire primarily based on their experiences during the preceding three days. For those whose stay in Nanchang was shorter than three days, responses were based on their actual duration of stay. This design helped minimize recall bias and facilitated the matching of subjective evaluations with concurrent meteorological observations. Information on respondents' place of residence, arrival date, visited heritage sites, length of stay, weather adaptation behaviors, and perceived climate comfort was collected to enable subsequent analyses of the relationships among objective weather conditions, cultural heritage tourism experiences, and tourists' subjective perceptions of climate comfort.

All questionnaires were completed anonymously, and the collected data were used exclusively for academic research purposes. No personally identifiable information was collected, and all responses were treated with strict confidentiality.

## 2. Survey Questionnaire Template

### A. Socio-Demographic Information

1. Place of Residence:  Nanchang  Other city in Jiangxi  Other province in China  
 Hong Kong/Macao/Taiwan/Overseas
2. Gender:  Male  Female  Other / Prefer not to say
3. Age: \_\_\_\_\_ years
4. Highest Education:  High school or below  Junior college  Bachelor's   
Master's or above

### B. Travel Information

5. Primary purpose (Multiple Choice):  Historical & cultural sightseeing  Red  
tourism  Historic districts  Museums/memorial halls  Urban leisure   
Business/conference  Family/relatives  Historic buildings/sites  Other \_\_\_\_\_
6. Arrival date: Month \_\_\_\_ Day \_\_\_\_
7. Transportation:  HSR/Train  Airplane  Private car  Coach  Public transit   
Other \_\_\_\_\_
8. Travel companions:  Alone  Friends  Family/children  Partner  Tour group
9. Group size: Children \_\_\_\_ Adults \_\_\_\_
10. Length of stay:  <0.5 day  1 day  2–3 days  4–7 days  >7 days

### C. Cultural Heritage Visits and Weather Adaptation

11. Attention to weather:  Very much  Quite a lot  Moderate  A little  Not at  
all
12. Visited sites (Multiple Choice):  Historic Architecture  Revolutionary Cultural  
Heritage  Historic and Cultural Districts  Museums / Memorial Halls   
Archaeological Site Heritage  Religious Cultural Spaces  Intangible Cultural  
Heritage Experience
13. Adjusted plans because of weather?  Yes  No
14. If yes:  Changed visiting time  Reduced outdoor stay  More indoor visits   
Night visits  Cancelled sites  No adjustment

## D. Perceived Climate Comfort (PCC)

15. Rate overall weather comfort for cultural heritage tourism in Nanchang (0–100).

Your Score: \_\_\_\_\_ /100

90–100 Ideal | 80–89 Excellent | 70–79 Very Good | 60–69 Good | 50–59 Acceptable

40–49 Marginal | 30–39 Unfavorable | 20–29 Very Unfavorable | 10–19 Extremely Unfavorable | 0–9 Not Suitable for Tourism

### For Enumerator Use Only

Survey Time: \_\_\_\_\_ Survey Date: \_\_\_\_\_ Survey Location: \_\_\_\_\_

Enumerator: \_\_\_\_\_