

UNESCO State of Conservation: Chinese World Heritage Sites

By Colin Blais

Colin Blais graduated from Syracuse University in Syracuse, NY, in the class of 2020, double majoring in International Relations and Geography with a minor in Chinese Studies. His studies involve understanding the science and implications of the climate crisis as well as Chinese culture and China's relationship with the United States. After graduating, Colin was hired as a legislative intern in Congressman McGovern's Washington D.C. office. Colin plans on furthering his studies of international relations and international development by pursuing a master's degree at the School of International Service at American University. His studies will continue to be centered around critiquing the status quo for international politics.

Introduction:

This research examines the ways the Chinese government works to conserve and protect its World Heritage Sites and the ecosystems in and around them. Through the usage of content analysis of primary sources, an inventory of the sites, and a survey of visitors, the project was able to conclude the Chinese government does not properly care for World Heritage Sites, and prioritization of profits is causing degradation of the sites and the ecosystems in which they exist.

The United Nations established UNESCO in 1945 as a successor to the League of Nations with a goal of advancing peace, sustainability, and human rights through collaboration and dialogue among nations. Between its creation in 1945 and the establishment of the World Heritage List in 1972, UNESCO focused its efforts towards ending racism, education missions, and assisting individual countries with preserving cultural relics and areas. The World Heritage List was started by the treaty drafted in 1972, which entered into force in December of 1975. The list was created as an account of properties throughout the world that are of outstanding value to humanity, with an overall purpose of having an international mechanism to assist countries in properly conserving and protecting these places. Specifically, these properties needed to have a unique landmark that is geographically and historically identifiable that

has special cultural or physical significance.¹ Designation as a UNESCO World Heritage Site gives a property international recognition and therefore international attention, which has shown to cause a dramatic increase in tourist numbers and tourism development, especially in China.² China is currently tied for the world record number of World Heritage Sites within a single country at fifty-five properties. This mass increase in tourism and development brings conservation challenges. Mass tourism and the resulting congestion at World Heritage Sites is a major concern for UNESCO. Poorly managed sites may experience resource degradation, environmental impacts, safety hazards, and spillover into important adjacent resource areas.³

The Chinese tourism industry makes up around 11 percent of its GDP, and in 2018 the Chinese government pulled in a total revenue of just under \$890 billion for tourism alone.⁴ The recorded massive profits coupled with the potential harm associated with World Heritage tourism congestion begs the question whether China is taking proper care of the 55 World Heritage Sites currently operating within its borders.

Research Questions

What conservation impacts arise in Chinese World Heritage Sites after inscription? Does China properly conserve and protect its 55 World Heritage Sites and their surrounding ecosystems, or does prioritization of profits cause poor conservation tactics? These questions are designed to understand current Chinese conservation practices and problems at its World Heritage Sites. Through content analysis of the State of Conservation database, the UNESCO World Heritage List records, Global Heritage Fund revenue figures, and a survey of visitors to these properties, this research uncovers specific measurable figures that

¹ UNESCO World Heritage Centre, "World Heritage," *UNESCO World Heritage Centre*, Accessed October 26, 2020. <https://whc.unesco.org/en/about/>.

² Ming Ming Su and Geoffrey Wall, "Chinese Research on World Heritage Tourism," *Asia Pacific Journal of Tourism Research*, 16, no. 1. (2011): 75–88. <https://doi.org/10.1080/10941665.2011.539392>.

³ Jin-Hui Guo, et al., "Managing Congestion at Visitor Hotspots Using Park-Level Use Level Data: Case Study of a Chinese World Heritage Site." (California: PLOS, 2019).

⁴ Trading Economics, "China Tourism Revenues | 2015-2018 Data | 2019-2020 Forecast | Historical | Chart," *Trading Economics*, Accessed October 26, 2020. <https://tradingeconomics.com/china/tourism-revenues>.

identify conservation issues at World Heritage Sites in China. This research also reveals that the Chinese government has not taken action to mitigate these issues. This indicates Beijing prioritizes revenues over conservation.

Literature Review:

A number of scholars have studied the conservation problems associated with the properties on the Chinese World Heritage List. The preliminary work in this field took place in the 1990s and early 2000s. This body of research was mostly concerned with studies allowed by the Chinese government that proved the existence of environmental problems resulting from tourists at the sites as well as proposed systems of conservation management for said sites. This work was led by scholars such as Fei (1991), Jiang and Wang (1990), Pan (1992), and Peng (2000).⁵ These studies were also primarily written in Mandarin Chinese and inaccessible to non-Mandarin Chinese speakers. However, the studies are summarized in an article written in English by Yu-Fai Leung (2001), which contains a synthesis of studies regarding UNESCO World Heritage sites, environmental reports, conservation analyses, and management analyses.⁶

Since the environmental studies and the data being gathered in China are difficult to access, contemporary scholars have explored the relationships between the Chinese World Heritage sites, profits, tourism, and conservation by studying within China independently. Scholars Luca Zan and Wang Tao (2011) have updated information and analyses about the ways in which Chinese World Heritage Sites are managed and presented to UNESCO.⁷ These authors discuss the ways in which

⁵ Qing Fei, "The current status and management of environmental quality for tourism in Chengde City (in Chinese)," *Geography and Territorial Research* 7, no. 1 (1991): 35-39; Gaoming Jiang and Yingxiao Wang, "The effects of tourism and urbanization on soil and plants at the Summer Villa, Chengde City (In Chinese)," *Environmental Science* 11, no. 1 (1990): 35-39; Tiangsheng Pan, "The ecological environment of Mt. Huangshan scenic area and its protection strategy," *Industry and Environment* 15, no.3/4 (1992): 28-30; X. Peng, "The current situation, cause of formation and countermeasures of the environmental problems in Wulingyuan Scenic Spot (In Chinese)," *Tourism Tribune* (2000): 43-46.

⁶ Yu-Fai Leung, "Environmental Impacts of Tourism at China's World Heritage Sites: Huangshan and Chengde," *Tourism Recreation Research*. 26, no. 1 (2001): 117-22. <https://doi.org/10.1080/02508281.2001.11081186>.

⁷ Tao Wang and Luca Zan, "Management and Presentation of Chinese Sites for UNESCO World Heritage List (UWHL)," Edited by Ana Pereira Roders,

China's management of its World Heritage is inherently a complex situation. Zan and Tao introduce the concept that maintaining Heritage in China is both incredibly expensive and subject to overexploitation through tourism.

Ming Ming Su and Geoffrey Wall (2011) also conducted research on Chinese World Heritage, gathering over 60 articles from a Chinese database to understand the current body of research in China surrounding the conservation of Heritage.⁸ The authors find that China has a poorly organized management system for conservation of Heritage Sites, citing issues with the top-down multi-level style of management that could be simplified by centralizing all Heritage issues into one government department. Furthermore, the authors cite issues with Chinese efforts to produce funding for conservation of the sites. They suggest careful management between preservation and development, as well as implementing new fundraising strategies to increase revenue that goes back into the individual sites. Finally, the authors discuss negative impacts associated with tourist exploitation, going beyond Zan and Tao's work to advocate for better management plans in the form of zoning, less commercialization, and better understanding of carrying capacity for the properties.

Guo et al. (2019) discuss the ever-continuous issue of understanding how to mitigate negative environmental and conservational impacts associated with the overcrowding of tourists at Chinese World Heritage Sites.⁹ The researchers advocate for the usage of a camera-based tracking system as well as an overhaul of Chinese strategies currently in place to mitigate overcrowding issues on the properties. The scholars stated that determining carrying capacities and managing crowd flow should be a multi-level response based on the daily evolving visitor numbers, not just single figures from previously recorded statistics being applied to longer time periods.

My research affirms the research of the aforementioned authors by further identifying the existence of conservation issues at Chinese World Heritage Sites. It builds on the previous studies by looking at the

Facilities 29, no. 7/8 (2011): 313–25,
<https://doi.org/10.1108/02632771111130924>.

⁸ Ming Ming Su and Geoffrey Wall, "Chinese Research on World Heritage Tourism," 75–88.

⁹ Jin-Hui Guo, et al., "Managing Congestion at Visitor Hotspots Using Park-Level Use Level Data: Case Study of a Chinese World Heritage Site."

root cause of many of the issues the sites experience, which is government prioritization of revenue over conservation.

Hypothesis:

UNESCO affiliated researchers, as well as field researchers independent of the UNESCO mission system, have already documented environmental consequences associated with increased tourism at Chinese UNESCO World Heritage Sites. Many of China's UNESCO Sites are experiencing conservation issues that remain unresolved. I posit that economic concerns, particularly tourism revenue, supersede proper conservation and protection of Chinese World Heritage Sites. The independent variables for this research are tourism revenues and primary sources such as UNESCO reports, while the dependent variable is operationalized by the state of conservation of each individual property.

Methods:

The research performed for this paper was entirely qualitative. I first performed an inventory using the UNESCO "State of Conservation" database. With this database, I undertook a content analysis of report documents from UNESCO missions to each of the World Heritage Sites in order to identify some of the main conservation problems that each individual site suffers from and whether or not these issues have been resolved. This information, coupled with official conservation descriptions provided on the individual pages for each Heritage Site, identified whether each Heritage Site had conservation or environment related issues, how many times UNESCO reported on this issue, when the reports were made, what types of issues were occurring, and whether or not these issues were resolved by the Chinese government. In conducting the inventory, I discovered Chinese UNESCO site #55: The Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai Gulf of China, is currently in its first phase of becoming a World Heritage Site and thus has not had enough time to create a conservation master plan to be approved by UNESCO. Therefore, this site was not included in the study. After compiling the previous data, I added in revenue data for 20 of the sites compiled and provided by the Global Heritage Foundation in the year 2010 for the year 2009. Much of the more recent revenue data for individual World Heritage Sites in China is not publicly available due to strict censorship laws in the country.

After compiling this data, I then gathered a convenience sample by sending a survey to around 100 individuals who visited the People's

Republic of China with a Syracuse University affiliated program. The individuals were part of a Syracuse Abroad database of names ranging from programs offered between 2014-2019. The response rate of the survey was about 25%. The survey asked a variety of questions about which World Heritage Sites the students visited. The questions covered site crowding, pollution, management, and the conditions surrounding each individual's site visit (length of visit, type of tour, weather). The survey was administered via Google Forms and was distributed by email to students by using a Syracuse University Abroad database of "SU Beijing Alumni" and was left open for one week. By virtue of the survey being a convenience sample, it naturally has some limitations. The opinions offered by the students primarily comes from a demographic representing American students who studied abroad in Beijing. As a result, there is an inevitable cultural disconnect between American outside opinions about conservation and Chinese insider opinions about conservation due to cultural bias. Therefore, the survey answers may not necessarily reflect the true state of conservation at the World Heritage Sites asked about in the survey.

Finally, I compiled all the data to perform a collective case study of some of the outlier sites to assess the relationship between conservation efforts, tourism revenues, issue types, and issue statuses at Chinese World Heritage Sites.

This type of research, being a content analysis and survey followed by a collective case study, is the most beneficial to understanding the relationship between the variables in my hypothesis. The pattern that emerged demonstrated that China's preference for profits over conservation comes from a direct relationship between sites that have a number of environmental and conservation issues and their massive, documented revenues. The survey provides confirmation of my case study via first-hand accounts.¹⁰

This paper supports previous scholarly research documenting conservation challenges at Chinese World Heritage Sites. Reviewing tourism revenue data, UNESCO reporting, Global Heritage Fund revenue figures, and a survey of visitors allowed me a unique glimpse into the way China sets its priorities. This is likely the root cause of the previously discussed management and financial issues that many of these sites deal with. My research offers similar methods to those in the same body of research but offers the uniqueness of a new set of sources and a

¹⁰ Howard Lune and Bruce Berg, "Chapter 10: Case Studies," In *Qualitative Research Methods for the Social Sciences*. 9th ed., (Malaysia: Pearson, 2017), 165.

survey of individuals who visited these sites, something that past researchers have not studied. My findings support the current body of research, as data demonstrates China has not adequately conserved its World Heritage Sites.

Theoretical Perspective:

For this research, I chose to look at the way China deals with conservation within a world capitalist system. The theories associated with Marxist thought reveal the logic behind prioritizing tourism revenues and profits over conservation of World Heritage Sites. Karl Marx, referring to capitalism, states, “At a certain stage of development, it brings forth the material agencies for its own dissolution.”¹¹ Modern scholars of Marxist thought have interpreted this statement and its description to infer that capitalism, as it exists, will naturally sow the seeds of its own destruction because it is driven by profit and not people’s well-being.

In later works, after Marx’s influential “*Das Kapital*” (1887) was published, Friedrich Engels wrote about overexploitation of the natural world or the environment.¹² Engels wrote, “As long as the individual manufacturer or merchant sells a manufactured or purchased commodity with the usual coveted profit, he is satisfied and does not concern himself with what afterwards becomes of the commodity and its purchasers.”¹³ He then demonstrates this by describing a situation in which Spanish colonizers burned down Cuban forests to gain expensive fertilizers to grow coffee trees without paying mind to the degradation the fires caused.

Contemporary Marxist thought combines the ideals expressed Marx and Engels to demonstrate a situation in which capitalists always prioritize the immediate gratification of profit from commodities over the long-term consequences associated with said profit. This is the exact

¹¹ Karl Marx, “Chapter 32: Historical Tendency of Capitalist Accumulation,” In *Das Kapital*, translated by Samuel Moore and Edward Aveling, 541–42. Moscow: Progress Publishers, 1887.

<https://www.marxists.org/archive/marx/works/download/pdf/Capital-Volume-I.pdf>.

¹² Karl Marx, “Chapter 32: Historical Tendency of Capitalist Accumulation,” 541–42..

¹³ Friedrich Engels, “The Part Played by Labor in the Transition From Ape to Man,” *The Part Played by Labor in the Transition From Ape to Man* (Progress Publishers, 1934), <https://www.marxists.org/archive/marx/works/1876/part-played-labour/>.

situation demonstrated in my research, where China prioritizing the revenue produced by individual World Heritage Sites has caused unresolved conservation issues leading to the degradation of the properties.

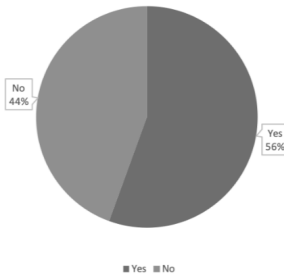
I chose not to study through the lenses of the traditional schools of thought because none of them truly applied to the individual situation. Liberalism and Realism would not fit in the context of this research because the focus is not of cooperation of states or of state security. In this case, prioritization of profit is the product of a global capitalist status quo. My research looks at the Chinese status quo when it comes to conservation and questions it. Institutionalism also does not fit into the context of my research because although I initially thought UNESCO was partially at fault for some of these management issues, my research revealed it is not. UNESCO has asked China for documents and management plans and encouraged the country to fix conservation issues, but China often falls short in meeting UNESCO's expectations. Constructivism would have made sense if I were looking at how Chinese social norms affect conservation strategy for UNESCO Sites, but this, again, is not how my research is structured. My research is about the Chinese government's failure to make proper management decisions regarding conservation, not about Chinese citizens social beliefs.

Findings:

My research indicated that Chinese World Heritage Sites, in general, are experiencing a growing number of environmental issues and concerns that are not being resolved by the Chinese government. Furthermore, I found the sites that have the largest numbers of unresolved environmental issues are also the sites that make China the most money in terms of tourism revenue. Below are a series of figures demonstrating environmental issues across the 54 Chinese World Heritage Sites I studied.

Conservation Problems:

Do Chinese World Heritage Sites Have any Documented Conservation Issues?



As the figure shows, 56% of China's World Heritage Sites have had reported conservation issues between 1994 and the present day. This percentage stands for 30 World Heritage Sites out of the 54 studied, meaning over half of them have reported conservation problems.

Figure 1 (UNESCO, 2020) (UNESCO SOC, 2020) 1994-2020

Figure 2 illustrates the percentage of the sites with reported conservation issues that have been resolved.¹⁴

Of the Sites That Have Environmental Issues, What Percentage are Resolved as of 2020?

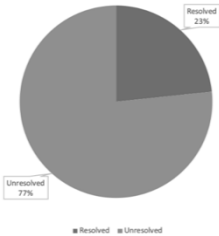


Figure 2 (UNESCO 2020) (UNESCO SOC 2020) 1994-2020

This figure demonstrates that of the 30 sites that reported conservation issues between 1994 and 2020, only 23% of those sites have resolved the issues according to UNESCO. This means that 77% or 23/30 of these sites are still experiencing problems related to conservation issues

¹⁴ UNESCO, United Nations Educational, Scientific, and Cultural Organization 2012, "UNESCO in Brief - Mission and Mandate." "China, States Party Page." UNESCO. Accessed October 29, 2020a.

<https://whc.unesco.org/en/statesparties/cn.>; UNESCO, "UNESCO State of Conservation Information System (SOC)," UNESCO. Accessed October 29, 2020b. <http://whc.unesco.org/en/soc/>.

that have not been resolved by the Chinese government. This is concerning, as the success rate for solving these issues is very low, indicating that many sites are still experiencing degradation today as a result of slow Chinese governmental responses or lack of responses altogether. The range of issues that these sites are suffering from are mainly a lack of management plans, tourism impacts, and pollution, as demonstrated below in Figure 3.¹⁵

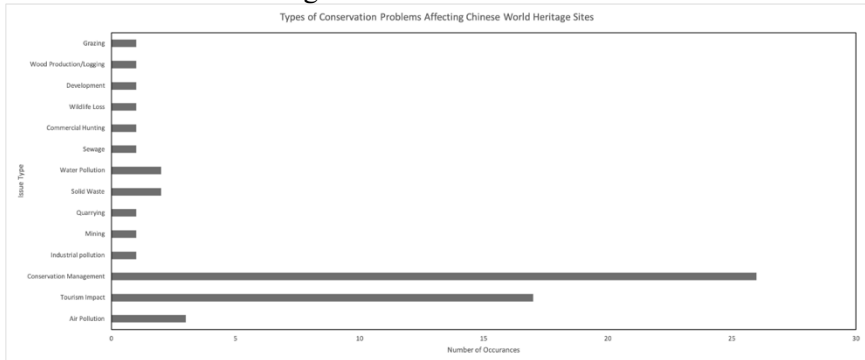


Figure 3 (UNESCO 2020) (UNESCO SOC 2020) 1994-2020

The majority of the sites that experience environmental problems are related to conservation management or tourism issues. The issues surrounding conservation management, according to my findings, are associated with a lack of response to UNESCO requests for master conservation plans. UNESCO submits a report after a field mission to a given UNESCO Site which requests a conservation masterplan or an improvement to an existing masterplan. When the Chinese government does not comply with the request, UNESCO keeps a list of problems in planning, management, or establishment of buffer zones on the individual site's World Heritage page. UNESCO missions consist of a group of researchers visiting a site and documenting any conservation issues it may be experiencing. Usually, the missions occur every two years and are repeated based on the state of conservation at an individual site. Sites with more problems have more missions sent to them by

¹⁵ UNESCO, United Nations Educational, Scientific, and Cultural Organization 2012, "UNESCO in Brief - Mission and Mandate," "China, States Party Page," *UNESCO*. Accessed October 29, 2020a.

<https://whc.unesco.org/en/statesparties/cn.>; UNESCO, "UNESCO State of Conservation Information System (SOC)," *UNESCO*. Accessed October 29, 2020b. <http://whc.unesco.org/en/soc/>.

UNESCO. After the mission, the researchers draft a document that describes the issues and submits it to UNESCO for China to view. On most occasions with documented problems in conservation management, there is no documentation of Chinese response in the form of updating or creating conservation masterplans. As a result, conservation management remains a listed issue on many Chinese World Heritage Sites. These issues with conservation management make up about 44% of all reported conservation issues in missions to sites in China.

As noted by Su and Wall (2011), China has had issues with governing World Heritage Sites and producing funding for the properties.¹⁶ Su and Wall, as well as Guo et al., document the issues associated with the massive increase of tourism.¹⁷ My data proves the points and hypotheses of all the others in this study, as the most common conservation problems at Chinese World Heritage Sites by a large margin are management issues and tourism impacts. Management issues are mostly centered around creation of buffer zones outside of properties to ensure development would not affect the sites or understanding of site carrying capacity and monitoring foot traffic. Tourism impacts are mostly associated with littering, how foot traffic and the presence of people affects the site, and its degradation over time; these problems make up around 29% of the reported conservation issues.

The third most common form of conservation problem at Chinese Sites is general pollution which is determined as an issue by the researchers in the missions to each site. I split up the different types of pollution in the graph because they are listed as such on the UNESCO State of Conservation Information System; however, when combined, they make up a total of 8 reported occurrences. This indicates that general pollution accounts for 14% of reported issues. The slightly larger reported occurrence of pollution across the range of World Heritage Sites could be attributed to the large number of tourists who visit the sites. Other factors such as large-scale development to accommodate tourists, poor management of trash disposal, and improper management of waste facilities could also contribute to this large percentage.

¹⁶ Ming Ming Su and Geoffrey Wall, "Chinese Research on World Heritage Tourism," 75–88.

¹⁷ Ming Ming Su and Geoffrey Wall, "Chinese Research on World Heritage Tourism," 75–88.; Jin-Hui Guo et al., *Managing Congestion at Visitor Hotspots Using Park-Level Use Level Data: Case Study of a Chinese World Heritage Site*, (California: PLOS, 2019)

Looking at the increase or decrease of resolved and unresolved reports over time revealed how well China is handling the conservation issues. I wanted to understand whether China’s efforts to resolve conservation problems were increasing or decreasing by looking at mission reports from 1994-2019. This is demonstrated in Figures 4, 5, and 6 below.

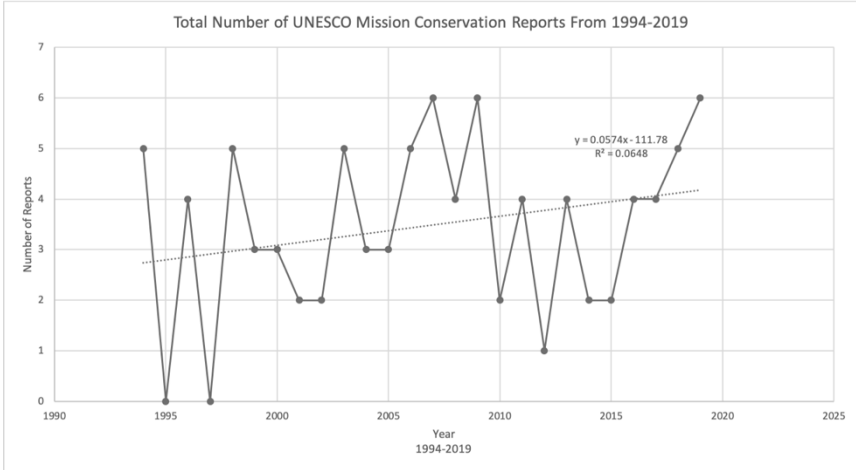


Figure 4 (UNESCO 2020) (UNESCO SOC 2020)

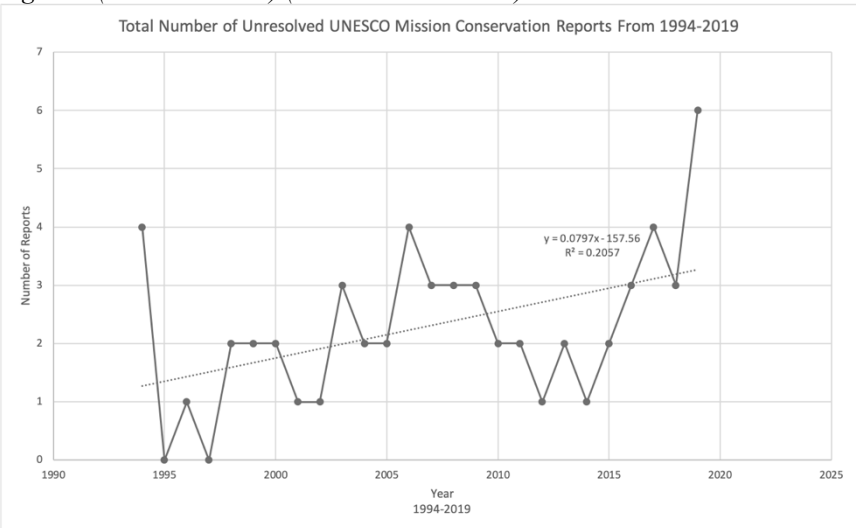


Figure 5 (UNESCO 2020) (UNESCO SOC 2020)

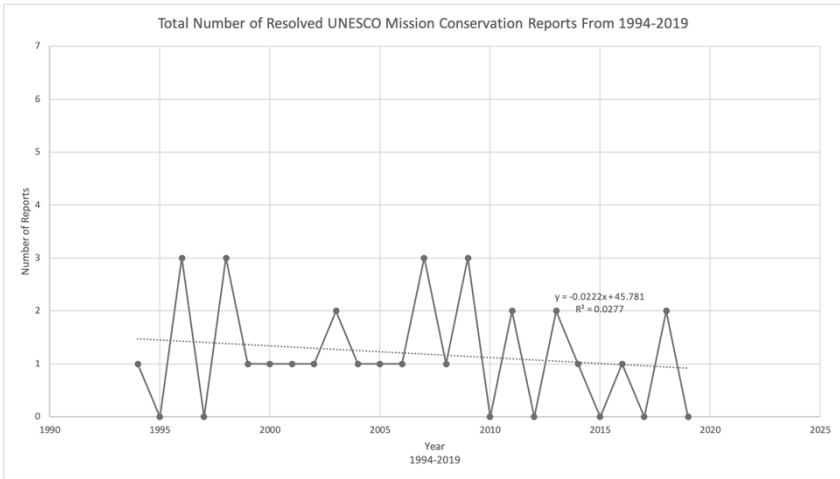


Figure 6 (UNESCO 2020) (UNESCO SOC 2020)

These three patterns further demonstrate the claims in my hypothesis. Since 1994, the total number of mission reports that detail conservation-related issues have been steadily increasing through 2019. Within these reports, the number of unresolved conservation-related issues has been slowly increasing, while the rate of resolved issues has been decreasing. Although correlation does not necessarily prove causation, this pattern reveals that the Chinese government is experiencing an increase in unresolved conservation problems and a decrease in its resolved counterparts.¹⁸

Tourism Revenue and Conservation:

The next part of my research concerned looking at revenue data for each individual UNESCO World Heritage Site located in China compared to the amount of conservation problems the site has experienced. My hypothesis predicted a correlation between high-earning sites and the number of conservation problems they experience, and this correlation is exactly what occurred. Chinese data is difficult to access, especially because I have little skill in Mandarin Chinese. The figures I

¹⁸ UNESCO, United Nations Educational, Scientific, and Cultural Organization 2012, “UNESCO in Brief - Mission and Mandate,” “China, States Party Page,” *UNESCO*, Accessed October 29, 2020a. <https://whc.unesco.org/en/statesparties/cn>. UNESCO, “UNESCO State of Conservation Information System (SOC).” *UNESCO*. Accessed October 29, 2020b. <http://whc.unesco.org/en/soc/>.

was able to locate are from UNESCO site nomination documents submitted by Beijing, and official World Heritage Fund estimates from the year 2009 for 20 of the 54 sites being studied. However, these figures reveal that 6 of these sites are among the top 50 highest earning World Heritage Sites in the world. Projections within the document, as well as projections from Trading Economics (2020), estimate that revenues for these sites have likely increased at a rate sufficient to keep them similarly ranked as they were in 2009.¹⁹ China's tourism industry is massive, and the country has continued to be a popular tourist location since the establishment of this revenue data in 2009. Furthermore, these Heritage Sites have operated without major interruption since 2009; thus, an interruption or drop in profits is highly unlikely. I reached out to both the Chinese Ministry of Tourism and the World Heritage Fund (WHF) in search of more recent figures, but I was met with a full inbox for the Ministry and no more recent data published by the WHF.

¹⁹ Trading Economics, "China Tourism Revenues | 2015-2018 Data | 2019-2020 Forecast | Historical | Chart," *Trading Economics*, Accessed October 26, 2020, <https://tradingeconomics.com/china/tourism-revenues>.

Site	Tourism Revenue in USD (2009)
Archaeological Ruins of Liangzhu City,	560,000
Peking Man Site at Zhoukoudian	2,600,000
Capital Cities and Tombs of the Ancient Koguryo Kingdom	5,600,000
Kaiping Diaolou and Villages,	7,200,000
Ancient Villages in Southern Anhui – Xidi and Hongcun	7,800,000
Yin Xu	13,200,000
Dazu Rock Carvings	18,600,000
Ancient Building Complex in the Wudang Mountains	43,000,000
Mount Emei Scenic Area, including Leshan Giant Buddha Scenic Area	56,000,000
Longmen Grottoes	56,000,000
Mount Qingcheng and the Dujiangyan Irrigation System	56,000,000
Historic Ensemble of the Potala Palace, Lhasa 8	57,617,720
Yungang Grottoes	60,000,000
Mountain Resort and its Outlying Temples, Chengde	74,000,000
Ancient City of Ping Yao	79,320,000
Mogao Caves	104,000,000
Fujian Tulou,	112,840,000
Old Town of Lijiang	160,000,000
Mount Wutai,	212,400,000
Imperial Palaces of the Ming and Qing Dynasties in Beijing and Shenyang	904,000,000
Mausoleum of the First Qin Emperor	1,920,000,000
The Great Wall	2,888,000,000

Figure 7 (Global Heritage Fund, 2010)

After examining this data combined with my database of mission reports from UNESCO, I was able to determine a number of metrics about these Chinese World Heritage Sites. The average revenue of Chinese World Heritage Sites that still have unresolved conservation issues is \$741,780,000, whereas the average revenue of the sites that have resolved their conservation issues or have had none at all is \$64,606,980. This demonstrates a difference of just over \$677,000,000. These figures indicate that the Chinese World Heritage Sites that make

the highest amount in tourism revenue are also the sites experiencing the most conservation-related issues.

As Figure 3 shows, the number one conservation issue facing Chinese World Heritage Sites has to do with management planning and conservation strategies. For sites that have reported conservation management issues, the average revenue is \$570,350,702, whereas the average revenue for sites that have never had conservation management issues is \$51,352,727. These figures demonstrate a strong correlation between high revenues and places that have conservation management problems.

These data support my hypothesis that the Chinese government prioritizes the massive tourism revenue made by its World Heritage Sites over conserving these sites from degradation. With such differences in revenue demonstrated across the board, prioritization of profits stands out as a very clear pattern.

Case Study- Imperial Palaces of the Ming and Qing Dynasties, Beijing

This individual property is noteworthy in the study because it has a high number of unresolved issues reported from UNESCO Missions to the site and a very high volume of tourists. The Imperial Palaces had a total of 7 UNESCO mission reports from 1994-2009 that diagnosed conservation-related problems on the property associated with air pollution (resulting from inadequate buffer zone between the Palaces and the surrounding city of Beijing), conservation management problems, and tourism impacts.²⁰ This site had some of the most total mission reports as well as ongoing unresolved conservation issues of any of the 54 properties and is the third largest earner of Chinese World Heritage Sites (\$904,000,000 in 2009), and its most recent report (2009) still remains unresolved.²¹ To gain more insight into how these issues are being dealt with more recently, I surveyed 94 Syracuse University students who have visited China since 2014.

Of the respondents who had visited the Imperial Palace, 7 of 20 (35%) said the property was crowded or very crowded, 5 of 20 (25%)

²⁰ UNESCO, “UNESCO State of Conservation Information System (SOC),” *UNESCO*, 2020, <http://whc.unesco.org/en/soc/>.

²¹ UNESCO World Heritage Centre, “UNESCO World Heritage Centre - State of Conservation (SOC 2009) Imperial Palaces of the Ming and Qing Dynasties in Beijing and Shenyang (China),” UNESCO World Heritage Centre, Accessed March 31, 2021, <https://whc.unesco.org/en/soc/3178/>.

said it was only slightly crowded or not crowded at all, and 9/20 (45%) fell in the middle, saying it was moderately crowded. This is not very conclusive, as this tourist site is one of the most popular in the country. 19 of 20 (95%) of the same respondents reported seeing some sort of crowd control mechanism in place at the property, such as ticket counters, turnstiles, or staff directing foot traffic. UNESCO still recommends for the site to restrict overcrowding to prevent further degradation. However, of the respondents, 17/20 (85%) said that The Imperial Palace was either moderately polluted or very polluted, while only around 3/20 (15%) said the property had little pollution or no pollution.

The results of this survey further complicate the case of the Imperial Palace because although the management plan that UNESCO advocates for China to keep strict and updated was perceived to be working relatively well by the survey respondents, the issue of pollution which UNESCO does not appear to consider a major problem anymore, may still be a problem at the site. This is a bit of an odd result, as data shows that air quality in Beijing has been gradually improving since 2012; however, there has been a slight increase in “unhealthy” days in air quality since 2014, which may account for the data from the respondents.²² More study and perhaps another field mission by UNESCO would be necessary to clarify these issues surrounding this case.

Case Study- Old Town of Lijiang, Lijiang

The Old Town of Lijiang has had five (5) UNESCO mission reports with issues stemming from tourism impacts and conservation management. The site, located in a less populated area of southwestern China, is a traditional-styled town filled with shops, bars, and clubs. The town contains a number of bridges and has small canals flowing through the streets, which only allow for foot traffic. UNESCO repeatedly urged Lijiang to fix the way it manages the property because over-commercialization was drastically increasing foot traffic from tourists, which was causing negative impacts on site conservation. Currently, Lijiang suffers from no conservation issues since its revision and resubmission of its conservation management plan in 2013. Furthermore, in 2009 Lijiang was one of the highest earning Chinese UNESCO Sites, as well as one of two top earning Chinese UNESCO Sites that have actually resolved all conservation-related issues.

²² IQ Air, “Beijing Air Quality Index (AQI) and China Air Pollution | AirVisual,” *IQ Air*, Accessed December 9, 2020, <https://www.iqair.com/ca/china/beijing>.

Lijiang is a unique case as an outlier when compared to the rest of the high earning Chinese World Heritage Sites because it has solved all its conservation issues. Lijiang was also the 5th highest earning site in China, but it does not fit my hypothesis. Of the 13 Syracuse Students surveyed who had been to the Old Town of Lijiang, 7 out of 13 (53%) of them reported it was not crowded or only slightly crowded, while only 5 of 13 (7%) reported it as crowded (0% said it was very crowded). The remaining 6 of the 13 (40%) reported the Old Town was moderately crowded. This may demonstrate a perceived successful effort to curb over-commercialization of the site, even though only 1 of 13 (7%) respondents reported seeing any methods of crowd control. Beyond this, 10 of the 13 (77%) respondents stated that the Old Town of Lijiang had little pollution or no pollution, with only 3 of the 13 (23%) reporting a moderate level of pollution.

The Old Town of Lijiang demonstrates a successful attempt by the Chinese government to curb site degradation as a result of better conservation management; thus, China should use this site as a model of success to better conserve and protect the other high-earning sites that experience major conservation issues because it stands as the sole positive outlier in my study.

Case Study- West Lake, Hangzhou

West Lake in Hangzhou is an example of a location that needs to be understood if the Chinese government wants to curb site degradation in the near future. Although the site only has one documented UNESCO mission report, the report details and warns of major complications as a result of over development, poor conservation management planning, and immense tourism impacts. West Lake, in the past decade, has become a very popular tourism site for Chinese individuals traveling during Golden Week, a Chinese national holiday week in which many Chinese citizens do not have work and travel the country.²³ Of the seven (7) students who visited West Lake that were surveyed, 5 of the 7 (71%) reported the site was crowded or very crowded, while only 1 of the 7 (14%) reported the property as not crowded. The other 1 remaining respondent of the 7 (7%) said West Lake was moderately crowded. This is concerning because, with the presence of a massive number of tourists

²³ Monica Buchanan Pitrelli, "More than 600 Million People Traveled in China during 'Golden Week.'" *CNBC*. October 9, 2020. <https://www.cnbc.com/2020/10/09/china-attractions-630-million-people-travel-during-golden-week.html>.

coupled with the development occurring around the Lake, pollution becomes a concern. In my survey, 5 of the 7 (71%) respondents reported that the property was very polluted or moderately polluted, 2 of the 7 (29%) said there was little pollution, and 0% said there was no pollution at all. This is a major concern as site pollution levels are likely going to increase if the property continues to gain popularity in the coming years. Even more concerning is that 5 of the 7 (71%) respondents reported seeing no attempt at controlling foot traffic or managing crowds. It appears that the concerns expressed by UNESCO after its mission to the property in 2019 were valid and certainly need to be taken into consideration in the coming years. West Lake has the potential to become dangerously degraded if proper conservation management strategies are not implemented.

Conclusion and Recommendations

The Chinese government, with the exception of Lijiang, has shown an inability to balance profits from tourism and conservation at its World Heritage Sites. This is a worrying trend, as China is a massive country rich with natural and cultural heritage, and if these sites degrade, we risk losing the heritage of all mankind. The methods that I discussed are also the methods the Chinese government needs to adopt. Guo et al., in 2019, details the importance of understanding the carrying capacity of individual World Heritage Sites in China.²⁴ The authors advocate for a broader decision-making process, including multi-scale visitor monitoring, as their research demonstrated that at certain periods, the sites they studied exceeded preferred capacity levels. In the sites I studied, multi-scale visitor monitoring comes in the form of ticket purchases and turnstiles that count how many people enter and exit the site, cameras that count individuals who enter the site, or staff who control the movement of people through the property. It is incredibly important for the managers of these sites to better understand carrying capacity and how to properly maintain it.

Furthermore, Su and Wall (2011) found that many of the conservation issues that Chinese World Heritage Sites face stem from a lack of funding and poor and disorganized multi-level management of sites caused by competing opinions and requirements from local,

²⁴ Jin-Hui Guo, et al., “Managing Congestion at Visitor Hotspots Using Park-Level Use Level Data: Case Study of a Chinese World Heritage Site.” (California: PLOS, 2019).

provincial, and state leadership.²⁵ The management issue could be solved by consolidating the many departments involved with the management of the sites into one “Chinese World Heritage Site” management department that manages and advises local administrators for each individual site. This way, officials can more easily manage the sites without having to navigate the red-tape and bureaucracy associated with multi-level management. In terms of funding, the Chinese government could certainly do more to provide and raise more funding for the 55 World Heritage Sites if money is perceived to be an issue, as it is demonstrated by Su and Wall (2011).²⁶ Su and Wall advocate for putting some of the profits made from tourism revenue back into the site that earned them; however, whether or not Beijing puts money back into the sites currently is unclear, as this study is almost a decade old. Beyond this, the Chinese government can request money from UNESCO for conservation-related projects necessary to the preservation of the sites. Above all else, the Chinese government needs to better respond to UNESCO recommendations for improving conservation of their World Heritage and be more transparent with their studies and information.

In the future, more research needs to be conducted about the state of conservation at Chinese World Heritage Sites. This study was limited as a result of a language barrier. Researchers fluent in Mandarin and with the knowledge to navigate Chinese online sources and databases need to synthesize the available data to raise awareness for this issue. Furthermore, more research needs to be done on ways the Chinese government could limit overcrowding by improving management plans. The Guo et al. study allowed a glimpse into some methods that centered around camera monitoring and on the ground decision-making by site officials and managers. More research into how these management methods could be even further improved is needed, and UNESCO could play a role in further advising in implementing these methods.

Preserving heritage is an urgent matter in China, and UNESCO is doing its part to recommend solutions to these conservation issues in its missions to these individual properties. UNESCO is also able to provide money to the Chinese government to assist in conservation when necessary. China is one of the richest countries in the world in terms of heritage, and it is incredibly important for adequate measures to be taken to ensure that we do not lose such valuable assets to mankind.

²⁵ Ming Ming Su and Geoffrey Wall, “Chinese Research on World Heritage Tourism,” 75–88.

²⁶ *Ibid.*

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