

GEOG 4995 | ENVS 5995 | SUST 4960: TRAVEL STUDY

Sustainability Along the Yangtze: Globalization, Environment, and Society in China

Experience ‘Geography by Rail’ on China’s new high-speed train system

BRIAN PAGE

Geography & Environmental Sciences (*CLAS Teaching Excellence Award*)

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Geography & Environmental Sciences (*CLAS and UCD Campus-wide Teaching Excellence Awards*)

Course Description:

Over the past 30 years, China has reintegrated into the global economy leading not only to unprecedented rates of economic growth and urbanization, but also to pervasive social and cultural change and widespread environmental challenges. This course provides students with an up close view of the country’s transformation by charting an environmental transect along the Yangtze River (*Chiang Jiang*) from Shanghai 1,000 miles up-valley through the interior of the country to Yichang, the site of the Three Gorges Dam. We follow the river by rail, by road, and by foot, traversing a gradient from wealthier, modern coastal provinces to less affluent and more traditional inland provinces. Along this transect, we move back and forth between city and countryside, exploring the natural beauty and cultural geography of the Yangtze Valley, documenting the social and environmental changes that have taken place, and examining the prospects for sustainability in the region. The course gets off the beaten track to parts of China where few foreigners travel, allowing students to experience a wide range of spectacular landscapes in this deeply historic but rapidly modernizing region of the country.

- This course fulfills degree requirements for a number of programs, including: *MS Environmental Science; MA Geography; BA Geography (all options); BA International Studies; Minor in Environmental Science; Minor in Geography; Minor in Sustainability; Minor in Urban Planning; and the Certificate in Place-Based Education.*
- This course offers two *High-Impact Educational Practices (HIPs)*: 1) Diversity/Global Learning, and 2) Capstone Experience.
- This course provides an integrative, culminating experience for students interested in environment, society, and sustainability. Using the Yangtze region as a case study, we bring students together within a mobile multi-disciplinary research team (maximum 12 students) in order to: a) gain a first-hand look at a series of critically important social and environmental problems; and b) assess current Chinese efforts to develop and implement innovative solutions. Within this field-based framework, capstone students will choose a research topic and produce a report or photo-essay that integrates and applies what they have learned in their overall course of study.



We focus on the following eight (8) research/capstone topics along the transect:

1. *Cross-cultural views of nature and environmental protection*, both past and present, at **Lushan National Park**, in Jiangxi Province, a world GeoPark and a UNESCO World Heritage Site with lush pine and bamboo forests, beautiful lakes, waterfalls, and tea farms at 5,000 feet; and the ancient **Donglin Buddhist** monastery and **White Deer Confucian** academy on the flanks. We have the exceptional opportunity to explore traditional Chinese views and uses of nature at these religious and educational institutions, and to contrast these to western views of nature that later undergirded the development of **Kuling** at the top of the mountain in the 1890s. Kuling was the most important foreign retreat of the colonial period, and summer home to Pearl S. Buck; this western heritage still defines the Lushan cultural landscape today. Using Lushan as an example, we also look at the meaning of restricted access national parks (a western construct) for Chinese people today, examining whether the recent spike in park visitation reflects an increasing desire to escape polluted cities and villages and seek out “natural” spaces that are set apart and treated differently from the spaces of everyday life in Chinese society.

2. *Social and environmental aspects of large-scale water development projects* at the monumental **Three Gorges Dam** and the resettlement community of **Zigui** in Hubei Province, and at **Poyang Lake** near Lushan. The economic modernization of China brought with it intensification of natural resource development and an increasing scale of human intervention into natural processes, epitomized by the Three Gorges project, which was built to provide hydro-electric power, flood control, and inland navigation; it flooded 13 cities, 140 towns, 1,340 villages and displaced 1.2 million people. The new Zigui, located on the banks of the reservoir behind the dam, is now a booming center of truck transport due to the economic failure of the dam’s navigational locks. At Poyang, China’s largest freshwater lake and a critically important migratory bird sanctuary, ecological health is threatened by a water supply crisis brought on by the Three Gorges and smaller dams in the watershed built by provincial governments. Despite this, the Chinese state continues to promote hugely ambitious water projects like the Yangtze to Yellow River inter-basin transfer project while exporting its mega-dam building expertise via state-run enterprises to southeast Asia and other parts of the developing world.

3. *Challenges of urban sustainability* at **Shanghai** (population 24 million), **Nanjing** (population 8 million), and **Wuhan** (population 11 million). After 1979, with Deng Xiaoping’s “open-door” policy and re-integration into the world economy, economic growth in China was concentrated in

coastal provinces and large cities. Shanghai re-emerged as the financial heart of China and has developed into a global manufacturing center that now extends far into its hinterlands, forming a regional megalopolis that stretches to Nanjing. Wuhan is an enormous inland transport and industrial center with ambitious plans to compete with Chongqing, Guangzhou, and Shanghai within the nation's urban hierarchy. Industrial urbanization has led to pollution (air, water, soil) and accompanying public health problems, while placing enormous pressure on energy and water resources, waste management, sewer systems, and transportation networks. On site, we assess sustainability issues in these cities (including dependence on a coal-based energy infrastructure, growing automobile use, urban sprawl, and water quality concerns) and examine the recent emergence of "green city" initiatives focused on conserving resources, reducing energy consumption, cutting CO₂ emissions, expanding public transportation, and improving quality of life for urban citizens.

4. Population, migration, and social disparity across the region. Significant regional disparities in income, opportunity, and well-being have developed between people living in coastal urban centers and people living in inland provinces and rural areas, sparking the largest internal migration in human history. The path of our Yangtze Valley transect follows this socio-economic gradient and allows us to explore a variety of critical issues as we travel inland. The Chinese central state continues to regulate rural to urban migration through the hukou system of place-registration. Rural migrants are granted temporary urban registration to meet the labor demand in large cities, but they are paid low wages and denied access to social benefits enjoyed by official residents. In many cases, migrants can only find housing in hastily-built, disorderly "urban villages" that are embedded within large cities but not regulated by municipal building standards. The increasing spatial polarization of urban populations along class lines is also evident in central city gentrification (**Xintiandi** in Shanghai, the **1912 District** in Nanjing) and in the relocation of poor and elderly citizens to the urban fringe where getting back to the city center for work or to access social services is time consuming and difficult.

5. Transformation of agriculture, farming landscapes, and the environment on the Jiangnan Plain, in Hubei Province near Wuhan, one of the cradles of Chinese civilization. Deng's first experiments with market reform occurred in the agricultural sector by getting rid of large, state-run collective farms and providing market incentives for household-scale farmers. As a result, farm production has tripled since 1978, but now faces a sustainability crisis: input intensive practices (in particular, nitrogen fertilizer) are causing environmental degradation; energy-intensive input industries are dependent upon coal; 20 percent of all arable land has been polluted by industrial effluent, mine run-off, sewage, or farm chemicals; and there is growing public concern about food quality. Meanwhile, the overall amount of farmland is shrinking due to urban and industrial conversion. In Hubei rural villages, we talk to farmers about farming practices, rural out-migration, and the very real threat of losing their land and livelihoods. Recently, hundreds of nearby farmers have been dispossessed, and entire rural districts, reflecting the deep and pervasive imprint of an ancient culture on the natural environment, have been razed. The government then compensates displaced farmers with apartments in concrete high-rise buildings in the new rural industrial zones.

6. Environmental education and future prospects for sustainability in Nanjing and Lushan. The importance of environmental education (EE) is growing in China, due in part to explicit

recognition by party officials of the worsening environmental conditions as well as local/international pressures to mitigate impacts resulting from resource extraction, yet its effectiveness is limited. Schools in China use a state-mandated curriculum that relies heavily on content in the natural sciences (little integration with social sciences), and also limits opportunities for contextualization of environmental issues that reflect community concerns and local landscapes. We visits K-12 schools and observe classroom instruction, meet with teachers/students, and review curriculum (e.g. Textbooks), all of which support a better understanding of these educational challenges. In informal settings, such as national parks and historic preservation sites, EE (e.g. signage, differentiated land use) is more subtle but no less impactful in terms of the environmental discourses that shape Chinese views and values vis-a-vis the environment. A closer examination of EE in both formal and informal settings offers students rich insights into the socio-cultural components that shape teaching/learning in China, and allows them to critically juxtapose these against dominant ideologies in the US.

7. Colonial heritage representation and historic landscape preservation in Shanghai at the **Bund** and **French Concession** district; in Nanjing at the **Massacre Memorial Hall**; in Lushan at Kuling's **foreign villas**; in Wuhan at the **Hankow Bund**; and in Jiujiang at the Taiping stronghold **Stone Bell Hill** overhanging the Yangtze. While western cultural influences are widespread in China today (e.g. in fashion, music, fast food) we track signs of a deeper foreign history apparent in places that show the unmistakable imprint of foreign culture through land division, urban layout, and architecture and thus bear witness to a century of political and economic domination in the service of trade, resource exploitation, and cultural imperialism. The Yangtze was the heart of colonial activity in China from the mid 19th Century, and it was this region that was most deeply affected by the devastating and western-influenced Taiping Rebellion. It was also the region most affected by the Japanese invasion and brutal occupation of China during the 1930s and 1940s. Along our transect, we explore the legacies of this foreign influence in contemporary China, particularly with respect to the issues of preserving foreign landscapes and representing colonial-era experiences.

8. Symbolic architecture, national identity, and place-making. Over the past 20 years, urban expansion has occurred at an astounding pace throughout China as huge new urban districts have been built to house global corporate offices and attendant business and financial service firms. As part of this process, municipal officials have promoted the development of signature tall buildings, designed by western architects with recognizable international brands, to serve as icons of their city and its position within both national and global urban hierarchies. Nowhere is this process more evident than in Shanghai's **Pudong district**, where a forest of new skyscrapers -- dominated by three of the world's tallest buildings -- has created a skyline that announces the city's ascendant position within the global economy. Along our transect, we also encounter symbolic statements from previous periods in Chinese history made through monuments, engineering works, and architecture. These include the **Number One Bridge** in Nanjing and **Mao's Villa** in Lushan, time-capsule celebrations of Maoist nationalism; Nanjing's **Mausoleum of Sun Yat-Sen**, the father of the Republic of China, and **Linggu Pagoda** built by his successor Chiang Kai-shek; and the Imperial-era **Ming Dynasty city wall** in Nanjing and **Yu Yuan Garden** in Shanghai.

Reading:

1. Ren, Xuefei 2013. *Urban China*. Cambridge: Polity Press. ISBN-13 978-0-7456-5359-4 (paperback)
2. Mitter, Rana 2016. *Modern China: A Very Short Introduction*. Oxford: Oxford University Press.
3. Shapiro, Judith 2012. *China's Environmental Challenges*. Cambridge: Polity Press.
4. One additional book, chosen to support your specific research/capstone interests (Dr. Page and Dr. Wee have a library of China books from which you can borrow).

Learning Goals & Objectives:

In terms of learning objectives, it is our hope that students will develop an understanding and appreciation of a) the foreign history of China in the context of a post-colonial landscape, b) globalization in China's free market (and rapidly growing) economy and c) the social and environmental transformation of China as well as its implications for local and global sustainability. The use of an environmental transect along the Yangtze valley provides students with experiences in different geographic settings, each with distinctive features to support and achieve the following outcomes:

1. Know the major colonial influences in China's history and how those forces have shaped (and continue to shape) interactions between people and places
2. Become familiar with the mechanisms by which China's economy and society have integrated into the global community
3. Understand environmental and social challenges/possibilities in China, what it means for Chinese people, and how that impacts other parts of the world
4. Develop critical thinking skills in terms of viewing human-environment interactions and sustainability across different countries and cultures.

Assessments:*Participation (Daily, interactive -- 40 points)*

Learning is enhanced by the contributions of all students to discussions and activities throughout this trip. This means recognizing the importance of sharing, listening to and appreciating multiple viewpoints. Students are expected to be responsible for their own learning as well as the learning of their classmates; this means respecting travel schedules, exercising initiative, completing daily course assignments, ensuring personal/group safety and health as well as other issues that might arise during the trip. Attendance and involvement in the daily group discussions at the end of each day also counts toward this participation grade.

Field Journal (Daily, reflective -- 30 points)

Students will be required to engage in reflective thought over the course of this trip. This process will be documented to capture thoughts or opinions, encourage individual expressions of ideas, and lend authenticity to students' perspectives. We will work as a group to identify the set of key themes that emerge from our experiences each day, and use those themes as prompts (aligned with the learning objective/s and course curriculum) for field journal entries. These

prompts are intended to guide rather than restrict student reflections. The field journal can be given to the instructor in paper form or in digital form within one week of returning to Denver.

Photo/Video Essay (Summation, integrative -- 30 points)

Each student will be required to turn in a photo essay or video essay (or a combination of these) on a thumb drive no later than one week after our return to Denver. The expectation is that during the trip, students will take pictures or videos of what they ‘see’ (observations, experiences and interpretations) and that they will relate these images to their learning. Specifically, each student will select no more than 10 images (or 10 brief video clips) and explain (in words) the significance of these images in the context of the course, asking the question, *what have I learned?* The intent behind this assignment is to validate the notion that different people ‘see’ the world differently – it helps us build a sense of community by appreciating varied viewpoints and honors the role of individual/social identity in learning. Students will be graded based on the completion/non-completion of this assignment. We will share these projects amongst ourselves at a gathering later in the summer.

Grading will be determined as follows:

Participation (including pre-departure and post-trip meetings)	40 points
Field Journal	30 points
Photo/Video Essay	30 points

Total **100 points**

Final grades are typically assigned as follows: 90% and above = A, 80 to 89% = B; 70 to 79% = C, 60 to 69% = D, 59% and below = F. Pluses and minuses are given where warranted (e.g. 87-89% = B+).

Course Schedule

A. Pre-departure meetings (TBD)

B. Travel Itinerary (18 days total)

Date	City /Transportation	Activities/Travel	Meals (incl.)	Hotel
May 15	Depart Denver			
May 16 Tues	Arrive in Shanghai	Arrival at Shanghai Pudong Airport, greeted by local guide and transfer to hotel.		Shanghai Charms
May 17 Wed	Shanghai	The Bund and Pudong, Shanghai Tower deck, subway to Wusong ancient fort.	B.	Shanghai Charms
May 18 Thurs	Shanghai	The Chinese city and yu gardens, Xintiandi, the French Concession, maybe museum?	B.	Shanghai Charms

May 19 Fri	Shanghai To Nanjing by fast train (first class) G20 16:00/17:14	Half-day to explore? Pick-up from hotel lobby and transfer to train station for the train to Nanjing. Upon arrival in Nanjing, greeted by local guide, transfer to hotel and dinner.	B. D.	Nanjing Grand Metro
May 20 Sat	Nanjing	Full day in Nanjing city area with guide and bus. Number 1 bridge, old city walls (museum of the history of the Ming city wall) Nanjing Massacre Memorial Hall.	B.L.D	Nanjing Grand Metro
May 21 Sun	Nanjing To Jiujiang by overnight train (Sleeper, 4 to a cabin) K161 22:15 to 6:06	Full day in Nanjing city area to visit Linggu park and tower in Zhongshan scenic area and walk around central city in Anpin and Qinhuai districts. After dinner, board overnight train to Jiujiang	B.L.D	
May 22 Mon	Jiujiang	Arrive in Jiujiang, greeted by local guide. After breakfast, visit Stone Bell Hill and Poyang lake (take boat out onto Poyang lake) After lunch, check-in to hotel.	B.L.	Jiujiang Tianxiang Shangwu
May 23 Tues	Jiujiang-Lushan by van	After breakfast, visit Academy of White Deer Cave and Haihui Temple, and Poyang lake in Xingzi. After lunch visit Dong Lin Monastery. Then bus to transfer to a public environmental protective vehicle to get onto the mountain. Check-in to hotel and in the evening on our own arrangement.	B.L.	Lushan Cindy
May 24 Wed	Lushan	The village, the main valley, the pine road, and western trails.	B.	Lushan Cindy
May 25 Thurs	Lushan	Five old man peak, botanic gardens, tea farms, Mao's villa.	B.	Lushan Cindy
May 26 Fri	Lushan-Wuhan by train (first class) D3246 12:57/14:55 later train?	AM time to explore. Transfer to the train to Wuhan PM. After arrive in Wuhan, meet local guide, have lunch and transfer to hotel. On our own arrangement in afternoon and evening	B.	Wuhan Xunlimen

May 27 Sat	Wuhan (out of city)	After breakfast, visit local farmer's house and farming district. Have lunch at local farmer's restaurant. After lunch, see more of farming district then transfer back to hotel. On our own arrangement in the evening.	B.L.	Wuhan Xunlimen
May 28 Sun	Wuhan (factory visit)	After breakfast visit factory district (no entry to factory but drive around factory district with guide); also visit urban village? PM: time to explore.		Same hotel
May 29 Mon	Wuhan to Yichang by train (first class) D5912 09:06/11:41	After breakfast, take train to Yichang. Upon arrival in Yichang, visit the Three Gorges Dam.	B.L.D	Yichang Dian Li Hotel
May 30 Tues	Yichang – Zigui -Yichang	After breakfast, transfer to Zigui New town (around 2 hours' riding on the way). Learn about the most update local living situation while call on local resident there. Then tour around the town. Transfer back to Yichang in late afternoon.	B.L.D	Yichang Dian Li Hotel
May 31 Weds	Yichang - Shanghai by train (first class) D3008 06:45/15:00	Transfer to Yichang train station back to Shanghai. Upon arrival in Shanghai, meet and transfer to hotel. Farewell dinner together.	B.	Shanghai Charms
June 1 Thurs	Shanghai - USA	Transfer to Shanghai Pudong Airport for flight back to US Denver	B.	

C. Post-travel meeting and research/capstone presentations (TBD)