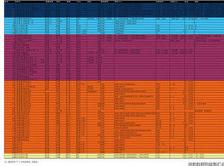
Research on the Manufacturing Art of Bricks

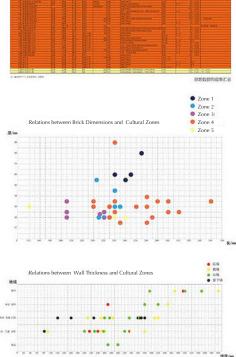


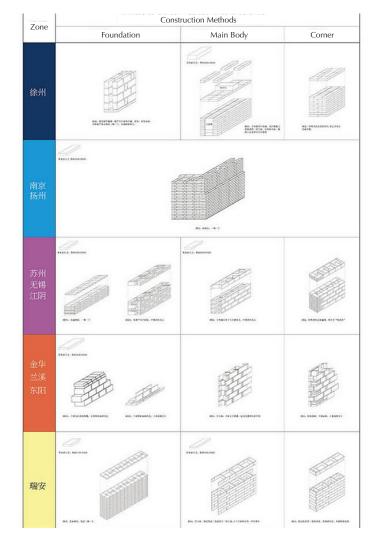


This is part of a research on ancient Chinese building materials, a project carried by National Natural Science Foundation of China. My partner Xingyu Shao and I are responsible for the research on bricks.

Traditional architectural manufacturing art mostly depends on individual makers - craftsmen, thus different districts maintain districtive types in detail carried forward through word-of-mouth communication. Also, natural forces have a lasting impact on buildings enge under different weather conditions. After a layering of the language zone and the climate zone, we divided the target research area into five zones - namely culture zone, in order to do comparative studies on bricks as the key components of traditional masonry.

We further carried a three-month on-site investigation in different culture zones and recorded the findings in formatted axonometric drawings. The dimension of bricks varies in different zones. As the thickness of walls increases from south to north, the method of construction changes accordingly.









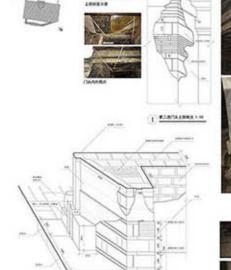
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This is a detailed study on the construction method of a specific area in one of the cultural zone. There are a group of old residential buildings using bricks from nearby brick kilns. The study shows a typical vernacular brick tectonics in a brick producing area.

Spring 2013 @ SEU

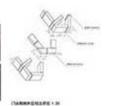
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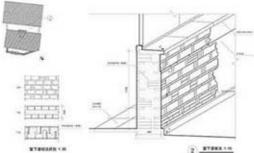




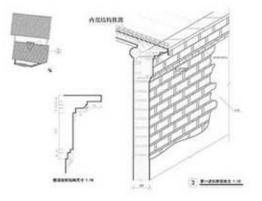
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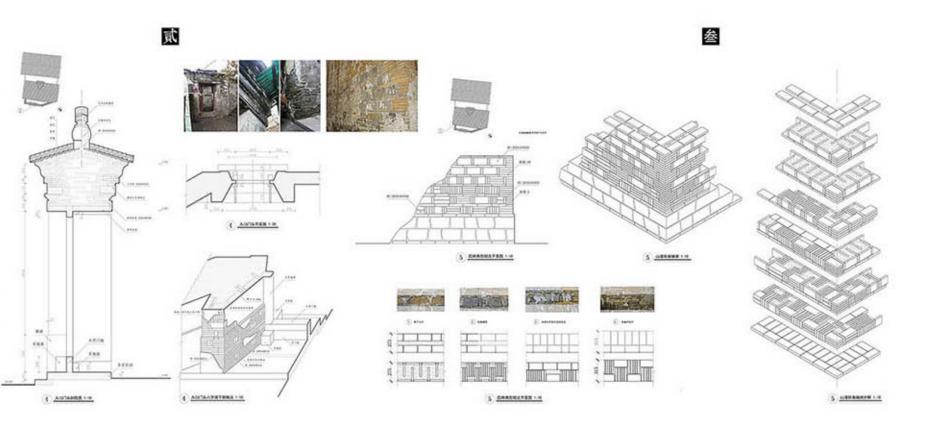


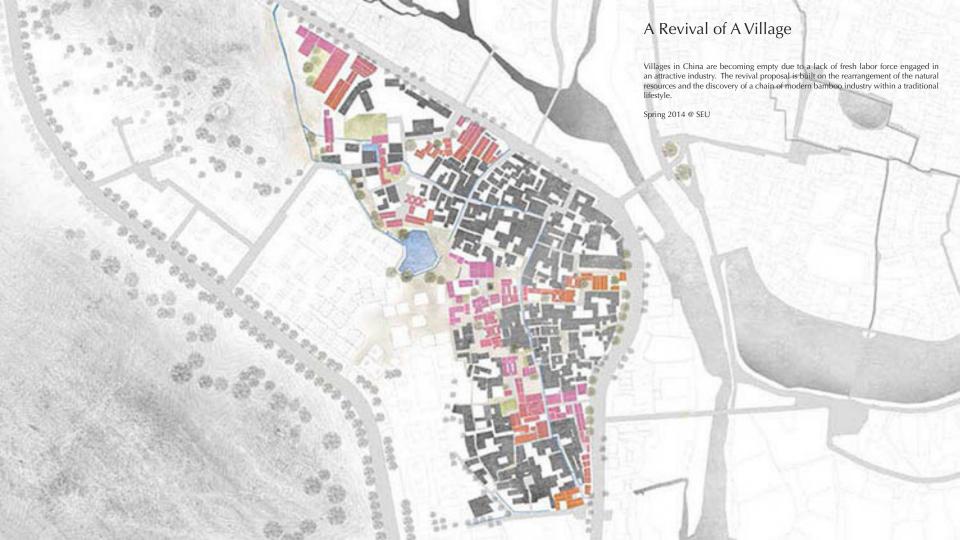


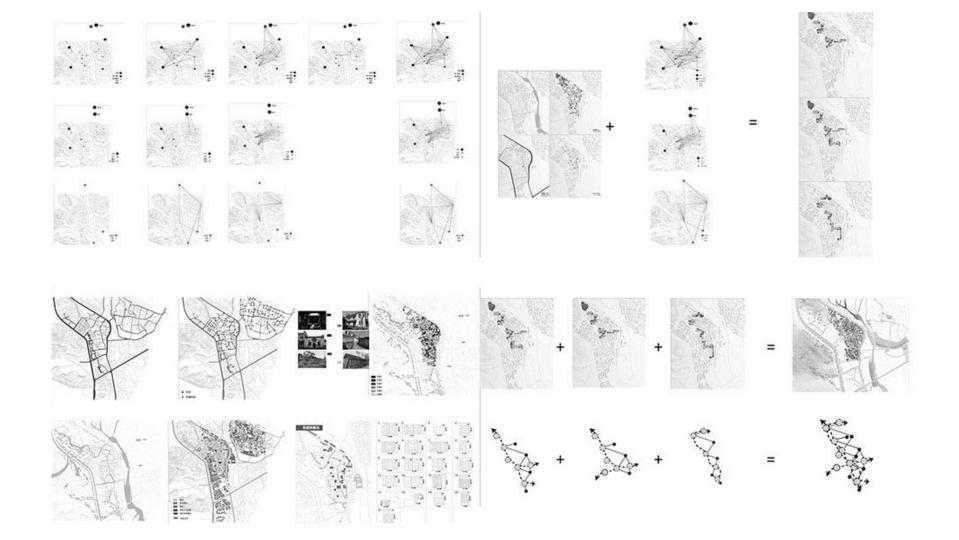






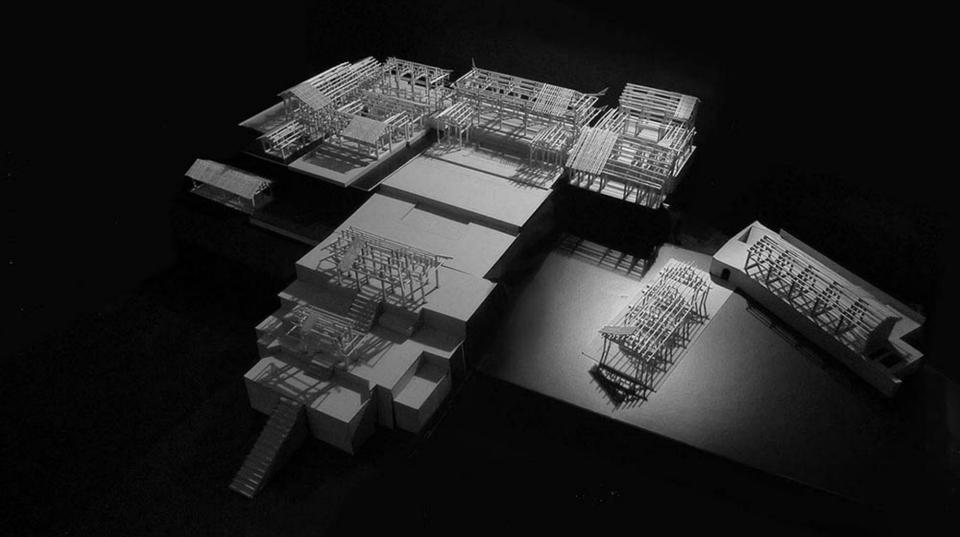










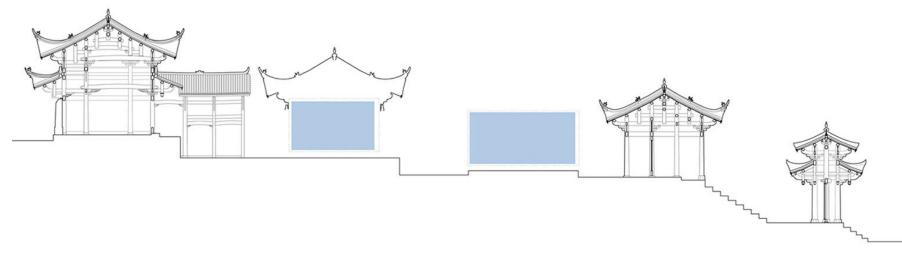


Recovery Program for Hailongtun Relics

Hailongtun is a ruined fortress in Southwest China. It is an example of a well-preserved medieval castle. Six of us made up a surveying team heading to the site. We worked with the local archeologists to make a map of the ruins using 3d laser scanners. We went back to school to further recover the building complex based on the site analysis and archeological study. Partly with the help of the surveying work, Hailongtun becomes a World Heritage Site on July 3, 2015.







In the recovery program, my part is to redesign the axial gateway towards the main palace. The only known part is the foundation. The main body needs to be conceived according to the site conditions and local tectonic records.

Fall 2012 @ SEU

















