Performative Heritage: Creating an Alliance Between Architectural Preservation and Cultural Advancement

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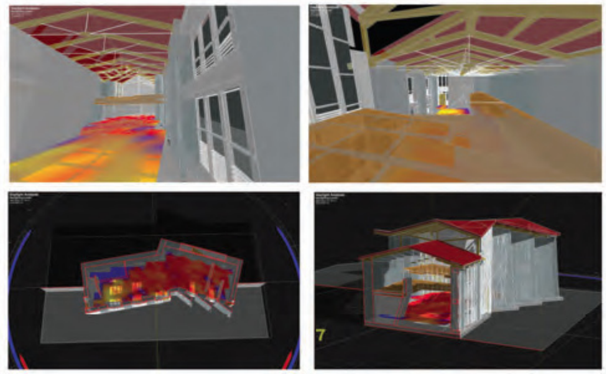
The difference between an official heritage site, and an unofficial, but culturally significant site, is many times mediated by the community's willingness to adopt regulated preservation standards, stipulated maintenance programs and a tourism based use. A tourism foundation can subvert a "living" cultural heritage through its emphasis on a static past and unique identity. An official heritage site has the potential to gradually erode cultural authenticity because of the constant pressure to sustain tourism interest. The other related consequence of preserving heritage for tourist visits is the architectural and structural improvements needed to make the environments safe and comfortable. Many times these improvements compromise the authenticity of the environment by literally propping it up. However, shifting strategies from tourism based heritage to a more dynamic system focused on progressively interpreting tradition, has the capacity to create an alliance between the preservation of a living heritage, appropriate economic benefit and the advancement of architectural design. Performative heritage effectively recontextualizes the forces of the heritage tourist industry into a forward moving environment that builds on, and improves, the quality of social life, the safety and comfort of the built environment, and the significant features of culturally rich architecture.

The Khumbu Climbing Center (KCC) student project in the sacred Khumbu region of Nepal, near Mt. Everest, is an outlier of more typical heritage sites, a valuable indicator and sensitive responder to the principles of performative heritage. It doubles down on preserving architectural history and creating progressively authentic architecture. The project does this through the synthesis of structural, environmental, programmatic, and social systems which enable cultural (heritage) evolution. The project's strategy effectively evolves the current simple, intuitive, but unsafe, unhealthy 500-year-old building practice of dry-stacked stone. The technique and heritage of the existing approach constrains form to a limited height, geometry, aesthetic, and environmental performance. In addition, it compromises, 1) seismic safety - it is on the same fault line that triggered the 2007 Kashmir earthquake, killing 75,000, 2) health - Yak dung is burned with limited venting to retain heat, trapping noxious fumes, and 3) new economies, needed to retain the younger generation. The KCC project addresses these critical issues by shifting the emphasis from duplicating traditional structures to preserving heritage through a performance based approach that reinterprets heritage. The performance of dry-stacked stone is extended by merging cable mesh systems and thermal trombe chases, creating seismic safety and passive heat gain. The performance of the exterior walls is extended with reinforcing holds and air layers, creating climbing surfaces and passive convective heat loops. Also, integrating elders, summiters, bridge builders, and NorthFace material researchers, extends the performance of the traditional design team, galvanizing a more global perspective. These performative strategies are within local aptitudes, heritage appropriate, and offer more freedom in form finding. Performative heritage benefits from participatory design and in doing so, promotes a heritage constituted in the enabling of cultural progression.

Figure 1. The town of Phortse, Nepal, population 360 and elevation 13,500 ft.

Figure 2. Traditional Sherpa architecture in the village of Phortse.

Figure 3. Exterior rendering of Khumbu Climbing Center currently under construction.



4. Light level studies in Ecotect.

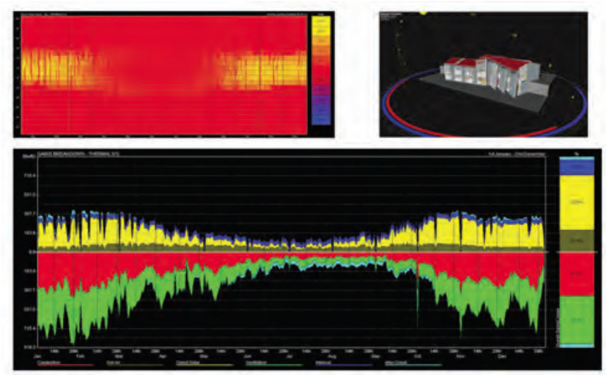


Figure 5. Heat gain and loss analysis in Ecotect.

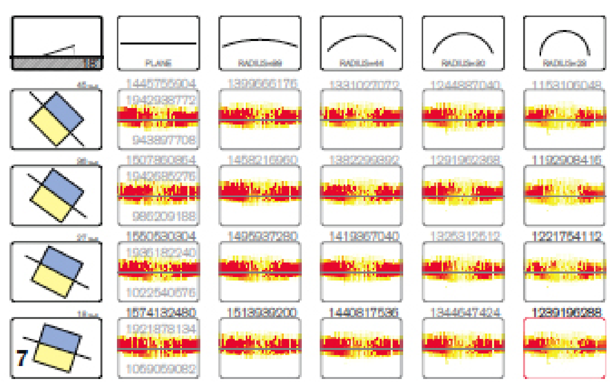


Figure 6. Versioning diagrams of solar gains with incremental positioning of roof angle and wall orientation.

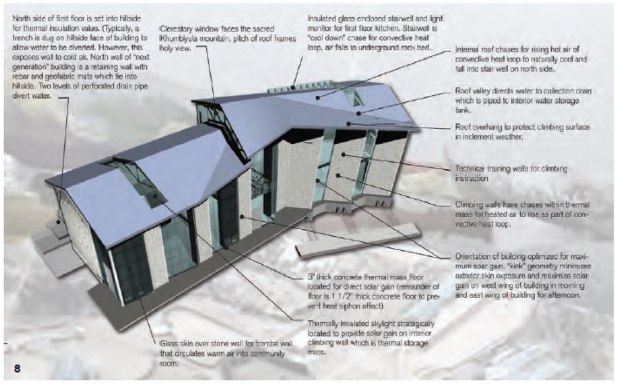


Figure 7. Major components: Trombe wall, thermal gain angles, convective heat loop, seismic braces, technical training walls, and sacred view orientation.

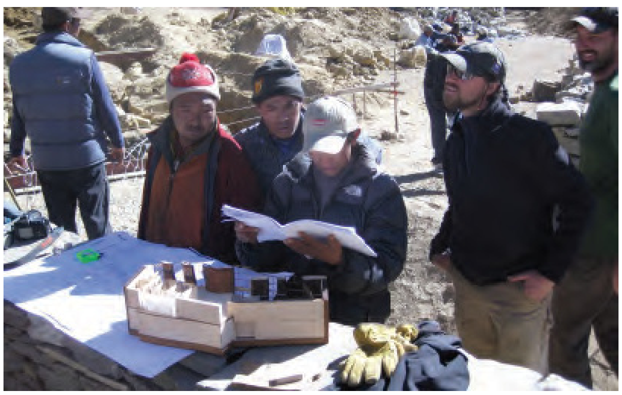


Figure 8. Sherpa villagers and students reviewing drawings and scale model of building on site.

Figure 9. Students, professor and truss fabricators in Kathmandu, Nepal reviewing computer model of truss.

Figure 10. 200 lb seismic brace frame being portered from Lukla to Phortse, Nepal, 2 days per brace frame.

Figure 11. Students and Sherpa working together to excavate for building.

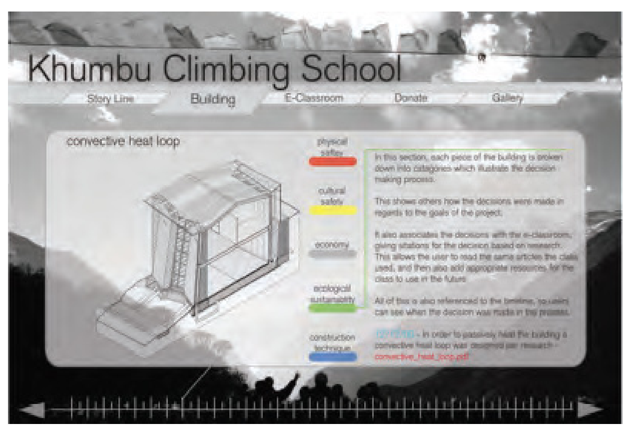


Figure 12. Project website for open-source details, assembly instructions and material sourcing.

Figure 13. Sherpa villagers weaving seismic cable/wire system into stone wall construction

Figure 14, 15: Interior perspective at side entry, looking into two-story gathering area, interior rendering of second floor library.