

***Feng-shui as a Clue:
Identifying the Landform Patterns of Impact Zones from the
2013 Historic Mountain Floods in Boulder and Nearby Areas,
Colorado, USA***

Ping Xu / Professor
Program in Environmental Design
University of Colorado Boulder
Boulder, USA

Abstract—The 2013 historical flood along the Colorado Front Range exposed problems of the existing ways in which the mountain residence has been established. Scientific knowledge is only superficially considered in site planning efforts. Particularly, the mountain floods including debris flows, mudflows, landslides, and post-fire factors, have not been researched sufficiently. Moreover, the increasing population and frequent fires in the mountains have changed the vulnerable system of the mountainous surface and caused debris source and erosion. With recent extreme weather patterns, the hazards in mountain areas appear frequently. Therefore, research on mountain floods is urgent. The 2013 flooding areas demonstrated strong evidence of high impact zones, which are the basis of this research. Feng-shui, Chinese geomancy, particularly the form school, provides landform criteria of the good luck sites and the risky areas. Using feng-shui as a clue, this research identifies 1) landforms providing abundant debris source, 2) landforms generating the speed and power of the debris flow proceeding downstream; and 3) landforms of the receiving areas of the debris flow; and also, using the geomorphic concepts, examines feng-shui criteria, in order to establish guidelines, which would benefit site selection processes and evacuation planning efforts during similar natural hazards.

Keywords—feng-shui; impact zones; mountain flood; debris/mudflow; landform patterns