

BOX 4.2 PRESERVING THE ARCHAEOLOGICAL RECORD: TAPHONOMY AFTER HURRICANE KATRINA

Archaeologists use the term **taphonomy** to describe how both natural and cultural forces shape the creation of the archaeological record. Natural processes include floods, earthquakes, volcanic eruptions, fires, **bioturbation**, weathering, erosion, tsunamis, hurricanes, and tornadoes. Floods, for instance, can move and displace artifacts from where they were originally deposited by people in the past, meaning that these artifacts are no longer in situ, or in their original location of deposition. Entire buildings and houses can be leveled in a few seconds due to an earthquake. Some cultural processes that can disturb or alter the archaeological record include construction, plowing and tilling fields, leveling houses after natural disasters, and looting archaeological sites. Archaeologists are responsible for reconstructing the many taphonomic events that have disrupted or altered the archaeological sites they excavate.

Archaeologists not only play detective when trying to decipher taphonomic processes in the past; they are also involved in making important decisions about how to preserve and maintain the archaeological record of the present and more recent past when disasters occur. This was the case for Dr. Shannon Dawdy, a professor of anthropology at the University of Chicago and winner of the 2010 MacArthur Genius Award. Dawdy was asked to help formulate a plan for buildings and households destroyed by Hurricane Katrina in New Orleans, Louisiana. These structures were flooded when walls and levees that were supposed to protect the city from torrential hurricanes and flooding collapsed in 2005.

Originally, it was proposed that the buildings affected by the flood “waste in place.” This would mean that the city and its residents would rebuild on top of the rubble of former schools, buildings, and homes. This approach would also leave buildings and the