WEEP (Waterton Environmental Education Pavilion)

Rick Sommerfeld
University of Colorado, Denver

The pavilion, located in Waterton Canyon, serves as an outdoor classroom for environmental groups involved in Bird Banding, Pond Ecology and Wildlife Habitat. It is located on a brownfield site in the middle of a nature preserve. The site once housed a five-sided well but had long been abandoned. The local Audubon society had been using the area to educated grade school children about bird banding but lacked a permanent structure.

After experiencing the process of bird banding first hand the students expanded the brief to include four main spaces. An open-air center for learning, a waiting area to contemplate, a gathering area to collect data and a cantilevered deck to release the captured birds back to nature. Each space takes advantage of the immediate context to heighten the experience in each “room”.

The “learning space” was built entirely of material castoffs. Extra concrete from each of the four pours was used for the board-formed waiting bench and concrete pavers. Each paver has an animal print cast into it to teach the grade schoolers about the local fauna. Excess steel angle and welded wire fabric form an education wall to teach students about the local ecology and bird banding net locations. Recycled steel edging and crusher fines help further define the room.

The “contemplation space” allow students an area to wait and store their backpacks. It is located directly next to the “gathering space” where students collect data on each bird that has been captured. The canopy structure over these two spaces is a pragmatic response to the various constraints of the local building codes. Because of the remote location the choice of steel became a fire department requirement. The tilted columns were conceived to triangulate the lateral loads associated with a structure that, by floodplain regulations, were not allowed to have walls. Collaborating with a local structural engineering firm the students were able to minimize the diameter and number of columns through finite point analysis software. The placement of each column was further refined by analyzing the flow of groups through the structure in response to the program.

Finally the students determined that the roof should drain to a central skylight (fondly referred to as the squoculus) to capture rainwater and filter it through vegetation, soil, and rock before returning it to the floodplain. This squoculus is the main “window” for the contemplation space.

The final “release space” celebrates the bird’s return to nature. The small cantilevered deck spans from the remediated brownfield site into the nature preserve. This is the one moment that students are allowed to touch the bird as they lay their hands open for the bird to touch down on before it flies away.