Harrison Weiss

Professor Church

GIS

09.27.2018

McHarg and the Jersey Shore

Starting from the beginning of McHarg's book, *Design with Nature*, it becomes apparent that his childhood experiences shape the way he would view nature and the role man would play in it. This is especially apparent on page two when he begins to speak about the two paths leading from his home: one, further into the city, and the other into the wilderness. He speaks of the path to the wilderness as a kind of adventure, filled with many different and vibrant ecosystems. From these early passages, it becomes apparent that McHarg cares deeply for the environment and wants mankind to *responsibly* reap the bounties of nature.

Hurricane Sandy devastated the New Jersey Shoreline in 2012: without the proper ecological systems in place to absorb much of the storm’s strength, Sandy was able to ravage the coast freely. Starting on page fifty-eight, McHarg outlines the different features around Philadelphia: surface water, marshes, floodplains, et cetera. He then explains what these resources can be used for in, what we now call, sustainable ways. His advice on surface water for example, “In principle, only land uses that are inseparable from waterfront locations should occupy them; and even these should be limited to those which do not diminish the present or prospective value of surface water supply…” (McHarg, 58).

The Pre-Hurricane Sandy philosophy of shore development was simple: build big and often. Dunes were removed to make way for structures, buildings were placed as close to the beachfront as possible, water retention basins were paved over. A culmination of poor planning and climate change meant that Hurricane Sandy made landfall and was met with no natural resistances, leading to the massive flooding and destruction that followed. So, if we look to the design philosophies of McHarg, we can see that this was an avoidable event. Had the shore been built with an ecological-resource-first perspective, damage from Hurricane Sandy would have been greatly lessened.

On page sixty-two, McHarg uses his proto-GIS mapping to clearly illustrate the water and land features of the Philadelphia metropolitan area. Here, he combines his design philosophies and GIS to powerfully demonstrate that proper planning can be easy when combined with the right tools. The same could be done for the Jersey Shore. With the proper research and mapping, the Jersey Shore could be outlined in a similar way to McHarg’s values. With theses design philosophies, the shore would be much more biodiverse and resilient to the next major storm. Additionally, because McHarg’s philosophies call for restraint in building density, there would be less vulnerable structures in the next storm.

McHarg, while wanting preserve and bolster nature, also realized the inevitability of mankind’s expansion. He knew that nature, while ethereal and necessary for life, was also a resource that could be exploited for profit. On page eighty-six, he demonstrates that he was a forward thinker. His “Physiographic principles for conservation and development” are a guideline for the sustainable perspective on urban development. Development will occur, but these guidelines hoped to reel in the tendency of development to take everything from the land and give nothing back. For example, McHarg on “VALLEY WALLS WITHOUT COVER: Such lands should be prohibited to development and should be planted to forest cover…” (McHarg 86). He is arguing that before development begin, we should enrich the land so that when we do expand, the land is not fragile.

Overall, in *Design with Nature*, McHarg is a sustainable urban planner using his proto-GIS tools to advocate for smarter design. Undoubtedly, another storm of equal strength or greater will come to the Jersey Shore. With McHarg’s advice, we could greatly reduce the damage done to our built environment and the damage we do to the natural resources of the shore.