

# **Process, Problem Solving and Perseverance: direct connections between GIS & urban studies**

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Incorporating geographic information systems (GIS) in urban studies research by students and advanced scholars just makes sense. The flexibility, robustness, and applicability of GIS to all of the Grand Challenges presented in the Senior Sequence course makes it an ideal research method and allows students the opportunity to begin to develop GIS proficiency. Such proficiency goes further than a distinguishing point in a resume; it is now listed by the American Planning Association as a skill a successful planner must possess. Perhaps more importantly, GIS requires its users to focus on three fundamental components of urban studies: process, problem solving and perseverance.

*"It is good to have an end to journey towards; but it is the journey that matters in the end."*

*Ursula K. LeGuin*

All those involved in planning recognize the importance and impact of process. For the developer, process may bring to mind money; for the community member, process may mean the opportunity to contribute their thoughts, concerns or ideas. Regardless of what it brings to mind, there is no denying the fact that it is through detailed processes that problems are identified and articulated, solutions are crafted, and hopefully an end goal is achieved which is beneficial to the community at large.

GIS is a highly process oriented tool and can assist the urban studies researcher in a variety of ways at multiple points in the process. One example might be a proposal for a zoning amendment for affordable housing; a researcher could use GIS at the beginning of the process and have to start to think about not only land values, but about the relationship of the housing location to transportation routes, location of major employers, retail centers and/or child care centers. Another example might be at the later end of a process with a GIS map illustrating the impact of a new roadway or bicycle route to the public. These are only two examples out of many where it is clear that utilizing GIS at key points in the process can have significant benefits in terms of organization, management, analysis and visualization of information.

“Computers can figure out all kinds of problems, except the things in the world that just don’t add up.”

*James Magary*

Problem solving pervades our day to day lives. GIS highlights spatial thinking and spatial problem solving and in doing so, trains the urban studies scholar how to better assess problems that exist in the built environment. We all think spatially in our day to day lives even if we don’t realize it. Take your day today – you probably planned a route to work or school by envisioning the fastest route, or the route that provides you an efficient way to complete your errands. That’s spatial thinking! While this example is a simplification, spatial thinking inherently entails imagination and visualization of concepts. As the problems and pressures facing those in the urban studies profession increase in volume and complexity, new techniques to address those problems become increasingly important. A spatial approach recognizes the interdependent relationship between the natural environment, the built environment, and actual people – it is the recognition of this interdependency that leads to innovative solutions.

“By perseverance the snail reached the ark.”

*Charles Haddon Spurgeon*

Working in the urban studies profession requires commitment, conscience, creativity and potentially the ability to hammer on an issue for years before it is resolved. This type of perseverance and tenacity is often a result of personality, but can also be developed through experience. GIS is a marvelous training ground for learning perseverance - anyone who uses GIS will attest that no matter how long you use GIS or how much you know about it, GIS just plain requires perseverance. The good part about it is that if you do keep at a GIS problem, the feeling of success is tremendous and makes it all worthwhile.



Notes: All quotes accessed in March 2008 from <http://www.quotationspage.com/>.