

3. A high-level person within an organization asks me to review maps created by a person who is not a geographer or a cartographer. To the mapmaker, the goal, too often, is to produce a “map-like object: when a real story-telling map has been called for. (It’s never quite that simple, but that is the average of these situations.) These are the most frustrating situations—nobody should ever find themselves in this position, as these map reviews represent organizational failure at “many” to “all” levels.
4. Another cartographer asks me to review a map. This is usually rewarding and therefore won’t be discussed any further.

The common threads in the first three situations are: it’s already too late and there was no geographer involved. Organizations that do not recognize the need for cartographic design; that cartographic design is a skill (at the very least); and that some other kind of geospatial expertise cannot be substituted for cartographic design will, to some degree, fail in their mapmaking endeavors. The main reason for this failure is that cartographic design enforces the premise of a map, which is a product, with a purpose, for a defined audience. Without that premise, organizational support for cartography is under-represented.

A second failure is that somewhere the decision to use a map loses focus, and the purpose the map is to serve, is lost. For example, I hear, ‘we need a map; something pretty to get the people’s attention,’ or ‘a picture is worth a thousand words, and a map will be even better; so add a map.’ When a map’s role is objectified and equated to bait, the likelihood of a good, useful, map resulting is not high, and that is probably because given such a diminished role, the need for cartographic design is immediately seen as overkill.

THE NATURE OF ORGANIZATIONS UNDERESTIMATING WHAT IT TAKES TO CREATE A GOOD MAP

Too often, the first two situations described above have the same premise as the third: no cartographer or even geographer is involved, but some kind of geospatial domain expertise and a good attitude are present, which organizations reward. Although, logically expertise from another domain cannot be substituted for cartographic expertise, organizations don’t think that way; frequently, to an organization any expertise is better than no expertise. In fact, many organizations are happy to fail forward, so to speak, meaning that if they penetrate the market soon enough, even a failure can be profitable. If that substituted expertise comes in a cheerful, ready to work form, then the map is likely to never fully reflect the capabilities or intentions of the organization.

To add complexity to this issue, not all cartographers are design cartographers. There are production cartographers, statistical cartographers, analytical cartographers, self-taught intuitive cartographers, academic cartographers, and the list goes on. Graphic artists with no geographic

education are not design cartographers; many would say not cartographers at all. My point isn't to define what a cartographer is, but simply that many cartographers are not design cartographers, and organizations that regularly create maps need a design cartographer. My contention is that in too many organizations this role of a design cartographer is needed but not filled, or sometimes filled based on mistaken identity.

REVIEWING AN UNDER-DESIGNED MAP IS NO SUBSTITUTE FOR CARTOGRAPHIC DESIGN

Illegible, unfocused, faulty maps and map-like objects made by mapmakers who don't know what they don't know pervade too many geospatial organizations. How did anyone get the idea that having data and a GIS would equate to easy mapmaking? That is, of course, rhetorical; mapping software and GIS software companies have for decades marketed the drawing of geospatial data as being equivalent to a map. The idea that mapmakers must have cartographic expertise and that mapping software will not make cartographic decisions for the person at the computer isn't even in the proverbial fine print.

Less than optimal software defaults for map symbols and missing cartographic functionality are not to blame—that is to say, poorly trained or unsuspecting mapmakers will blame anyone but themselves. I agree with them: they were set up for failure. The more important question is: How does the professional cartographic community help organizations understand when cartographic design is necessary? Further, how can that assistance be tailored to help these organizations establish not just recognition, but implement business processes that ensure mapping is done right or identify the risks of not leveraging all the necessary cartographic expertise?

How does the professional cartographic community help organizations understand when cartographic design is necessary?

That gets back to how I introduced this piece: my being asked to review maps. When a mapmaker of insufficient ability has already been assigned to make the map it is usually too late to save the map with a well-intended review. Organizations move forward—with the assigned cartographer, the implication is that the planning phase for the project is complete, and the risk assessment failed to include the prospect of the map not working well due to a lack of cartographic design.

The idea of reviewing a map is easy; I who occasionally teach cartography in workshops and others who teach in classroom settings certainly emphasize the map review as an essential part of the map making process. In hindsight, perhaps we have overemphasized the review and under-stressed the importance of cartographic design. One theory as to why, is that reviewing is relatively easy, and often does not require an extensive investment in time. Cartographic design is a less widely understood role that is difficult for the cartographically uninformed project managers to put on a schedule, so it is much less likely to be accounted for in the typical organization's business processes.

EXPECTATIONS NEED TO BE RAISED

How is it that so many people doing geospatial work know so little about communication methods for their industry's knowledge? Since the ability to recognize a good map from a bad map is a trainable skill, why haven't more people learned it? Maybe it has something to do with the possibility that people put on airs that they understand what they're looking at when it comes to a map, that simple and ubiquitous communication device. Perhaps it is just being helplessly drawn to the pretty colors and haloed text with transparency? Describing a cultural deficiency is one thing, determining what is to be done about it is of far more importance.

Cartographers and geographers design maps to tell stories. In terms of storytelling, drawing GIS data on the screen and optionally printing is too often dangerously close to silence. Too many people, making the maps I review, think mapmaking is a chore. "Draw the data, pick some colors, turn on labels... is it over yet? Why are there so many options... why is this so complex?" With such thoughts in the foreground of map makers' minds, is it any wonder that so many map-like objects get produced? To think I implied earlier that cheerful mapmakers with good attitudes could be a problem; the point is that organizations, in order to successfully produce maps must have people with map making expertise assigned to the task of designing and making maps.

Every organization that produces maps needs a cartographic champion. That person ensures that purpose, audience, design, and review are part of the organizational practices for map creation. That person has authority from the organization to take the necessary actions to ensure their organization's maps meet the organization's requirements by setting standards for map content and quality. Further, that person keeps a little cartographic knowledge from becoming a dangerous thing, by ensuring that map reviews are most typically like the fourth situation I enumerated at the outset, and energizes the map makers to achieve the organizations mapping standards.

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CONCLUSIONS

To answer the title question, it's after the first irrevocable step has been taken without a cartographer or geographer. Too often a de-facto irrevocable first step is not having a codified process for designing and producing maps. I think this often stems from the thought-leadership of organizations not realizing that maps are products, and those products represent the organization. Organizational attitudes that instead look at maps as bait, decorations, or that including maps of any sort to enhance their perceived credibility are unnecessarily risking their mission or goals.