

# THE SCULPTED CITY

In praise of the dimensional map

By Tim McNeil

“A map does not just chart, it unlocks and formulates meaning; it forms bridges between here and there, between disparate ideas that we did not know were previously connected.”

—Reif Larsen, *The Collected Works of T.S. Spivet*

1 The City of Glasgow has many dimensional maps. This one details the area surrounding the cathedral. Combined with the bronze patina, it is beautifully expressive and sculptural.



Like many of you, I love maps. They embody everything dear to the environmental graphic designer: symbolic graphic representation, information hierarchy and organization, the basics of orientation and navigation. Maps have been produced and consulted for thousands of years but only within the past 20 years have they transitioned to a new medium—one that is dynamic rather than static. But advances in digital hand-held devices and GPS navigation

systems have not dented our basic need for dependable and accurate illustrated maps. Case in point: the recent controversy over Apple versus Google maps—inaccuracies in map content meant that towns were misplaced and information was missing on Apple's first version.

All over the world we are reliant on maps—both analog and digital—as an integral component of the wayfinding toolkit. The scope of mapping has advanced exponentially and found new uses as we visualize data, create mind maps, and navigate through computer games.

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The anticipated ramping up of augmented reality powered by personal wrist-worn computers that interface with your contact lenses, glasses, or “goggles” will usher in a new era of mapping in which, rather than the user following a printed or screen-based map, virtual cues superimposed in the environment will guide the user.

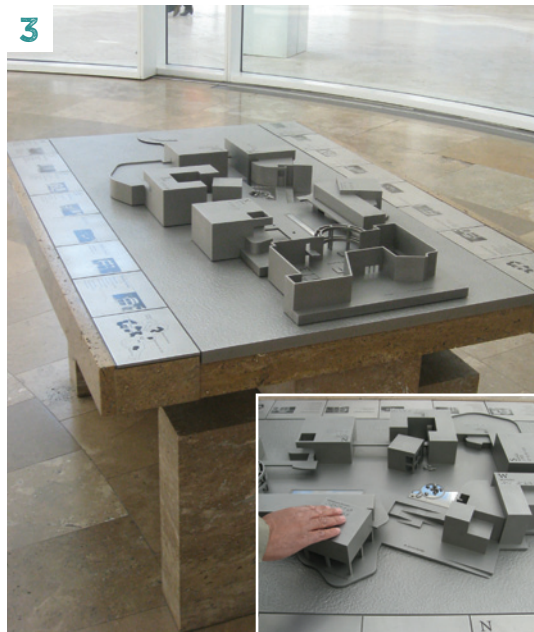
Despite my anticipation and glee at what technology will allow us to do in the future, I want to sing the praises of what could be considered a rather antiquated wayfinding form: the tactile or dimensional tabletop-style map. I’m concerned about the loss of an appreciation for our physical environment and for tangible things that you can touch, smell, and even lick! That’s why I gravitate to dimensional maps—not only are they objects of beauty, but they work!

### Part sculpture, part wayfinding tool

Now, besides my obsession with maps, I’m also gaga for outdoor sculpture. I’m drawn to the responsiveness of materials in the landscape, the way sculpture can alter the perception of an environment and at the same time be altered by that environment. This must resonate with many environmental graphic designers—since outdoor sculpture is the ultimate expression of an artistic form intervening as a marker in the landscape.

I consider myself a sculptor of information, striving for effective methods to communicate objects, stories, and messages in the dimensional realm. What I find so compelling about dimensional maps is that they strike a balance between beauty, form, and function, as they are part sculpture and part orientation tool. The dimensional map is informational and inherently sculptural. What’s wonderful about these maps is they become polished and tarnished where people have been touching and caressing their forms the most—creating a legacy of the most popular landmarks and buildings—the equivalent of webpage hits, or Facebook likes.

I’m on a quest to document dimensional maps on my travels, noting their differences and wayfinding failures and successes. The majority of examples are found in Europe, where pedestrian-oriented environments are the norm. Similar to the statues of dignitaries posed on pedestals, placing the map in the town center fosters a sense of civic pride and highlights the city’s main attractions. These maps range in materials from anodized aluminum, Corten steel, stainless steel, and cast bronze (often with a beautiful patina) to cast concrete, carved



**2** Elevated on a platform 18 inches from the ground, this map of Edinburgh serves as a congregation point for visitors to the city.

**3** Tabletop maps at the Getty Museum provide the opportunity to actively engage visitors in the wayfinding experience. They were fabricated by Carlson Arts LLC of stainless steel pieces, milled and joined like a jigsaw puzzle.

**4** Dimensional maps of Milan, Italy, are polished where people have touched them the most, creating a visual legacy of the most popular landmarks and buildings—the tactile equivalent of Facebook likes.

**5** Vacuum-formed topographical maps like this one at the Capitol Reef National Park (Utah) visitor center are common in U.S. national parks.

**6** The dominant Minster in the City of York in England is the key landmark on this map. The polished (non-patina) parts of the building signify how visitors have used the map for orientation.

**7** Combining Braille and interpretive information, this map of Helmsley Castle in England is modeled in exquisite detail.



wood, translucent acrylic, and molded plastic. Some, like rolling maps, purposefully seek to capture neighborhoods, while others tackle larger areas or entire downtown districts and changes in topography.

Dimensional maps accurately model a city through a tactile representation of its thoroughfares, waterways, buildings, landmarks, and other defining characteristics. There’s something about the tactility, the sense of place, and ease of use that even those of us stymied by two-dimensional maps can understand. Aligned geographically with their environment, they represent an incredibly intuitive and user-friendly orientation tool, perhaps the oldest and the most quintessential of wayfinding devices.

### Playing dollhouse

My personal journey into this dimensional mapping obsession has three inspirational paths. As a child I would assist my architect father with balsa wood scale models of the housing developments he worked on. Throughout my travels, the vacuum-formed topographic maps found in national and state park visitor centers mesmerized me. And finally, while working at the Getty Museum, I was part of the team that designed a system of dimensional tabletop maps to augment the signage and wayfinding system there.

The Getty table maps are highly successful, allowing people to interact around them. Docents use them to actively engage first-time visitors and invite them to participate in the wayfinding experience. And several other factors make these and other dimensional map experiences particularly user-centric:

- **Meet me at the map** As a natural gathering spot, these maps create an orientation landmark, a focal point for people to gather and collaboratively seek assistance in navigation.
- **3D is just better** Just as we may illustrate buildings or landmarks on a 2D map in perspective or provide an axonometric view for ease of recognition, a dimensional map does that in reality and conveys information quickly and easily, especially for those not as visually literate.
- **Materials matter** Changes in material, texture, and finish can help tell the story. Bronze will patina, blending into and becoming evocative of its landscape. Milled stainless steel is more exacting and clean, representing a crisp delineation of its environment.

“These miniaturized urban landscapes convey a sense of permanence and longevity, like a city captured in time.”

- **Power of touch** Never underestimate the power of tactility, an inherently human disposition and a sense we rarely get to use to feel our way through our surroundings. Dimensional maps also lend themselves to the inclusion of Braille and raised information, and epitomize universal design.
- **Heads-up orientation** Oriented to mirror their surroundings and in the same horizontal plane of sight, dimensional maps are intuitively reflective of what’s around you.
- **Distortion of scale** As with other mapping media, the ability to artificially reduce or exaggerate features can emphasize or downplay different aspects of the environment.
- **Sculptural communication** There is a graphic purity to the seamless integration of physical representational form, with descriptive names and information in one complete unit.
- **Dollhouse effect** Dimensional maps reduce all of us to playing dollhouse with our immediate surroundings. What could be more fun?

**Heirloom maps**

These miniaturized urban landscapes convey a sense of permanence and longevity, like a city captured in time. And dimensional maps are extremely durable and somewhat vandal resistant.

So what’s the future of this art form? Is the cost associated with fabricating a dimensional map worth it? Is the inability to change information just too arcane? Will the current epidemic of public metal sculpture theft mean cast bronze maps are targets for the smelter?

Likely, we will continue to witness a technology blend wherein physical and virtual mapping are seamlessly integrated. If the predictions are correct, the 3D printing revolution is set to switch product development away from cookie-cutter mass production, returning us to a form of cottage industry. 3D printers will soon be common in the average home, allowing us to create anything from a missing shirt button to dimensional street numbers for our house to, well, dare I say it, a dimensional wayfinding map for our neighborhood. I see a bright future for 3D maps. ■

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8 Evocative of the Tower of Babel, this map of the center of Newcastle, England, uses a three-tiered structure to imply the steep topography of the city. Note the columns that don’t exist in reality, but are probably there to reduce the material weight and quantity.



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9 Following a rain shower, the deliberate absence of weep holes adds to the drama of the River Thames on this map of London.



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10 Cast in sections of concrete that seem to hover over the pavement, this dimensional map depicts Medieval London and serves as an historical counterpoint to the urban renewal in the Liverpool Street district.

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