Tying Things Together: Paths & Nodes

A path is created in a floor when an independent pattern emerges as a figure against the background of the rest of the floor.

— Thomas Thiis-Evensen

At this point, we’ve seen paths deployed in numerous ways as armatures for the designed experience (Chapter 3). Paths structure experience and they help us see experience as a story that unfolds (Tool #6 and Chapter 5). We can think of paths as narrative arcs (Chapter 5). We can think of paths as tools for controlling viewpoint (Tool #3). And we can think of paths as primary places for content with pauses for reflection at the nodes along the path, or just the opposite, where paths connect nodes of content, leaving the moment of reflection to occur during the time spent along the path itself (Chapter 3).

Paths connect elements of the design space and it is therefore worth giving a little more attention to how paths can be designed with intentionality in your installation.

Use a path to lead up to the point of intervention and to lead away from the intervention. In the BIG MAZE project (Image 5), visitors spend a long time walking in the maze before they come to the center of the maze. All of the time they spend walking and feeling lost establishes a sense of disorientation, possible confusion, and reinforces the feeling of being lost. This sets visitors up to be surprised by the moment they reach the center of the maze where the path they have walked becomes visible to them from a spectator perspective. Think of this experience as disorientation culminating in clarity. If we think about the maze as a narrative, the rising action is the first portion of walking in the maze and feeling lost, the climax is the moment when everything becomes clear, and the walk out of the maze is kind of like the denouement of the story.

The path designs for remoteness (Figures 10 & 11) have a similar effect. The path leads the walker through the woods, purposefully disorienting the visitor until the confusion of the path opens into a space that serves as a zone of refuge. The visitor can choose to spend as much time in this refuge zone as they want to, and then as they begin to follow the path away from the refuge zone as they walk out of the forest, the landscape opens up to them and they can see the path ahead, bringing orientation back to the person walking on the path.

In IKEA (Chapter 5), the path through the store told a story that could be customized based on customer desires as they wandered through the layout of a multi-roomed home. The views into adjacent rooms and the transitions between rooms, bait the customer to walk into the next room, creating an ad hoc chain of the experience of walking through a home that doesn’t really exist, but which could be yours for a certain price.

In the Mount St. Helens photography installation (Chapter 5), the path moved gallery visitors back and forth between participant viewpoint and spectator viewpoint. Over the course of the experience of the exhibit, this oscillation of viewpoint told a story of orientation and disorientation that gave the viewer a sense of the sustained chaos of the scenes conveyed in the framed photographs.

Sensory art that focuses on a particular sensory channel (such as smell, or sound) is often presented as a singular installation focused on the sensory channel under investigation. It is not usually path based. Maki Ueda’s Olfactory Labyrinth (in Tool #6), on the other hand, turned the installation into a space for inquiry by letting
users define the path that they took. It was different than many sensory installations which usually present the intervention at stationary nodes; the very structure of *Olfactory Labyrinth* was path-driven.

**Distributing Information across Path Segments and Nodes**

You can design paths with nodes that serve as spectator zones and segments that serve as participant zones. You can also design a path where things are reversed—where nodes are moments of deep immersion in some sensory environment, and path segments are moments of clear spectatorship onto the path ahead and, eventually, onto views upon the upcoming immersive node.

A path might connect multiple interventions like beads on a string (as in the IKEA example), or the path might lead to a single intervention (as in *BIG MAZE*), and the path might even be the intervention (as in the *Olfactory Labyrinth*). Looking back to Lynch’s primitives of the city (Tool #1), we can break the end-to-end path up into the nodes and segments, and both of these elements can be the places that we insert the intervention of some sensory information or art experience. Sometimes we put interventions at nodes (this works great for spectator viewpoint because nodes often afford views onto something), and sometimes we put interventions in the segments (this works great for participant viewpoint because segments often afford immersion).

Think about the differences between a sight-seeing tour of Paris and a trip to a haunted house. In Paris, you’ll bounce around from point to point, and each of the points is an activity node in your experience. In the haunted house, you’ll walk through corridors and become frightened along the way, and these corridors are like path segments where the activity is taking place. The Paris trip is node-to-node and the haunted house is segment-to-segment. Note that you can have a segment-to-segment experience of Paris, but often people retell the “highlights” of a trip by describing the activities they did on the trip rather than the movement between activities. A trip through a haunted house has nodes, but those nodes are not nearly as terrifying as the anxiety of not knowing what is coming next as you walk down the hallway toward the next node.

Sometimes you can design a path that makes equal use of the nodes and the segments for different types of interventions. This makes oscillating between participant and spectator easier because you can separate out the segments from the nodes and present one viewpoint in the nodes and the other viewpoint in the connecting segments, such as:

- participant information in the segments, spectator information at the nodes, and
- spectator information in the segments, participant information at the nodes.

You can also combine viewpoints and present them together in blended viewpoints in either the path segments or the nodes in order to focus on some blended content, such as:

- both participant and spectator information in the segments, minimal information in the nodes
- minimal information in the segments, both participant and spectator information at the nodes

**Segments can be Participant-Oriented, Spectator-Oriented, or Both**

Think about traveling from the country into the city. As you drive along the segment of path toward the city, eventually you start to see the city on the horizon. This is an example of how a path segment can provide spectator viewpoint.

Think about walking through the woods. As you walk along a path segment that is under the cover of the tree canopy, your view is contained in a sort of conduit and the feeling is immersive because it only provides a participant viewpoint. And if the trail bends up ahead, you are unable to take a spectator view of what lies ahead of you.

Sometimes you will follow a path segment and be able to see what is up ahead of you as a spectator while feeling fully immersed as a participant. Think about driving through a tunnel, you experi-
ence the tunnel all around you but you can also see the light at the end of the tunnel. You feel immersed but you remain oriented.

**Case Study: Layering Viewpoint Information Along Paths and at Nodes**

In 2016, I designed and installed a site-specific project for the Geologic Cognition Society with architect Dru McKeown and sound designer John Daniel, called *UNDERNEATH IS BEFORE*, in Cleveland Ohio at SPACES, a gallery located just up the hill from the entrance to an active salt mine that is almost 2,000 feet under Lake Erie. The installation successfully replicated the feeling of being in the salt mine (a tour of salt mine workers confirmed that they felt like they were inside the mine), but the installation was also focused on attempting to represent the sensory conditions of the moment in geologic deep time when the salt deposit was forming. The installation was immersive and it combined sensory layers to tell a story about the accumulation of salt as the ancient Silurian seas slowly evaporated 300 million years ago. The experience was strongly path-structured (Figure 15), building up layer by layer through a combination of path segments and nodes which used combinations of sensory viewpoints to bring the visitors to the climax of the experience in the quieting hollows of a salt chamber that was reconstructed from salt mined for the installation. The point of salience was on the salt chamber, located three-quarters of the way along the path through the installation.

Figure 15. Floor plan design graphic of path and nodes in installation, *UNDERNEATH IS BEFORE*, by Geologic Cognition Society at SPACES Gallery (2016). Figure by Dru McKeown. Used with permission.
As the visitors moved along the path toward the salt chamber, layers and sequences of information combined sensory viewpoints to accumulate (much like evaporating salt in the ancient sea combined in sedimentary layers), and the path helped build up the experience toward the story climax in the chamber.

The installation itself was structured by a source-path-goal schema which followed a narrative arc, placing the moment of climax at nearly three quarters of the way along that path inside the salt chamber (Figure 15, see Diamond 8). Each individual layer in this installation also had its own internal structure of the source-path-goal image schema, where the visitor started at one node (source), saw or otherwise sensed some goal (goal), and then moved toward that goal by following a predetermined path (path). Upon reaching the goal, the next goal came into sight and the experience pulled visitors through the overall exhibit path in an incremental and segmented series of smaller paths. This was a strategy that enabled the psychological suggestion of a path to be designed into the space without being explicitly marked in the space. The goal portions of each of these source-path-goal segments acted as attractors that enticed people to walk toward them to better observe the object. Upon reaching the object, the next goal came into the visual field.

Here is a point-by-point discussion of the nodes and path segments on the installation graphic (Figure 15).

Layer 1: Visual Overview and Thematic Confrontation

Visitors enter through the front door and walk down a short hallway that opens onto a spectator viewpoint of the gallery (Image 20). At the threshold of the doorway to the gallery (Figure 15, see Circle A), visitors are confronted with two walls of video projection (Figure 15, see Diamonds 2 & 3) of ocean water waves which slowly solidify into static images of banded rock salt (Image 21). The gallery guide describes this moment in the exhibit with “Active oceans turn to static salt deposits; water evaporates and leaves a crystal trace. This spot where you are standing has seen a lot in the last 300 million years.”

Layer 2: Entering the Space and Walking toward Salt Rocks

After pausing for Layer 1, visitors become participants by entering the gallery space and feel the space as an immersive whole. Visitors walk to the nearest intervention node, the evaporation pool (Figure 15, see Diamond 1). This pool (not visible in the image) floats in a linear pile of rock salt that juts out from the angled projection wall like a peninsula into the room. The angle of the salt pile psychologically blocks visitors from taking a leftward path through the exhibit (Figure 15, see Circle B) and instead deflects them to the right to move counterclockwise through the exhibit. This blocking is an application of the image schema of barrier, and because of the extent of the barrier and its angular orientation, the path logically opens to the right where an object (an industrial cart loaded with 2,000...
129 pounds of salt rocks— Image 22) sits isolated in the gallery and acts as an attractor and goal for visitors as they move along the path. The cart (Figure 15, see Circle C) is lit from above with two spotlights while the rest of the gallery corner remains unlit. When visitors spot the cart, their attention is directed to the cart with spectator viewpoint—they observe it from afar and move toward it as a destination.

Layer 3: Sensory Basin and Sensory Corner

Visitors circle around the cart looking at the salt rocks. The rocks are visually interesting and provide a moment of deep looking, visitors are absorbed in a visual and haptic participant experience as they look at and touch the giant salt rocks. Once they have completed walking around the cart, a recess behind the projection wall (Figure 15, see Diamond 3) visually opens up to provide a spectator

Image 21. Stills: Moving from active ocean scene to static stone scene.


viewpoint of the next participant node: a space with two sculptural objects lying on the floor against the wall (Figure 15, see Diamonds 6 & 5; Image 23).

As visitors walk into the space they are confronted with the sulfurous smell of anaerobic bacteria (an olfactory participant viewpoint) from a sensory object that remains unseen until they approach the shale cairn sitting on the floor (Image 24). The angle of the cairn creates a vertex of a triangle with the other elements of the sensory corner and as visitors turn their heads to the right, they see a polyethylene bag (Image 25) suspended from the ceiling, full of aquatic plants and anaerobic bacteria. This bag is the source of the stench as the anaerobic bacteria digests the plants and the bag is off-gassing the swampy smell of rotten eggs. The stench fully immerges the visitor in an olfactory participant viewpoint. The bag drips a slow drip down into a bucket below, which completes the triangle and helps to diffuse the scent. Shale is fossilized anaerobic bacteria, and this node depicted the sensory conditions of a band of shale that released hydrogen sulfide in the actual mineshaft.

This piece recreates that smell while pointing to the ontological relationship between shale and bacteria, and it also creates an immersive participant experience of an olfactory band that visitors walk through on their way to the next goal. While this olfactory corner (Figure 15, see Diamond 5) gave an immersed participant viewpoint of the smell of anaerobic bacteria, it did not give a visual spectator viewpoint unless you followed the scent into a hidden corner to see the source of the scent, and that was when the cairn, bag, and bucket completed the ontological triangle suggested in the form of the cairn and the tension of the hanging bags.

Immediately to the left of the shale cairn are two towers of salt blocks with a matrix of linear cuts carving the blocks in chaotically overlapping transects. Behind this piece is an atomizer diffusing essential oils of sea vegetables into the air (seaweed, sea buckthorn berries, etc.) to evoke a more oceanic feeling and to provide a pleasant scent as visitors approach the climax of the installation behind a curtained doorway (Figure 15, see Circle E), the threshold of the climax.
Layer 4: The Elevator Shaft
Visitors walk into the simulated elevator shaft (Figure 15, see Diamond 7), a space which is simply curtained off with layers of black fabric that envelop the visitors in darkness, creating a visual and spatial sense of participant viewpoint through the blocking of light. This antechamber has the image schematic structure of containment, and from the beginning of their experience in the gallery, visitors have moved into increasingly smaller spaces one-after-another, in a gradual nesting of space. A soundscape begins to play a sequence of mechanical sounds—drops of water, rattles of chains, and the rushing of air—to mimic the sound of descent in the elevator shaft of the salt mine. Binaural beats and sequenced sounds create the impression of downward movement as sound seems to rush upwards past the visitors in the room. When this sonic piece culminates, it transitions into an ambient piece scored for the salt chamber and visitors pass through the curtains and enter the salt chamber (Figure 15, see Diamond 8).

Layer 5: The Salt Chamber (Climax)
Inside the salt chamber (Image 26; Figure 15, see Diamond 8), the ambient loop sets a tone for the experience, but it does not overpower the sound of movement in the space. 500 pounds of rock salt line the floor of the chamber to create a crunching sound underfoot as visitors walk around and explore the chamber. The temperature inside the chamber is colder than the gallery, but close to the temperature inside the mine. The walls of the chamber are lit obliquely from slits along the back wall with strips of dim, floor-to-ceiling LED lights, casting a slice of light against the 500 pounds of salt that form the walls of the chamber. The ceiling is low to give a feeling of spatial compression and to suggest the weight of the earth above the mine, but the room feels more open after visitors exit the confinement of the elevator shaft. This salt chamber has a container schema, and visitors are inside the container, confronted with solitude, enclosed in a space that feels totally different from the outside gallery space and insulated by the buffer space in the elevator shaft antechamber. The faint ambient sound is coordinated with the dimness of the lights: the sound is low, the lights are low, the ceiling is...
low, the temperature is low, and the time spent in the antechamber elevator shaft created the impression of descent. All of this contributes to making the salt chamber feel as if it is below ground and it is all coordinated by a cross-sensory metaphor of descent. It feels otherworldly. This room is the most palpably immersive element in the installation, creating an overwhelming participant viewpoint. As visitors walk around inside the salt chamber, the salt underfoot sounds gravelly, a contrast to the echoing sound of footfalls on the wooden floor of the gallery. The enclosure of the 8’ × 6’ × 8’ chamber contains sound and heightens attention to the sound as other noises are deadened. As visitors listen to their feet walking on the salt they experience a moment of heightened awareness. Visitors exit.

Layer 6: The Stratification Drawing / Graphite Mural

Upon exiting the salt chamber, visitors move into a more open space that is brightly lit in contrast to the dim chamber they have just exited. As they turn right out of the chamber, visitors are now facing the opposite wall of the gallery for the first time (Figure 15, see Circle E). From the left/front corner of the gallery to the right/back corner, there is a floor-to-ceiling graphite drawing of striation marks like the striations in the salt rocks and salt chamber (Figure 15, see Diamond 10), reinforcing the layered nature of the deposit of salt. The lines of graphite slope downward from left-to-right, creating a kind of slant that points like an arrow toward the door to the next room in the gallery (Figure 15, see Circle G). At room-sized scale with spectator viewpoint, the angular motion of the graphite lines gives a sense of dynamism and pulls the visitor through the next layer and toward the next participant node, another sensory basin (Figure 15, see Diamond 9).

Layer 7: The Sensory Basin and Video Walk

As visitors approach this final sensory basin (Figure 15, see Diamond 9), the space is filled with the smell of ocean water created with a diluted dimethyl sulfide solution that smells like washed-up seaweed and other shore detritus (Image 27). As they walk past the sensory basin, the projector washes them with the video of ocean waves (Figure 15, see Diamond 2; Image 28) and visitors exit the front gallery and move on to see the other Image 28. Projection wall. UNDERNEATH IS BEFORE (2016). Geologic Cognition Society for SPACES. Courtesy of the artists.
exhibits in the adjacent rooms (Figure 15, see Circle G). But their path encounter with salt is not yet over.

Layer 8: The Salt Boulder on the Plinth Outside

Upon exiting the gallery, visitors pass by a 2,000-pound salt boulder sitting atop a sandstone plinth (Image 29) and decaying in the natural elements (Figure 15, see Circle H). Upon arriving to the gallery at the beginning of the visit, this rock might not have had the meaning that it now has for visitors after they have experienced the salt chamber and other exhibit elements. Some visitors lick the boulder, which sits almost at shoulder level. Others have their picture taken next to the boulder. Still other visitors fail to notice it as they leave the gallery. Over time during the exhibit, the salt boulder delaminates at the seams of volcanic ash as rainfall saturates the banded striations in the salt. Massive chunks of the boulder fall to the ground as each layer slowly separates like calving glaciers, and the layers lay on the ground around the plinth as a reminder of the layered nature of geologic deep time, reinforcing the notion that time is layered and underneath really is before.