The Nine Stories

A closer look at the nine stories of Bernheim

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The Nine Stories

Each story is interconnected, yet distinct. They can be experienced in any order and the player can return as many times as he/she wishes. The player chooses a tree and enters the doorway. Inside, they will find a sign indicating the ‘story’ and from here, can teleport into that story, should they wish. The maps include the Visitor Centre, Rock Run Loop, the Edible Garden, the Play Garden, Earth Measure, the Fire Tower, Guerrilla Hollow, Wilson Slice and the Artists’ Cabin.

The Visitor Centre

When the player arrives in the Visitor Centre, they are greeted by two giant cypress pickle vats. Why? We were inspired by the story behind the construction of the Visitor Centre. A Lead Platinum Certified build structure, achieving the highest level of green build certification, the building was largely constructed using reclaimed and repurposed cypress wood from the old HJ Heinz pickle vats. These giant 100 year old Vats were deconstructed and reused to build the centre. The centre is based upon a series of interconnected cubes - architecture to be taken apart and remade - that use minimal
waste, designed to be able to take apart and rebuild in any configuration and for any purpose. In the Visitor Centre Map, the player gets to take apart the vats, collect materials and rebuild the centre, using their own design ideas to create the space. Along the way, as well as having fun constructing something of their own, they can engage in soft learning about finite resources, build techniques and the history of the centre itself. They can also find out more about sustainable build techniques and ecological responsibility and experience the centre from source to structure. It is perhaps, to some, a strange choice in a residency that asks the artist to respond to the natural space but we felt strongly that the story behind the building of the centre illustrated something very special about Bernheim and its ecological aims and approaches.

Rock Run Loop

Accessing the resource and knowledge of the research team at Bernheim, we were able to recreate the Rock Run Loop area using topographical data, to create a map that is pretty much to scale. This world is the most ‘natural’ space. Walking the trail will take the player as long in Minecraft as it does in real life. This is a meandering space, a following of trail markers and an experience of the natural environment within the digital blocky world. Gradients, flora and fauna, direction - all these are physically experienced. Of course,
within Minecraft these things are a lot less diverse than those within the natural forest - thus presenting our first artistic challenge: individually creating a selection of trees to illustrate this diversity. To do this, we returned to the creative process of walk, look,observe, record, or to put it simply, we went out and looked at the trees, drew the trees and then made them within Minecraft. Rock Run Loop is also an immersive space, acoustically dynamic and visually absorbing. Being in the actual space encourages mindfulness, attunes the senses and creates a sense of peace. Could we translate that creatively within a Minecraft map? To do this, we decided to include a triggered audio file of *The Naming of Things*, written and pre-recorded whilst in residence. The poem was written whilst walking around Bernheim and is a response to the space. It is not specifically related to Rock Run but it fitted with the idea of ‘meandering’ - a way of experiencing and reflecting on Bernheim, and what it represents, whilst walking a trail.

![Minecraft Landscape](image)

**The Edible Garden**

The Edible Garden Project at Bernheim is an official applicant to the Living Building Challenge 3.0. The LBC is a performance-based standard that represents a visionary path to a regenerative future. The Edible Garden aims to engage people “in experiences that illuminate connections between food, ecology and community” and is designed and
managed to reach 22 different imperatives that address site, water, energy, health, materials, equity and beauty. It is, to quote Bernheim source material “the most ambitious project Bernheim has ever pursued…What we learn in the process will inform how we design everything in our future…part planning, part conversation, part experimentation, and lots of communication”. It is, on one level, information dense. Yet, the experience of being in the garden is not so. It is a peaceful space, full of inventiveness and curiosity. Designed using the flower petal emblem - a nod to the Living Building Challenge Energy Petal - the garden repeatedly finds creative and playful ways to explore the ecology it is based on, so the science heavy “Energy Petal - intended to signal a new age of design, wherein the built environment relies solely on renewable forms of energy and operates year round in a pollution-free manner” becomes both practice and the physical design layout of the garden itself.

One phrase we found particularly interesting when reading through the source material for this design, was the term “playful whimsy” - something we found in abundance in the Edible Garden. We wanted to create a map that responded to this playfulness, and also to the garden’s role within Bernheim, both as a pioneering ecological design experiment, and as a source of nourishment - the food the garden produces supplies the cafe at the Visitor Centre, the compost from the kitchen feeds the garden, the water from the rain and the ponds and living roof structures feed into the garden, to water the plants, and runs off the garden back into the soil to feed the roots of the forest.

We also wanted to incorporate that sense of community and interconnectedness that was both our experience of spending time in the garden, and behind the design principle of it. With so much science behind the space, it would be easy to become information heavy.
We decided to go the opposite direction. We spent many hours in the garden, talking at length with its Steward, or else just wandering through, noticing the monarch butterflies or brushing against the many varieties of basil. Over our residency, we saw crops harvested and planted, we saw the seasons change and we ate the food the garden produced. It came to represent to us a microcosm of our bigger experience - nourishing, nurturing, inspiring, challenging, creative, pioneering. We wanted this map to be more about this, and the heart of Bernheim.

The Edible Garden map is based on the design of the petal. The player can explore the layout of the garden. In this way, it is representative - it is based upon the actual garden design and moving around it is similar to walking around the garden itself, though the plants are not true to life. As well as plants, this Edible Garden is growing stories. When we spoke to people working at Bernheim, we almost always heard the same response: that it was more than a job, that it was like a family, that it was inspiring, challenging, nourishing. That sounded a lot like the Edible Garden. We asked various volunteers and staff at Bernheim to offer responses to three simple questions: What is special to you about Bernheim; what do you enjoy most about working here; what do you think Bernheim gives to others? Using this as our source material, and taking the starting point of “I am…”, we used extracts to create “The Spirit of Bernheim” - a spoken word piece that we then ‘planted’ in the garden for the player to find. This map connects to the place and space in a wider sense, and also hints as to the importance of nature and natural spaces and the purpose behind ecological stewardship. If the player wishes to find out more, there are opportunities to access information but it is discreet, rather than intrusive. The map meets our intention of ‘playful whimsy’ and is to be enjoyed and digested, rather than examined.
The Play Garden

This map is the sole creation of Django. Using a design based on natural materials and spaces, the forest garden aims to introduce and inspire children to see and respond to the natural world playfully and creatively. As well as playing in the actual garden, Django accessed and used the original sketches of the Play Garden, provided by the Manager of Regeneration and Play. These colourful, creative designs became the template for the garden map. Django built each structure individually and then transported it into the Play Garden map, using the layout of the original sketches as his own map. It was a map on top of a map. He also created his own interpretations of the initial design, very much placing his own creative thumbprint onto everything, adding his own ideas to the garden, building additional spaces that he thought ‘should be in there’, as well as designs based upon familiar landmarks he had found playful within the forest, such as the Fire Tower. It also includes a sound piece that uses music Django created by playing the Canopy Walkway with a stick.
The Play Garden map is all about play - running, hiding, jumping, climbing, constructing. It is a world seen through the eyes of a child, in collaboration with the imagination of an adult. It contains magical dragons and hidden story worlds, magnificent flowers and giant bumblebees…it even contains a walk-through sculpture of ‘The Elusive Claude’ as Rodin’s Thinker, in acknowledgement of Claude, the original artist behind the garden design and so named by Django during our residency. Why? Well…that is another story altogether!

**Earth Measure**

This map also takes its inspiration from a structure - this time Matt Weir’s acoustic sculpture of the same name, located in the Arboretum. Taking its name from the translation of “geometry” from the Greek: γεωμετρία; geo- “earth” and -metron “measurement”, Earth Measure is constructed entirely out of more than a ton of solid stacked limestone blocks, and aims to encourage “the visitor to explore notions of science, geometry, sound, and architecture while deepening one’s connection with nature”. It became a favourite space for us to sit and absorb the atmosphere of the Big Prairie where it is situated and the structure appealed to us, not only because of its links to geometric
shape, stone, blocks and construction, but also because of its acoustic nature. The Earth Measure map is a creative response to a creative response to a natural space.

Again, this is not representational but rather, responsive. Walking the trails through the long grasses of the Big Prairie, we played hide and seek, experiencing it not as a trail but as a giant maze. When we came to creating the space in the map, we played with this idea, creating a maze-like trail through the prairie that ends up at the Earth Measure sculpture. The physical limitations of scale and blocks means that the player is not able to re-experience the act of walking through long grasses or seeing the natural and diverse habitat of the prairie. Instead, they are able to experience something of the playfulness of the space. At the centre of this is Earth Measure - or rather, our Minecraft ‘version’ of it.

Wanting to create a map that was more responsive than representational, what evolved was a layered soundscape that is triggered within the Earth Measure sculpture. Contained within this soundscape is a composition of three distinct layers: real sound files sourced from acoustic recordings from around the prairie and other Bernheim habitats; real sound files sourced from NASA “Earth Song” recordings of the ‘chorus’ - an electromagnetic phenomenon caused by plasma waves in the Earth’s radiation belts; and, finally, a recording of a local musician saying the words “Once Upon a Time”, taken from the story recording that can be found in the Play Garden Map, and slowed down several times to create a distorted sound wave. All three acoustic files are mixed within Earth Measure, allowing the player to experience the sounds of Bernheim alongside the sound the the planet earth itself, and integrated into the sense of the beginning of both - the Once Upon A Time moment of all nature. This is, perhaps, the most abstract map within the nine stories, responding both to the physical and acoustic space of the sculpture, as well as the intent behind the residency programme itself - to connect and strengthen the bond between people and nature. In this case, the bond of the once upon a time story, and the
connection between the microcosm of individual natural habitats and the vast song of the earth itself.

Alternatively, you can just enjoy running around the maze, climbing a huge structure and listening to some very weird sounds. Either experience is as valid as the other and that is the beauty of play.

The Fire Tower

Here, the player is able to walk a path along to the Fire Tower and then climb up it. A popular and familiar landmark within the Natural Forest area, this 1930’s fire tower stands proud above the forest canopy and, for those who climb the metal grille steps to the top, the view is the ultimate reward. We discovered the Fire Tower one sunny day and tentatively climbed to the trapdoor at the top. Within this locked tower (another familiar
story motif) were hidden clues as to the history of Bernheim - an iron cup filled with salt rock, an old map, a pair of binoculars - the salt and iron of previous industry, the faded map, the look out binoculars: these told the story of the area we were looking at and this was what we wanted to play upon. With no signage to indicate what these items meant, it was up to us to work it out, rather like the clues in a mystery puzzle. This story was a mystery story, full of fragments and whispers and secret towers. Later on in our residency, we read the journals of Isaac W. Bernheim, founder and visionary behind the Arboretum and Forest. We wanted to include some of this history in our maps. We decided to create an audio that would nod towards the history and mystery of the story - faded radio messages from the past hidden inside an abandoned Fire Tower. Obviously, we couldn't find actual recordings of Bernheim himself and so, using a cut and paste method, we copied, cut up and randomly selected extracts from these extensive journals and then fed them through an online artificial speech synthesiser. We then mixed these sound snippets with original remastered recordings of popular music from the Kentucky area, and modulated them to create a radio tower audio. As well as the hidden physical items in the tower, the player can also find and listen to these messages, discovering a little bit about the history behind Bernheim and the land below the trees.

The history of Bernheim became an important element in our creative process. We soon discovered that there were many layers to the place. Underneath the surface, we found layers of history, folklore and stories. Discovering these things became part of our creative play, which was then translated into the map making process. We were art-detectives!
Guerrilla Hollow

In reality, Guerrilla Hollow is a trail run within the Natural Forest area. The signage on the trail points out visible remains of the iron ore mining industry that was once the ‘gold’ of the area. However, in this map, we use that idea of hidden history to create a fast paced rollercoaster ride where the player steps into the tree and is then transported along a mine-cart ride through the underworld of the Bernheim Cube, eventually ending up in a cave that hides a hidden ‘old town’ where they can discover and listen to The Ballad of Billy Magruder. How did we come to this? A stumbling upon an old graveyard with the name upon the stones and a chance conversation with the Forest Manager about a cave led us to the infamous local character, Billy Magruder. Along with the James’ brothers and their band of Confederate Rebels (or lawless bandits, depending on where you stood), Billy had hidden out in Guerrilla Hollow. We also found out that in the early days of Bernheim, there was a cave on this trail that was later filled in. What if Billy had hidden in this cave? Inspired by the idea of hidden stories and folk tales, we wrote The Ballad of Billy Magruder, which was then set to original music by local musicians, The Troubadours of Divine Bliss. We also wanted to reference the hidden history of mining below the
surface of the forest. That history lay in the abandoned mines and soil sediments of the land. We decided to have fun with this and create a map that literally took the player under the surface of Bernheim, layer by layer, to discover the hidden cave of Guerrilla Hollow, and the story of the outlaws that once hid here.

**The Wilson Slice**

This map focuses on storytelling in a different way - the science of the forest - but it began, as with all things, with play and curiosity. Django was excited to discover crinoids on the trails and later, petrified wood on his exploration of Wilson Creek. Finding these fossils started to unearth, literally, the geological history of the natural landscape as he asked questions about why he found certain fossils in certain areas, what the land had been like at the time of these fossils and what era they came from. We also noticed that different trees seemed to exist in different places and found out, through research and conversation, about the distinct forest communities that exist only in certain places due to
geological and geographical factors. We were able to access the in-depth knowledge of
the Forest Manager to explore these communities, literally travelling up and down the
Forest Hill Drive and Wilson Valley side to see for ourselves how the geology changes the
flora and fauna of the landscape. We wanted to show both the underneath and topside of
this story and so decided to create a ‘slice’ of the hill, where the player could move around
and see the rock formations, tree species and forest understory. This map is a science-
based map, yet it tells a story of millions of years, and it all began with a crinoid on a walk.

The Artist Cabin

This is the most intimate and personal map from the nine stories. The relationship
between art and nature is an important element of Bernheim’s vision, supported through
the residency programme. We wanted to acknowledge this, and have a way for players to
access and explore our process, through images, notebooks, sketchbooks, poetry, audio
and other elements of our creative output during our stay. Instead of placing these online
in an archive, we decided to create a map of the Artist Cabin and the space that we lived
in for our time there. The map allows the player to enter and look around the cabin, peek at some of our archives and go down to Macs Lake and the little Boat House, where they can make their own boats or even go fishing!

What next...?

Our residency at Bernheim was such a rich experience from which we took much inspiration, but sadly, we simply did not have the time to pursue many of our ideas, or spend as much time on each story as we would have liked. There were challenges to creating the nine maps. Technically, they demanded a lot of build time, which meant that we were unable to complete them within the time-frame of the residency. We had to make decisions about what to leave in and what to leave out - there was so much more that could have gone in, to create an even deeper and more detailed experience. The restriction of time meant we could not include many of the places, spaces and ideas as we wanted, in order to focus on a selection of manageable outputs. The nine maps could have been far more complex, included far more elements - but perhaps that is a good thing. Having restrictions demands a focus of attention and a weeding out of ideas and, whilst we conclude knowing that there was much that was left out, we can also appreciate what has been created - not only in the maps, but also in the poetry, photography, memories and friendships. What we leave behind is, we hope, a starting point for an interesting and rewarding relationship between ecology and technology, between nature and digital play. The maps we release will reach beyond the geographic space of Bernheim, and, we hope, will inspire players to consider their natural spaces in new ways and encourage the gaming communities to see nature as a wonderful resource for
inspiration and ideas, and for ecologically focused communities such as Bernheim to see digital gaming platforms as a diverse resource for communication and learning.

As with any creative process though, the completion of the maps is really just the beginning. We may have an intention as to how the maps will be experienced and responded to, but the reality is that once they are available to download online, each individual player will be able to interact creatively with them and respond to them how they wish. They may decide to camp our in Rock Run, using the natural resources to create a wooden shelter, they may forage for foods to sustain their health, they may build themselves another cabin by the lake, or blow up the mines under Guerrilla Hollow, or they may, like us, wander through the different spaces, observing and listening. Maybe they will visit Bernheim for themselves, to seek out the places they have played in online, or maybe they will be excited to see places they recognise and that have special, personal meaning for them. Maybe they will leave signs and messages, or write their own poems, or build their own maps. The unique thing about Minecraft, and about creating in Minecraft as an artist, is that the initial creation is just the jumping off point for further inspiration. So, like Bernheim itself, the maps invite an organic and creative response, be that within the map space itself, or within the natural space of the forest and arboretum. It is exciting to know that our nine stories are just the seeds, and it will be interesting to see what grows from them.

As we conclude our work, we are left with a sense that our creative relationship with Bernheim is far from over. The work we created as part of this residency feels like a beginning, rather than an end and we return to the UK with more ideas than we left with. We hope very much that we can return to Bernheim and spend more time in residence, to
explore and expand on these ideas, and discover together new ways of working together with wood and pixels.