

THE NATURE OF SNOW

Vertical Slice Technical Overview

The Nature of Snow is an interactive VR experience that explores the relationship between snow, the atmosphere, and climate through storytelling, scientific discovery, and interaction.

The full experience follows Ben Bentley, a young musician living in Vermont in the year 2058, who dreams his way back to 1885 and encounters his ancestor, Wilson A. Bentley, the first person to successfully photograph a snowflake.

The vertical slice is a room-scale VR experience designed for a compact physical space and a standalone headset with hand tracking and spatial audio. It focuses on three key scenes that establish the project's narrative framework, visual language, interaction design, and core technical systems.

VERTICAL SLICE GOALS

The vertical slice demonstrates:

- Narrative introduction and dream transition between 2058 and 1885 Vermont
- Character interaction with Wilson Bentley
- Interactive snowflake photography and magic lantern projection
- The magic lantern as the emotional centerpiece of the experience
- The Weather Machine as the scientific counterpart, demonstrating how atmospheric conditions shape snow crystals
- Environmental storytelling through sound, lighting, visual effects, and narration

SCENE ONE / 2058 APARTMENT

A near-future Vermont apartment introduces Ben Bentley and the world of 2058.

Key Elements

- Interior environment with climate-impacted landscape visible through the windows
- Holographic climate news display
- Piano and musical motifs
- Family photo album referencing Wilson Bentley
- Interactive feather
- Musical notes transforming into snowflakes
- Dream transition sequence

Purpose

Establishes Ben, the future setting, and the connection between music, snowflakes, and the atmosphere.

SCENE TWO / WILSON BENTLEY'S WORKROOM

Participants arrive in Wilson Bentley's Vermont workroom in 1885.

Key Elements

- Wilson Bentley character, narration, and dialogue
- 8x10 camera and microscope apparatus
- Interactive snowflake photography using a feather and glass plates
- Magic lantern projection transforming microscopic snowflakes into room-scale imagery
- Spatial audio and participant interaction with projected snowflakes

Purpose

Introduces Bentley's work and establishes the emotional core of the experience.

SCENE THREE / THE WEATHER MACHINE

Following the magic lantern sequence, participants encounter the Weather Machine inside a transparent chamber of ice.

Key Elements

- Interactive hand-tracked controls
- Temperature, humidity, air pressure, carbon dioxide, and particulate matter variables
- Responsive snow crystal visualization
- Guided narration, particle effects, and environmental sound design

Purpose

Demonstrates how atmospheric conditions influence snow crystal formation and establishes the project's core scientific interaction.

DELIVERABLES

The vertical slice will deliver:

- Three interactive scenes
- Wilson Bentley character with narration and dialogue
- Interactive snowflake photography system
- Magic Lantern projection experience
- Weather Machine interactive system
- Dynamic snowflake visualization system
- Sound design and spatial audio
- VR deployment build for standalone headset
- Visual development materials and storyboards

- Comprehensive Creative, Technical, and Production Framework supporting future development

FUTURE DEVELOPMENT

The vertical slice represents the foundation of a larger narrative experience. Future development may include additional environments, characters, climate visualizations, educational content, aerial landscapes, and restoration sequences.

These elements are part of the long-term vision for the project and are not included within the current vertical slice scope.