## NorthWater World

NorthWater World is a visual and aural triptych of interactive experience, of worlds within worlds, and life within lives. It is action and reaction in a wild mythic setting. The primary goal of this project is to give the user the experience of inhabiting a completely different body. The user's sight, sound, movement, and environment are changed to that of a different being. The intended result is an understanding of the other being that cannot be gained from an outsider's viewpoint.

Users start by being drawn into the body of an Arctic wolf. They find themselves just above ground level, seeing primarily in black and white. If they tip their heads up, they sit back and howl. If they tip their heads down, they see their wolf feet and hear sniffing. Suddenly, the world is imbued with color because the wolf's main sense is smell. If users lean forward, they start running across the ice in the direction they are looking. Above is the pitch black northern sky with glowing northern lights. All around are the jagged edges of icebergs. The cold hiss of windblown snow is clearly audible. After two minutes of exploring the wolf's body, users hear the boom of cracking ice and see a jagged black edge rushing at them. Suddenly, they fall into the frozen water in a cloud of bubbles.

Now users inhabit the body of a white fur seal, swimming under the ice. Above them is the frozen ice floe. Beside them are the massive bases of icebergs lodged in the ice. Below them is the black depth of the ocean. They hear the snap and boom of ice cracking, the singing of whales, and other ocean noises. The sounds are louder than in the open air, and they seem to travel forever. The seal is not limited to two-dimensional movement; it can swim up and down and turn and roll. Users move by leaning, stooping, and bending. A change in direction causes users to shoot off in that direction. Holding still results in a long, smooth glide. Schools of fish react to the seal's presence by desperately swimming away, but they are not fast enough to escape. If the seal chases a fish, the seal will catch it, rip it apart, and eat it.

After two minutes of exploration in the seals' upside-down landscape, users are drawn into the ice itself. There they find themselves drawn completely out of their bodies into a bodiless viewpoint among the abstract geometric planes of the ice. They hear crystalline shimmering tones that spin and swirl. They discover that they can create music by moving, triggering tones from the ice around them. After a minute of playing in the ice crystals, the virtual world fades away and users find themselves back in their own bodies again, with memories of being something else. The experience has lasted only five minutes but the memory of being something else, somewhere else, will remain for years.

**Group Philosophy**
The purpose of the Boston Computer Society Virtual Reality Group is to provide an ongoing forum for bringing scientists and developers together with VR enthusiasts and potential users who do not normally attend VR industry gatherings. By exploring both the technology and its cultural implications, exposing each to the other's thoughts and ideas, the group can help shape the future of the medium.

**Project History**
This year's project grew over several meetings and a long on-line discussion among the members of the BCS VR group. Everyone felt that the virtual medium could be used for much more than video games and architectural walkthroughs, and taking the user to another body seemed like a wonderful challenge. At first, the more technically grounded members of the group questioned whether it could be done with current technology. But as the discussion continued, it began to seem possible, and the group set out to design NorthWater World.

**Future Impact**
NorthWater World is pushing the technology to see how far it can go in providing the user with an understanding of a different life form. This is a first step toward the ability to make people understand diverse problems and diverse cultures by taking them inside the subject and allowing them to experience it first-hand.

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HARDWARE DONORS
SPEA Fireboard graphics card: Sense8 Corporation
Beachtron 3D sound boards: Crystal River Engineering Inc.
486/66 PCs: Gateway 2000, Inc.