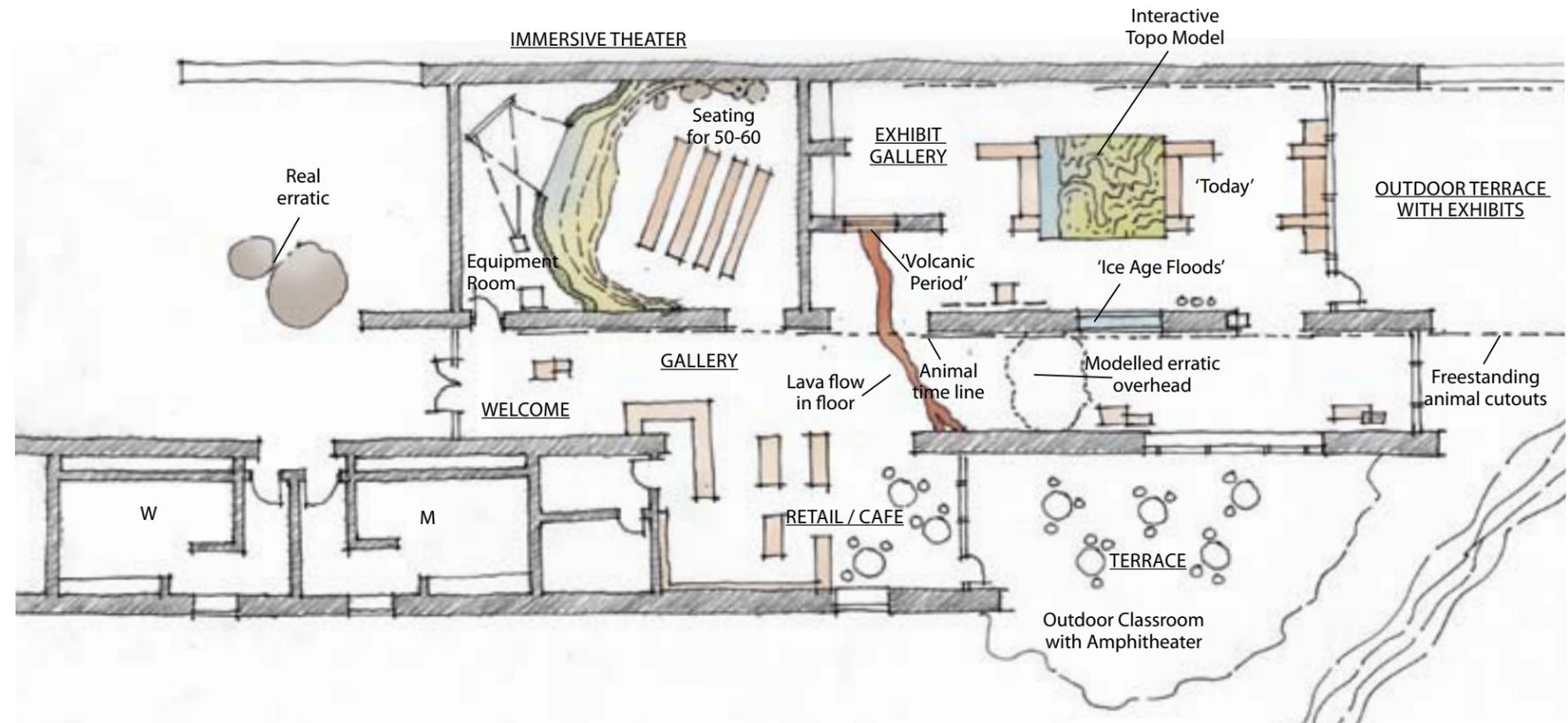


Design Approach

The design approach for the exhibits is closely integrated with the architecture. The layering of massive, linear building walls provides a direction for the design and layout of exhibit components. Building walls are cut open at strategic points to accommodate specific exhibits and to allow for circulation. Smaller, wall-panel exhibits are used for supports and dividers.

Approaching the center, visitors are forced to walk around a massive erratic – these huge boulders are seemingly deposited directly on the path to the front door. The displaced rock serves as a strong icon of the violent events that occurred during the Ice Age Floods. Through the Visitor Center's front doors, visitors are startled to see another massive erratic precariously wedged overhead between the two parallel building walls. Just out of reach it makes an unusual photo opportunity for visitors who puzzle over how the rock stays in place. From an interpretive standpoint, it is important to realize no actual erratics are present in the Sun Lakes-Dry Falls State Park landscape. During the floods, water was moving too quickly for erratics to be deposited at Dry Falls - they were carried downstream and deposited in the Quincy and Pasco basins many miles away. However, the results of the visioning workshop determined that erratics are an important and exciting flood feature to display at the Dry Falls Visitor Center due to the fact that many travelers saw these unusual landforms in the landscape as they drove the Coulee Corridor. An interpretive panel including information about erratics provides visitors an opportunity to learn about what they have seen and how these landforms fit into the IAF story.

The linear layout of the building naturally directs visitors toward the edge of the escarpment. Two parallel walls form a long gallery, flanked on one side by an animal timeline. A graphic tells the chronological story of the region, accompanied by full-size cutouts representing some of the more surprising inhabitants of the land before and after the floods. Visitors will be startled to see representations of mammoths, giant sloths and camels.



Example of Welcoming Desk



Gallery Exhibit

The theater is the first stop on many visitors' explorations of the center. The building walls seem to give way to natural outcroppings that envelop the seating area. In front of the benches, the rockwork is split open to reveal a distant view of sky and landscape. A rear projection screen fills the gap in the rock and is used to illustrate the geological events that lead to the final catastrophic deluge. Special effects may include water spray, fleeing animals and tumbling rocks that appear from behind layers of scrim, theatrical lighting and a massive sound system that shakes the bones of visitors.

As visitors progress further into the building, they emerge from the darker, dramatically lit theater experience into a naturally-lit exhibit gallery. This space is dominated by a contour map, which uses internal LED lighting and monitors to illustrate the flow of ice and water, as well as changes in vegetation and settlement across the landscape of the region. Around this interactive topographic model, the building walls are cut away to accommodate a volcano cross-section that seems to draw its fiery contents from the floor of the Center. Smoke, ash and other effects are animated on a large monitor beyond the cone as the exhibit cycles through one eruption after another. Internally-lit, sculpted glass fills another gap in the building wall representing the massive ice dams that eventually broke and let loose the torrents of water. Fossils – large and dramatic, as well as small and precious – are set into the earthen walls throughout the building.

The end wall of the exhibit gallery is completely glazed, allowing large amounts of natural light to spill in, providing visitors with spectacular views of the landscape and the falls. From this vantage point, they can see a continuation of the animal timeline extending outside with steel cutouts of contemporary animals grazing near the precipice edge. On the opposite side, another line of silhouetted cutouts represent recent and current human inhabitants. Interpretive panels on the terrace and the trail are also visible from this vantage point, inviting visitors to continue their exploration outdoors.

Unique, World Class Resource

Dry Falls is one of the great geological wonders of the world. Carved by the massive Ice Age floods, the former waterfall is now a stark reminder of the cataclysmic events of times past. In its time, the 400-foot cliff and 3.5-mile wide waterfall was four times the size of Niagara Falls. Today it overlooks a desert oasis filled with lakes and abundant wildlife.

This world class natural resource is under utilized, as Dry Falls, and floods that created them remain largely unknown to the general public. The Ice Age floods are a remarkable part of our natural heritage having profoundly affected the geography and ways of life in the region. To accomplish the goals as stated in WSPRC's mission to use State Parks to convey the legacy of the floods, each park project will have it's own unique opportunities and challenges which require unique innovative design solutions. The DFVC area design project has made great strides to meet these challenges and is poised provide a world class experience for all who visit this amazing resource.

Partnerships

Through the planning and development of improvements Sun Lakes-Dry Falls State Park, WSPRC has a tremendous opportunity to create new, mutually beneficial partnerships with a range of organizations as part of the Ice Age Floods National Geologic Trail.

Congress has passed legislation to create an Ice Age Floods National Geologic Trail that would follow the Ice Age Floods route. The proposed 600-mile geological trail would include interpretive centers and roadside pullouts with signs and markers interpreting the flood sites.

Another version of this initiative includes creating a virtual trail, consisting of road maps, interpretive centers and roadside exhibits. This trail would allow everyone — individual cities, public parks, Tribes, highway agencies, educational institutes and interested landowners — to tell and teach the public a unified story in a coordinated way.

Tour routes follow the flood route and include thirteen "gateway communities" from Missoula, Montana to Astoria, Oregon. Dry Falls has been suggested to be the key interpretive center, serving as a "hub" to generate interest and provide information on other IAF interpretive resources along the trail. Interpretation of different parts of the flood story should be allocated appropriately along the trail and throughout the region.

Coulee Corridor National Scenic Byway

Washington State Parks is engaged in a continued dialog with the Coulee Corridor National Scenic Byway to determine how best to enhance travelers' experiences without impacting the visual quality or natural resources of the Byway. These organizations and other partners will continue to collaborate to develop strategies to interpret and conserve what is special, while at the same time promote its use and enjoyment.

National Park Service

The Ice Age Floods National Geologic Trail legislation before Congress would be overseen by the National Park Service. This oversight role and the complementary mission and goals of both park services make them natural partners.

Ice Age Floods Institute

The Ice Age Floods Institute is a non-profit organization dedicated to the authoritative presentation of the story of the floods. It is a tremendous intellectual and scientific resource.



1. Connell
2. Othello
3. Columbia National Wildlife Refuge
4. Potholes State Park
5. Moses Lake
6. Rocky Ford Creek Wildlife Site
7. Glacial Erratics
8. Ephrata
9. Soap Lake
10. Lake Lenore Caves
11. Lenore / Alkali Lake Wildlife Refuge
12. Blue Lake Rest Area
13. Sun Lakes State Park
14. Dry Falls Interpretive Center
15. Coulee City Marina and Park
16. Banks Lake
17. The Grand Coulee
18. Million Dollar Mile
19. Steamboat Rock State Park
20. Northrup Canyon Eagle View site
21. Electric City
22. North Dam Park
23. Grand Coulee
24. Lake Roosevelt National Recreational Area
25. Coulee Dam
26. Belvidere
27. Root Diggers
28. Tribal Headquarters
29. Nespelem
30. Coyote Creek Rest Area and Campground
31. Ice Box Canyon
32. Disautel Pass
33. St. Mary's Mission Monument
34. Omak Visitor Center
35. Okanogan

Local Resources

The Park staff have already begun organizing outdoor events that will build community and attract visitors. For example, *Flood Days* is a week long festival of local events. Several site improvements, such as an outdoor interpretive gathering area, picnic area, shade structures, wind buffers as well as a noise barrier from the highway traffic would greatly enhance the Park's ability to host events.

Cultural History

The Dry Falls site was likely a resource gathering site for the Colville and/or Yakama Tribes in times past. This interpretation should be undertaken in full partnership with the groups whose history is being interpreted. During the visioning workshop a representative from the Colville Tribes expressed the Tribes' desire to interpret their own history in a comprehensive manner. Their history could be briefly interpreted at Dry Falls, where visitors could be directed to other tribal museums for further interpretation.

Map: <http://www.accts.com/whatsahead/coulee%20tear%20sheet%20map.pdf>
 Coulee Corridor Consortium: <http://www.couleecorridor.com>

Interpretive Experience

Highway Approach

Highway travelers heading both north and south will see highway signage alerting them to a coming attraction - the Dry Falls Visitor Center in Sun Lakes-Dry Falls State Park. This signage will be prominent and repeated several times, advising potential visitors of the distance to the Visitor Center. As they drive toward the Center, visitors will also see sign inviting them to tune in to hear a 6 to 8 minute radio informational “teaser” about Dry Falls and IAF. (The park will be installing low-frequency radio towers that can broadcast to highway travelers.)

Arrival

At the entry to the Dry Falls Visitor Center site, drivers heading south will use a pullout lane to turn left. Travelers heading north will simply turn right as they approach the new Dry Falls entry sign informing them they have arrived at the Dry Falls Visitor Center. Once visitors have arrived, they can leave their vehicles to head straight for the restrooms, or if they feel they have more time, they can investigate nearby interpretive elements – the historical Depression Era structures and new interpretive panels telling the story of the Dry Falls site. Some visitors may opt to stretch their legs and explore the trails before heading in to the Visitor Center.

Ambient Sound from Highway

While the nearby highway has the benefit of bringing many visitors to the doorstep of the Park, it also creates background noise which can be heard throughout the Visitor Center site. This sound can be mitigated by bermed landscaping, site walls and planting.

Historic Architecture

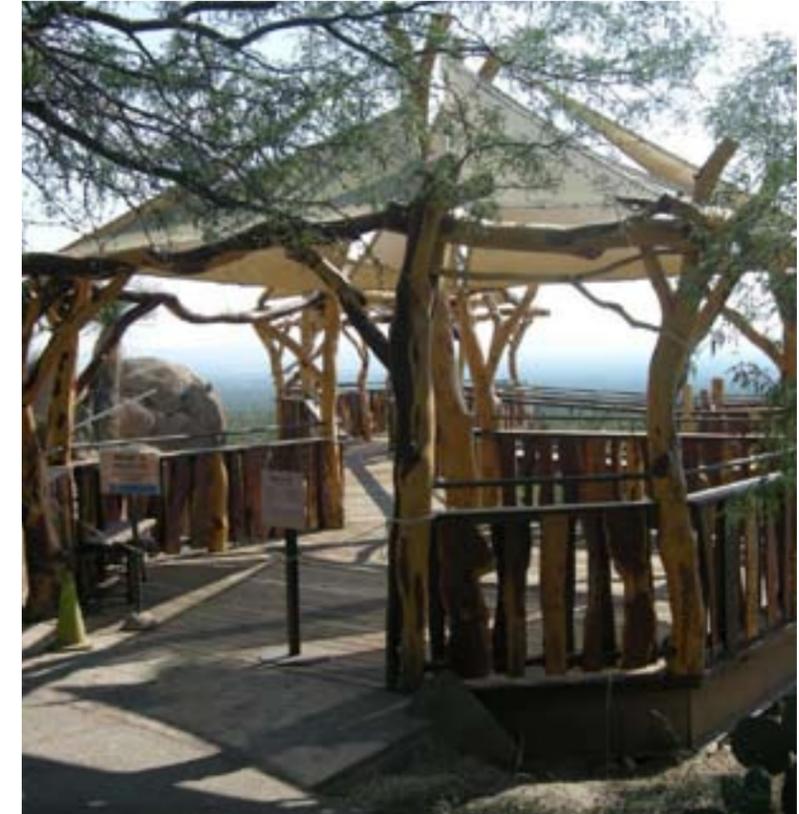
The historic architecture at the Dry Falls includes the existing Visitor Center, a gazebo, chain guardrails and stone bollards built during the Great Depression. From an interpretive perspective, the existing Visitor Center presents a range of challenges ranging from accessibility to visitor capacity. The extensive changes that would be required to retrofit the building into an effective Visitor Center would compromise its architectural and historic integrity.



Existing Depression-Era Gazebo



Example of Shade Structure



Example of Shade Structure



Example of Entry Signage

Dry Falls Visitor Center

Visitors arrive at the Dry Falls Visitor Center with a variety of goals in mind. Many wish to use the restrooms, find out more about the area and peruse the gift shop. Others have had their curiosity piqued by word-of-mouth recommendations, guidebooks, the Parks' radio broadcasts or even the view from the parking lot.

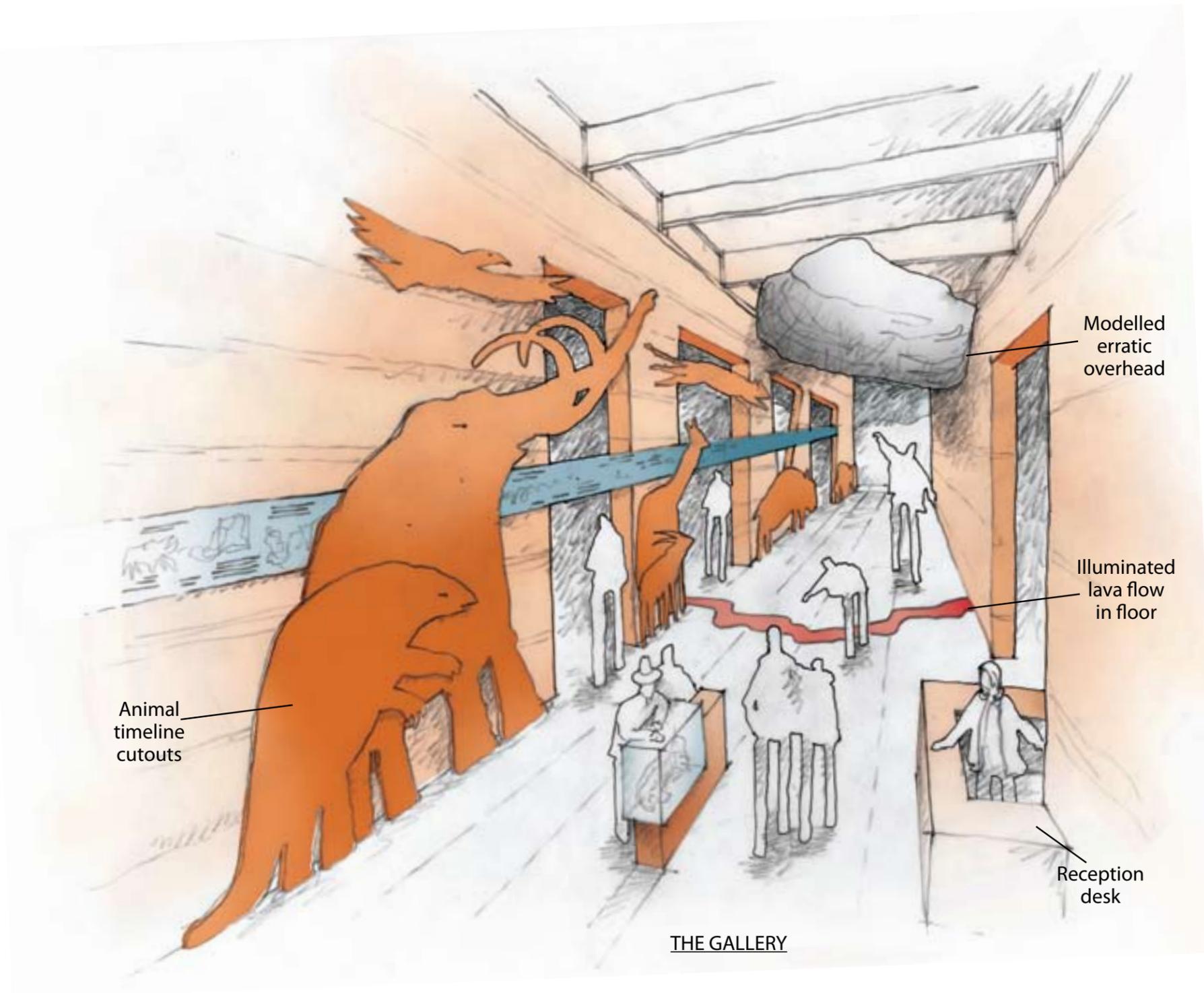
Entry

As visitors approach the new interpretive center, they are surprised to see a large boulder nearby. This "haystack", or erratic, rock represents the many boulders deposited by the Ice Age Floods and is the first of many surprises setting the tone for the visit.

Visitors entering the Center see a friendly face at the welcome desk. Nearby, they discover the interpretive opportunities available to them in the four-state Ice Age Floods Corridor. Vacationers can take advantage of the trip planning expertise at the volunteer-staffed help desk and a range of brochures (ideally available in French, German, Spanish, Chinese, Japanese and Russian). Other interpretive and planning resources, including websites and computer interactive exhibits, allow visitors to create tailor-made trip plans that will allow them to explore other Ice Age Flood sites and other areas of interest in the region.

Visitors are also attracted to local interpretation featuring evocative photographs and Audio/Visual (AV) inviting visitors to "go down below" to the Sun Lakes-Dry Falls State Park. Many are fascinated by the "dangers out there", ranging from rattlesnakes to scorpions and black widow spiders, and coincidentally learn about safety and conservation issues.

Visitors may also be attracted to the timeline of large prehistoric creatures proceeding down the wall. They may want to pose for a photograph under the suspended erratic, making sure to capture a large animal with them!



Theater

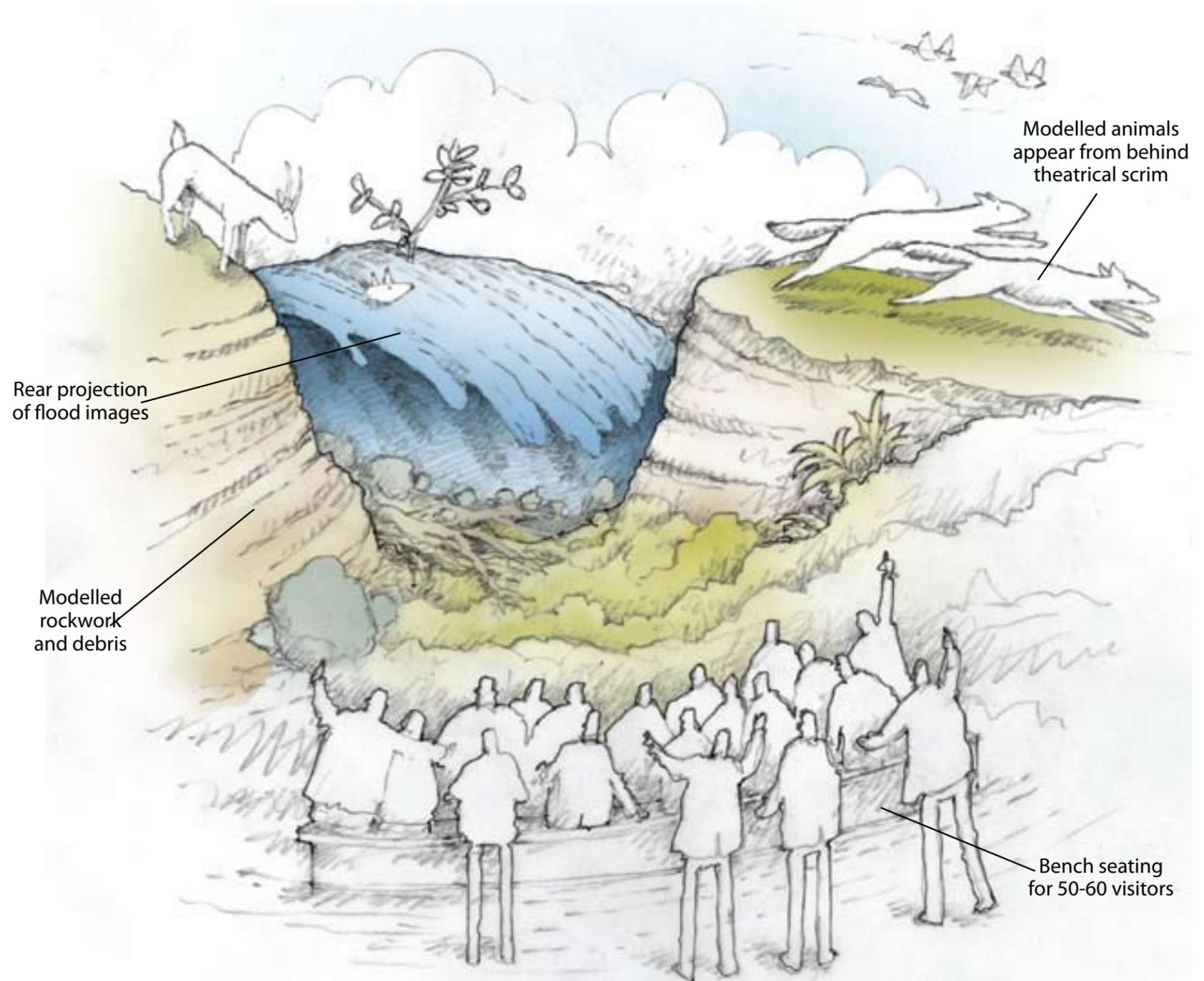
Visitors enter an immersive theater to witness tens of thousands of years of the Northwest's history in a short film.

Spectacular images, sweeping overviews, vivid storytelling and superb animation are united by a dramatic musical score to communicate the epic tale of the Ice Age Flood events. Visitors are further immersed in the flood as the whole theater appears to be submersed and floods appear to surge by them. (This is achieved through theatrical lighting and by having images of water and boulders race past the visitors on scrims suspended at the sides of the theater, from front to rear.)

Fire. Beginning about 17 million years ago and continuing over a period of more than 11 million years, a fiery period of volcanic activity pours lava over the landscape. These massive basalt flows, each hundreds of feet thick, spread across thousands of square miles, stretching from the Bitterroot Mountains to the Pacific Ocean.

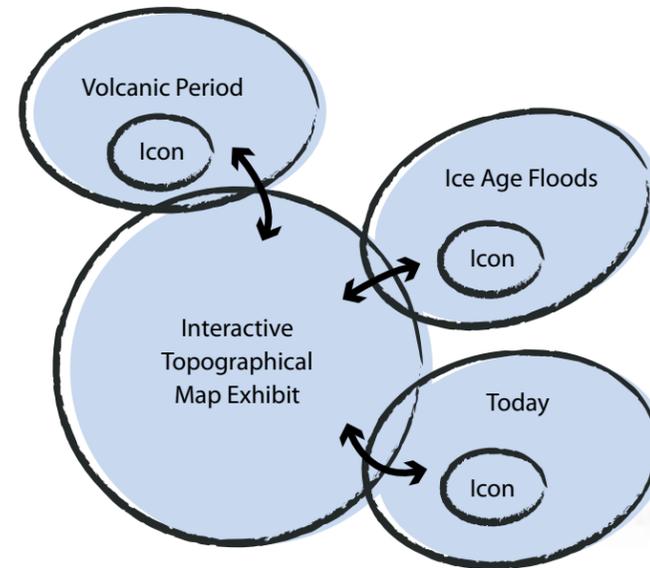
Ice. Mile-thick glaciers began to form approximately 2.6 million years ago as the climate cooled. The ice later retreats during periods of climatic warming, unleashing a series of cataclysmic floods sometime within about the last million years or so ago.

During these periods of spectacular flooding, glacial dams near present day Missoula, Montana break apart, releasing an inland sea. The faces of present-day Washington and Oregon are torn open and carved out by what geologists believe was the greatest moving body of water in the Earth's history.



A Mystery. The evidence: enormous river canyons, titanic ripple marks, boulder-strewn valleys, and the dry foundations of the world's largest waterfall – far from any source of water. The solution: a catastrophic flood. J Harlen Bretz proposed this solution in 1923, igniting a debate that continued for nearly half a century.

Today. Sweeping panoramic overviews and fly-overs of the Ice Age Flood route create a sense of wonder and awe. Visitors recognize some of the geological features sculpted by the almost unimaginable floods and become curious about the amazing wildlife that is adapted to these spectacular habitats. They are inspired to go out and discover more.

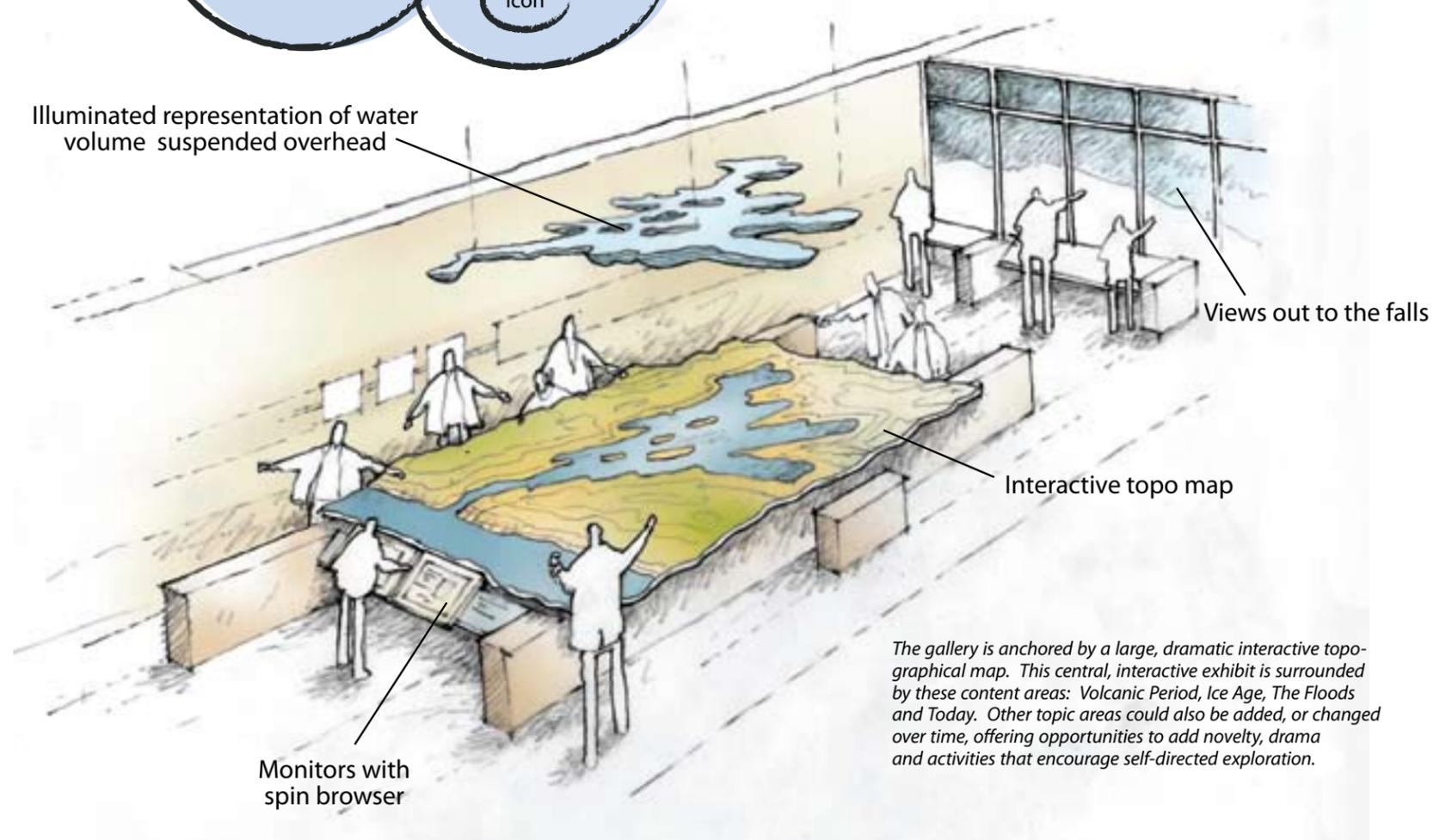


Interpretive Galleries

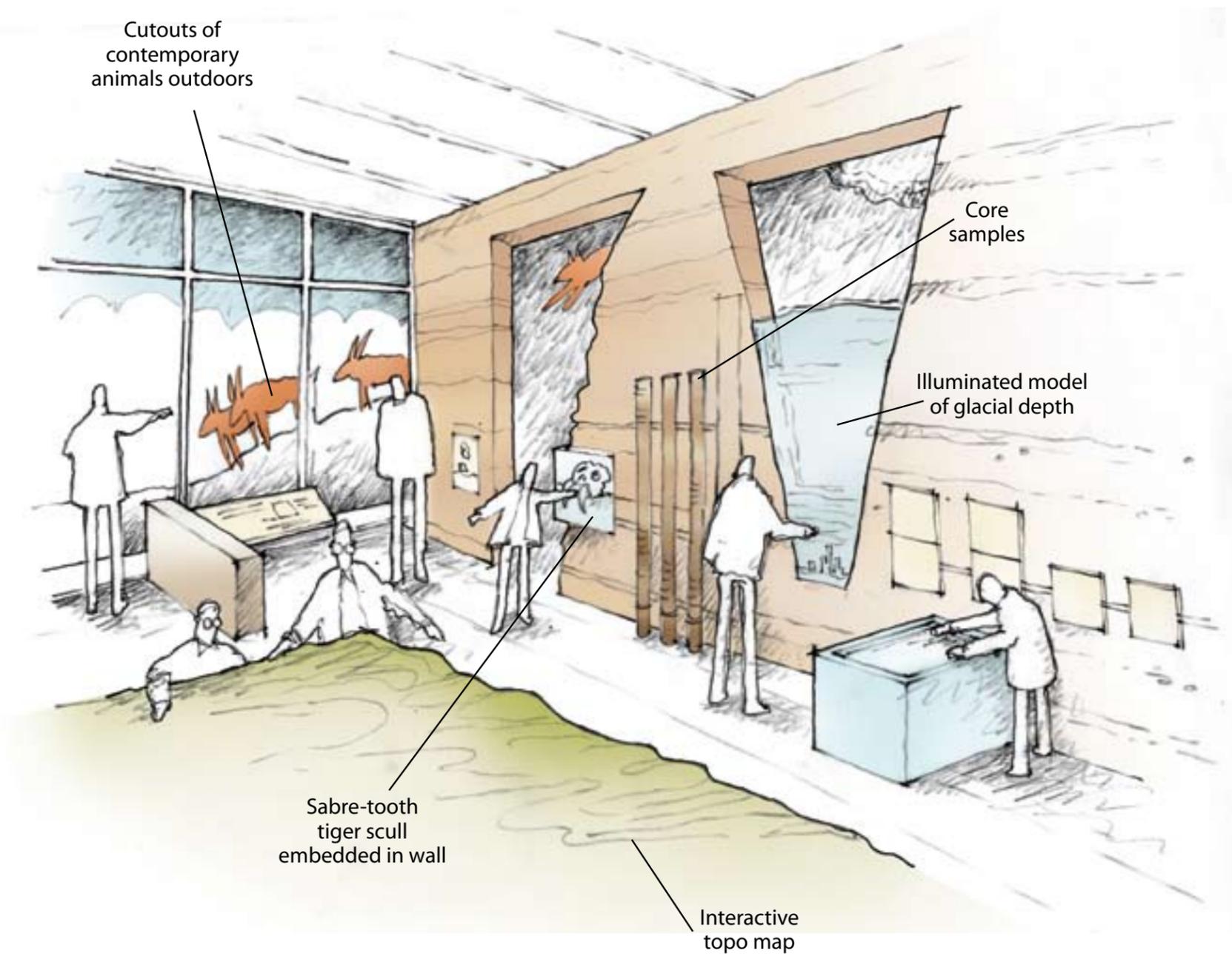
Two galleries tell the story of the Ice Age floods and their aftermath. The first gallery, the Fire and Ice Gallery, interprets the geological story from volcanoes to Ice Age floods. The second gallery, the Legacy of the Floods Gallery, interprets the cultural and natural history legacies of the floods.



Immersive Theater



The gallery is anchored by a large, dramatic interactive topographical map. This central, interactive exhibit is surrounded by these content areas: Volcanic Period, Ice Age, The Floods and Today. Other topic areas could also be added, or changed over time, offering opportunities to add novelty, drama and activities that encourage self-directed exploration.



Fire & Ice Gallery

Visitors exiting the theater head straight for the Fire and Ice Gallery to discover more about the Northwest's history of fire and ice.

The gallery is light and airy, with an organic feel. Large icons and geological landforms (ranging from cross-sections of the earth to spewing volcanoes) add excitement, energy and create a sense of mystery as visitors become curious about what is located out of sight.

Visitors are immediately drawn to the large, dramatic topographic model exhibit in the center of the gallery. This three-dimensional interactive map provides visitors with a bird's eye view of the enormity of the floods as they rage toward the ocean. Visitors use spin browsers to accelerate or slow time, or to investigate topics of interest to them – their choices will be shown on large "slave" screens suspended from the ceiling.

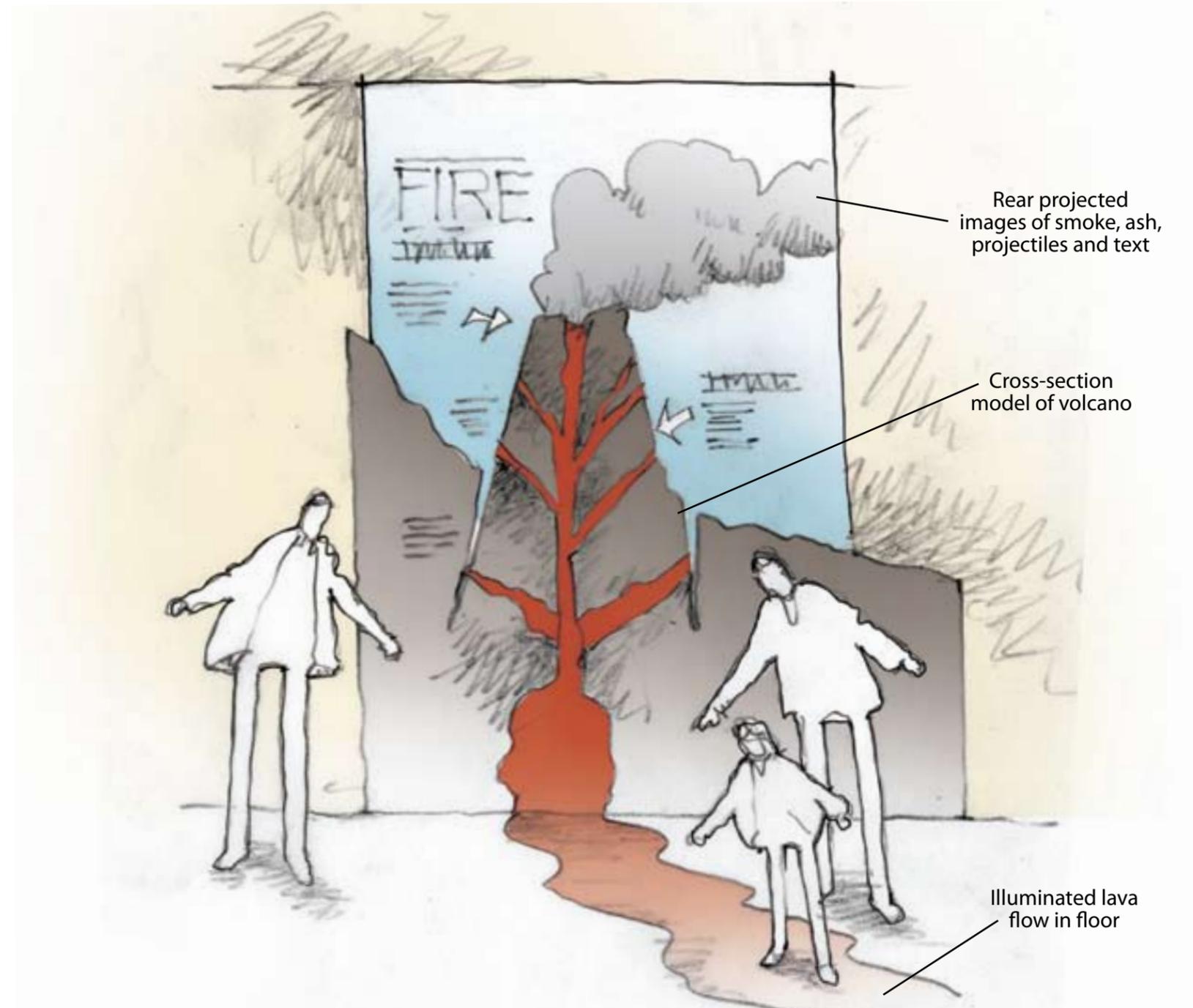
Visitors are attracted to what appears to be a spewing volcano that symbolizes the Miocene's volcanic history 20 million years ago. Here they discover the magnitude of the lava flows – 6,000 feet in depth, covering 200,000 square miles. They interact with hands-on exhibits that allow them to explore the properties of columnar and pillow basalt. They also encounter fossils, artifacts and images of the flora and fauna of the period, including ginkgos, giant ground sloths, elephants, miniature horses, and camels. A three-dimensional model of the Blue Lake baby rhinoceros proves fascinating to all.

The Ice Age is symbolized by a wall of ice. Seeing connections to today's global climate change, visitors are captivated by the waxing and waning of the ice sheets. Mechanical interactive exhibits allow visitors to see up-close how ice sheets scoured the land and formed glacial moraines and ice dams. The formation of the Ice Age flood route is explored and various geological curiosities from erratics to high water markers are revealed through real, local and interactive exhibits. Visitors enjoy touching and testing geological specimens and learning how to identify different specimens in the field.

Visitors also come face-to-face with an enormous and deadly looking skull of a sabre-toothed tiger and become familiar with the strange looking fauna of the time, from short-faced bears to woolly mammoths and dire wolves.

Telling the Native American Story

The Native American story will be featured in the Dry Falls Visitor Center. All indigenous interpretation will be developed in full collaboration with the Tribes whose story is being told. Native American interpretation will focus on how the lives of indigenous peoples were affected by consequences of the Ice Age Floods. Visitors will discover how Native Americans successfully lived in this extraordinary landscape of lakes, rivers, coulees, buttes, dry cataracts, boulder fields, gravel bars and rich soils.



Legacy of the Floods

Visitors entering the Legacy of the Floods exhibit area begin to see some familiar sights – human influenced landscapes and people! Remembering their theater experience, many visitors are eager to find out more about the Great Ice Age Flood Debate and how J Harlen Bretz created his flood theory. They quickly become immersed in the process of scientific discovery as they engage with an interactive exhibit that challenges them to assess the evidence of the flood and create their own theories.

Others are keen to discover how Native Americans lived here and interpreted the land. They are mesmerized by the petroglyphs and myths, and fascinated by the variety and range of stone tools and plant usages. All visitors are encouraged to visit other Tribal interpretive centers to discover more.

Others are amazed to learn that the legacy of the flood is still strong today, determining our settlement patterns, and how we use and live on the land today. Visitors can enjoy viewing historical photographs and reading journals from times past.



Retail

Visitors browse through the gift shop looking for resources that will provide them with a deeper understanding of the Ice Age Floods and its natural history and cultural legacies. Many visitors search for guidebooks that will allow them to explore more on their own. Others seek souvenirs for friends and family at home.

Younger visitors look for something fun that they can afford – and that their parents hope will keep them entertained in the car. Snacks and beverages can be purchased in an adjacent cafe, where an outdoor seating terrace for eating and respite can provide an additional opportunity to take in the view.

The sales through the gift shop and cafe is the revenue generator that supports the interpretive program at the Dry Falls Visitor Center. It is vitally important that the gift shop be designed and allocated with sufficient resources to fulfill this crucial role.



Site and Outdoor Interpretation

Visitors can explore the site either before they enter the Visitor Center or afterwards. They can enjoy a short walk to explore the historic legacy, and farther a field onto trails enriched by unobtrusive graphic panels, which interpret everything from cultural and natural history to geological events as desired.

Hands-on or touchable exhibits are scattered along the trail, providing visitors with insights about of the area, its flora and fauna, and its history. Benches and naturally blended shelters provide protection from the weather – sun, rain and wind – may also be situated in strategic spots, including places with excellent views of Dry Falls.



Example of Outdoor Exhibit Panels