



Canyon Country Cultural Landscapes:

A Tribal Education and Community Engagement Resource

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Dr. Ben Bellorado, Crow Canyon Archaeological Center

Dr. Noah Pleshet, University of Arizona

Goals and Objectives

- **Deliver educational narratives through VR experiences that feature cultural heritage landscapes by layering narratives from:**
 - **Indigenous Communities**
 - **Land Managers**
 - **Archaeologists**
 - **Conservationists**
- **Create platform for the creation of Tribal Education Modules specific to the needs of partner communities**
- **Raise the *right kind* of awareness**
 - **Maximize emotional connections to the land**
 - **Minimize negative impacts**
 - **Remain respectful of our responsibilities to these landscapes**





CCCLVR Project Phases

- **Phase 1 (Ongoing)**
 - **Moon House VR**
 - **Virtual reality representation of Moon House and its surrounding natural and cultural landscape in the Cedar Mesa area of SE Utah**
- **Phase 2 (Initial Stages)**
 - **Tribal Education Models**
 - **VR experiences tailored to the educational objectives of partner communities**

Tribal Engagement Plan

- **Step 1 – Initiate Consultation via BLM**
 - With the involvement of our team, Monticello BLM Field Office formally initiated government-to-government consultation with project participants, beginning with a letter of invitation from the agency. This letter notified them that the project staff's (our team) intend to contact both the THPOS and individual tribal members whom we hope to work with on the project. Our team provided comments and input on this letter of contact.
- **Specifically, we are contacting the appropriate representatives of the Bears Ears Intertribal Coalition:**
 - The Hopi Tribe
 - The Pueblo of Zuni
 - The Ute Mountain Ute Tribe
 - The Ute Tribe (Uintah and Ouray Reservations)
 - The Navajo Nation

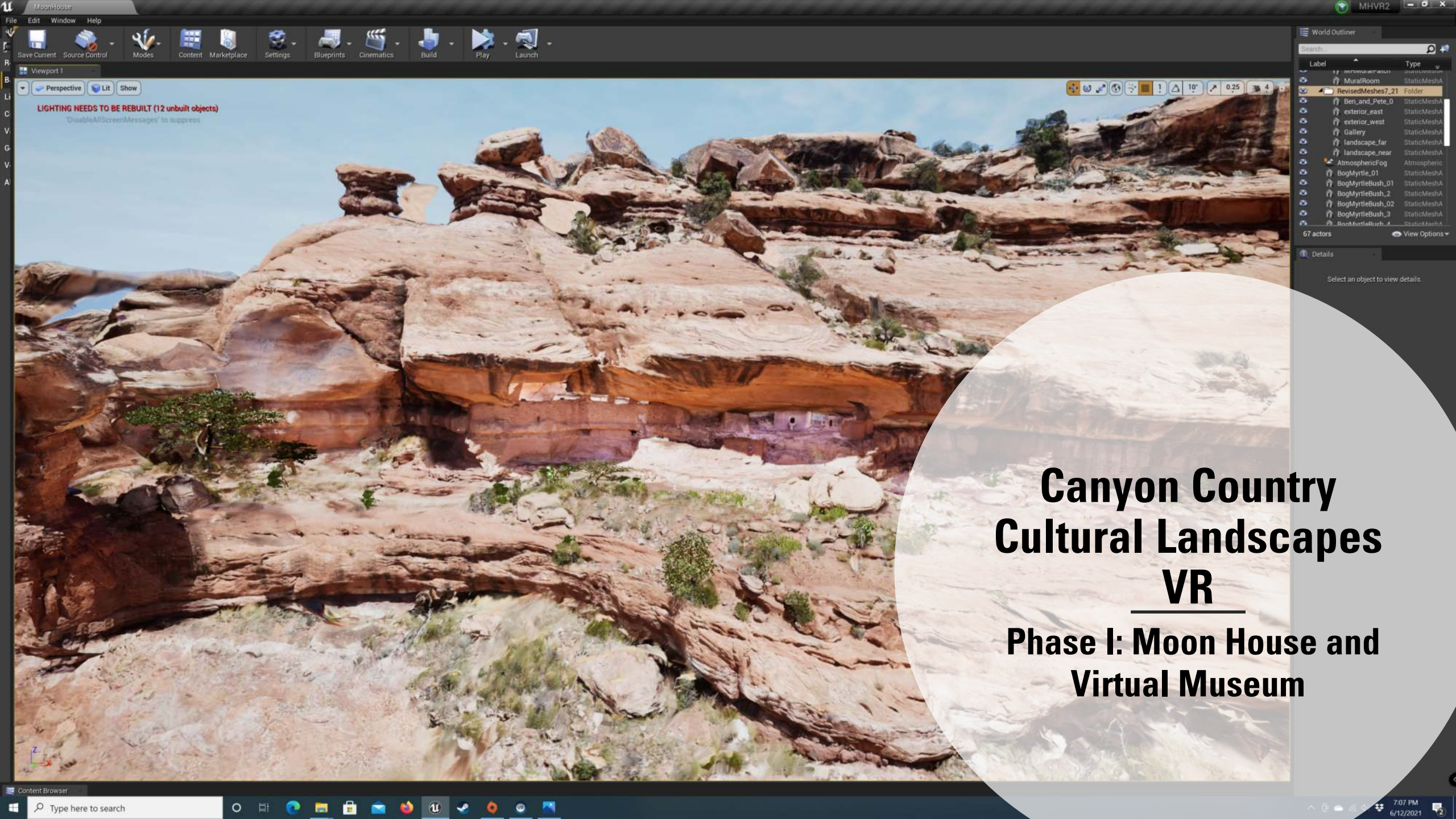
And:

- The Kaibab Band of Paiute Indians
- The San Juan Southern Paiute Tribe

***Additional tribes will be contacted in later phases of the project to gauge their interest in participation**

Tribal Engagement Plan

- **Step 2 – Contact THPOs of Bears Ears Intertribal Coalition Members**
 - Our team is contacting both the THPO and Cultural Preservation offices of the Bears Ears Intertribal Coalition members, following up on the BLM letter of invitation for the project. Following these initial contacts, Drs. Pleshet and Bellorado will request a meeting with THPOs and cultural preservation to discuss the project and to gauge the interest of each tribe in participating. Drs. Pleshet and Bellorado are also contacting individual tribal members whom we hope to work with on the project due to their specialized knowledge related to different aspects of the cultural and archaeological resources in study areas. Following tribal governance processes, all of the contacts will be approved by each tribe's THPO or cultural preservation offices.
- **Step 3 - Contact nominated tribal members and other stakeholder groups**
 - Initiate conversations with them about the site and the project, and to solicit feedback and participation in short interviews, video and audio recordings, and project reviews meetings.
- **Step 4 – Content Development**
 - Conduct short interviews, video and audio recordings, and project reviews meetings with specific tribal members to develop a portion of the content for the Moon House VR exhibit.
- **Step 5 – Review**
 - Once the draft project outputs including reports and the Moon House VR model are complete, the tribes and their representatives can comment on prior to final inclusion in the Moon House VR educational tool.



LIGHTING NEEDS TO BE REBUILT (12 unbuilt objects)
'DisableAllScreenMessages' to suppress

Canyon Country Cultural Landscapes VR

Phase I: Moon House and Virtual Museum

World Outliner

Label	Type
MuralRoom	StaticMeshA
RevisedMeshes7_21	Folder
Ben_and_Pete_0	StaticMeshA
exterior_east	StaticMeshA
exterior_west	StaticMeshA
Gallery	StaticMeshA
landscape_far	StaticMeshA
landscape_near	StaticMeshA
AtmosphericFog	Atmospheric
BogMyrtle_01	StaticMeshA
BogMyrtleBush_01	StaticMeshA
BogMyrtleBush_2	StaticMeshA
BogMyrtleBush_02	StaticMeshA
BogMyrtleBush_3	StaticMeshA
BogMyrtleBush_4	StaticMeshA

67 actors [View Options](#)

Details

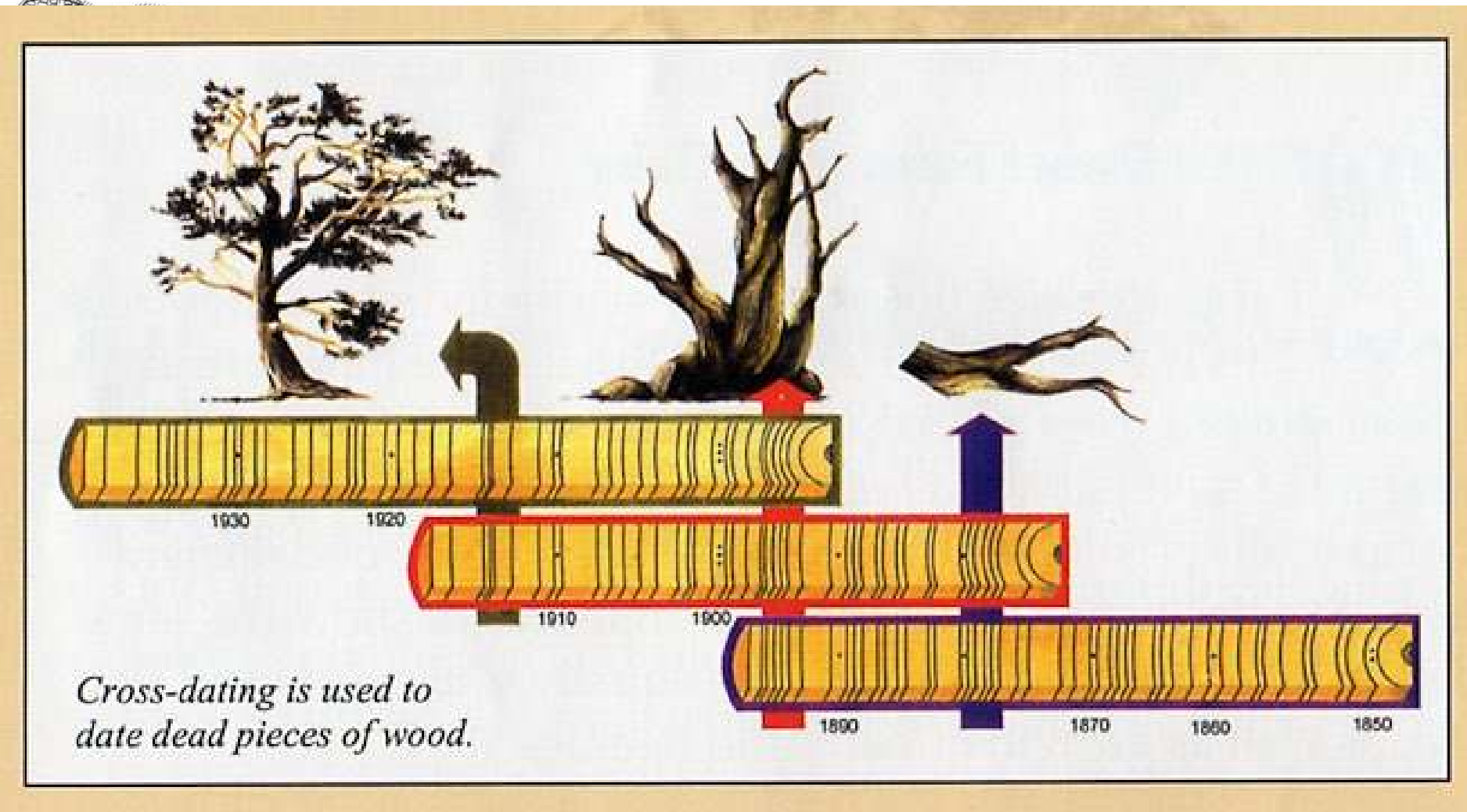
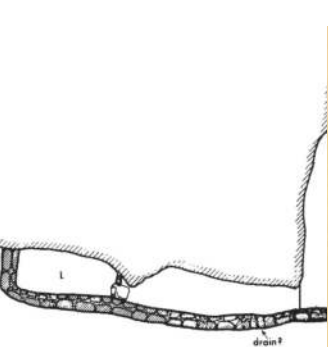
Select an object to view details.



Flythrough

Location-Based Content Triggers





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- 2. D
- 3. Dendrocl
- 4. Vis

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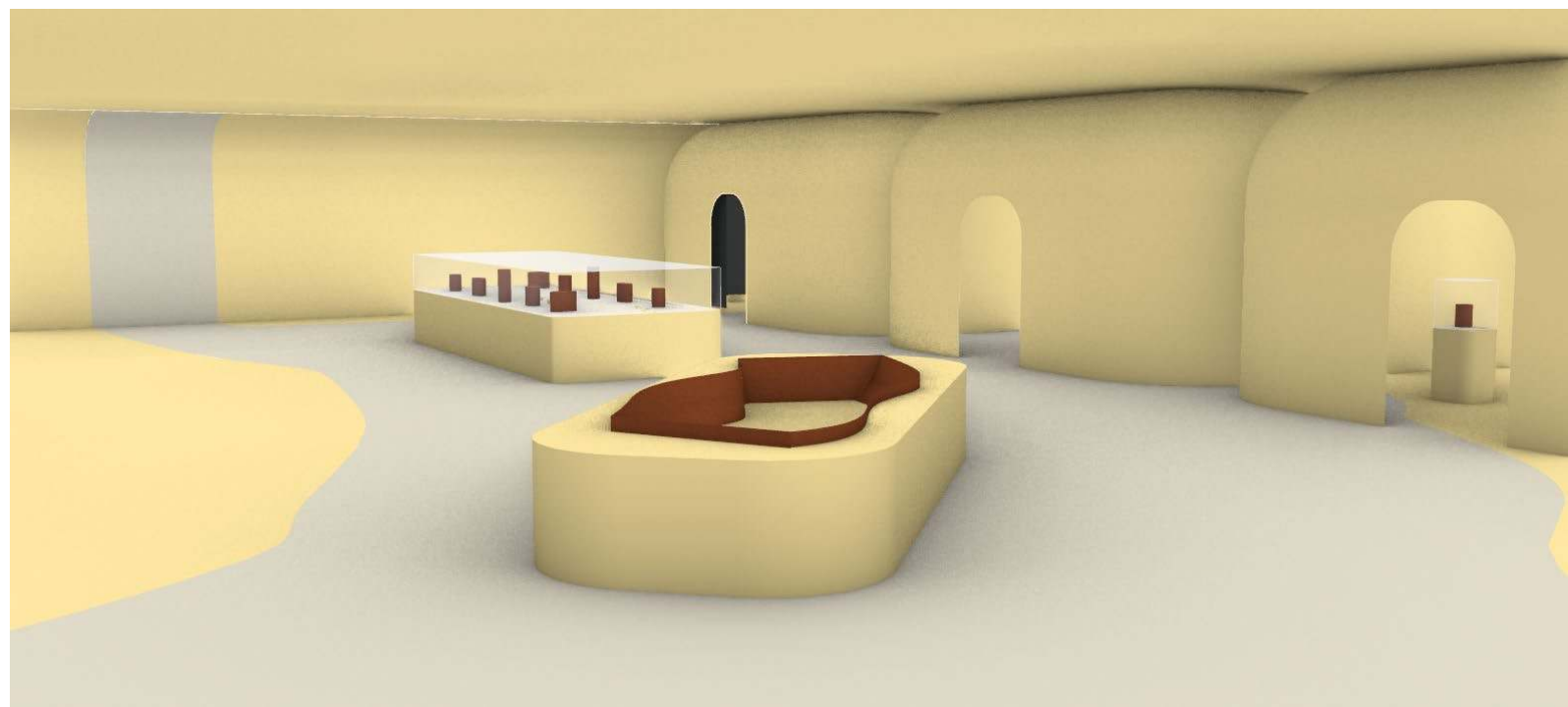
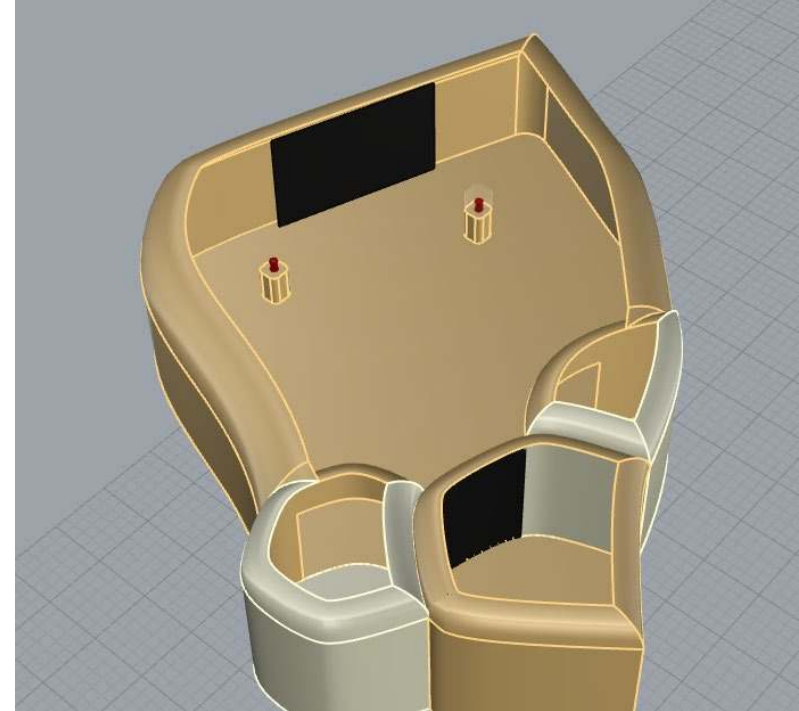
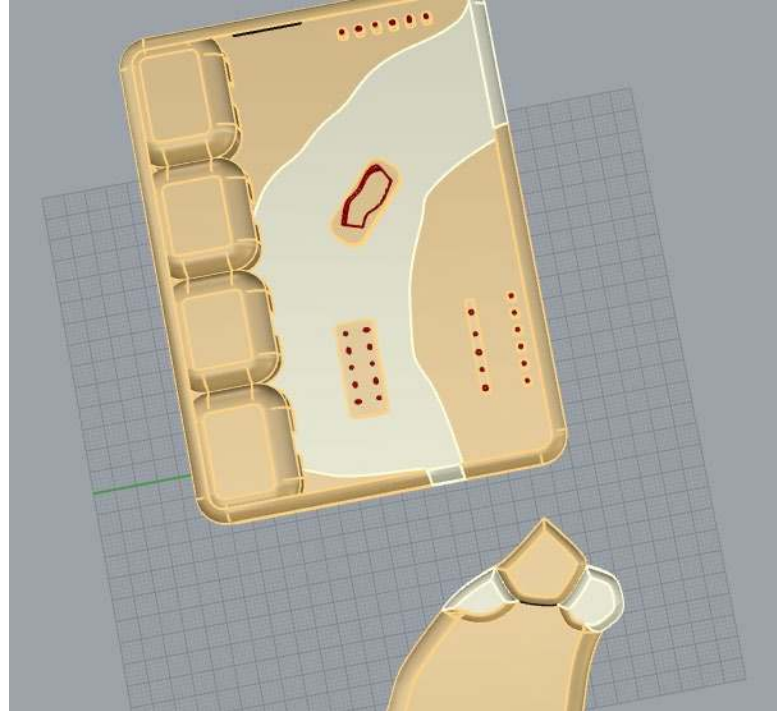
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output offers
nce

visual Aids

Virtual Museum

- **Interactive showcase for indigenous art & artifacts**
 - **Ancient**
 - **Contemporary**
- **Interactive map of Cedar Mesa**



Canyon Country
Cultural Landscapes
Phase II



Tribal Education Modules

Engage	Provide tools for tribes to engage tribal youth with modern technologies loaded with narratives related to preserving senses place and ways of life
Revitalize	Revitalize connections to canyon country landscapes in the Four Corners
Reconnect	Develop a new venue for reconnecting tribal members with distant homelands and ancestral sites
Access	Provide new tools for tribal elders and knowledge holders with accessibility and mobility issues to access ancestral sites and landscapes
Create	Develop tools for tribes to engage their members with educational content and messaging developed for their own purposes and needs
Outreach	Access, use, and distribution of each tribal module will be controlled by each participating tribe's Tribal Historic Preservation Office or equivalent entity and in collaboration with the MFO-BLM and CCAC

Project Infrastructure



- **Input -> Content library**
 - **3D Models of sites and objects**
 - **Audio (interviews, etc.)**
 - **Historical Resources (photographs, videos, etc.)**

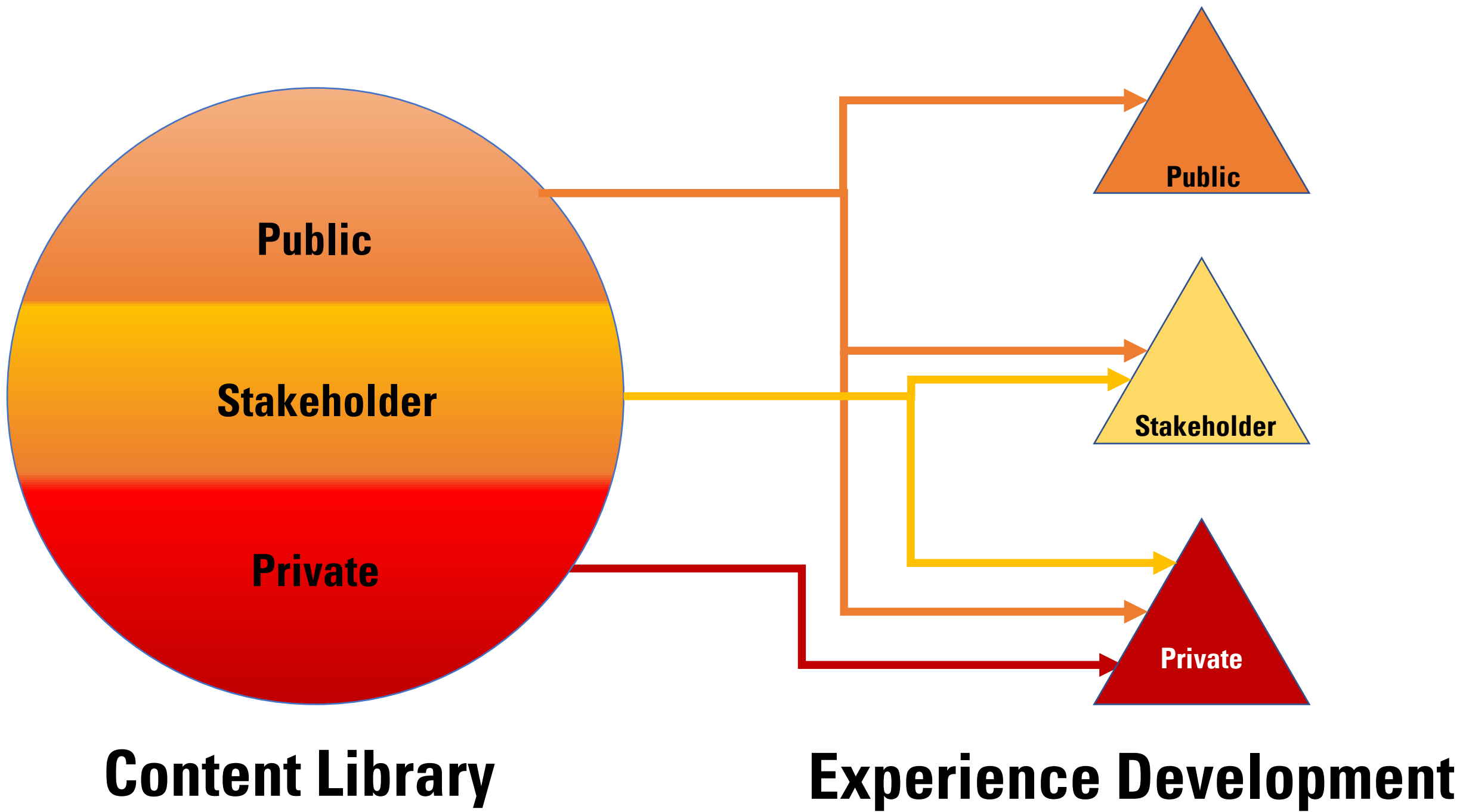
- **Output -> Customized VR experiences optimized for use by tribal partners and other authorized users**
 - **Tribal Historic Preservation Offices**
 - **Digital distribution**
 - **Visitor's Centers**
 - **Community education initiatives**

Content Library

Three tiers of encryption, privacy, and access

- **Public**
 - **Approved for access to all potential viewers**
 - **Wide digital distribution, downloadable, etc.**
- **Stakeholder**
 - **Approved for access to small, specific groups of visitors (e.g. resource managers, tribal members etc.)**
 - **Limited distribution, for sharing in small private or semi-public settings, only installed on select non-internet connected devices**
- **Private**
 - **Approved for access for only select individuals**
 - **Limited distribution, only installed on select non-internet connected devices**
 - **Not accessible by all project members!**





Team Members

Project Staff:

- **Dr. Ben Bellorado (PI) – CCAC & U of A SOA – Local archaeologist, ethnographer**
- **Dr. Noah Pleshet (Co-PI) – U of A SOA-BARA – Ethnographer and cultural anthropologist**
- **Dr. Eric Heller – (Co-PI) USC – Archaeologist, lead VR designer**

Crow Canyon:

- **Rebecca Hammond – CCAC – Native American Initiatives and Education**
- **Laura Brown – CCAC – Videographer and audio/visual content editor**
- **Dylan Schwindt – CCAC – IT support and digital curation**

University of Southern California Students and Faculty

- **Native American Student Assembly**
- **USC ArcLab**
- **Department of Anthropology**
- **Visual Arts**

MFO-BLM:

- **Jared Lundell – BLM-MFO-BENM Archaeologist**
- **Misti Haines – BLM-MFO Outdoor Recreation Planner**

Our indigenous partners and communities!



USC School
of Cinematic Arts



CROW CANYON
ARCHAEOLOGICAL CENTER

An aerial photograph of a rugged, layered rock formation, likely a canyon or mesa, with a river winding through the center. The rock layers are distinct and horizontal, showing signs of erosion. The river is dark and flows from the top left towards the bottom right. The overall scene is captured in a dark, moody light, possibly during dusk or dawn.

**We'd love to
hear from you!**

**To provide feedback or get
involved please email:**

erichell@usc.edu