

# Architectural Rendering

## Design Document

### Overview

#### Project Purpose

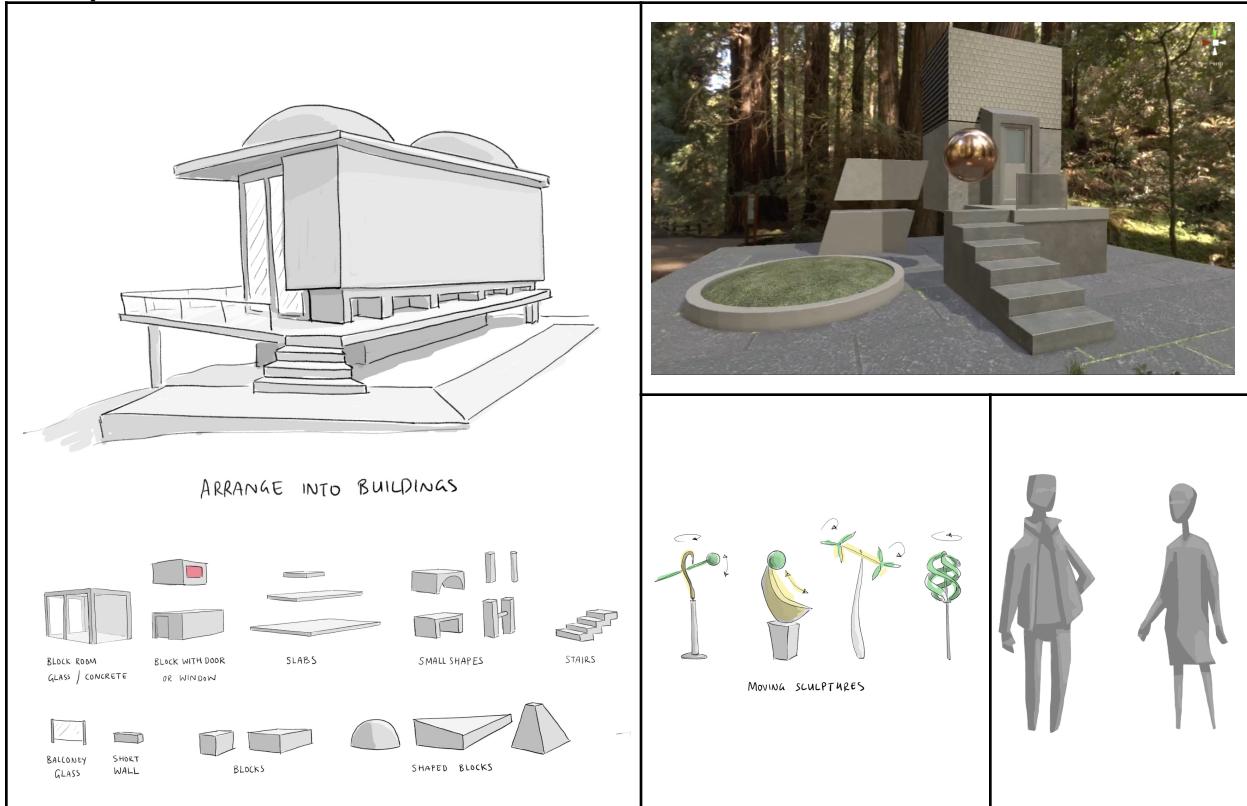
This 3D environment will be a part of a web- or Augmented Reality (AR)-based tool for visualizing new architectural proposals called "ArchitecTour." This allows architects and real estate developers to preview realistic renderings of buildings during the initial planning phases of new construction projects. It allows users to experience the interior and exterior of the building from multiple angles, and even preview different construction materials and colors. In the AR version of the app, users would also be able to visualize the building at potential construction sites. This particular brutalist modern building is one example project that would come pre-installed with the app.

#### Target Audience

This experience is targeted at users who use:

- Architectural design programs like [Revit](#) or [Google Sketchup](#)
- Real-time VR/AR architectural prototyping and visualization tools like [Scan](#) or [Arki](#)
- Floor planning tools and 3D visualizers like [Room Planner](#)

#### Concept art



## Reference examples

<p>Brutalist Architecture</p>  <p>Habitat 67 in Montreal - Image from <a href="#">Pixabay</a></p>	<p>Modern Architecture</p>  <p>By Popov Bass Architects under <a href="#">CC BY-SA 3.0</a></p>
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## Project Requirements

<b>Shaders / Materials</b>	<ul style="list-style-type: none"> <li>- Realistic materials and textures on all surfaces</li> <li>- Custom shader for TV screen</li> </ul>
<b>Lighting</b>	<ul style="list-style-type: none"> <li>- Clean, evenly lit daytime scene</li> <li>- All lighting should be baked for maximum quality, except sunlight which should be able to change time of day</li> </ul>
<b>Animation</b>	<ul style="list-style-type: none"> <li>- Cutout paper-like people should be idling</li> <li>- Modern sculpture should be animated to make scene more dynamic</li> </ul>
<b>VFX</b>	<ul style="list-style-type: none"> <li>- Dust particles in the interior</li> <li>- Fireflies on the grass patch outside</li> </ul>
<b>Cameras</b>	<ul style="list-style-type: none"> <li>- Multiple camera angle options, including (1) a wide angle shot that captures the whole interior (2) a mid-range shot that features a piece of furniture or a character (3) a close-up of a painting or sculpture</li> </ul>
<b>Post-processing</b>	<ul style="list-style-type: none"> <li>- Moody atmosphere</li> <li>- Bloom on lights</li> <li>- Vignette</li> </ul>
<b>Audio</b>	<ul style="list-style-type: none"> <li>- Nature noises coming from exterior</li> <li>- Calming music for admiring the scene</li> </ul>
<b>UI</b>	<ul style="list-style-type: none"> <li>- Buttons to switch between camera angles</li> <li>- Menu with audio controls</li> </ul>