DHP User Guide
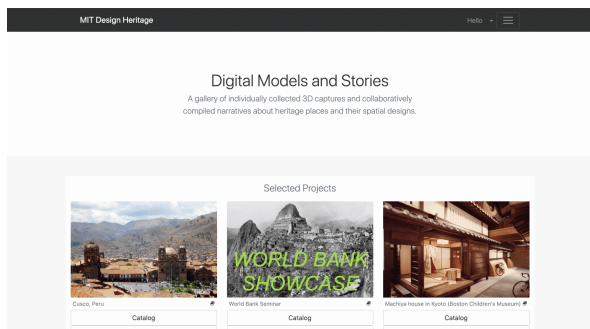
Get Started

Sign Up For Account

💡 You will need a valid email to sign up for an account at DHP.

1. You could sign up for DHP (Design Heritage Platform) by going to the home page, clicking on Hello at the top-right corner, selecting Log In, and Don't have an account? Sign up here.

2. You will need to create a user name and unique password for your account, and input a valid email address. This email address will be used to validate your account and sign in to your account later.

3. After successfully submitting your email, user name, and the new password, you will get a validation email. Click on the link to validate your account, and then you can log in with the new account.

Export Model for DHP

- **From Autodesk Recap**

In the export settings, select the Advanced tab, and use the settings below:

1. If you would like to decrease the output file size, you can do so by changing the "Target face count" (which changes .OBJ file size). DHP has an uploading limitation of **10MB** on the file size of a single .OBJ file, which should be equivalent to around **50000(need to check)** face count.

2. You should also select a small texture size (but don't select the "8192x8192 multiple" option as we can only upload single texture now). DHP has an uploading limitation of **5MB** on the file size of a single .JPG texture or thumbnail image. 2k or 4k would be ideal.

3. You should also check the Y-Up when export.

Upload Model
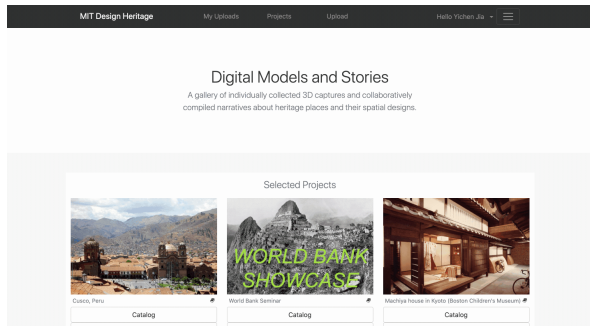
1. Go to My Uploads from the navigation bar, click on the Upload button on top-right of the page. You will be directed to Model Viewer with a dialog opening for uploading new models

2. Select whether you want to upload a model or an image, click to select your .OBJ and .JPG file (make sure their file sizes are below the limitation). Click on Preview
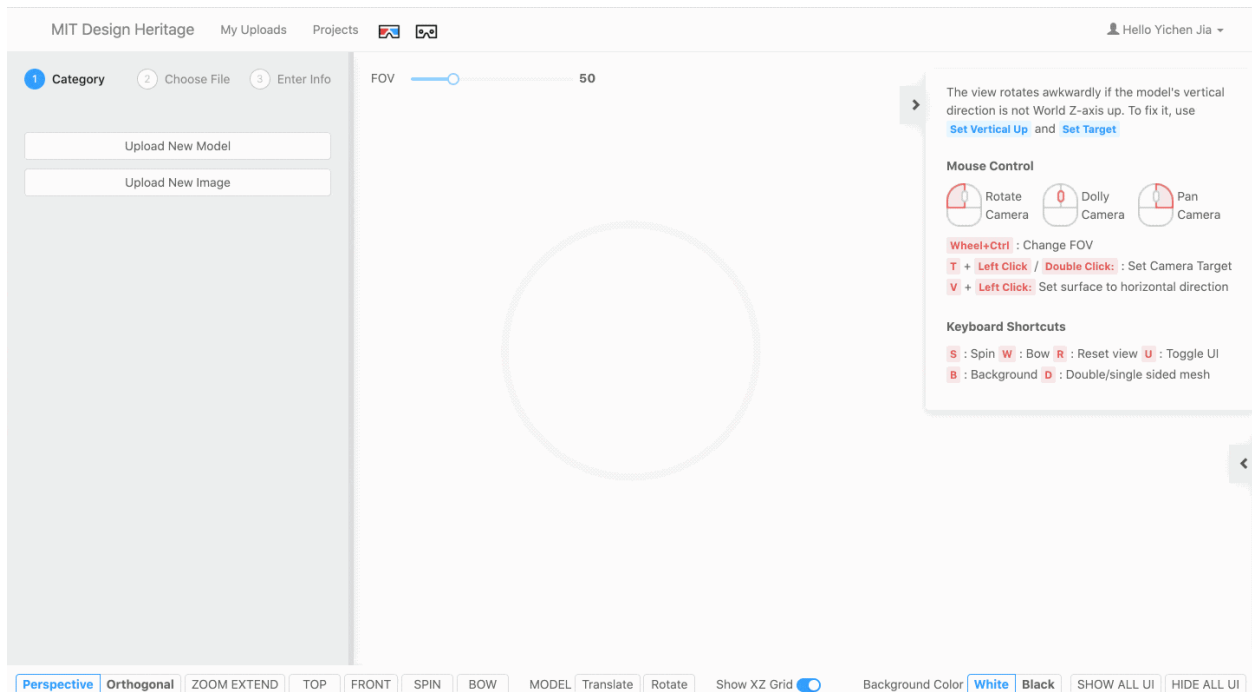
3. As you could start to inspect your model in the Model Viewer, input basic model information. Please note that only **Title**, **Creator**, and **Thumbnail** are required. You

could choose to Upload an image from local to be the thumbnail, or using the current view by Capture

> 💡 You may find that your model are not oriented correctly after uploading it. In that case. you could fixed the orientation by using Set Vertical Up, and Convert Z-Up Model to Y-Up, or later in Model Viewer with more comprehensive tools. It is advised to fix any orientation issue before adding the model to any projects.
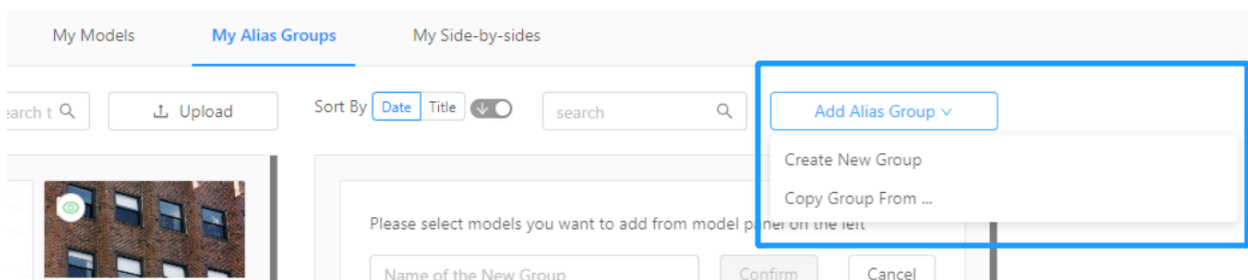
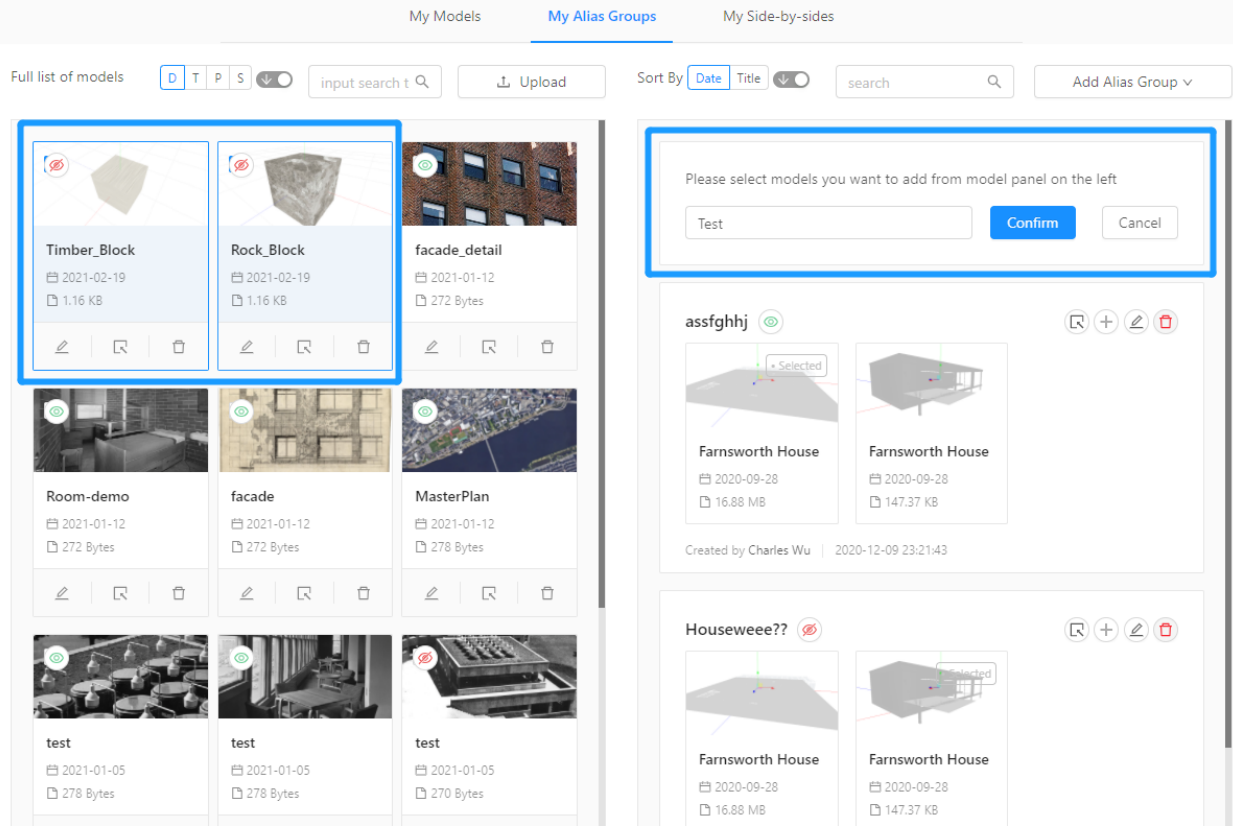4. You will find all your models under My Upload

My Alias Groups

On the asset page, there is a tab called "My Alias Groups" where you could link two similar asset models and compare them side by side.
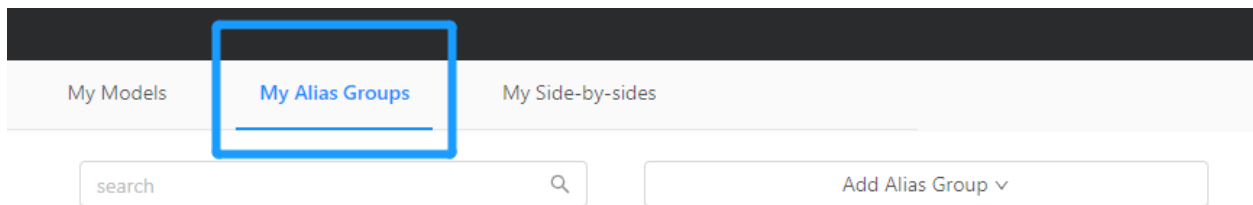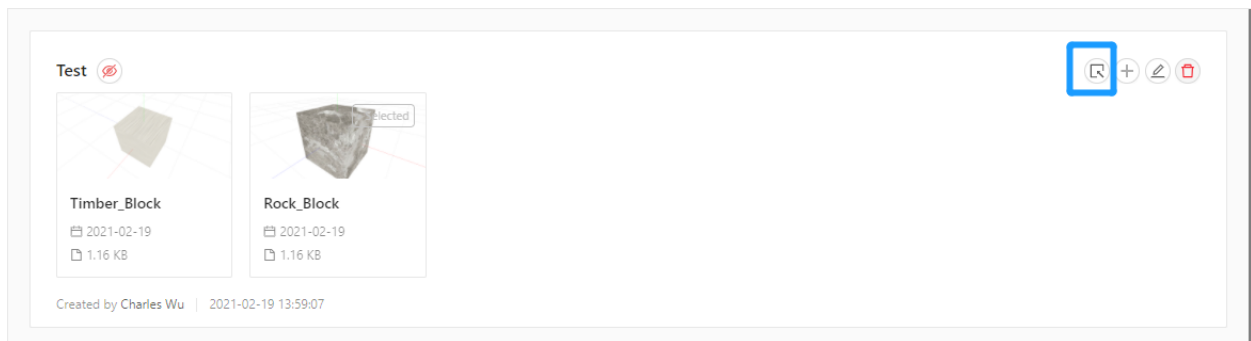

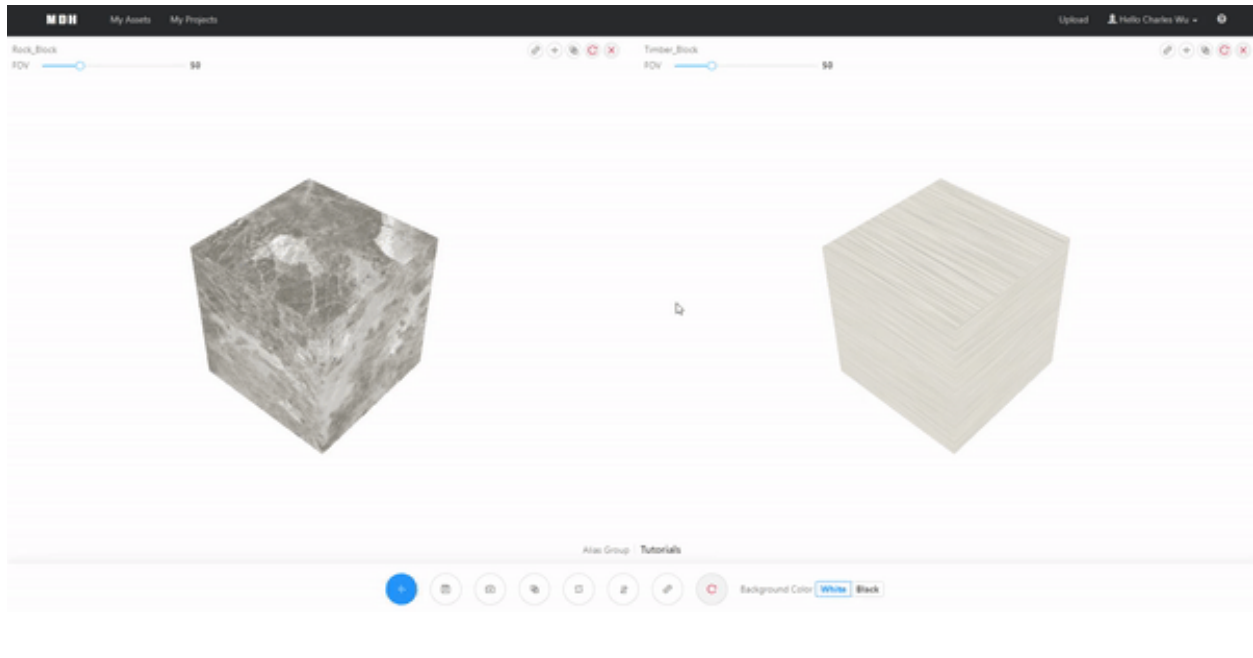First, click on "Add Alias Group", then "Create New Group".

Select the asset models that you want to compare, and fill in the name of the Alias Group. Then, click "Confirm".

Finally, click on the "Preview" button to compare them side-by-side.
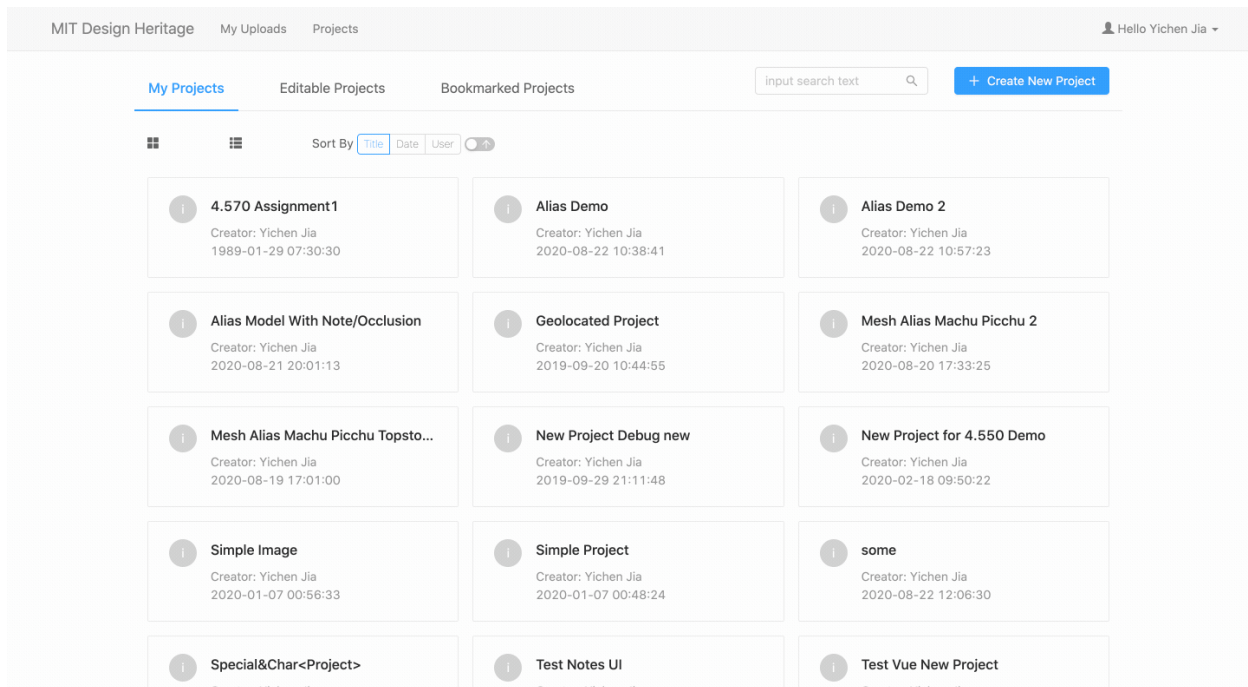
Create New Project

You can view all your projects, and create new projects under the <u>Projects</u> page. On this page you will see:

- my projects: projects created by you

- editable projects: projects that have you added as an editor

- bookmarked projects: public projects that you have bookmarked

1. To create a new project, click on Create New Project.

2. Enter informations regarding this new project. Among all inputs, **Project Name** is the only required one. All those information will be editable in project settings later.

3. You will be added as an editor by default, but you could also invite others to become editor of this project by entering their email associated with their DHP account (Yes you need to make sure they have already registered for a DHP account)

4. If you want to include an interactive map in your project, check Geolocated

5. If Add Default List in **Note Categories** is selected, your new project will have five default note categories:

- General Comments
- Safety/damage Report
- Historical Documents
- Onsite photo/video
- Request Field Data

6. After you created the project, you will be redirected to its catalog page, where you can start adding models and editing project settings.

Bookmark Project

You could bookmark a public project by going to the **Bookmarked Projects** tab, and then click on Add Bookmarked Projects, and then select the one you are interested in from a list of public projects.

Create Spatial Stories

Add Model

1. As an editor of a project, on its Catalog page, you will be able to add your model to the storyboard by clicking Add Model on the top right of the interface(you can only add models uploaded by yourself)

2. After the success notification, you will now see the model appearing in the list. You would still inspect the model in Model Viewer by clicking it, but after you have added the model to the project, any further changes you made to the model won't affect the project anymore.

Storyboard

1. Now that you have added all the models into your project, you could start creating the story in Storyboard. To do so, click Storyboard on the navigation bar and turn on the Edit toggle

Create Animation State
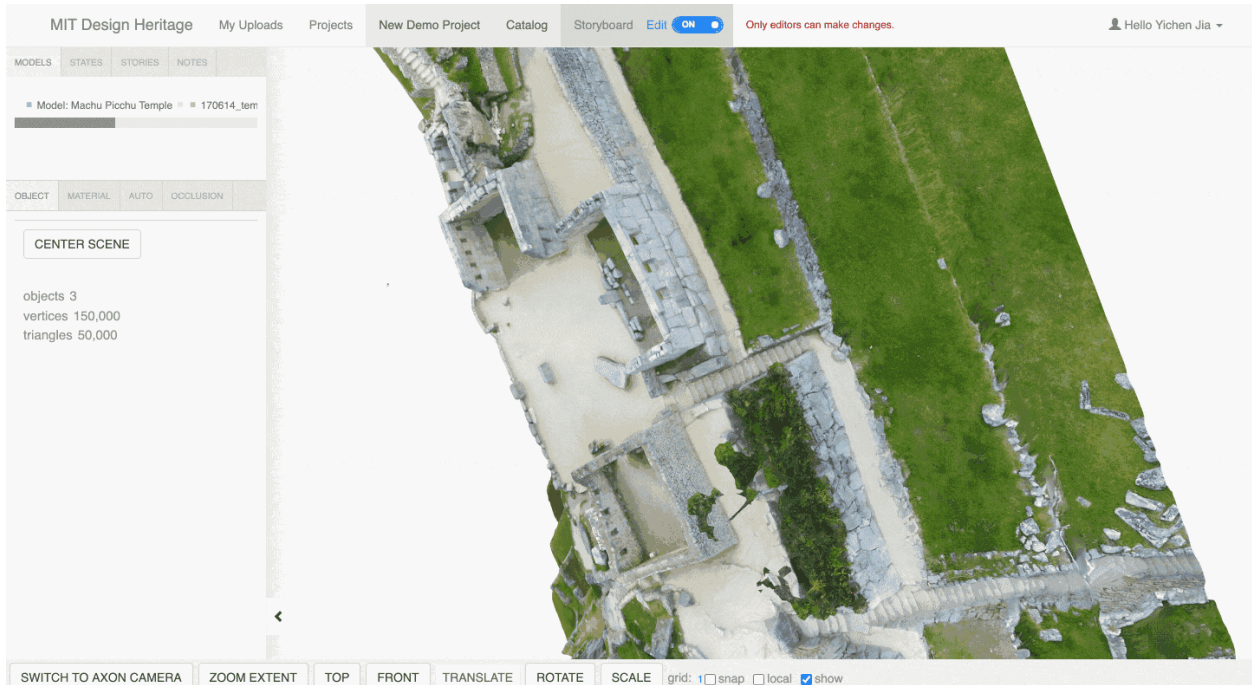
1. In the opened storyboard page in edit mode, now you can use the panel on the left or the transformation controller to adjust the transformation of this model (Shortcuts are 'w for position, e for rotation, r for scaling', this can also be selected on the bottom left)

2. You can also change material property by switching to the MATERIAL tab

3. After the adjustments, you can save the changes by clicking Save State. If you enter a different state name, a new state will be created automatically.
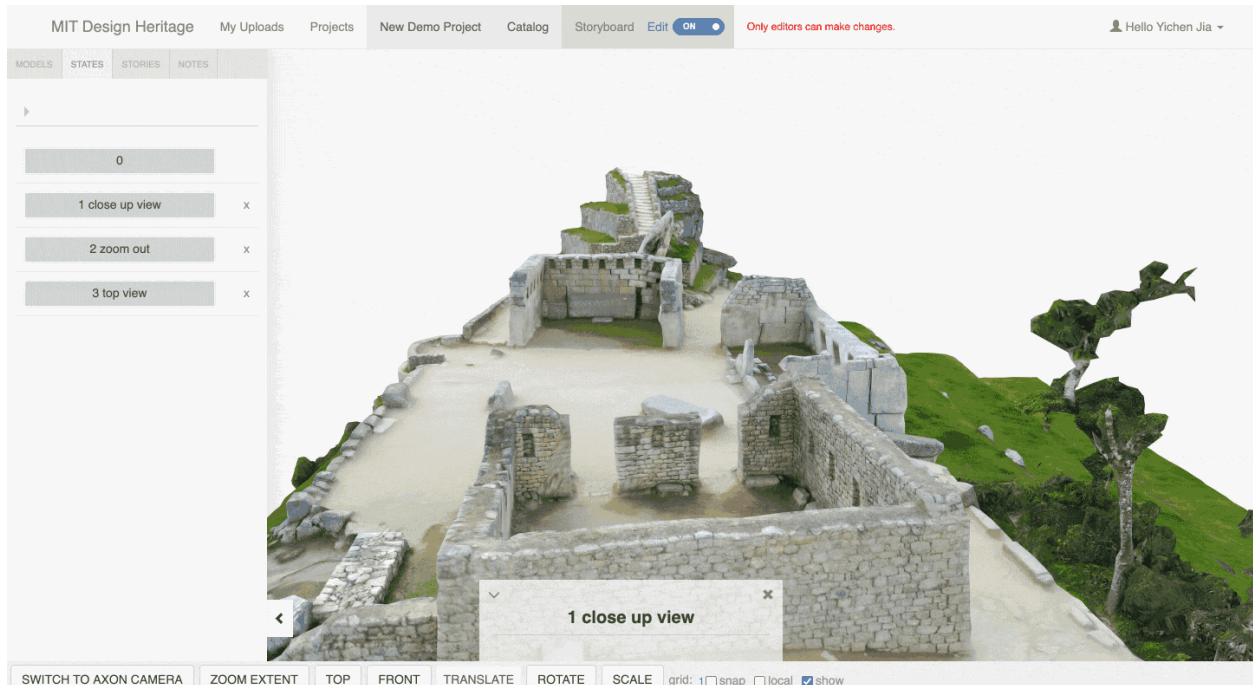
> 💡 Please try to avoid using state **0** in any stories besides the initial state.

> 💡 To copy states, click on the state you want to copy, then enter a different name for the a new state and save it.

Create Story

1. Now that you have created multiple states, you could finally create a story by linking the states together. To do so, click the STORIES button on the top, where you can create new stories or edit existing stories.

2. You could also have branches in the story, and when playing the story in the "demo" page, you will see a list of selections for the branch you want to go into.

💡 Please try to avoid having branches on the first state of any story. The initial state doesn't have a transition time, so it will pass really quickly

Add annotation
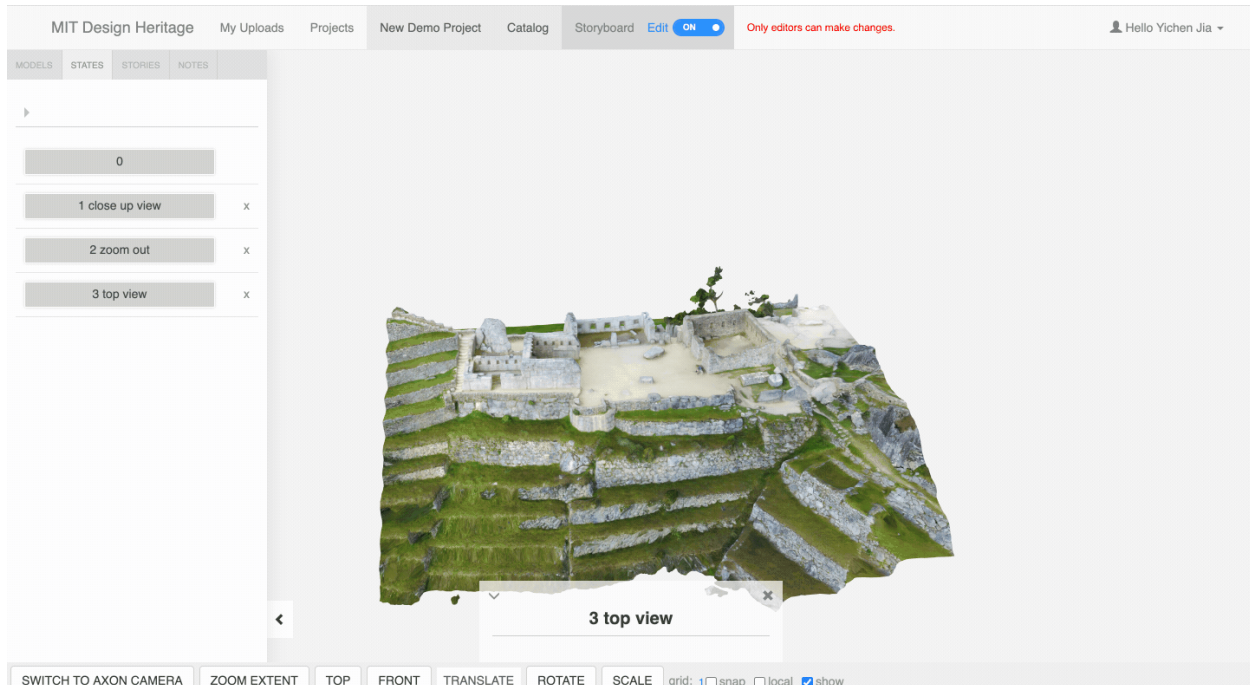
In the storyboard page edit mode, notes can be added to models by selecting a model and adding info in the "note" tab. An image can be added to the note by selecting the image from the local directory. If a youtube link is added to the note contents, it will be parsed and saved as an embedded video. A UV position on the model will need to be specified so that the note will be added to the selected point of the model.
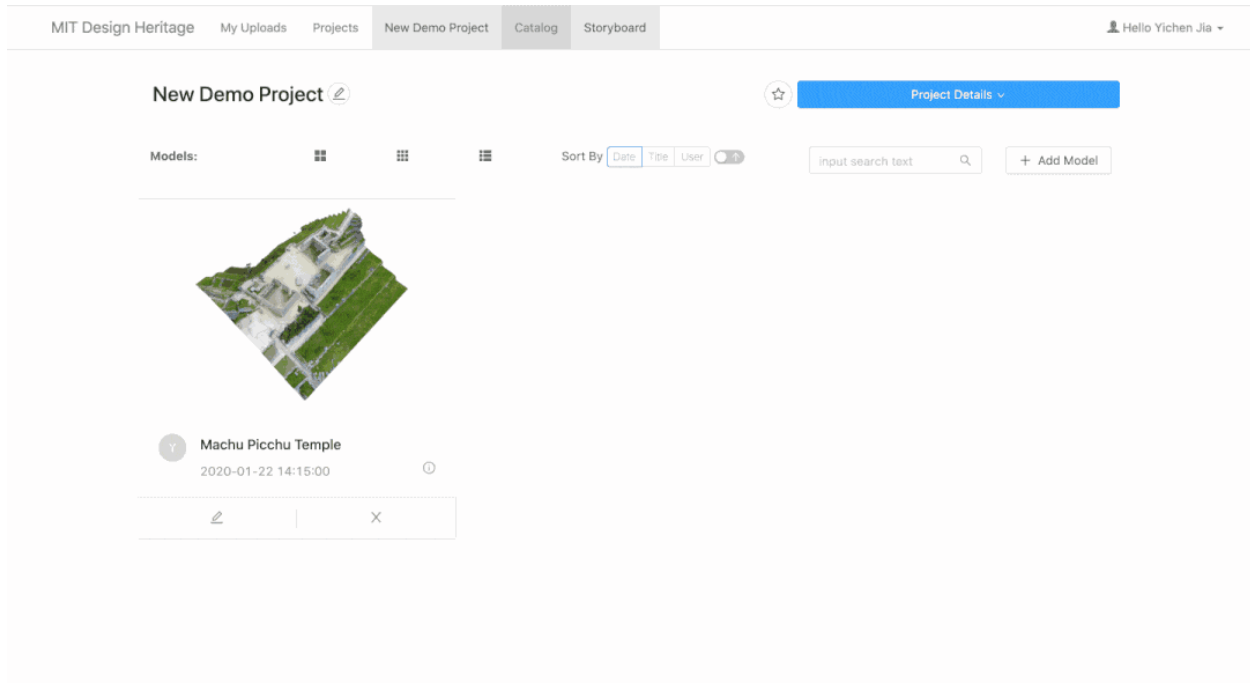
💡 **You may need to reload the page after you have created new notes for them to be displayed properly.**

💡 If you have opened a note and then save the state, the status of that note will be saved to state as well. So when you play this state later, the note will pop up automatically.

Add Map

If you turned on the "Geolocated" feature of the project, you will be able to see a map on the XY world of your project. By Clicking Locate Map button on the top right corner you will be able to drag the map around. And then you can click Sync Map to lock to the new location.

Add Occlusion

You could add box occlusion to individual models, or as slicer to the scene globally. Occlusion is helpful when you want to create sectional views, and they could be animated in between states as well.

Presentation Mode

You can go to the presentation mode by switching off the Edit toggle on the navigation bar. This mode allows you to view and play saved states and storylines of the project. However, you will not be able to make any edits.

Steps for setting up AR

1. Go to link https://designheritage.mit.edu/patcher/ar-libs/markers/, select the image marker(s) you plan to use in your project, and download it to your local drive. (e.g. `letterF.jpg`)

2. Use the Upload → Upload New Image function to upload the selected marker(s) to your assets.

   a. **Name your marker** in the format of `ORIGINALNAME Marker` . (e.g. `letterF.jpg` → `letterF Marker`);

   b. If you plan to keep the marker activated regardless of its visibility, add `Fixed` to its name, (e.g. `letterF.jpg` → `letterF Marker` → `letterF Marker Fixed`);

   c. If you want to customize the activation order of multiple markers, add `#NUMBER` to its name, and the markers in a single project will be ordered based on the `NUMBER` in their names. Markers with no `#` will always be ordered in front. (e.g. `letterF.jpg` → `letterF Marker` → `letterF Marker Fixed` → `letterF Marker Fixed #3`);

   d. Add the marker(s) to you project, and place them properly in Edit Mode. Once they are saved in a scene state, AR function is activated in the saved scene. If a marker doesn't have `Fixed` in its name, it can be deactivated in a state by toggling off its visibility property.

   e. Create a new story named `demo` containing the saved states.

   f. Review/Use your AR project by going to the presentation mode, and click on the AR presentation button.

Project: Baker CHNT   Toggle Web AR mode
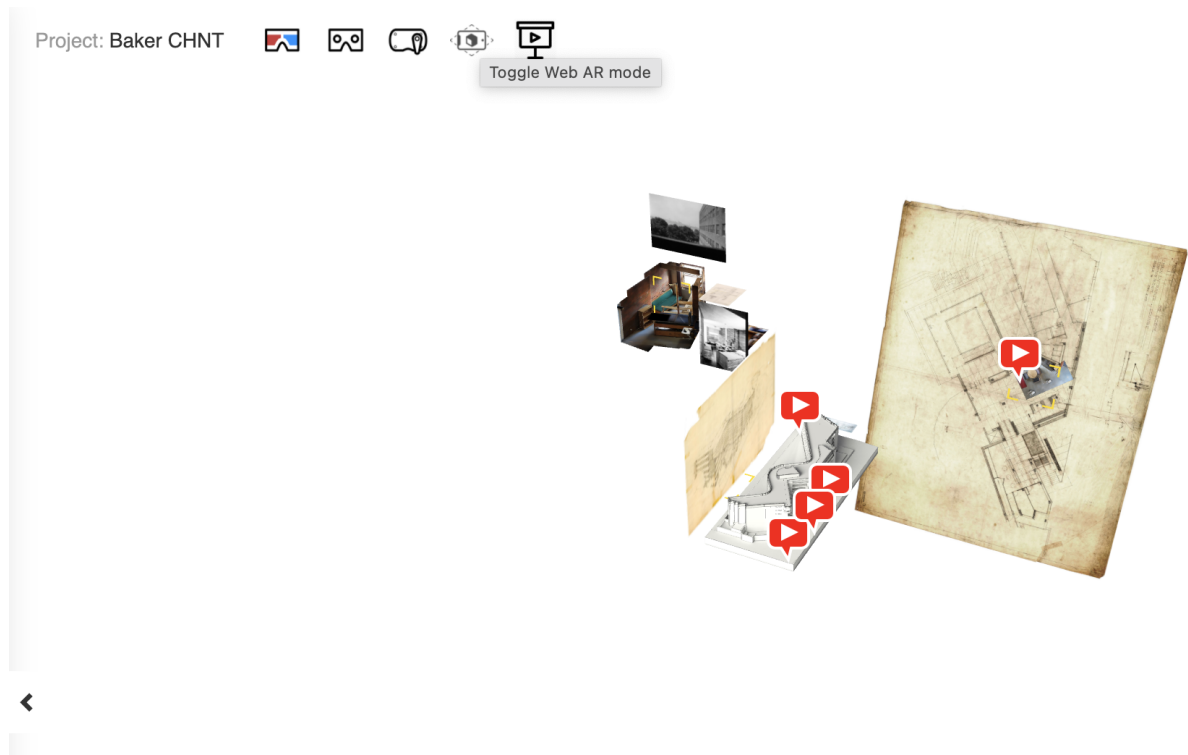
Feedback

MIT Design Heritage Website User Survey

You probably have used the Design Heritage Website for completing your assignment earlier this semester, and we would love to know if you have any suggestions on its interface,

https://docs.google.com/forms/d/e/1FAIpQLScDReoS3fgrC5--X 0CXQiZWAOP2eONZCy-w212cc_P8opxW_g/viewform