



An Infrastructure for the Preservation and
Publication of 3D Scholarship

Voyager Training Material

Part I and II: Basic and Advanced
Document Version 5.2

Voyager Story Tutorial
for Voyager Release v0.39.0

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WHAT IS VOYAGER¹?

Developed by the [Smithsonian Digitization Program Office](#) (DPO), Voyager is a web viewing tool for inspection and authoring of 3D assets. The tool is composed of two viewing modes, the authoring mode, named Voyager Story, and the viewing mode, Voyager Explorer. The aim of the Voyager system is to bring the Smithsonian's vast collection of 3D digitized objects to a wider audience by allowing web-based exploration and interaction with these digital surrogates in an immersive and engaging way.

Within the Voyager Story authoring interface, it is possible to attach multimedia (text, images, hyperlinks, videos, audio, etc.) to a 3D model or scene. Authoring is possible using three modalities: Annotations, Articles and Tours.

Annotation	a short information hotspot attached to a specific point on the 3D model
Article	a document with text and media that can be connected to annotations, linked into a guided tour or act as a standalone information window
Tour	a guided experience that uses multiple steps by means of camera movements within the 3D space, annotations and articles

What you need to complete this exercise:

1. A Voyager Story Workspace in either PURE3D² or in Voyager Standalone³
2. Two 3D models in .glb file format (provided upon request)
 - a. 25north.glb
 - b. 25north_map.glb
3. The following media files for adding content to articles (part of tutorial packet):
 - a. 25North_Text_Content.docx
 - b. adams-proc.jpeg
 - c. 25north.png
 - d. ms_audio.mp3

¹ For full documentation on Voyager Story, go to <https://smithsonian.github.io/dpo-voyager/story/usage/>

² This option allows for a secured working environment for saving and coming back to the tutorial. If you would like to do the tutorial through the PURE3D System, please send an email request to pure3d-fasos@maastrichtuniversity.nl

³This option does not allow you to save and continue working. Once the browser is refreshed the work is lost. But you can download the json file to return to working at another time. Find Standalone at: <https://3d.si.edu/voyager-story-standalone>

1. THE VOYAGER STORY WORKSPACE

The Voyager Story workspace includes tools for editing the appearance of the model and authoring the model. For this exercise, you will only be concerned with the tools relating to creating and editing annotations, articles and tours. The table and image below locates and explains these tools. This tutorial is based on Voyager Version 0.39.0 and some instructions or the UI might be slightly different.

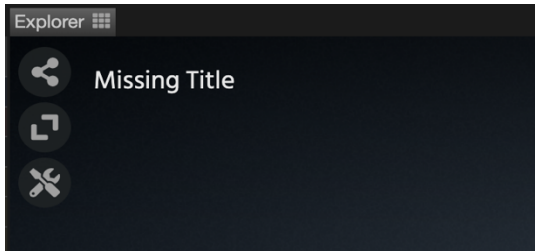
Task Bar	to add and edit annotations, articles and tours you must first select one of these in the Top Toolbar. The top save button saves the whole workspace.
Explorer Window	the end-user 3D viewer. What you add and edit in the Task and Editor Windows will be reflected in the Explorer Window. The 3D Viewer Icons are the ways an end-user will find and toggle annotations, articles and tours. You can use these buttons to check the interaction and view of the 3D Narrative.
Scene Element Panel	shows the article .html files and any media files you add to your workspace
Task Window	where you create, name and assign properties to your annotations, articles and tours
Editor Window	where you add content to the article or assign steps to a guided tour. The Save Article Button saves the article content.



2. SCENE SETUP

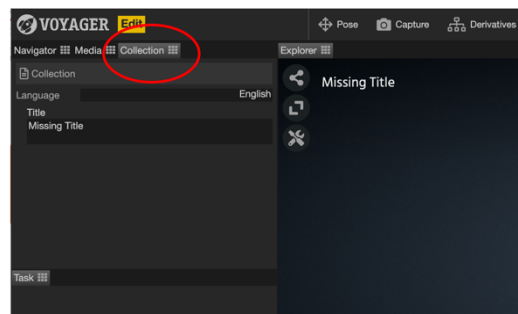
2.1 CHANGE THE NAME OF THE VOYAGER SCENE

Each Voyager Scene should have a name. By default, a scene is named “Missing Title” and will be shown in the upper left-hand corner of the Explorer Window, next to the 3D Viewer Icons, as in the image below.



Before we begin adding content to our workspace, we want to change the name of the Voyager Scene:

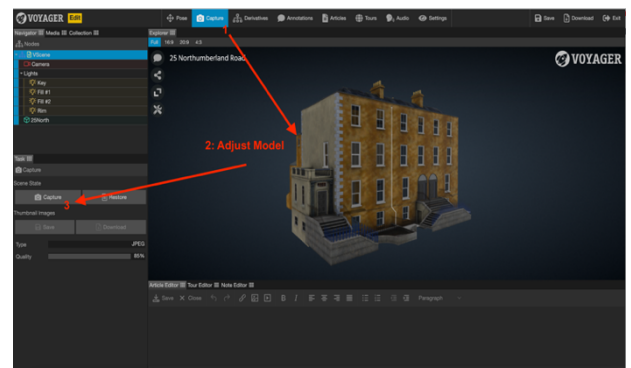
1. Go to the **Scene Element Panel** and click on the 'Collection' Tab.
2. Under the 'Title' field change “Missing Title” to “25 Northumberland Road”
3. Click on the 'Save' button in the **Task Bar**.
4. Reload the webpage to check if the name successfully updated from “Missing Title” to “25 Northumberland Road”.



2.2 CHANGE STARTING POSITION OF 3D MODEL

The default position of the 3D model is showing the back of the building. We can change the start position using the Capture function.

1. In the **Task Bar**, click the “Capture” Button.
2. In the **Explorer Window**, rotate/zoom/move the 3D model to a position that you want to have whenever the page is loaded, a front ¾ turn is nice (see image below).
3. In the **Task Window**, click the 'Capture' button under the Scene State Section.
4. Click on the **Save Workspace** button.
5. Reload the webpage and check if the position of the 3D model is update

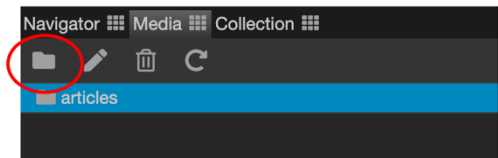


3. IMPORT MULTI-MEDIA TO THE VOYAGER WORKSPACE FOR USE IN ARTICLES

You can add off-line multimedia content (such as, images, videos and sound clips) to your Voyager workspace by importing the content directly into the Media Tab of the **Scene Element Panel** in Voyager. This Media Tab of the **Scene Element Panel** is a tab that you have to select in order to edit. It is located between Navigator Tab and Collection Tab (see image below).

3.1 CREATING FOLDERS AND ADDING MEDIA TO THE VOYAGER WORKSPACE:

1. First, click on the 'articles' folder in the Media Tab of the **Scene Element Panel**.
2. Within the Zipped tutorial files, you were provided a single JPEG image (`adams-proc.jpeg`) and a PNG image (`25north.png`) within the 'Images' subfolder as well as an mp3 file (`ms-audio.mp3`) within the 'Audio' subfolder.
3. Locate these three media files just mentioned in step 2 and drag them to the "articles" folder in the Media Tab of the **Scene Element Panel**.



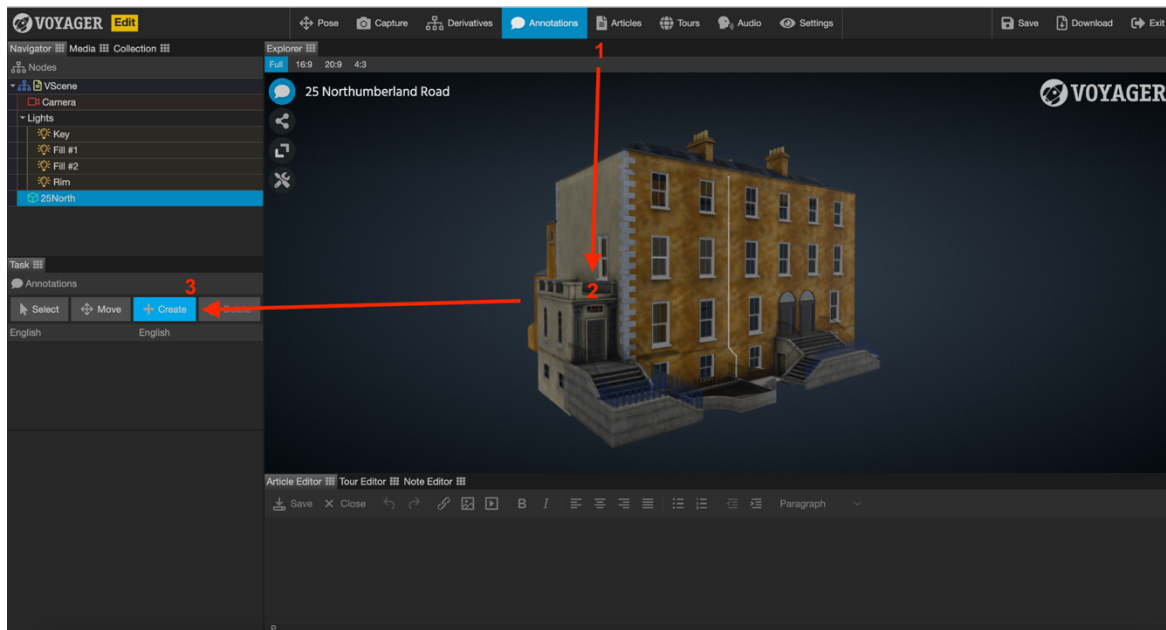
NB. Release the mouse only when the "articles" folder has a LIGHT BLUE DOTTED OUTLINE surrounding it.

4. Click the **Save Workspace** button in the upper right area of the workspace.

4. CREATE ANNOTATIONS

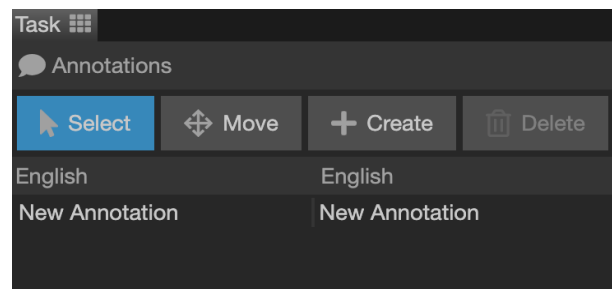
4.1 CREATE A NEW ANNOTATION

1. In the **Task Bar**, click the 'Annotations' button.
2. Click on the 3D model in the **Explorer Window** in order to activate the **Task Window**.
3. In the **Task Window**, click the '+ Create' button.
4. Now, click anywhere on the 3D model in the **Explorer Window** to create your first annotation.



You have successfully created your first annotation!

5. Go back to the **Task Window** and click the 'Select' button to deactivate the creation mode.
6. If you successfully created an annotation, the **Task Window** will look like the image below.



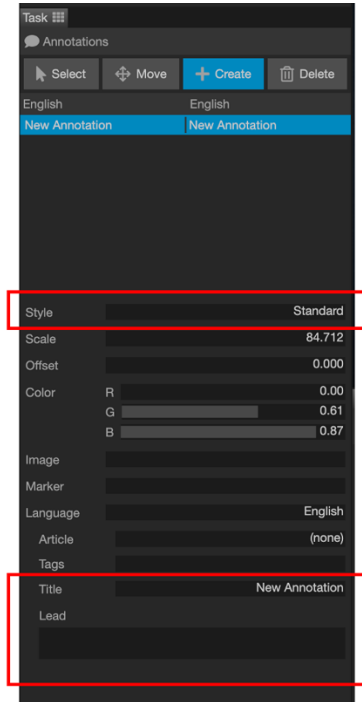
N.B. If you remain in creation mode and keep clicking on the model, you will continue to create new annotations. So it's good to stay in 'select' as the default mode when editing each annotation separately.

4.2 USING THE TASK WINDOW TO EDIT THE ANNOTATION

After you create an annotation, you can only then edit the properties of the annotation, including the name. Using the image to the right, find where it says 'Style', 'Title' and 'Lead'. You will be editing these properties in this section of the tutorial.

1. In the 'Style' field, change the option from "Standard" to "Extended". This lets us add a short text below the annotation title.
2. Lower down in the **Task Window** list, change the 'Title' from "New Annotation" to "25 Northumberland Road".
3. Drag and drop the image called 25north.png from the Media Tab of the **Scene Element Panel** into the field titled "Image" so that the field is outlined in a dashed blue line.
4. Two new subfields appear below the Image, "Credits" and "AltText", copy and paste the following into the respective fields:
 - a. © National Library of Ireland
 - b. 25 Northumberland Road after the Battle
5. Below the 'Title' you will find the 'Lead'. Below the Lead is a text space. Copy and paste the following text into this Lead text window:

25 Northumberland Road, located at the corner of the junction with Haddington Road, was held by Volunteers Michael Malone and James Grace.
6. Click the **Save Workspace** button at the top right hand corner.



4.3 CHANGE THE POSITION OF THE ANNOTATION

Next, we want to change the position of the annotation on the 3D model.

1. Click the 'Move' button in the **Task Window**.
2. In the **Explorer Window**, click anywhere on the front door. The annotation should have moved to where you just clicked.
3. If you are satisfied with the location of the annotation then click the 'Select' button in the **Task Window** to deactivate the 'move' mode.
4. Click the **Save Workspace** button in the upper right area of the workspace.



4.4 CREATE A SECOND ANNOTATION

Using the same process, create the second annotation.

1. First, click within the **Task Window** box so that the first annotation is no longer selected in blue. If it is still selected, this annotation will be duplicated as the second annotation.
2. Then click on the '+ Create' button to reactivate the creation mode for annotations.
3. Click on the window of the 3D model in the **Explorer Window** to create an annotation. As in the image below.



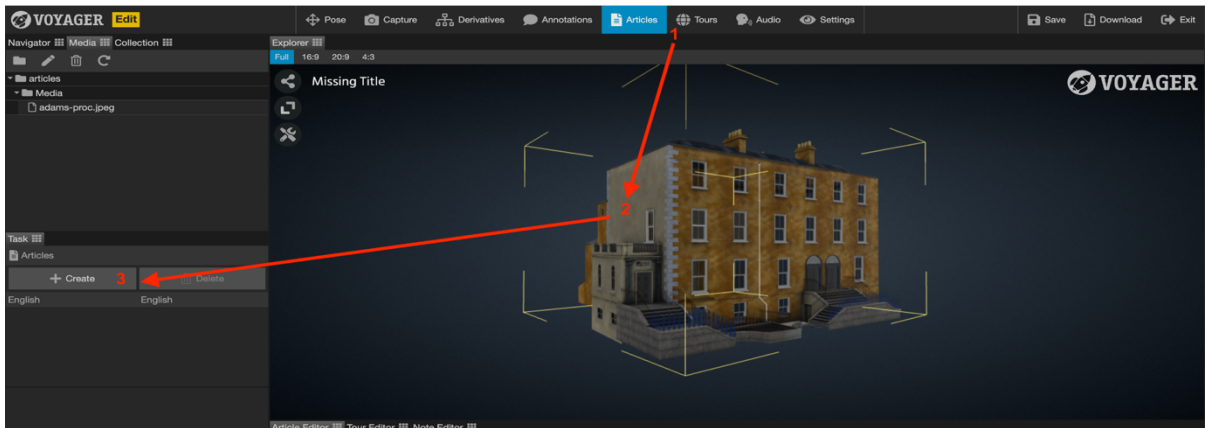
4. Click 'select' to deactivate the annotation creation mode.
5. In the **Task Window**, change the title of the annotation to "Malone's Window".
6. Change the 'Style' to "Extended" and add the following text to the 'Lead' field:

As units of Sherwood Foresters approached No. 25, Malone took up a position in a third floor bathroom window. He was armed with a modified Mauser automatic pistol.
7. Hit the enter button after this text so there is an empty space.
8. Click the **Save Workspace** button in the upper right area of the workspace.

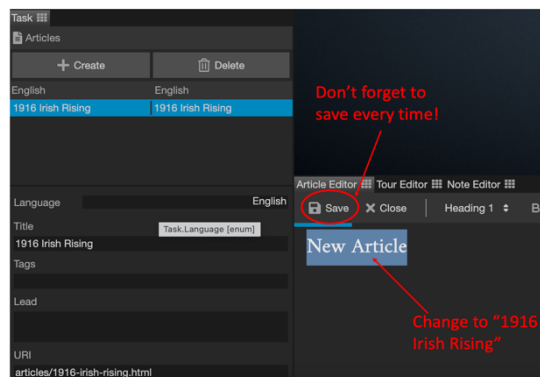
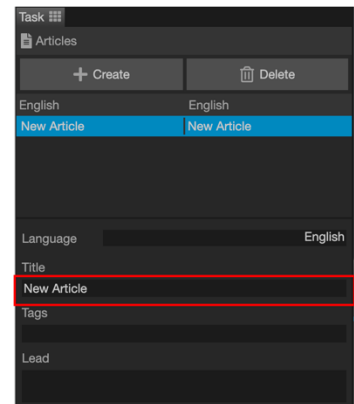
5. CREATE ARTICLES

5.1 CREATING AN ARTICLE

1. Click on the 'Articles' button in the **Task Bar**.
2. Click on the model in the viewer so that you see a yellow box frame around the model.
3. Create a new article by clicking the '+ Create' button in the **Task Window**.

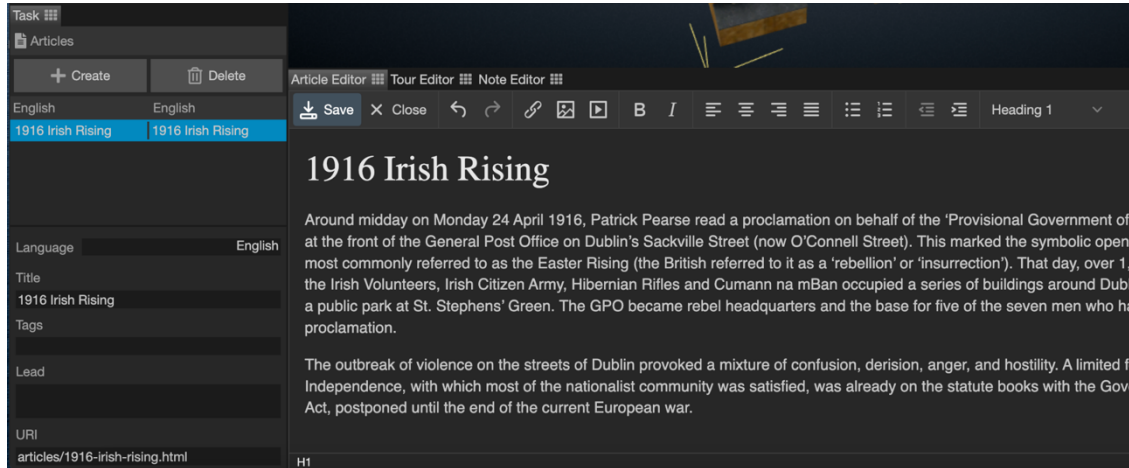


4. In the **Task Window**, change the Title from "New Article" to "1916 Irish Rising".
5. Click the **Save Workspace** button at the top right hand corner.
6. Now go to the **Editor Window**, which is below the **Explorer Window**.
7. With the "Article Editor" Tab selected, find the text that says "New Article" and change it to "1916 Irish Rising".
8. Click the 'Save' button in the **Editor Window**, as in the image below.
9. Finally, click the **Save Workspace** button at the top right hand corner.



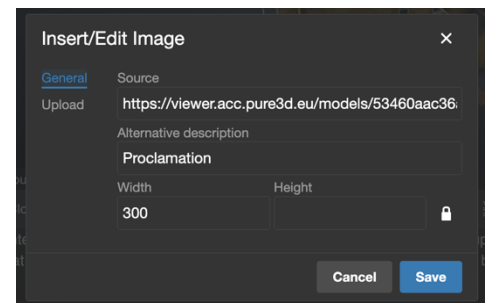
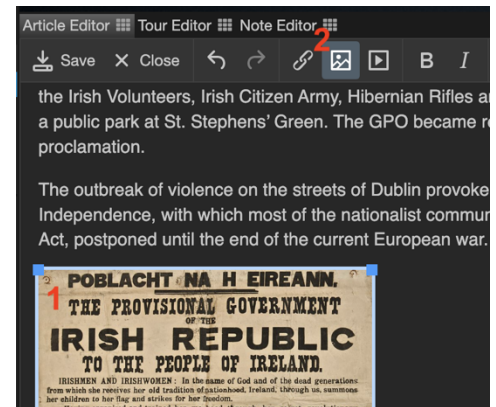
5.2 CREATE AND EDIT ARTICLE 1 -1916 IRISH RISING

1. From the email attachments, download and open the Word Doc titled "25North_Text_Content.docx".
2. Copy (ctrl-c) all of the main body text for the "1916 Irish Rising" Article.
3. Go back to the **Editor Window** and Paste under the title.
4. After pasting the text. Hit enter to start a new line.



5.2.1 ADDING IMAGES TO AN ARTICLE

1. Now, go to the Media Tab of the **Scene Element Panel** and select the adams-proc.jpeg image file you previously uploaded to the Voyager Workspace and drag it to the **Editor Window**, in the space below the body text you just pasted.
2. The image is a bit too big. Resize it by clicking
 - a. First, click on the image itself so that it has a blue border,
 - b. Second, click on the image icon in the Editor Toolbar to get to the "Insert/Edit Image" pop-up.
3. Provide an Alternative description of 'Proclamation'.
4. Set the width to "200".
5. Click 'Save' to exit.
6. Click the **Save** button in the **Editor Window**
7. Finally, click the **Save Workspace** button at the top right hand corner.



5.2.2 SHIFTING IMAGE PLACEMENT


It would look better if the image was set off to the right side of the text. To do this:

1. In the **Editor Window**, click on the image again so that it is highlighted by a blue border.
2. Drag the image until the cursor is in front of the first word of the first line of the main body text ("Around ..."). Release the drag so that it is just below the main article title.
3. With the image still selected, click on the align right button in the Editor Toolbar so it looks like the image below.
4. Click the **'Save'** button in the **Editor Window**
5. Click the **Save Workspace** button at the top right hand corner.

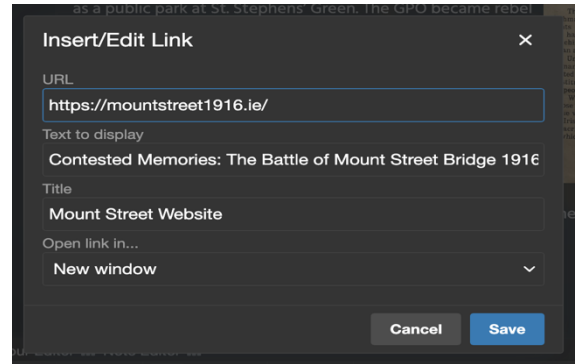


5.2.3 ADDING A URL HYPERLINK


We would also like the user to be able to go to the 1916 Mount Street Website for accessing more information about the battle.

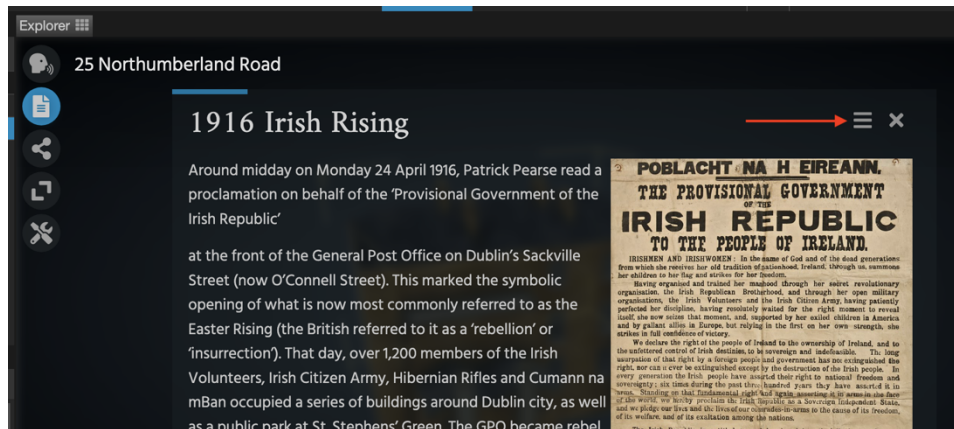
1. First add the following text in a new paragraph to the 1916 Irish Rising Article in the **Editor Window**:
 More Information can be found at: <https://mountstreet1916.ie/>
2. When this is pasted into article editor, highlight with your cursor only the URL link, <https://mountstreet1916.ie/>
3. With this url highlighted, click on the hyperlink icon  in the **Editor Window** Toolbar.

4. When the 'Insert/Edit Link' pop-up shows up, fill in the following:
 - a. URL = <https://mountstreet1916.ie/>
 - b. Text to display = 'Contested Memories: The Battle of Mount Street Bridge 1916'
 - c. Title = Mount Street Website
 - d. Open link in... = New window
5. Click Save to exit the pop-up window.



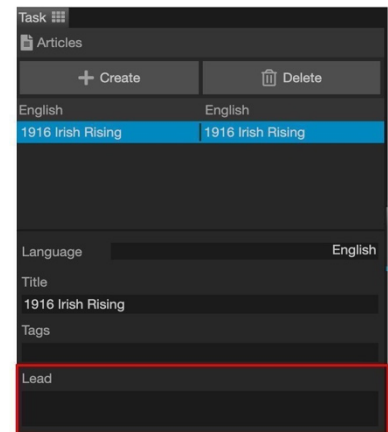
5.2.4 ADDING LEAD TEXT TO AN ARTICLE'S LISTED VIEW

1. In the Explorer Window, click on the Article Icon in the 3D viewer. Your article should pop up showing the title, body text and image.
2. Click the List Icon  to see your article in its listed view.



Notice that only the title of the article is being shown here? We can easily add some 'Lead' text so that a user has an idea of what the article is about.

1. To add 'Lead' text for the article, copy the Lead text for the 1916 Irish Rising article from the "25North_Text_Content.docx".
2. Paste (ctrl-v) it into the 'Lead' text field in the Task Window.
3. Click the Save Workspace button at the top right hand corner.
4. In the Explorer Window, navigate again to the Articles Listed view and now you will have some descriptive text that a user will be able to read to decide if they want to read more of the article.




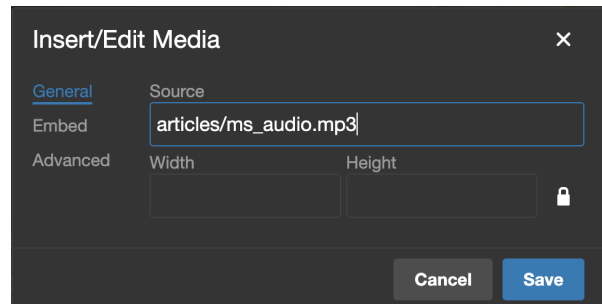
5.3 CREATE AND EDIT ARTICLE 2- 25 NORTHUMBERLAND ROAD

1. Using the same process as above (Task 6.1), create your second article.
2. Change the title of this article to "25 Northumberland Road"
3. Copy and paste the text for this article from your word document (25North_Text_Content.docx) into the **Editor Window**.
4. Copy and paste the first two lines from the main text body (also provided in the Word Doc) into the 'Lead' field in the Article **Task Window**.
5. Click the 'Save' button in the **Editor Window**.
6. Finally, click the **Save Workspace** button at the top right hand corner.

5.3.1 ADD AUDIO/VIDEO TO AN ARTICLE

To add video and audio from your own media collection, you can use the same process of adding and editing images.

1. In the **Editor Window** for the article on 25 Northumberland Road, place your cursor above the text body and below the title.
2. Click on the Media Icon  in the article editor toolbar
3. In the 'Source' field, enter the text as follows: articles/ms_audio.mp3
4. Click Save.
5. You may notice you can't test or play the audio yet. This is because you must Save the Article in the **Editor Window** for the audio to work properly.



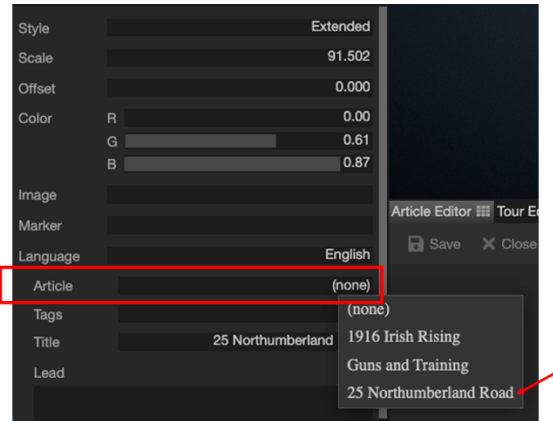
5.4 CREATE AND EDIT ARTICLE 3- GUNS AND TRAINING

1. Using the same process as above (Task 6.1), create your third article.
2. Change the title of this article to "Guns and Training"
3. Copy and paste the text for this article from your word document (25North_Text_Content.docx) into the **Editor Window**.
4. Copy and paste the first two lines from the main text body (also provided in the Word Doc) into the 'Lead' field in the Article **Task Window**.
5. Click the 'Save' button in the **Editor Window**.
6. Finally, click the **Save Workspace** button at the top right hand corner.

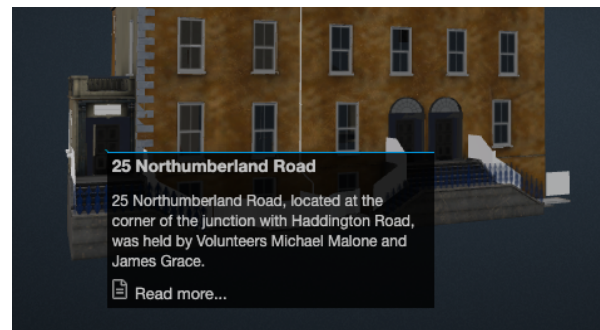
5.5 LINK AN ANNOTATION TO AN ARTICLE

Now that we have some annotations and articles, we can inter-link them so that a user can expand an annotation into an article. This is presented as a “read more” button within the extended annotation of the **Explorer Window**.

1. Navigate to the “25 Northumberland Road” annotation by first clicking the ‘Annotations’ button in the **Task Bar**, then clicking on the model itself in the **Explorer Window** and then finally clicking on the “25 Northumberland Road” annotation in the **Task Window**.
2. In the **Task Window**, find the field labeled ‘Article’. Click on the ‘(none)’ text
3. In the pop-up, click on the “25 Northumberland Road” article in the list.



4. Now, in the **Explorer Window**, enable Annotations (using the Annotation Icon button) and click on the “25 Northumberland” annotation on the model to expand its lead text. It should have a “Read more” link after the lead text. Click on it.
5. The 25 Northumberland Road Article should now pop-up in the **Explorer Window**. (If it does not then go back to the Lead field of the annotation and hit return after the lead text. This creates more space for the ‘Read more’ link.)
6. Click the **Save Workspace** button at the top right hand corner.

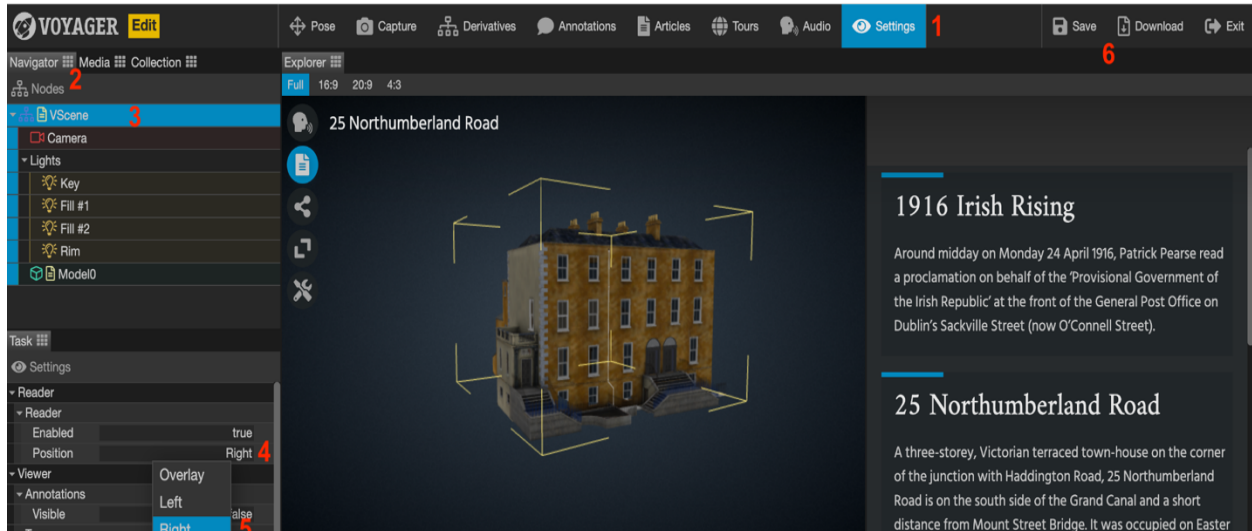


Now link Article 3 - Guns and Training- to Malone’s Window Annotation

1. Do the same process as before but instead add the Article for “Guns and Training” to the Annotation of Malone’s Window.
2. Click the **Save Workspace** button at the top right hand corner.

5.6 MOVING ARTICLES FROM CENTRAL OVERLAY TO SIDE PANELS

1. Select Settings from the **Task Bar**.
2. In the **Scene Element Panel**, click on the Navigator tab.
3. Click on the VScene field so that it is highlighted in blue.
4. In the **Task Window**, under the 'Reader' sub-category, click on the word 'Overlay'
5. There will be a short drop down list with 'Left' and 'Right', click on 'Right'.
6. **Save Workspace**.



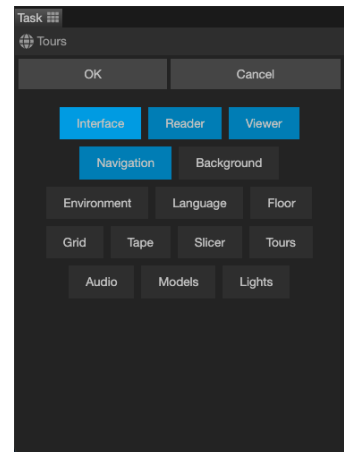
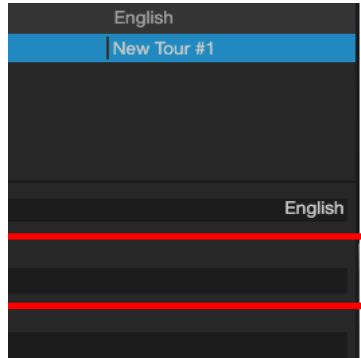
*N.B When you switch between Overlay and Right or Left for the article reader, the Media already in that article does NOT automatically resize. You will have to manually resize the image, video, etc. in the Article **Editor Window** to suit the new aspect ratio.*

6. AUTHORIZING A GUIDED TOUR

Our final task is to bring these articles and annotations together into a short Guided Tour.

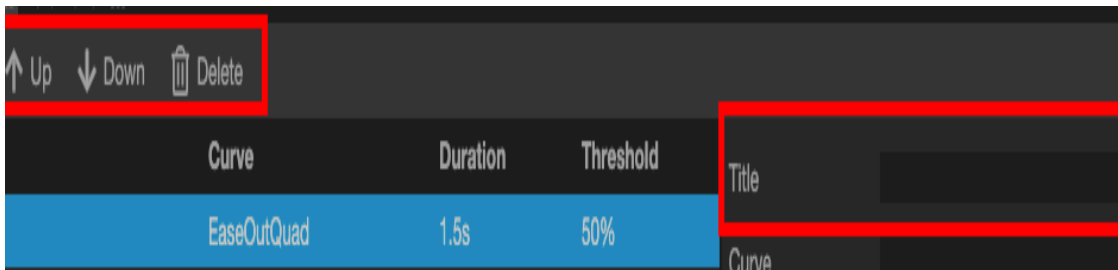
6.1 CREATE A TOUR

1. Click on the 'Tours' Button in the **Task Bar**.
2. Click the + Button in the Tour **Task Window**.
3. In the Tour **Task Window**, rename the Tour to "Intro to 25 Northumberland Road"
4. Click the Snapshot Configuration button in the Tour **Task Window**.
5. By default, "Reader" and "Navigation" features are selected. Click also on the "Interface" and "Viewer" buttons from the feature list. Click **OK**.
6. Click the **Save Workspace** button at the top right hand corner.



6.2 ADDING STEPS TO A TOUR

1. With your new tour highlighted in blue in the **Task Window**, go to the **Editor Window** and click on the "Tour Editor" Tab.
2. Click the "+Create" Button in the Tour **Editor Window** and rename the title of the step to "Intro to 25 Northumberland Road".



3. In the **Explorer Window**, rotate the model so that the building is facing forward.
4. Click the "Update" Button in the **Editor Window**. Now, when the tour starts the model will always be moved to this exact position.
5. Click the "Create" Button again and rename the title of the step to "1916 Irish Rising".
6. In the **Explorer Window**, click on the **Article Icon** and open the "1916 Irish Rising" article.
7. Click the "Update" Button in the **Editor Window**. Now the tour will open this article when a user clicks next in the tour.
8. Click the "Create" Button again and rename the title of the step to "Guns and Training".
9. Go back to the article list in the **Explorer Window** and open the "Guns and Training" article.
10. Click the "Update" Button in the **Editor Window**.
11. Click the "Create" Button again and rename the title of the step to "25 Northumberland Road".
12. In the **Explorer Window**, exit out of the Article and click on the **Annotation Icon**.
13. Click the '25 Northumberland Road' Annotation and make sure it is extended so that you can see the text. Zoom a bit closer to the front door of the 3D model so that the annotation is clearly visible. As in the image below.



14. Click the "Update" Button in the **Editor Window**.
15. Click the "Create" Button again and rename the title of the step to "25 Northumberland Road".
16. In the **Explorer Window**, click on the 'Read more' link in the extended annotation. This will make the article pop up.
17. Click the "Update" Button in the **Editor Window**.
18. Click the "Create" Button again and rename the title of the step to "End of the Tour".
19. In the **Explorer Window**, disable the annotations by clicking again on the Annotation Icon. Manipulate the model so that it is slightly zoomed out and facing forward at a ¾ angle. As in the image below.



20. Click the "Update" Button in the Editor Window.
21. Click the Save Workspace button at the top right hand corner.

Success! Now, walk yourself through the tour in the Explorer Window by clicking on the Tour Icon (above Articles Icon) and clicking the next arrows at the bottom of the Explorer Window.

6.3 CHANGING STEPS IN A TOUR

We now realize it would make more sense to have the "Guns and Training" Article placed after the "25 Northumberland Road" Article.

1. Click on the "Guns and Training" Step in the Editor Window and click the "Down Arrow" button until it is below all steps labeled "25 Northumberland Road" and before the "End of the Tour" step. As in the image below.

#	Title	Curve	Duration	Threshold
0	Intro to 25 Northumberland Road	EaseOutQuad	1.5s	50%
1	1916 Irish Rising	EaseOutQuad	1.5s	50%
2	25 Northumberland Road	EaseOutQuad	1.5s	50%
3	25 Northumberland Road	EaseOutQuad	1.5s	50%
4	Guns and Training	EaseOutQuad	1.5s	50%
5	End of the Tour	EaseOutQuad	1.5s	50%

Walk through the steps of the tour again. The position of the model is the same as it was when Guns and Training was further up on the list. Because of this, it moves too much in the background, which may be distracting. To clean this up, we need to re-do the Guns and Training Step. At this stage, we can also make the tour more interesting by adding a step that goes to the 'Malone's Window' Annotation.

1. Go back to the Steps list in the Editor Window and delete the "Guns and Training" step.

2. Click on the last "25 Northumberland Road" step (# 3) and then click the "Create" button.
3. Name this new step "Malone's Window".
4. In the **Explorer Window**, exit out of the "25 Northumberland Road Article" and navigate/zoom to the "Malone's Window" Annotation. Click on it so that it expands the annotation. As in the image below.



5. With the Malone's Window Step still highlighted, click the "Update Step" Button in the **Editor Window**.
6. Click the "Create" Button again in the **Editor Window** and rename the title of the step to "Guns and Training"
7. In the **Explorer Window**, click on the "Read more" button in the expanded annotation.
8. When the "Guns and Training" Article pops up, click the "Update" Button in the **Editor Window**.
9. Click the **Save Workspace** button at the top right hand corner.

The final tour version should have the steps in the order as in the image below:

#	Title	Curve	Duration	Threshold
0	Intro to 25 Northumberland Road	EaseOutQuad	1.5s	50%
1	1916 Irish Rising	EaseOutQuad	1.5s	50%
2	25 Northumberland Road	EaseOutQuad	1.5s	50%
3	25 Northumberland Road	EaseOutQuad	1.5s	50%
4	Malone's Window	EaseOutQuad	1.5s	50%
5	Guns and Training	EaseOutQuad	1.5s	50%
6	End of the Tour	EaseOutQuad	1.5s	50%

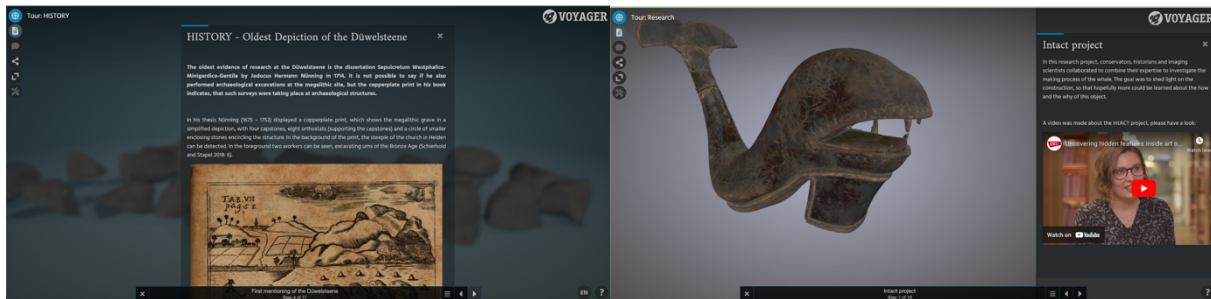
CONGRATULATIONS! YOU'VE COMPLETED BASIC TRAINING IN VOYAGER.

Part II: Advanced Features

As with the previous part of this tutorial, we continue with the 25 Northumberland Road example. However, these instructions can be adapted and applied to your own 3D projects within Voyager. This tutorial is based on Voyager Version 0.39.0 and some instructions or the UI might be slightly different.

1. CHANGE ARTICLE POSITION WITHIN A TOUR

It is possible to change the Article position from Overlay or to the Right during a tour. This may be useful when some content is better viewed in the Overlay mode, or when the content of the article has no direct interaction with the 3D Space. Also good to note, updating this in the Tour Mode does not change the default Reader Position from Right back to Overlay.



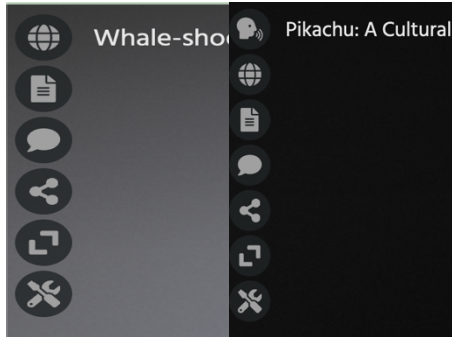
CHANGE THE ARTICLE POSITION IN THE 25 NORTHUMBERLAND ROAD TOUR

1. Go back to the tour steps in the Editor Window and click on the step labeled '1916 Irish Rising'
2. Go to the **Scene Element Panel** and click on the Navigator tab.
3. Click on the **VScene** label so that it is highlighted in blue.
4. Click on the Settings button in the **Task Bar**
5. In the settings, change the **Reader Position** from 'Right' back to 'Overlay'
6. In the **Editor Window**, click 'Update'
7. **Save Workspace.**

2. ADD AUDIO INTRODUCTION

Audio Introduction is a Voyager feature that allows you to add an audio clip that can be played via an additional icon in the menu (see image comparison below). It's a nice feature to incorporate an auditory element to a Voyager experience in a way that is light, fun and inviting for your audience. It's recommended to make the audio clip short, c. 90 seconds, and to use decent quality audio recording equipment so that the sound quality is high.

Without Audio Introduction vs. With Audio Introduction

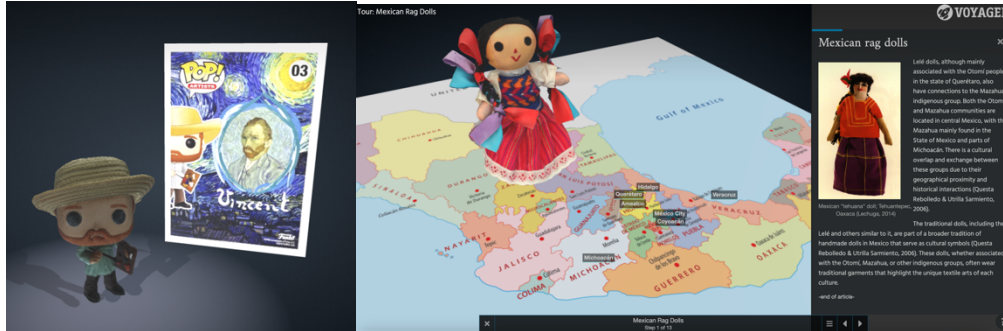


ADD AUDIO INTRODUCTION TO 25 NORTHUMBERLAND ROAD

1. Click on Audio in the **Task Bar**
2. Click 'Create' in the **Task Window**
3. Drag and drop the ms_audio.mp3 file from the Media Tab in the **Scene Element Panel**, to the "Filepath" space in the **Task Window**.
4. Click "yes" for IsNarration
5. Click on the Capture Button in the **Task Bar**
6. Make sure the position of the model is how you want it to be on default page load.
7. Click 'Capture' in the **Task Window**
8. **Save Workspace.**

3. MULTIPLE 3D MODELS IN A SCENE

With some objects, it can be really difficult to find places on the object itself that can illustrate or link to wider topics. It is possible to incorporate other 3D objects that could bring the storytelling back into the 3D space. The examples below demonstrate the addition of 2D images as secondary 3D objects. This can be done easily using the Blender application and a quick [Blender Tutorial](#).



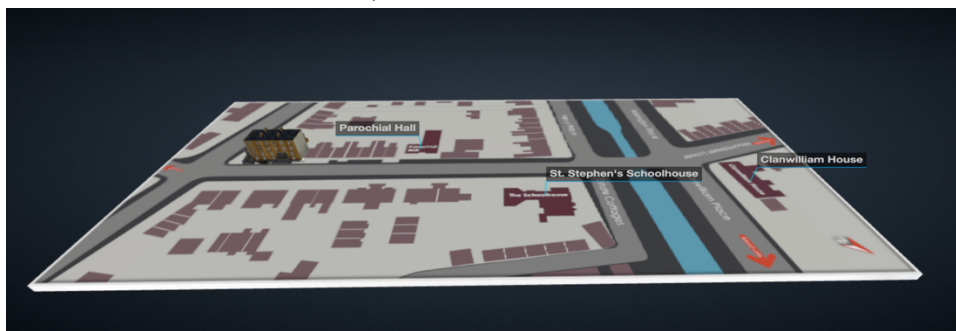
MAKE THE MAP VISIBLE

There is a second (hidden) 3D model in the scene called "Map". It is possible to have more than one model in the scene if you upload the models individually as glb/gltf files. The steps below will demonstrate the various ways we can integrate and interact with this second 3D model.

1. Click on Navigator tab in the **Scene Element Panel**
2. Click on the Label titled "Map"
3. Click on the settings button in the **Task Bar**
4. In the settings categories in the **Task Window**, find where it says Object, Visible. Change from 'false' to 'true' by clicking on the field where it says 'false'
5. **Save Workspace.**

ADD NEW ANNOTATIONS FOR THE MAP

1. Quickly create 3 new annotations on the map in the locations indicated in the image below. They don't need any text so it can remain as a standard annotation.
 - a. Clanwilliam House
 - b. Parochial Hall
 - c. St. Stephen's Schoolhouse



4. ANNOTATION TAGGING

If you have a large set of annotations for your 3D scene you can subgroup the annotations using the tag feature in Voyager. When you create tags, a small menu bar is added to the bottom of the 3D viewer when the annotation icon is enabled. For example, the Neil Armstrong Spacesuit has dozens of annotations that needed to be organized into distinctive groups.



CREATING ANNOTATION GROUPS FOR 25 NORTHUMBERLAND ROAD

1. Select Annotations from the **Task Bar**.
2. In the **Task Window**, click on the individual annotation to display its properties
3. Find where it says 'Tags' and click on the empty field.
4. Manually enter the following annotation sub-group names
 - a. 'Map' for the three new annotations you just created (Clanwilliam, Parochial Hall, St. Stephen's)
 - b. 'Building' for 25 Northumberland Road and Malone's Window
5. You can do this for each annotation and manually enter the sub-group name to the Tag field. Make sure the spelling is correct for each one so that the annotations are properly categorized. You can have as many sub-groups as you like.

If you have more than one sub-group of annotations, it is recommended to change the colors of the annotations.

9. In the individual annotation properties in the **Task Window**, you can adjust the RGB to get different colors.
10. It is recommended to give all sub-group annotations a distinctive color to help the user visually differentiate the different groups of annotation labels.
11. **Save Workspace**.

5. ENABLE/DISABLE MODEL DURING TOUR

If you have more than one 3D model in the scene you can configure your scene so that some of the models are hidden unless enabled via the tagging feature or through internal Voyager Story settings. 3D models can have their own unique tag name or they can be the same as an annotation sub-group. Using these allows you to add more complexity to a 3D scene without cluttering or overwhelming the viewer. It can also be the case that certain additional models only provide support to the narrative at specific moments during a tour. The example of the Kinora home projector shows the hidden mechanism by removing the reel core.



TAGGING THE MAP 3D MODEL

Now that we have a tagging scheme we can connect the model to this scheme so that the map appears and disappears when the map annotations group is selected by the user or during a tour.

1. Click on Navigator tab in the **Scene Element Panel**
2. Click on the Label titled "Map"
3. Click on the settings button in the **Task Bar**
4. In the settings categories in the **Task Window**, find where it says Model Tags. In the Tags field, type in 'Map'.
5. **Save Workspace.**

ADDING MORE INTERACTIVITY TO THE TOUR

Now that we've added some content to the scene we can integrate them into the existing tour. But first we need to update the Tour settings.

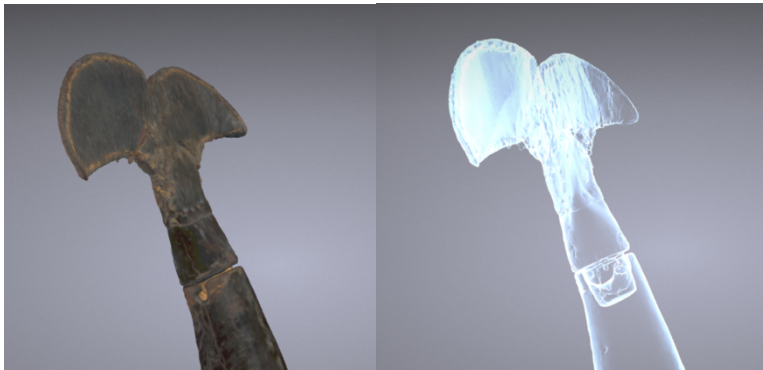
1. In the Tour **Task Window**, select the Tour "Intro to 25 Northumberland Road"
2. Click the Snapshot Configuration button in the Tour **Task Window**.
3. Enable the following settings along with the originally enabled ones: Tape, Slicer, Audio, Tours and Models
4. Click OK
5. **Save Workspace.**

ENABLE THE MAP DURING THE TOUR

1. Go to the Tour Editor in the **Editor Window** and click on Step 1: 1916 Irish Rising.
2. Click the "Create Step" Button and rename the title of the step to "Map Overview".
3. Enable Annotations in the scene by clicking on the Annotations Icon in the **Explorer Window**
4. Click on the 'Map' in the bottom of the **Explorer Window** but do not have the 'Building' tag enabled
5. Position the building and map in the **Explorer Window** so that the full map is shown, as in the image from Task 8.5
6. Click the "Update Step" Button in the **Editor Window**.
7. Create a new Step and rename it "Interior View"
8. Disable Annotations in the **Explorer Window**
9. Click the "Update Step" Button in the **Editor Window**.
10. **Save Workspace.**

6. CHANGE MATERIAL DURING TOUR

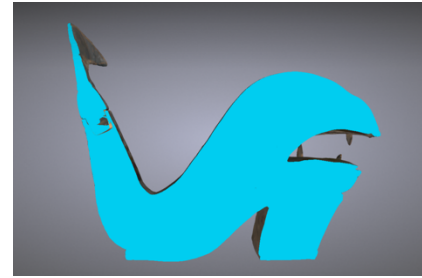
Depending on the 3D object, it might be beneficial to demonstrate an aspect of your narrative by changing the texture material of the 3D object. Voyager allows you to view the model as a wireframe, clay, xray and as a normal map. Clay or Normals can reveal the surface features of an engraving or the xray can provide a transparent see-through to view hidden volumes. The example below uses the xray feature to demonstrate that the tail of the whale is actually a removable cork.

**MAKE AN XRAY VIEW OF THE BUILDING**

1. With this new step titled "Interior View" selected, click on the tools Icon in the **Explorer Window**
2. Click on the Material Button in the bottom part of the **Explorer Window**
3. Click on the Xray button.
4. Click on the bottom-most X in the **Explorer Window**
5. Position the model in the **Explorer Window** so that you can clearly see in the interior staircase
6. Click the "Update Step" Button in the **Editor Window**.
7. **Save Workspace.**

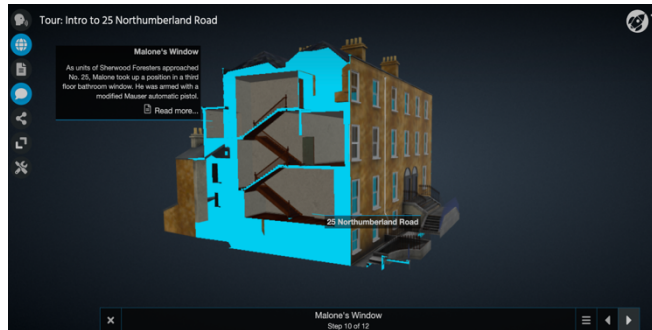
7. SLICE TOOL DURING TOUR

The slice tool is also available for using during a tour step. This can be used to cut away a part of the 3D model to reveal some hidden, inner geometry or to demonstrate the morphological shape of a 3D volume.



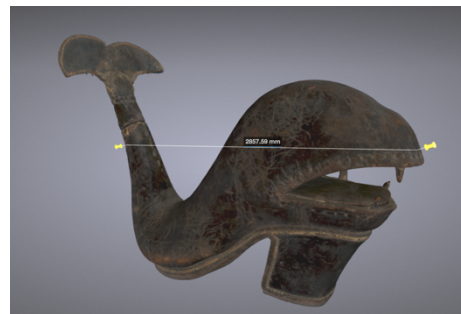
SLICE OPEN THE BUILDING

1. Click on the step titled 'Malone's Window' in the **Editor Window**.
2. Create a new Step and rename it "Malone's Window"
3. With this new step titled "Malone's Window" selected, click on the tools Icon in the **Explorer Window**
4. Click on the Slice Button in the bottom part of the **Explorer Window**
5. Click on button that says 'Off' so that now it says 'On'
6. Make sure the X-axis is selected and adjust the bar so that the interior staircase is visible as well as the small room that Malone was positioned in.
7. Click on the bottom-most X in the **Explorer Window**
8. Enable Annotations in the scene by clicking on the Annotations Icon in the **Explorer Window**
9. Click on the 'Building' button in the bottom of the **Explorer Window** but do not have the 'Map' tag enabled
10. Reposition the 3D model if necessary so that the interior and the annotation label are clearly visible.
11. Click the "Update Step" Button in the **Editor Window**.
12. **Save Workspace.**



8. MEASURE TAPE DURING TOUR

Sometimes in 3D, the scale of an object is difficult to assess. Using the measuring tape feature during a tour can help to provide the dimensions of an object in a dynamic way. However, you need to make sure that the object is accurately scaled to the real-world object and that the global units are consistent within Voyager. This can be adjusted using the Pose Task when a 3D model node is selected in the Scene Element Panel.



MEASURE THE BUILDING DURING THE TOUR

1. Create a new Step and name it "Measurement of Building"
2. Click on the tools icon again and in the Tools Bar in the bottom of the Explorer Window, click on the Measure Tape Button.
3. A new panel pops up above the tools bar and below the tour step bar, click on the button that says "off" so that it now says "on"
4. Click twice anywhere on the 3D model of the building so that a measurement is displayed between two yellow pushpins.
5. Click on the two bottom-most X's in the Explorer Window so that only the tour step panel is showing.
6. Click the "Update Step" Button in the Editor Window.
7. Create a new Step in the Tour Editor and name it "End of Tour"
8. Go back to the tools icon and disable the measurement tool and the slice tool
9. Click the X's so that only the Tour Step Panel is showing in the Explorer Window
10. Click the "Update Step" Button in the Editor Window.
11. Save Workspace.

END OF TUTORIAL