D3.3 Curatorial Tool

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[1] **R**=Document, report; **DEM**=Demonstrator, pilot, prototype; **DEC**=website, patent filings, videos, etc.; **OTHER**=other

[2] **PU**=Public, **CO**=Confidential, only for members of the consortium (including the Commission Services), **CI**=Classified, as referred to in Commission Decision 2001/844/EC

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Table of Contents

TABLE OF CONTENTS 4

LIST OF FIGURES 5

ACRONYMS, ABBREVIATIONS AND DEFINITIONS 7

EXECUTIVE SUMMARY 8

1 INTRODUCTION 9

1.1 Purpose of the document 9

1.2 Intended readership 9

1.3 Relation with other pluggy deliverables 9

1.4 Innovation Aspect 9

2 OVERALL DESCRIPTION 10

2.1 General information 10

2.2 PLUGGY's CuratION APPLICATIONS 11

2.2.1 Blog Story 11

2.2.2 Timeline Story 12

3 CONCLUSIONS 13

4 ANNEX 14

4.1 Manuals 14

4.1.1 Blog Story 14

4.1.1.1 Text Editor Functionalities 17

4.1.1.2 Asset Editor Functionalities 19

4.1.1.3 Other Blog Story Functionalities 23

4.1.1.4 Experiencing a Blog Story 27

4.1.2 Timeline Story Manual 31

4.1.2.1 Editor Functionalities 33

4.1.2.2 Other Timeline Story Functionalities 38

4.1.2.3 Experiencing a Timeline Story 42

List of Figures

Figure 1: Create new exhibition button 14
Figure 2: Exhibition type selection page 15
Figure 3: Basic Blog Story metadata 15
Figure 4: Modal for adding cover image 16
Figure 5: Add Blog Story location component 16
Figure 6: Blog story editor. Chapter title and content must be provided 17
Figure 7: Insert asset options. From left to right add an image, a video, a 3Dmodel or a sound asset 17
Figure 8: Title with text editor options. From left to right add location related to chapter, align text left, align text center and align text right 17
Figure 9: Component to add chapter's location and a short description of the locations significance 18
Figure 10: Text formatting editor tools. From left to right: format text to header 1, format text to header 2, format text to blockquote, align text left, align text center and align text right 18
Figure 11: Selected text formatting editor tools. From left to right, bold ,underline, italics and add link 19
Figure 12: Input field for hyperlink 19
Figure 13: Text with hyperlink 19
Figure 14: Editor option to add from existing assets 20
Figure 15: Editor option to create/upload and use a new asset 21
Figure 16: Asset formatting tools 22
Figure 17: Example of image asset formatted to the side 22
Figure 18: Example of image asset formatted large size 23
Figure 19: Blog Story top menu bar. 23
Figure 20: Chapter list 24
Figure 21: Preview mode (1/3) 24
Figure 22: Preview mode (2/3) 25
Figure 23: Preview mode (3/3) 25
Figure 24: Options dropdown list from top menu bar 26
Figure 25: Hints & Shortcuts modal 26
Figure 26: Blog Story metadata page 27
Figure 27: Blog Story main page (1/2) 28
Figure 28: Blog Story main page (2/2) 28
Figure 29: Blog Story viewer (1/3) 29
Figure 30: Blog Story viewer (2/3) 29
Figure 31: Blog Story viewer (3/3) 30
Figure 32: Create new exhibition button 31
Figure 33: Exhibition type selection page 31
Figure 34: Basic Timeline Story metadata 32
Figure 35: Modal for adding cover image 32
Figure 36: Add Timeline Story location component 33
Figure 37: Timeline Story editor. Event date, title and description must be provided 33
Figure 38: Timeline date picker (1/3) 34
Figure 39: Timeline date picker (2/3) 34
Figure 40: Timeline date picker (3/3) 34
Figure 41: End Date picker 35
Figure 42: Add location related to the event 35
Figure 43: Editor option to add from existing assets 36
Figure 44: Editor option to create/upload and use a new asset 36
Figure 45: Event after adding an image asset 37

Figure 46: Timeline Story top menu bar. 38
Figure 47: Adding a chapter in chronological order 39
Figure 48: Preview mode (1/3) 39
Figure 49: Preview mode (2/3) 40
Figure 50: Preview mode (3/3) 40
Figure 51: Options dropdown list from top menu bar 41
Figure 52: Hints modal 41
Figure 53: Timeline Story metadata page 42
Figure 54:Timeline Story main page (1/2) 43
Figure 55:Timeline Story main page (2/2) 43
Figure 56: Timeline Story viewer (1/3) 44
Figure 57: Timeline Story viewer (2/3) 44
Figure 58: Timeline Story viewer (3/3) 45

Acronyms, abbreviations and definitions

Abbreviation	Description
Asset	PLUGGY tangible content (image, video, 3Dmodel and sound)
Exhibition	A collection of assets along with text to create a cultural heritage story
API	Application Program Interface
JSON	JavaScript Object Notation
UI/UX	User Interface / User Experience

EXECUTIVE SUMMARY

PLUGGY's social platform users are able to use its online web-based platform to combine bits and pieces from different digital content into one comprehensive meaningful story. The story then resides within the platform as a Virtual Exhibition, accessible by any user and application of the platform. The main tool for authoring these stories is the curatorial tool, where the users can import material from the social platform and combine it into meaningful stories using its native functionality. The curatorial tool is designed to be extendable and modular, where each new pluggable application augments its authoring capabilities. Special care has been taken to tackle and resolve any IPR issues of the used content.

The curatorial tool is available under the address https://beta.pluggy.eu, after a user creates an account.

PLUGGY's curatorial tool is a core part of PLUGGY social platform functionality. It consists of two web-based applications, Blog story and Timeline story, that enable PLUGGY users in creating and experiencing cultural heritage exhibitions using PLUGGY platform's assets. The curatorial tool is designed and implemented in such way, allowing future expansion with other kind of curation applications.

More specifically, PLUGGY users can create stories directly using these curation applications through the platform after creating their personal account. Blog story and Timeline story curation applications allow users to add PLUGGY assets or assets from external libraries into a story, users can format their additional text content, format story's visual representation, preview their work and access all the functionalities necessary to easily create rich stories.

To better align with the rest of the PLUGGY components, as well as to achieve a better understanding of the scope of the tool by its users, PLUGGY curatorial tools are implemented as part of the PLUGGY social platform interface using the same API endpoints.

1 Introduction

1.1 PURPOSE OF THE DOCUMENT

This document constitutes an accompanying report to the actual deliverable, which is of type OTHER and is the developed software available under the address https://beta.pluggy.eu. It describes the implementation aspects and functionalities of the final version of PLUGGY's curatorial tool, as part of PLUGGY's social platform. The deliverable aims to provide an overview of the technical implementation of the final version of the curatorial tool and its individual curation applications, along with information of the tools' capabilities and how they can be used. PLUGGY's curatorial tool is a core part of PLUGGY social platform functionality. It constitutes of two web-based applications, Blog story and Timeline story, that enable PLUGGY users in creating and experiencing cultural heritage exhibitions using PLUGGY platform's assets.

1.2 INTENDED READERSHIP

This document offers a two-fold approach, viz. a) an accompanying report, for people with no direct access to the software and b) as a manual for the actual software delivered and is available under the address https://beta.pluggy.eu. The document is public and its mainly intended readership is the user of the online curatorial tool. The document can be utilised also as a useful guide showcasing both functional and technical characteristics of the applications in the service of PLUGGY platform users intended to create new stories for the platform or user searching for ways to easily promote cultural heritage content.

1.3 RELATION WITH OTHER PLUGGY DELIVERABLES

This deliverable is closely related with D3.2 "Social Platform" and D3.4 "Content Management services", where the first constitutes the framework, where the Curatorial Tool resides, while the latter is the backend, providing all the necessary connectivity functionality.

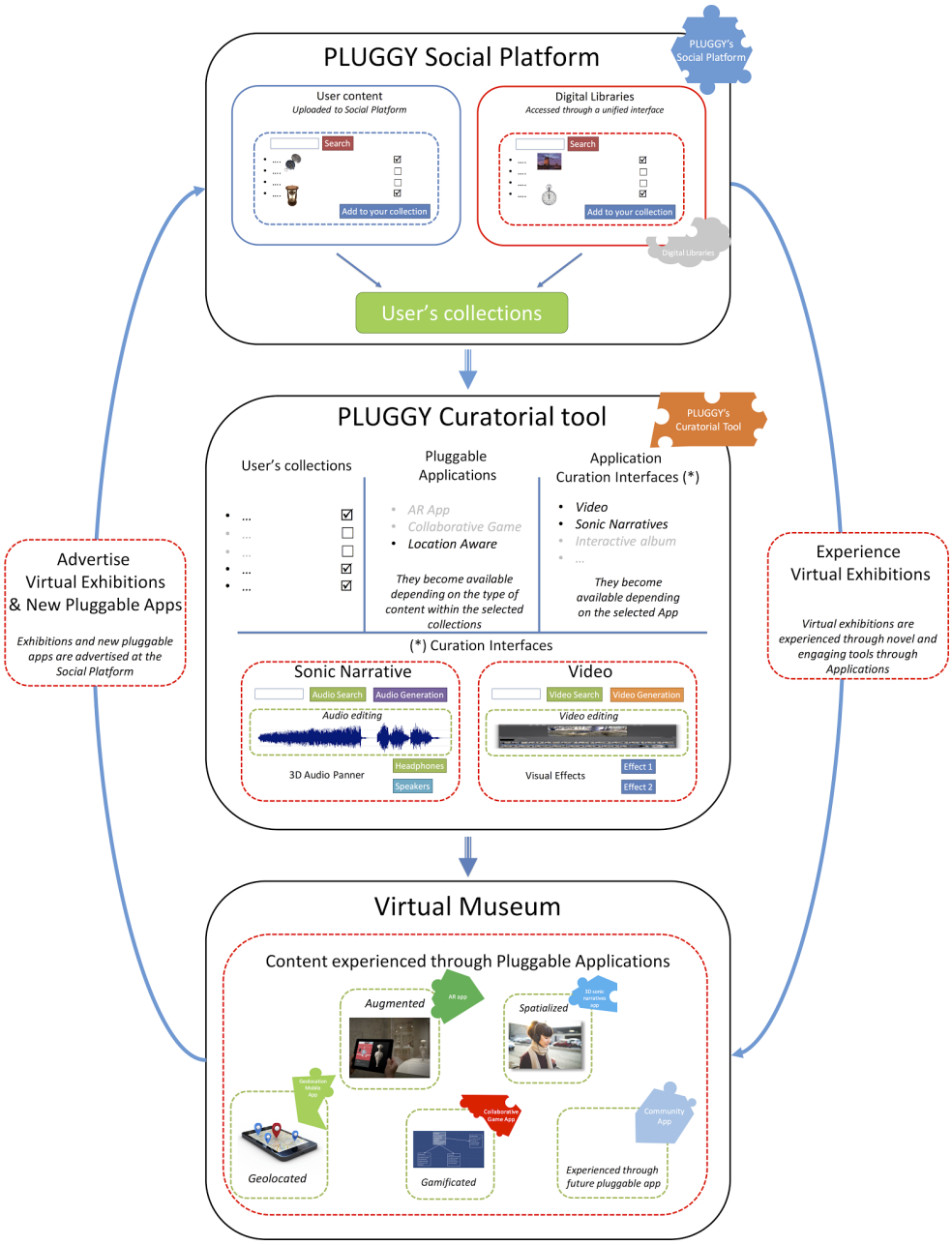
1.4 INNOVATION ASPECT

PLUGGY's Curatorial tool has been built in order to integrate the different digital assets produced by the four individual applications/web based applications developed within the context of PLUGGY and provide a fully functional tool to PLUGGY social platform users. This tool enables them to use and share content in not just common formats such as photos and text but also formats like 3D models and interactive audio files. This possibility provides to the user the new innovative way of sharing cultural heritage content using technologies like the aforementioned. This aspect triggers both the user that is willing to share content and most importantly triggers the rest of the users that are visiting the platform but are not interested to share any content. Through Curatorial tool all developed technologies become accessible through one interface and the user has a number of possible exhibition types that can be created to choose from.

2 Overall description

2.1 GENERAL INFORMATION

PLUGGY's main objective is create the necessary ICT tools to support the citizens in their everyday activating in shaping cultural heritage and being shaped by it. The curatorial tool contributes to that end with the provision of an easy to use tool and at the same time a workflow to allow the generated stories to be experienced with the rest of PLUGGY's applications and platform. The curatorial tool, along with the individual curation applications, developed by each PLUGGY app (and documented in WP4 deliverables), enable the user to transform simple stories to experiences.



2.2 PLUGGY'S CURATION APPLICATIONS

Two applications are developed as part of the main curation process of PLUGGY platform, the Blog Story and Timeline Story. For both web applications, the full circle of content management is implemented. This means that users can create, edit, delete, preview and experience their generated stories.

2.2.1 Blog Story

Blog Story is a web curatorial tool developed mainly using Angular framework and Typescript. Some parts are implemented using JavaScript, jQuery and Coffee script. For

the connection with the PLUGGY's RESTful API, HTTP and RxJS library are used. Internal components communication is implemented using Angular native data exchange along with JavaScript events and RxJS observables.

Blog Story is an open curation tool. This means that it does not have a restricted format or length. Users are free to use any type and number of assets, they can format their size and position in the story, text can also be formatted freely through the editor. Blog stories can have chapters for management reasons but, as its name dictates, they are experienced as a blog (full web page).

2.2.2 Timeline Story

Timeline Story is a web curatorial tool developed mainly using Angular framework and Typescript. Some parts are implemented using JavaScript and jQuery. For the connection with the PLUGGY's RESTful API, HTTP and RxJS library are used. Internal components communication is implemented using Angular native data exchange along with JavaScript events and RxJS observables.

Timeline Story curation application is intended for creating stories consisting in a series of events put in chronological order. Events are meant to be parts of great significance during the time period of the story described. Since timestamps of these events are crucial, two types of events are available, either events that occurred in a specific date or events that took place during a period of time. This means that for each event, its starting and ending dates are important attributes. Timeline are built and experienced as a horizontal wall, event by event.

3 Conclusions

PLUGGY's curatorial tool allows users to create Virtual Exhibitions hosted on the Social Platform. The curatorial tool allows the curation of stories, which link the digital collections uploaded within the Social Platform and those available through the interfaces to the Digital Collections. Users of PLUGGY curate content that can be accessed using novel interfaces (Augmented Reality, Geolocation), and thus experience stories in new and engaging ways. The Curatorial Tool has an open architecture that allows for development of future applications with interfaces have not developed yet.

PLUGGY's curation applications are implemented according to user requirements, using only open libraries. These applications are indented to allow users to create or experience stories just by using a browser and are implemented in a way to be available for all the platforms (PC, laptop, tablet, mobile). The final version of the software has been released following continuous upgrades both on UI/UX level and on bug-fixing, following an evaluation of the tool by the consortium and other interested parties. Furthermore, these applications are implemented as the default plugin for creating the two basic types of stories (Blog and Timeline). This means that they use the Pluggy platform's data structure for exhibitions and assets. As a result, any other pluggable applications could easily use and/or extend stories created from these tools by importing them into their own editors and/or viewers.

The goal of these web applications implementation is to create a lightweight, user-friendly and reliable curation environment. Moreover, they target to provide the functionality for users to curate different kind of exhibitions, simple or as complex stories they desire, easy to use and with a level of creativity freedom. This functionality helps targeting more user groups giving the means for mass and appealing cultural heritage preservation.

4 Annex

4.1 MANUALS

4.1.1 Blog Story

First of all, in order to be able to create a Blog Story user must have an account and must sign in the platform. Having covered that, user must visit “My Space” page and select exhibitions. From there, user will have to select the add new exhibition button (Figure 1).

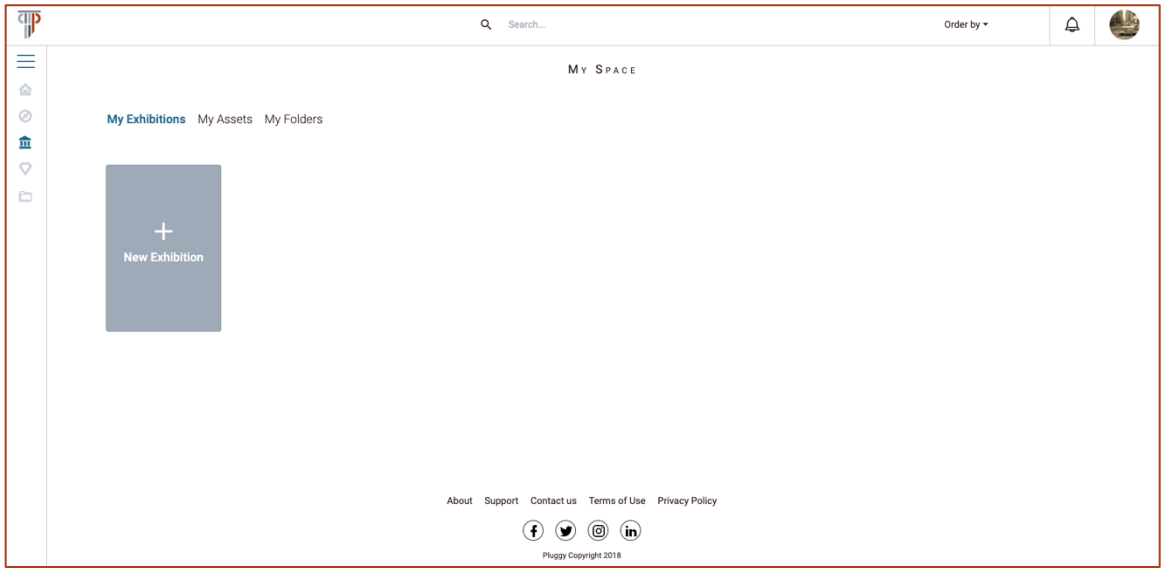


Figure 1: Create new exhibition button

After selecting the create new exhibition button the exhibition type selection page will appear (Figure 2).

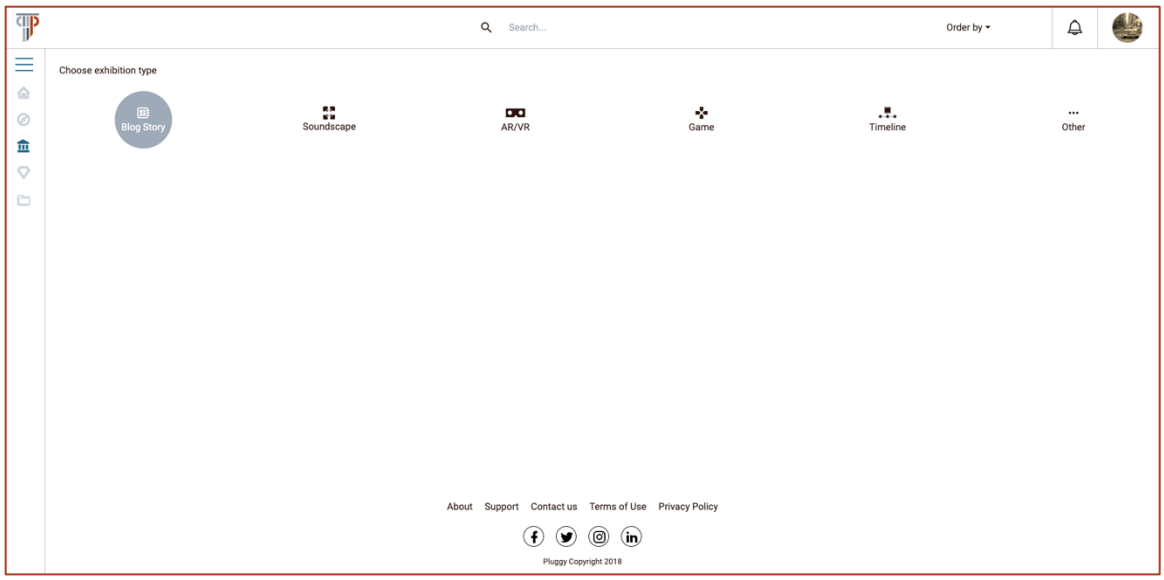


Figure 2: Exhibition type selection page

Having selected the Blog Story exhibition, a component containing a form to fill basic exhibition metadata will be activated (Figure 3). In this form user must provide the name and description of the new story. Additional information, such as the cover image (Figure 4) and its licence for the story and a location related to the whole exhibition can be added here (Figure 5).

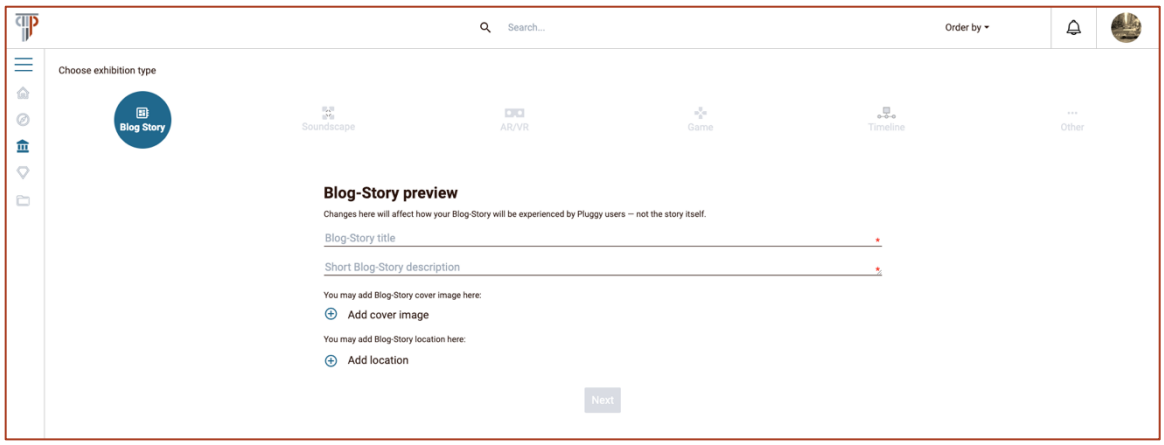


Figure 3: Basic Blog Story metadata

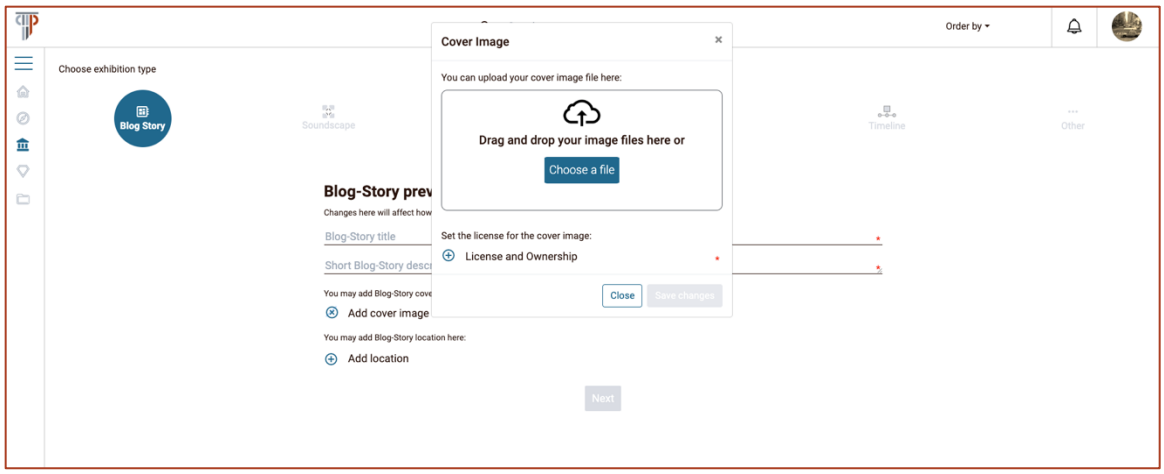


Figure 4: Modal for adding cover image

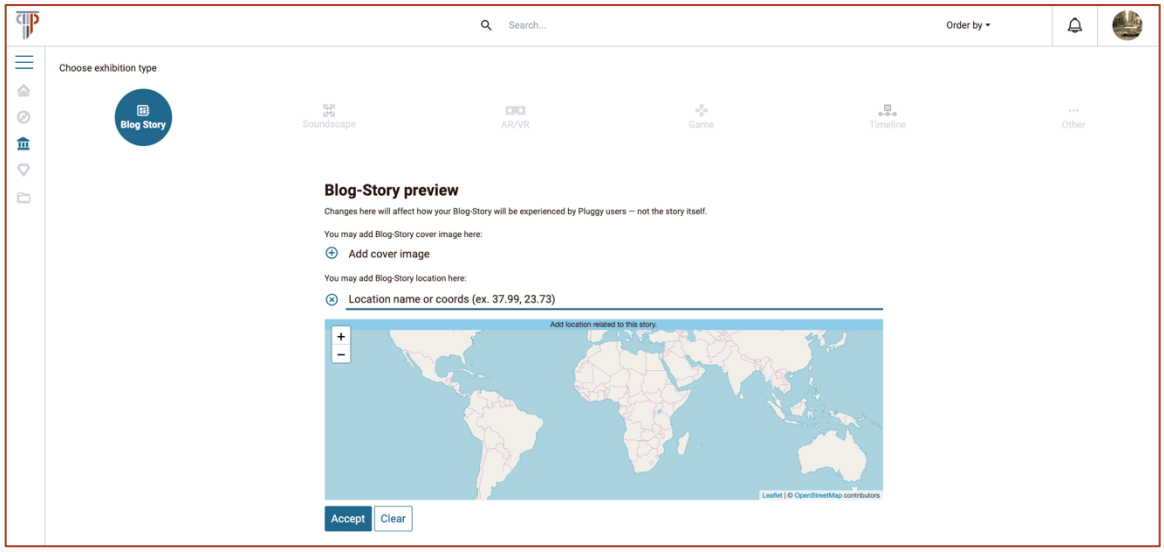


Figure 5: Add Blog Story location component

After filling-in the required information, the Next button will be activated. This will transfer user to the Blog Story editor (Figure 6). This is the page where user actually creates the content of the story. In order for the story to be saved and further options to be provided, the user must fill-in the first chapter's title and add some content (text, assets).

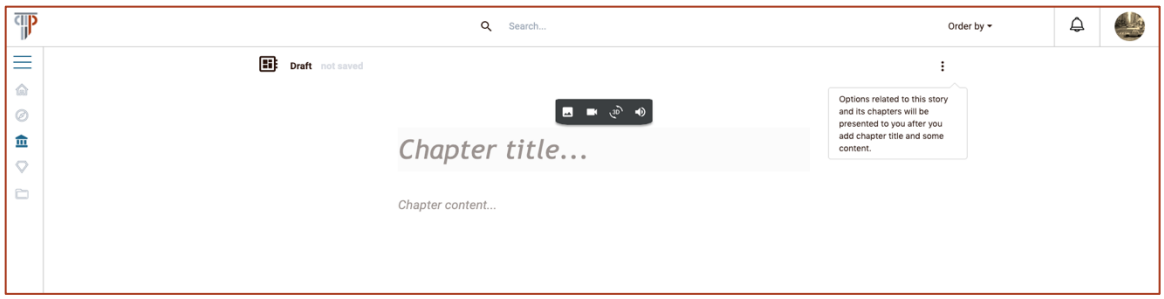


Figure 6: Blog story editor. Chapter title and content must be provided

4.1.1.1 Text Editor Functionalities

Each chapter consists of a title and content. The content can be separated into paragraphs. When focusing on the title or a paragraph the text editor is enabled providing the user with the available tools. When focusing on an empty chapter title or an empty paragraph the available options are to add an asset (Figure 7).

Figure 7: Insert asset options. From left to right add an image, a video, a 3Dmodel or a sound asset

In the case of the chapter title having text the editor automatically changes the available options. The new tools are text alignment along with the availability to add a location related to the specific chapter (Figure 8).

Figure 8: Title with text editor options. From left to right add location related to chapter, align text left, align text center and align text right

If the Add Location tool is selected, a new component will appear giving the user the functionality to add location by clicking on map or by adding coordinates, or the name of a city in the input field. Moreover, user can add a short description related to the location describing for example how this location is related to the chapter's content (Figure 9).

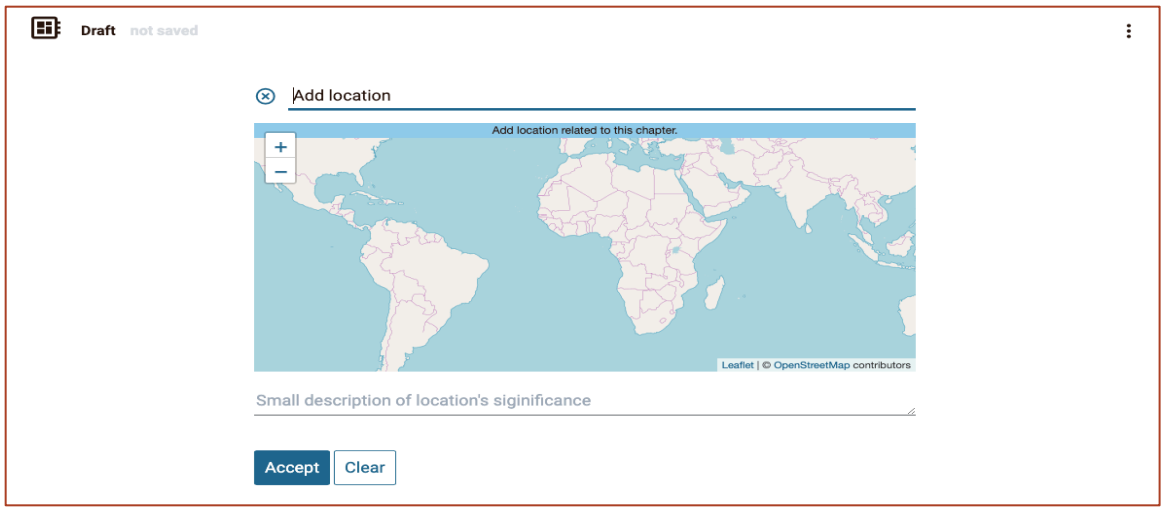


Figure 9: Component to add chapter's location and a short description of the locations significance

When the user focuses on a new paragraph, the available tools are able to add an asset. If changes user starts writing text, the available editor tools are changed automatically to the text formatting ones (Figure 10).

Figure 10: Text formatting editor tools. From left to right: format text to header 1, format text to header 2, format text to blockquote, align text left, align text center and align text right

At any point and for both paragraph and title user can select a part of the text. At this point new text formatting editor tools will become available (Figure 11).

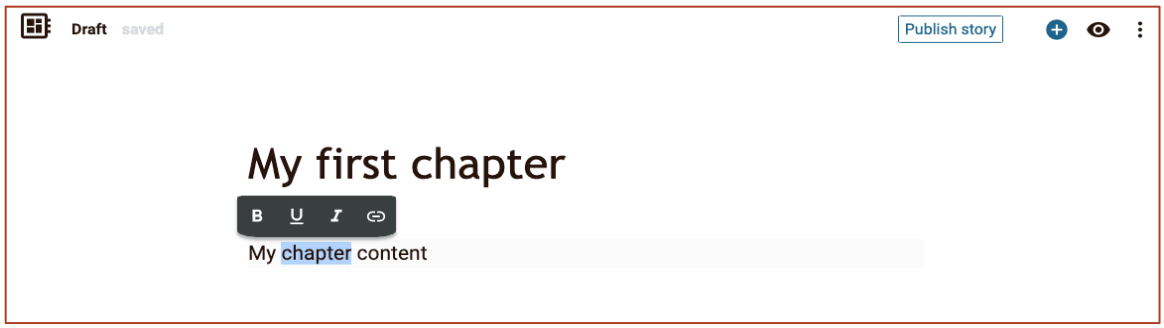


Figure 11: Selected text formatting editor tools. From left to right, bold ,underline, italics and add link

If the user elects to add a link, an input field will appear to add the hyperlink. The link's colour will then change (Figure 12, Figure 13).

Figure 12: Input field for hyperlink

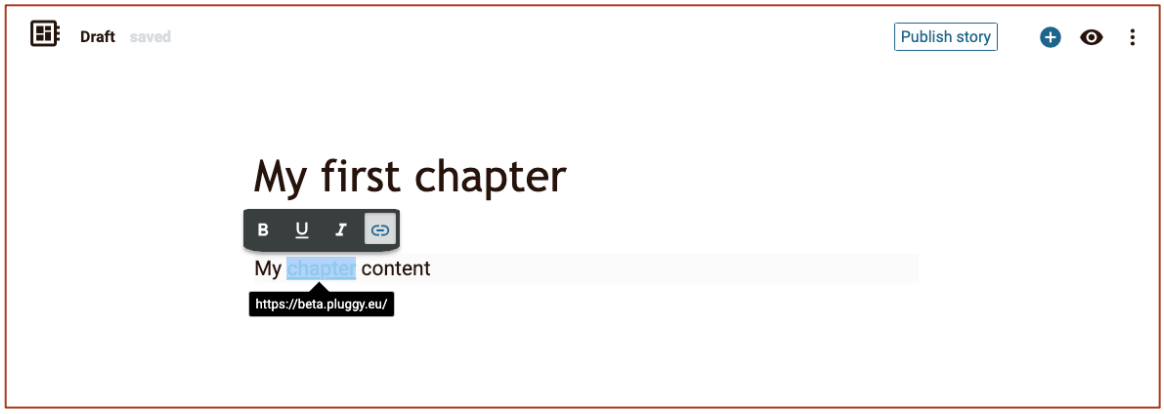


Figure 13: Text with hyperlink

4.1.1.2 *Asset Editor Functionalities*

If the user selects to add an asset (tools available for empty paragraph or title) two more options will be enabled. The option to add an existing PLUGGY asset or directly

create/upload a new asset (Figure 14, Figure 15). The newly created asset will be directly imported to the story and also become a part of user assets.

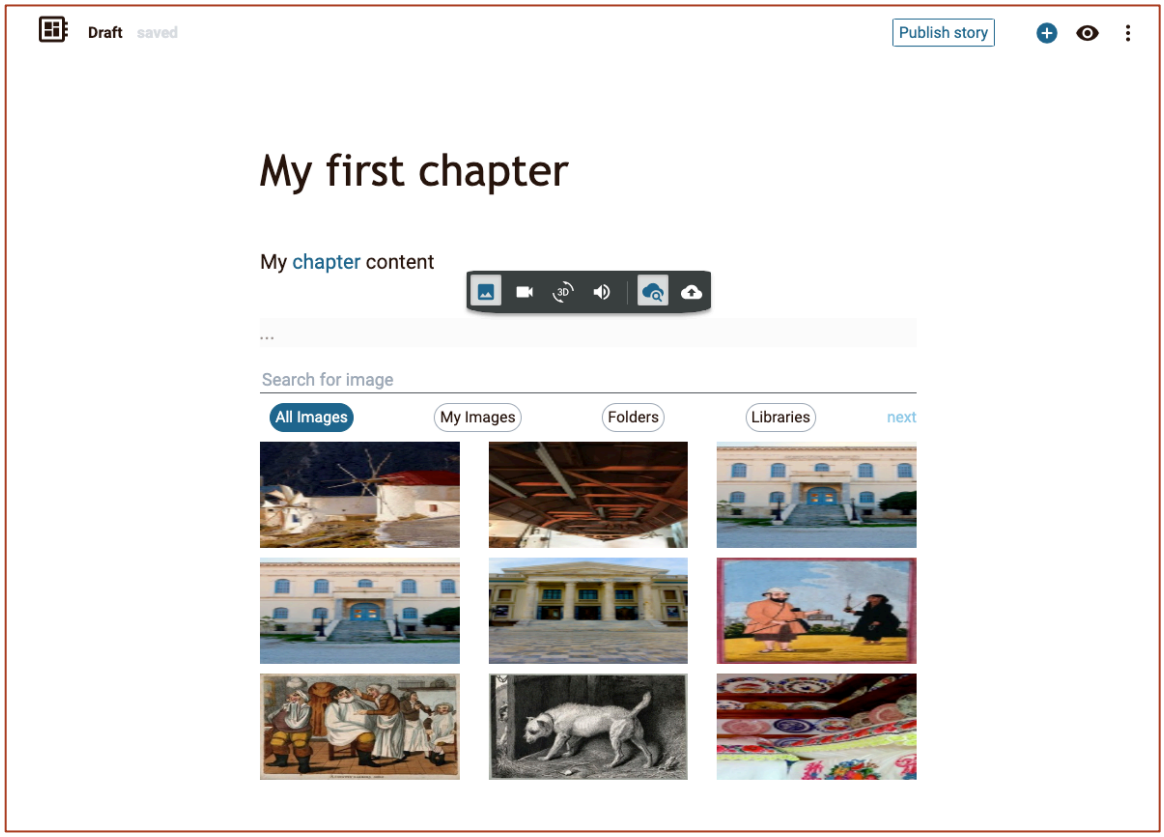


Figure 14: Editor option to add from existing assets

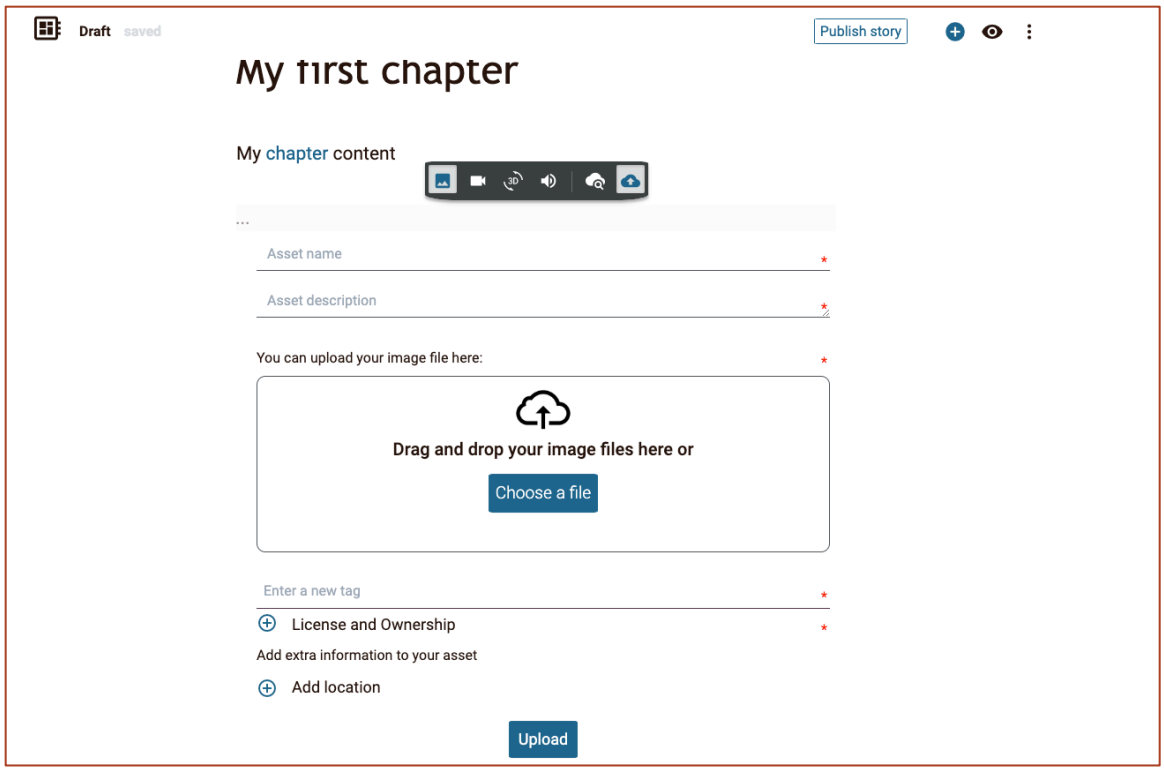


Figure 15: Editor option to create/upload and use a new asset

As seen in Figure 14, the selection asset tool has even more functionalities. Users can directly search for an asset using the search field provided or even filter assets. Assets can be filtered as the ones the user owns (My Assets), or as the ones contained in a folder (Folder) or as the ones coming from an external library (Libraries). Selecting folders or libraries will enable a list of available ones for the user to select from. External library search stands only for images at the moment.

After the user selects to add an asset, the asset will be directly inserted to the position selected, will gain focus and new editor tools will become available (Figure 16). These asset formatting tools are basically for sizing assets to the user needs or removing the asset from the story. Furthermore, a caption will be generated using asset's title with a link to the asset's page and information regarding the asset author and licence will be visible at the bottom right of the asset (Figure 17, Figure 18).

At any point, the user can drag an insert an asset and drop it at a new position in the document page. This provides the user with flexibility as well as with an easy way of rearranging the content based on his needs.

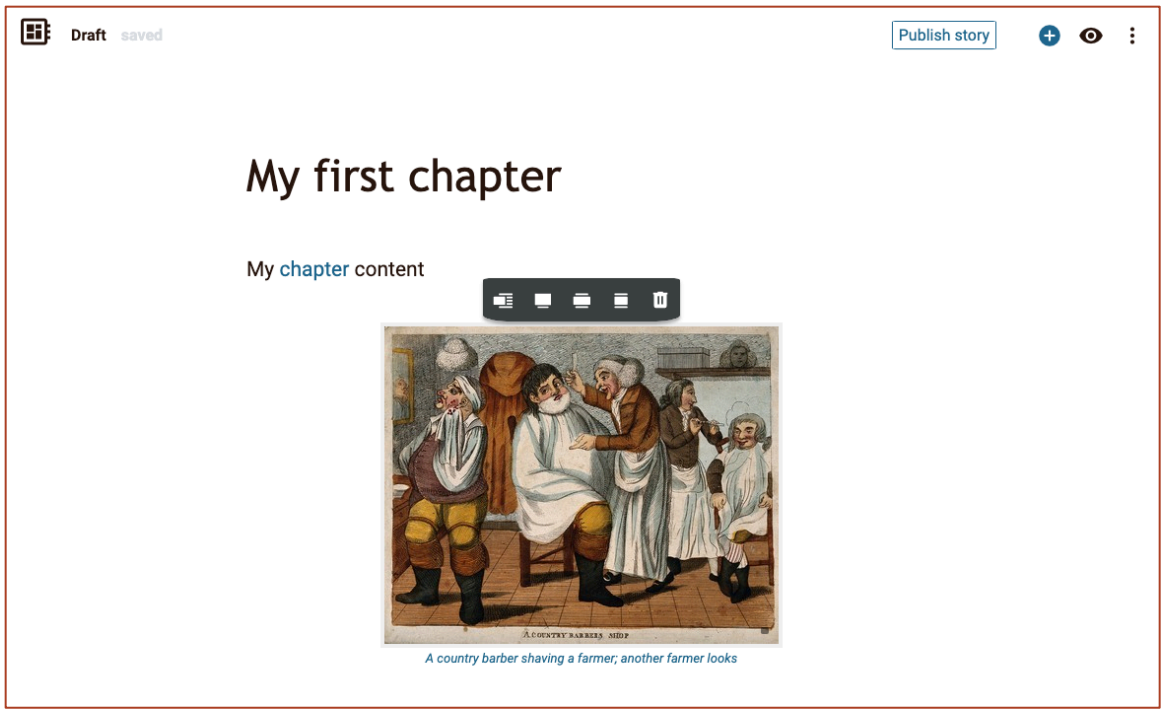


Figure 16: Asset formatting tools

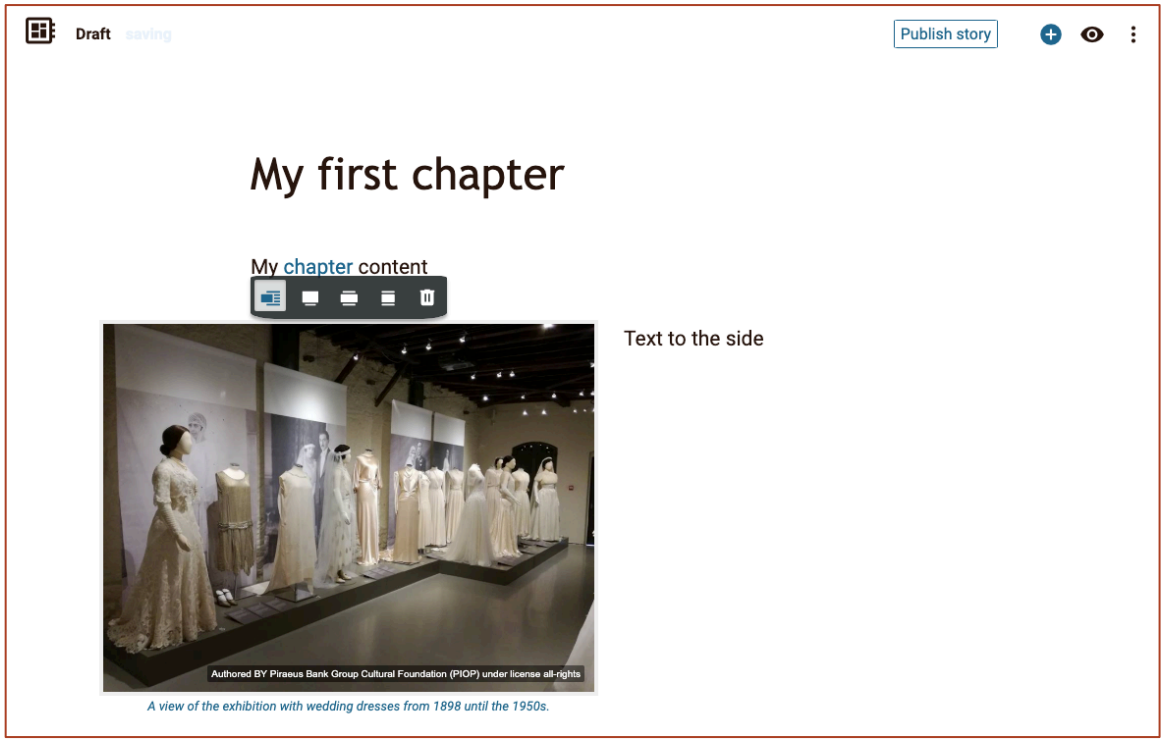


Figure 17: Example of image asset formatted to the side

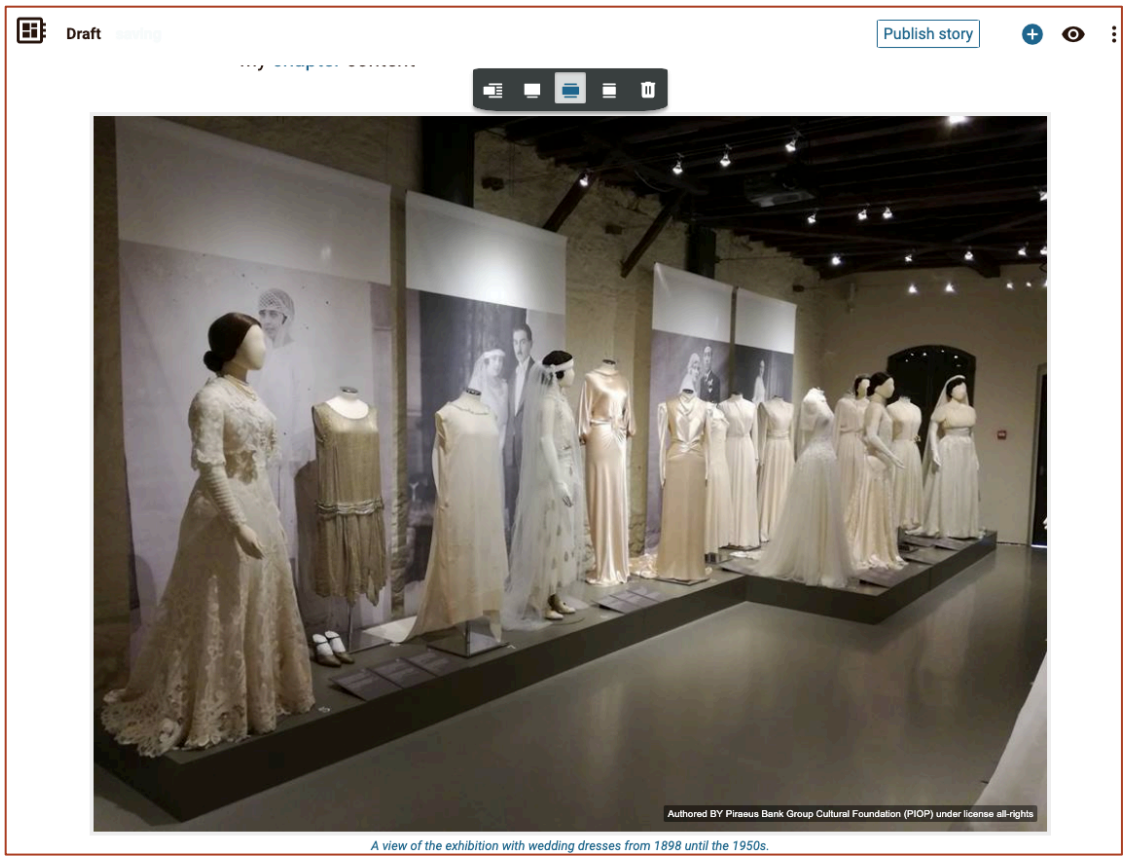


Figure 18: Example of image asset formatted large size

4.1.1.3 Other Blog Story Functionalities

The log Story editing page provides more functionality through its top bar menu (Figure 19). On the left of the bar there is an indicator of the type of exhibition created. Next to it, there is the "Saved" indicator. Since auto-save is always enabled, this indicator changes to "saving" when editor saves changes. On the right, the Publish Story button is shown, prompting the user to review story metadata before making the story public in PLUGGY platform. The initial state of the story is private and not visible to other users. This is the way we give the option to the user to decide when to publish the story. The plus button is an indicator that there is the possibility to add a new chapter to the story. The "eye" button starts the preview mode, in which the user can see how the story created until this point will look like (i.e. how it will be experienced by other users). Finally, the options button opens a list with available options related to the whole story or the active chapter.

Figure 19: Blog Story top menu bar.

By selecting the add new chapter button, a new empty editor page will be initiated with a new chapter title and content. This procedure can be repeated as many times as the user needs. In order to give more flexibility to the chapters' management a list at the

bottom of the editor's page is enabled (Figure 20). From that list, the user has an indicator of the active chapter, can navigate to different chapters, delete an existing chapter, create a new chapter and even reorder the chapters by drag and drop to the new position.

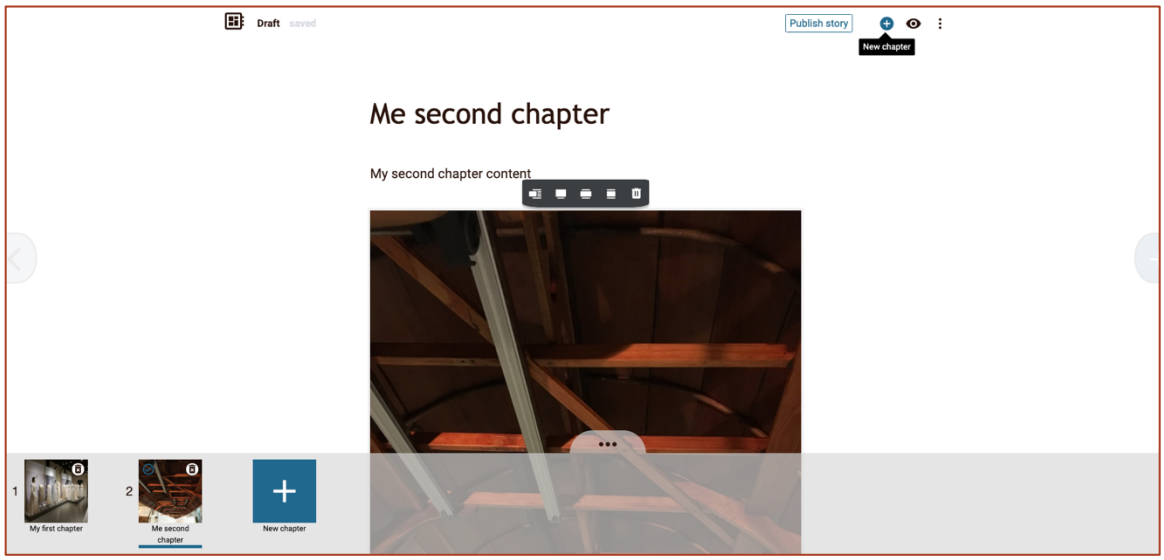


Figure 20: Chapter list

In preview mode, the user can overview the story as a whole. At any point, the user can select the stop preview button in the middle of the page to return to the editor (Figure 21, Figure 22, Figure 23).

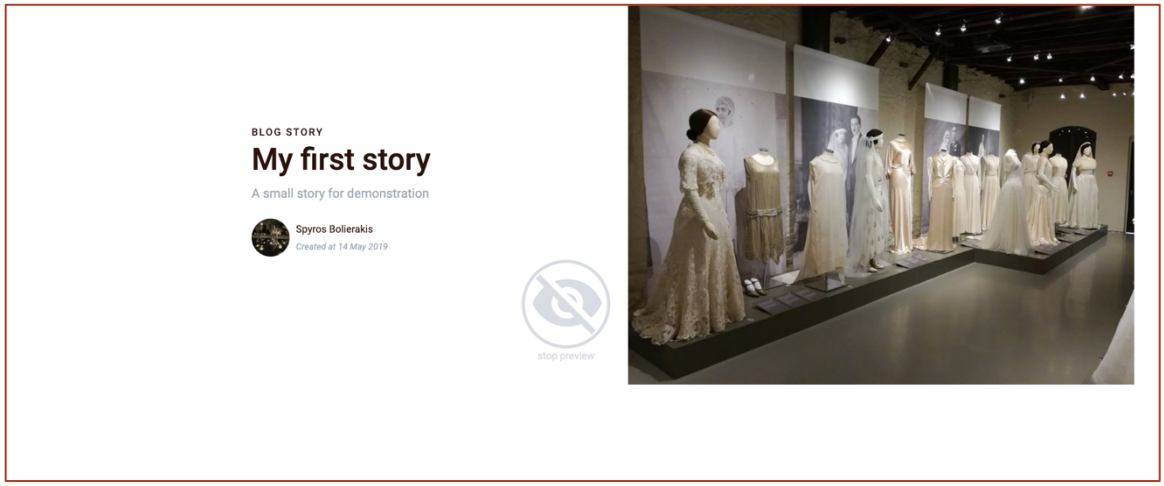


Figure 21: Preview mode (1/3)

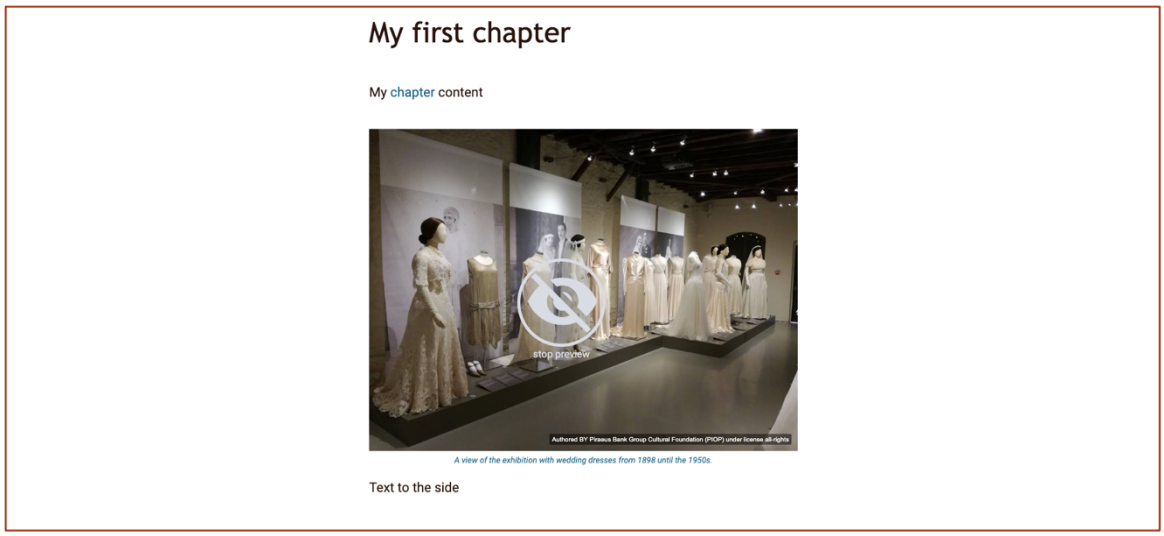


Figure 22: Preview mode (2/3)

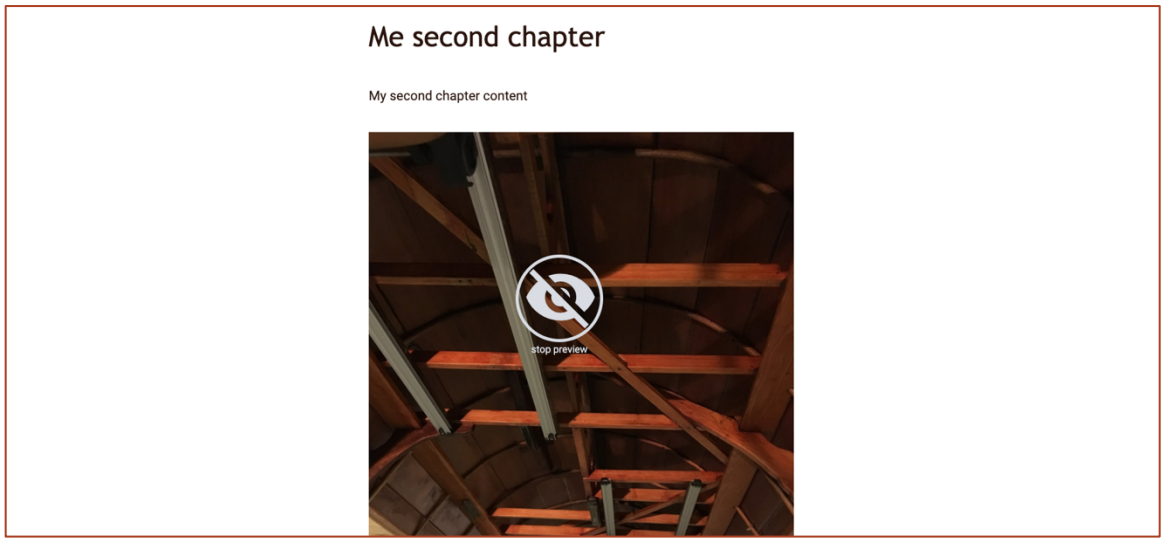


Figure 23: Preview mode (3/3)

The user can also perform actions through the options dropdown list (Figure 24).

- Edit story settings: The user is navigated to edit story's metadata page.
- Preview story: Enables preview mode.
- Remove story: Deletes the whole story.
- Save story: Manually save the story.
- Add chapter location: Enables add location component related to the active chapter.
- Reorder chapters: Opens the chapter list for user to reorder (drag & drop) chapters.
- Remove current chapter: Deletes the active chapter.

- Hints & Shortcuts: Opens a modal with all basic keyboard shortcuts and help information for user to easily create a story (Figure 25).
- Quit editor: Exits editor and returns to user space.

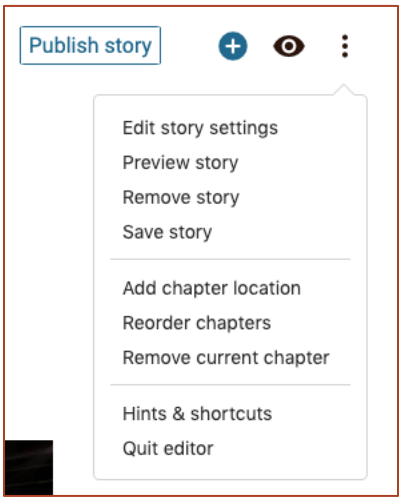


Figure 24: Options dropdown list from top menu bar

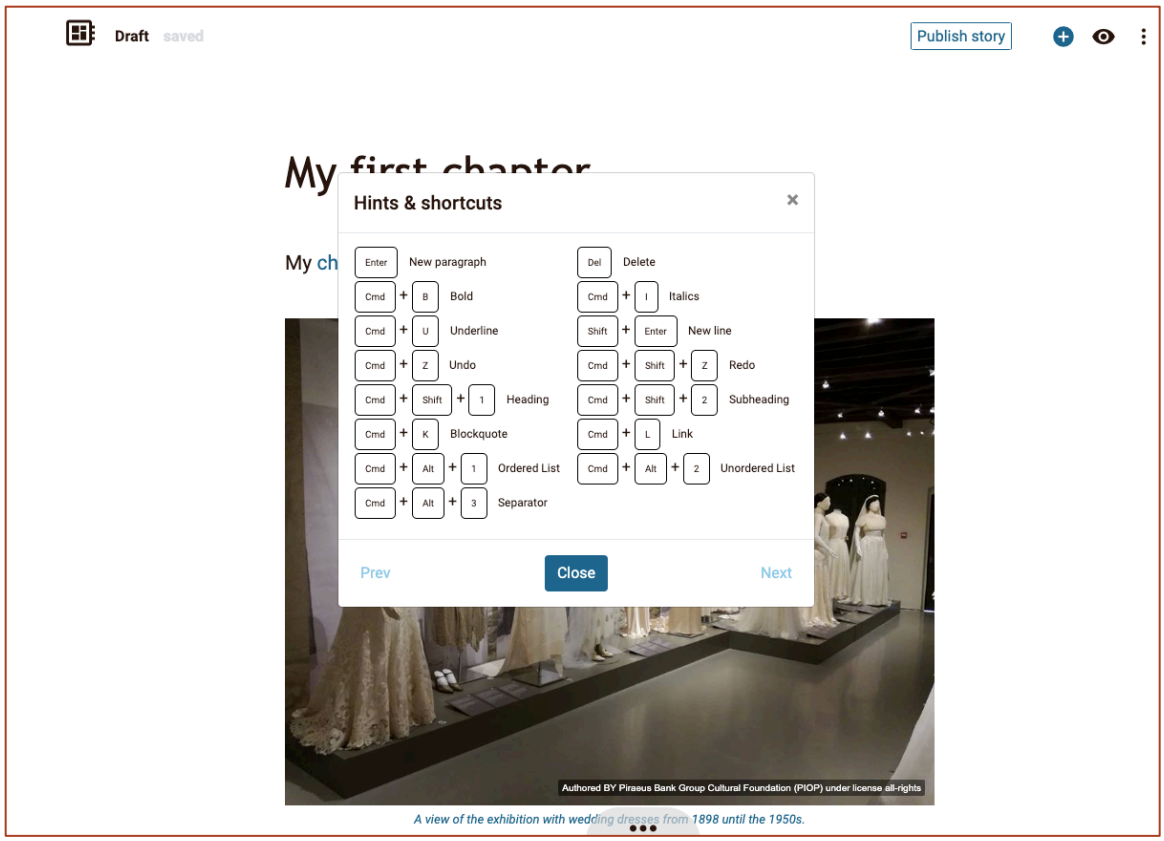


Figure 25: Hints & Shortcuts modal

A core part of a Blog Story is its metadata. At any point, the user can review and change them but also will be navigated to them just before publishing the new story. In the Edit Story metadata page, the user can edit/add the story title, the description, the cover image and the location (Figure 26). Moreover, the user can add/edit the story tags and story licence. Users creating a story must be notified that story tags are auto-filled with asset tags added in the story. Regarding the story's licence, it starts by default as CC-BY but can be changed manually by the user at any point. Another important thing related to the story's licence is that it is directly affected by assets' licence used in the story. This means that it will change automatically if needed and some licence options might not be available for the user.

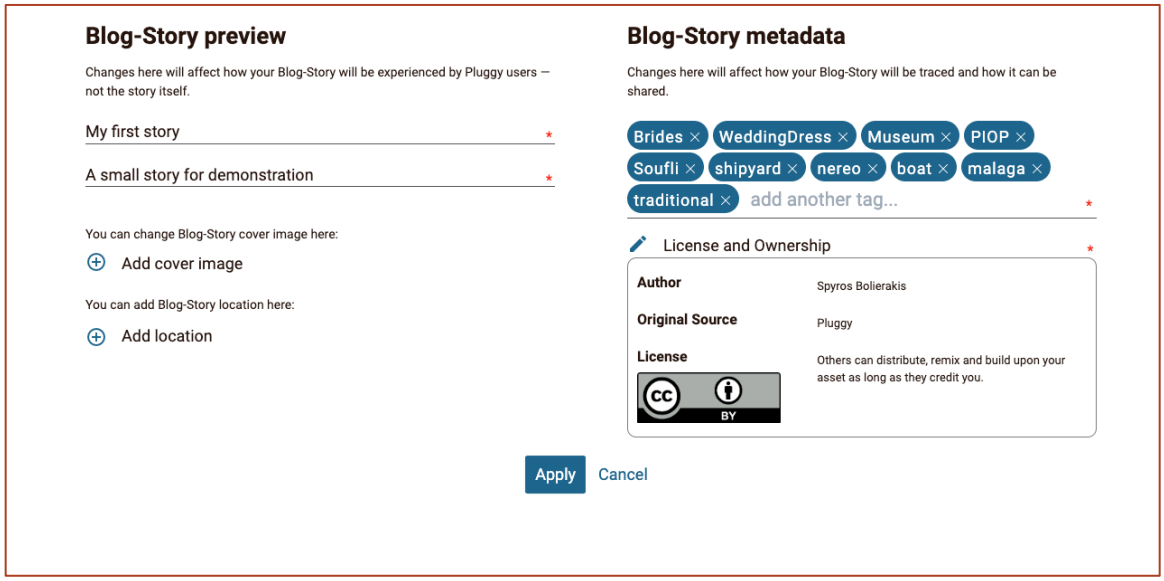


Figure 26: Blog Story metadata page

4.1.1.4 Experiencing a Blog Story

If the user decides to publish the Blog Story, any other user can experience this story. This is achieved by navigating to the story's page where users will see all metadata (Title, description, tags, location, licence, owner and even related exhibitions) and can-do social interaction such as like, share and comment. Furthermore, if the user is the owner of the story he/she is given the option to edit (navigate to the Blog Story editor) or delete the exhibition (Figure 27, Figure 28). If a user selects the view button located in the story's cover image, he/she will be directly navigated to the exhibition viewer where he/she will experience the created story (Figure 29, Figure 30, Figure 31). In the viewer, the user can engage in social interactions and, in the case that location for each chapter is provided, the user can activate an exhibition's map with all locations (markers) by clicking the "see story map" link, and can navigate to a specific chapter by clicking the corresponding marker.

Figure 27: Blog Story main page (1/2)

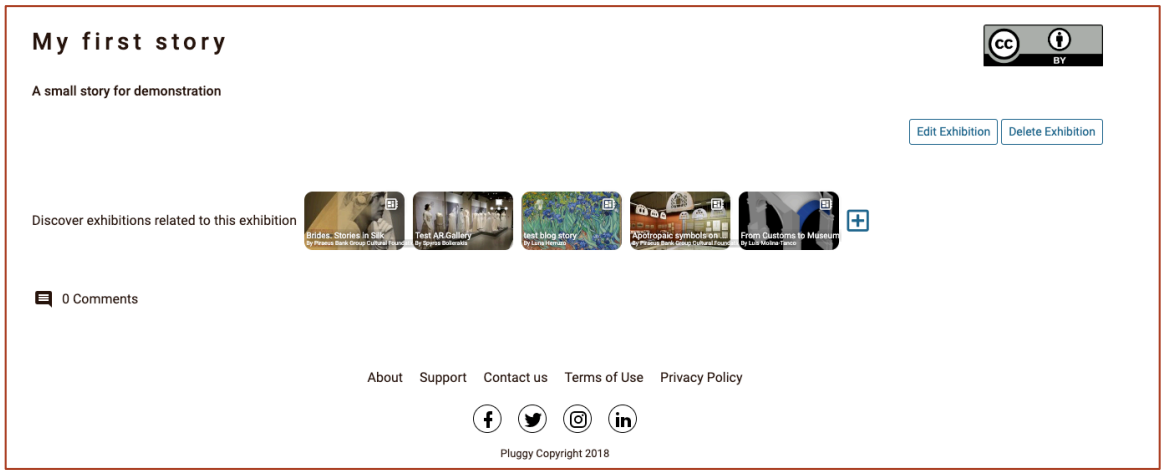


Figure 28: Blog Story main page (2/2)

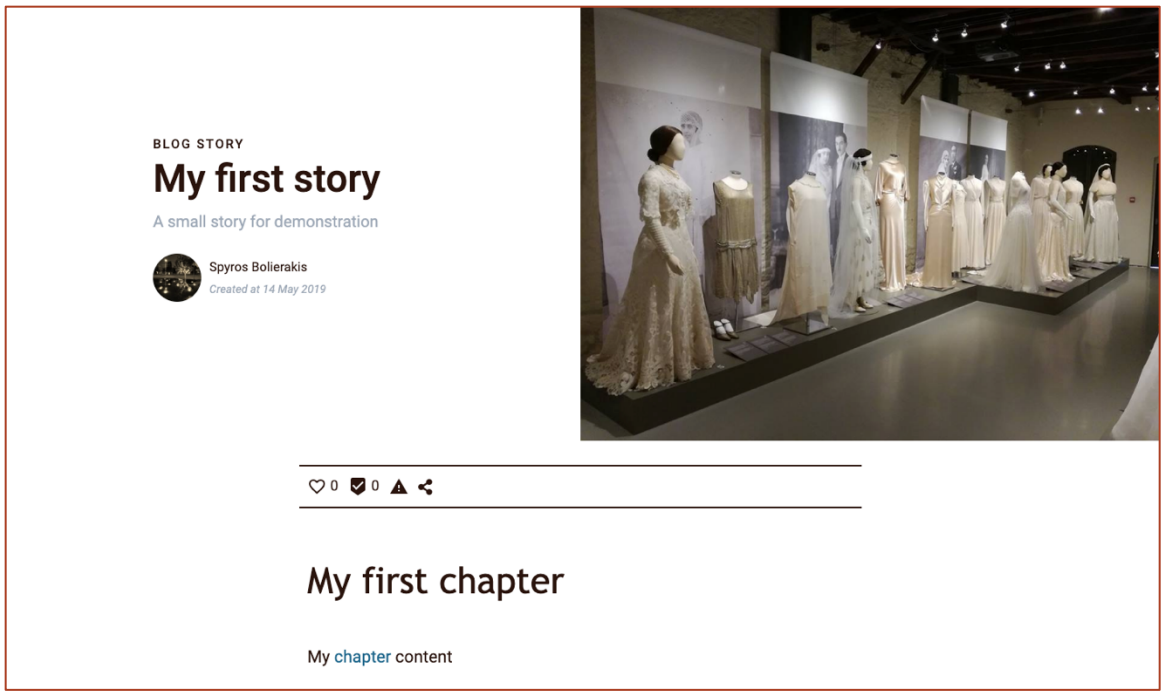


Figure 29: Blog Story viewer (1/3)

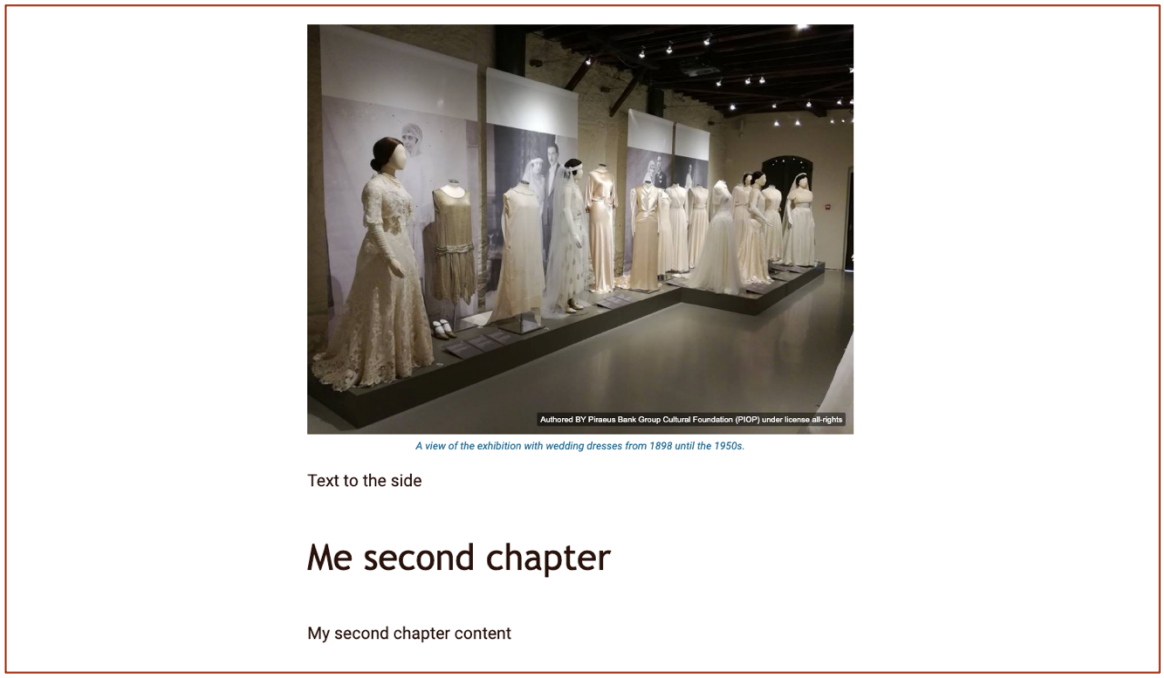


Figure 30: Blog Story viewer (2/3)

Constructing a boat the traditional way

CC BY

♡ 0 0

Figure 31: Blog Story viewer (3/3)

4.1.2 Timeline Story Manual

In order to be able to create a Timeline Story, the user must first have an account and must sign in the platform. With that in place, the user must visit “My Space” page and select exhibitions. From there, user will have to select the add new exhibition button (Figure 32).

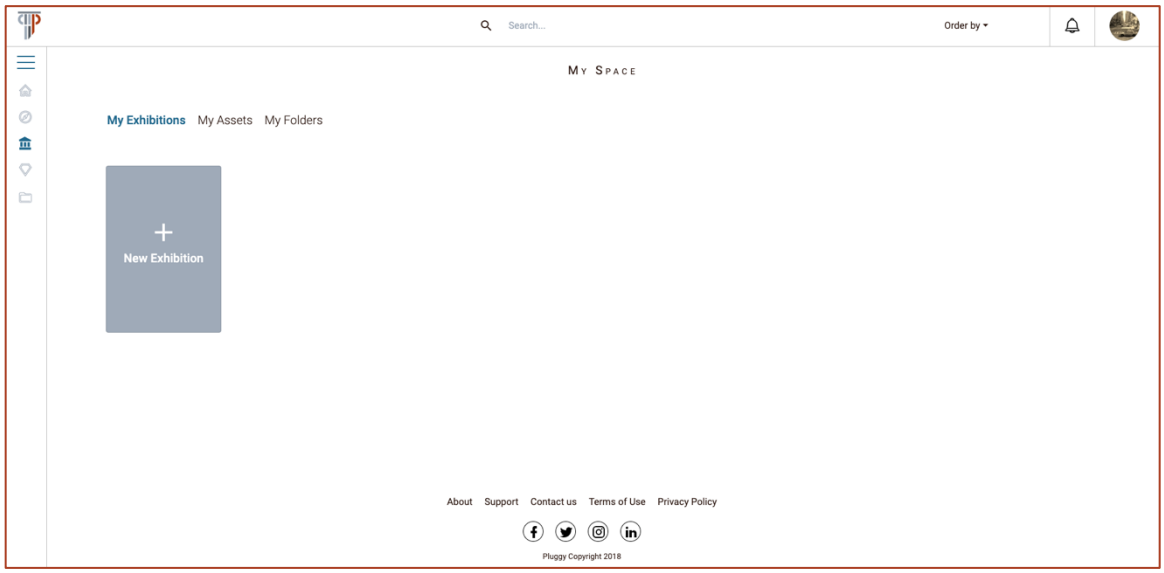


Figure 32: Create New Exhibition button

By selecting the Create New Exhibition button, the exhibition type selection page will appear (Figure 33).

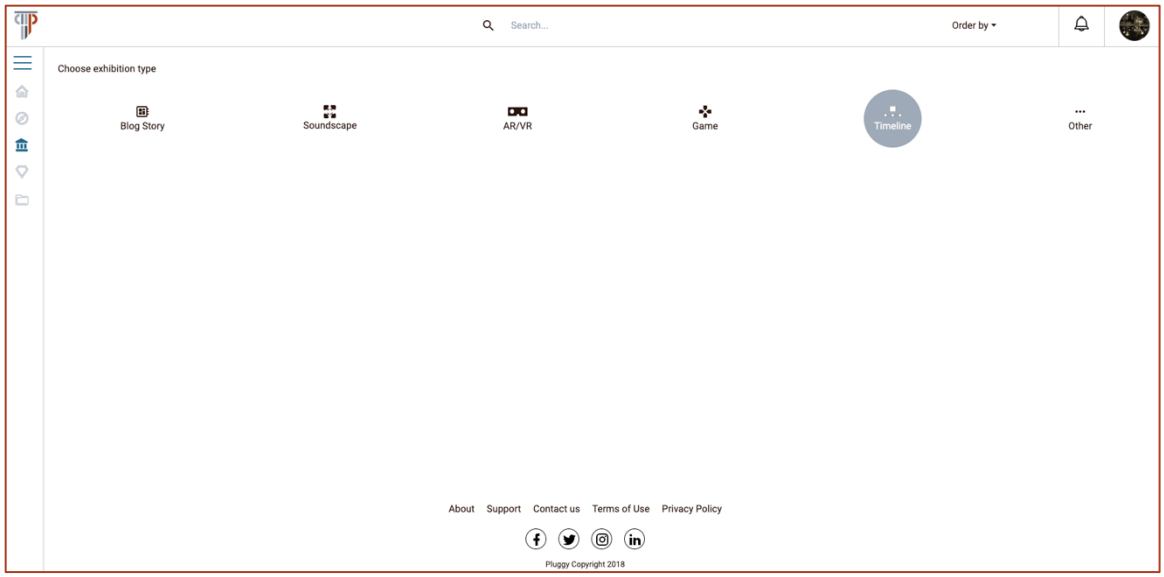


Figure 33: Exhibition type selection page

Having selected the Timeline Story exhibition, a component containing a form to fill basic exhibition metadata will be activated (Figure 34). In this form the user must provide the name and description of the new story. Additional information, such as the cover image and its licence for the story (Figure 35) and a location related to the whole exhibition can be added here (Figure 36).

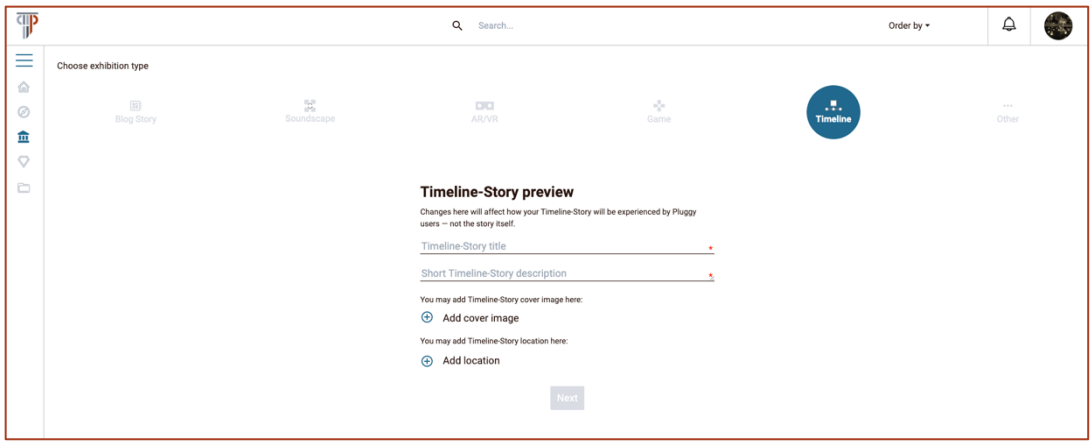


Figure 34: Basic Timeline Story metadata

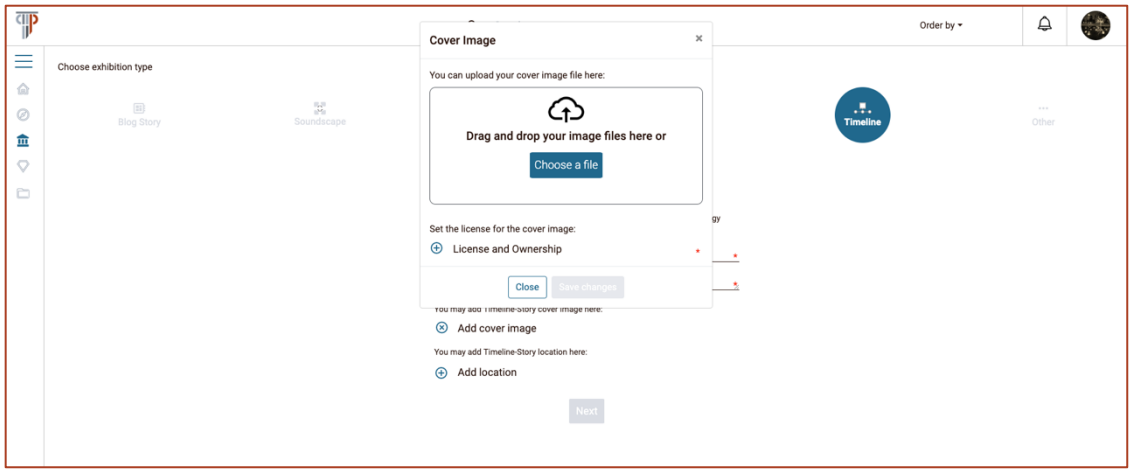


Figure 35: Modal for adding cover image

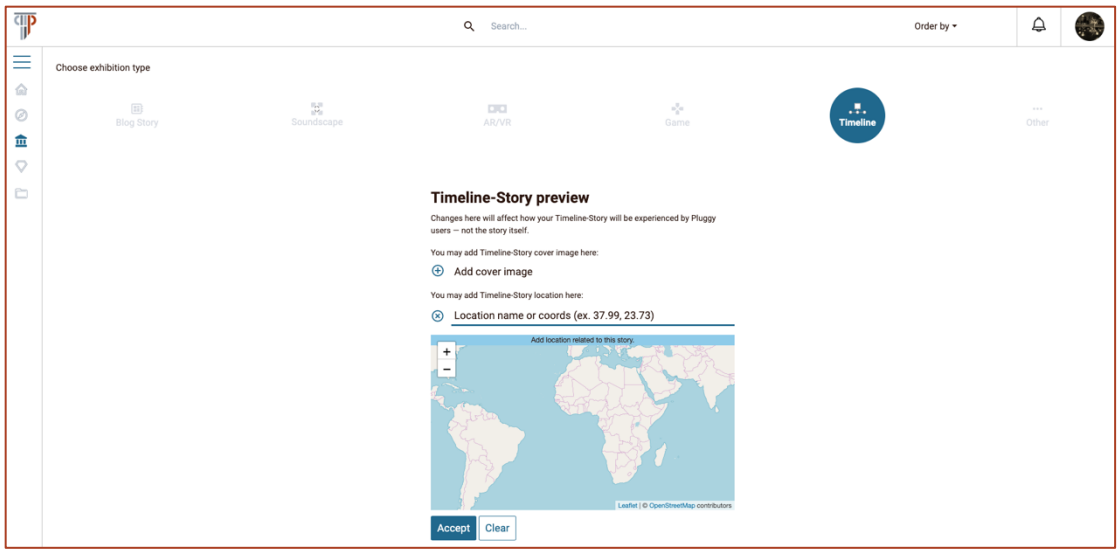


Figure 36: Add Timeline Story location component

After filling-in the necessary information, the Next button will be activated. This will transfer the user to the Timeline Story editor (Figure 37). This is the page where user actually creates the content of the story. In order for the story to be saved and further options to be provided, the user must fill in the first event's date, title and description. Furthermore, after adding this core information the event will be automatically reordered in chronological order compared to other created events.

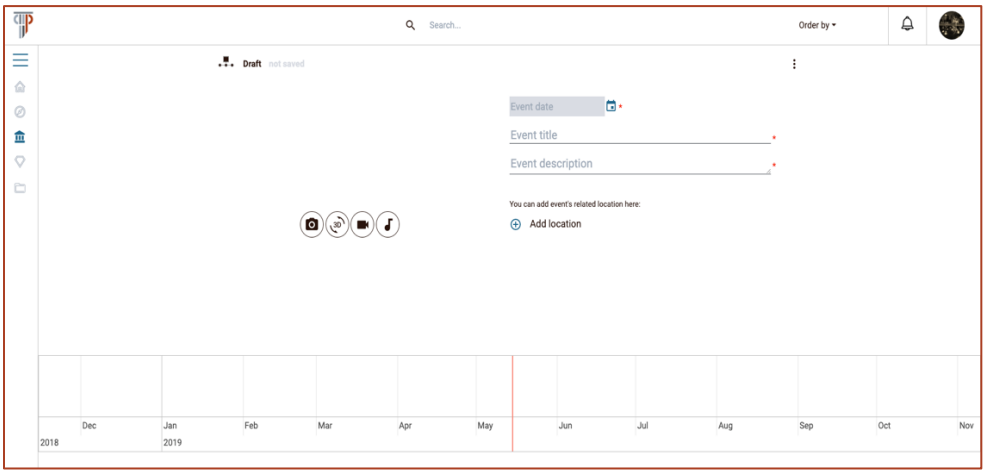


Figure 37: Timeline Story editor. Event date, title and description must be provided

4.1.2.1 Editor Functionalities

Each event consists of a date, a title and a description. Additional information related to each event can added, such as a location and an asset. In order to add the event's date, the user must select the calendar button. A calendar date picker will be enabled from where the user can select a specific day, month and year (Figure 38, Figure 39, Figure 40). Dates after the current date cannot be picked.

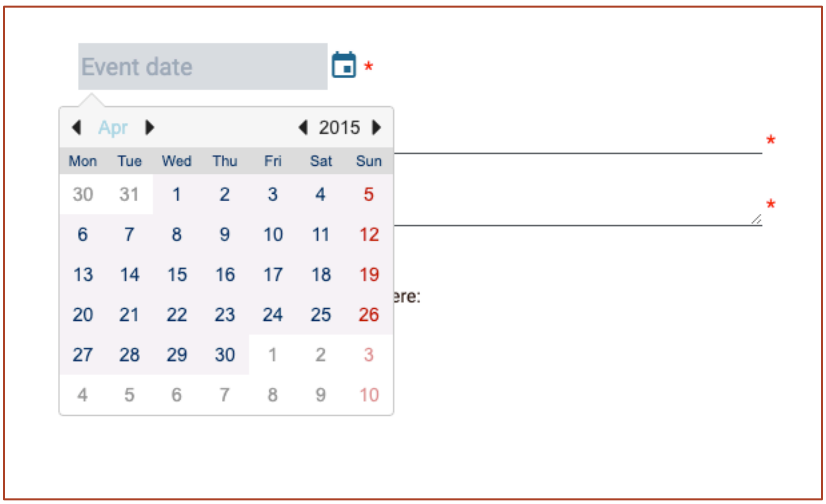


Figure 38: Timeline date picker (1/3)

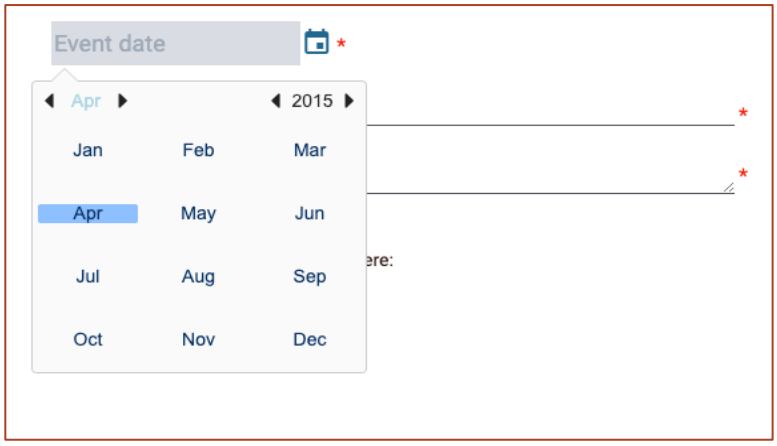


Figure 39: Timeline date picker (2/3)

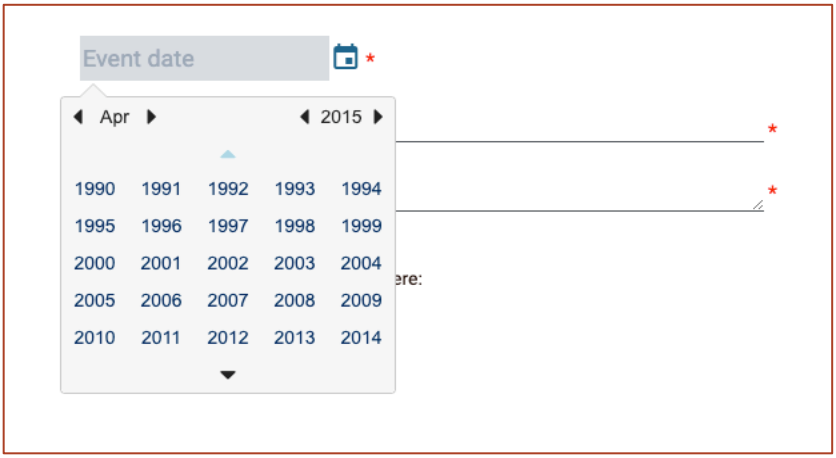


Figure 40: Timeline date picker (3/3)

Having set the event date, a new date picker button will appear (Figure 41). This date is optional and its significance is to describe the end date of a period. The end date picker cannot select dates previous to the start date.

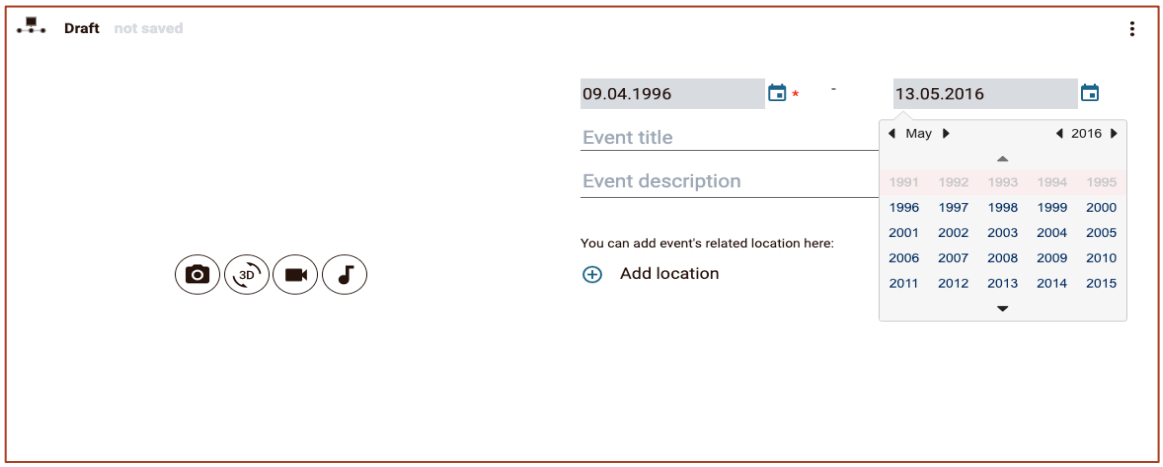


Figure 41: End Date picker

The user may also choose to add a location related to the active event. If this is selected, a new component will appear giving to the user the functionality to add location by clicking on a map or by adding coordinates, or the name of a city in the input field (Figure 42).

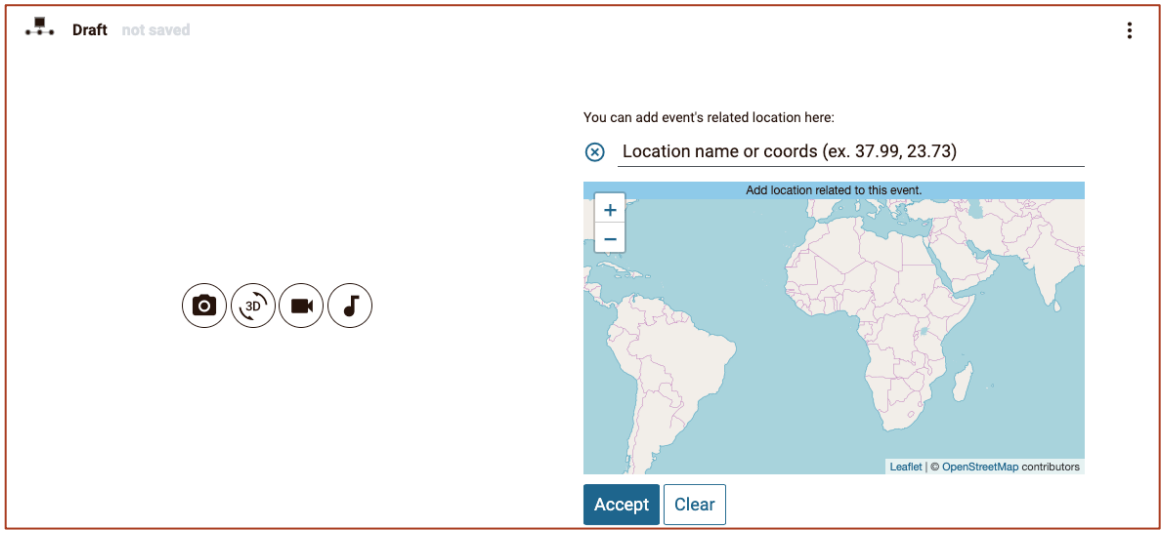


Figure 42: Add location related to the event

The user may elect to add an asset related to the event. He/she can select the type of asset from a list of icons, wherebytwo more options will be enabled: The option to add an existing PLUGGY asset or to directly create/upload a new asset (Figure 43 and 44). This

newly-created asset will be directly imported to the story and will also become part of the user assets.

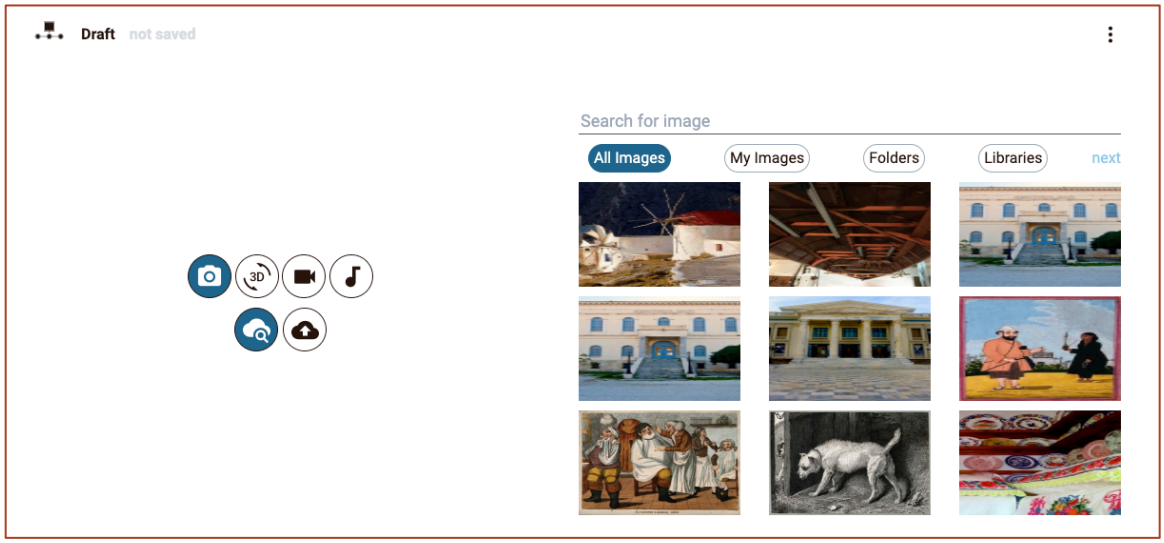


Figure 43: Editor option to add from existing assets

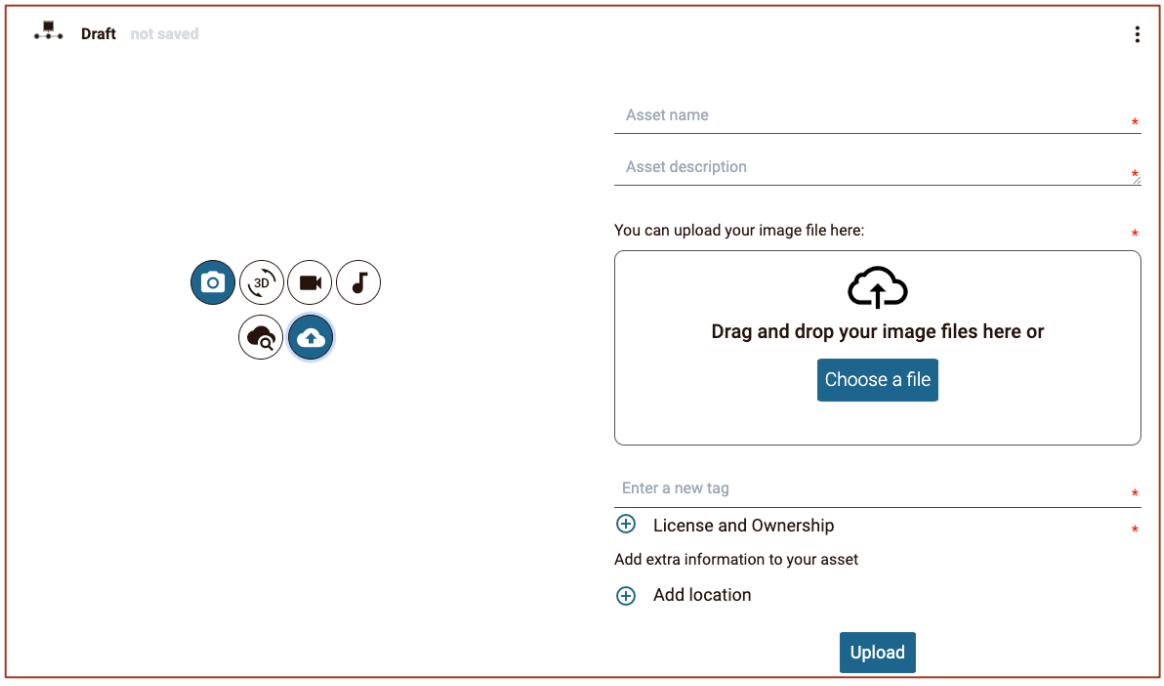


Figure 44: Editor option to create/upload and use a new asset

As seen in Figure 43, the selection asset tool has even more functionalities. User can directly search for an asset using the search field provided or even filter assets. Assets can be filtered as the ones the user owns (My Assets), or as the ones contained in a folder (Folder) or as the ones coming from an external library (Libraries). Selecting folders or

libraries will enable a list of available ones for the user to select from. External library search functions only for images at the moment.

If the user elects to add an asset, the asset will be directly inserted to the left side of the event page (Figure 45). Furthermore, a caption will be generated using the asset's title with a link to the asset's page and information regarding the asset author and licence will be visible at the bottom right of the asset. At any point user can remove the asset by clicking the close button at the top right of the image.

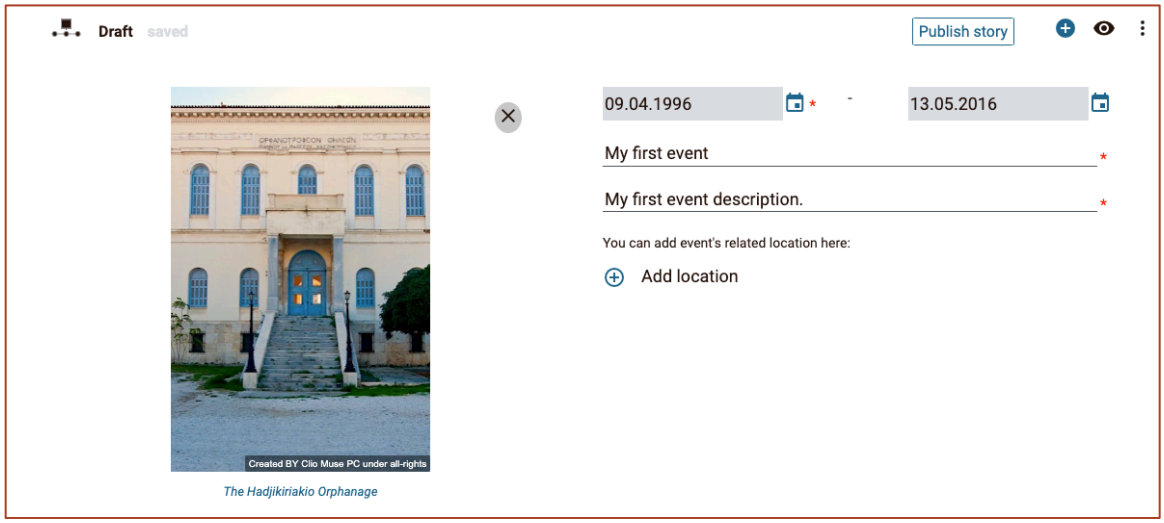


Figure 45: Event after adding an image asset

Finally, when the user adds the required metadata, (date, title and description) the event is actually created and added to the timeline bar at the bottom of the page. The timeline bar provides the chronological order of created events since each event is located at its start date (Figure 46). Moreover, the timeline bar provides an indicator of the active event, the title of each event and the type of asset used in each event. The user can also navigate to an event through the timeline bar by selecting an event or deleting an event by clicking the "x" button at the right of the event card.

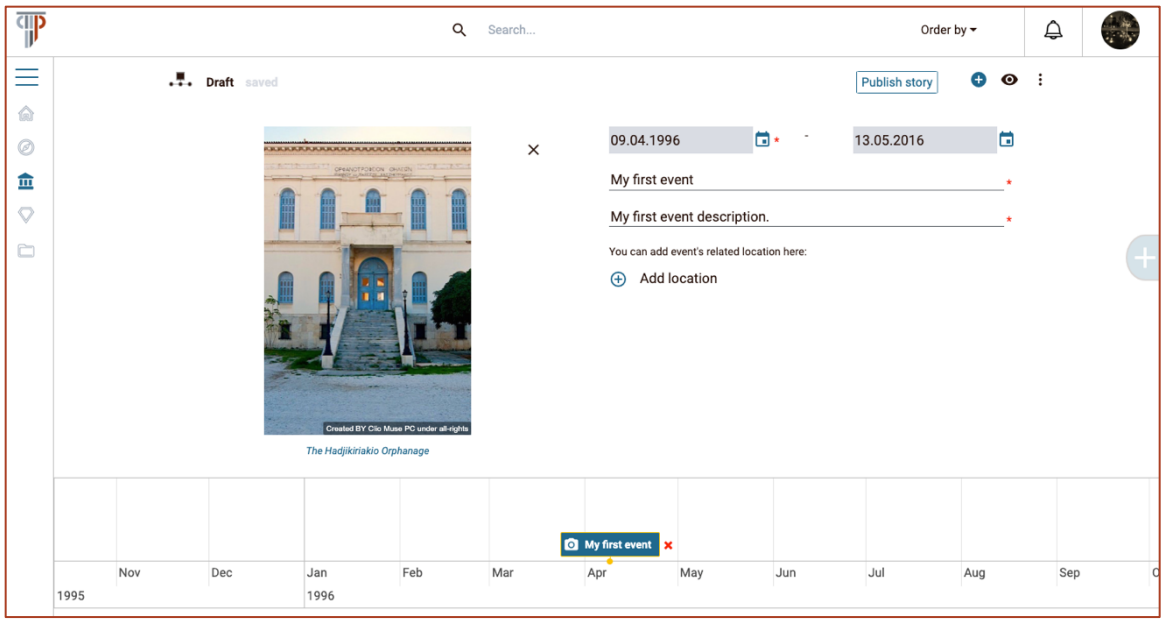


Figure 46: Event added in Timeline bar

4.1.2.2 Other Timeline Story Functionalities

Timeline story editing page provides more functionality through its top bar menu (Figure 47). On the left of the bar there is an indicator of the type of exhibition created. Next to it is the "Saved" indicator. Since auto-save is always enabled, this indicator changes to "saving" when the editor is saving changes. At the right there the publish story button that leads user to review story metadata before making story public in PLUGGY platform. The initial state of the story is private and not visible to other users. This is the way we give the option to the user to decide when to publish the story. The "plus" button indicates the ability to add a new event to the story. The eye button starts the preview mode where user can see how the story created until this point will look like (how it will be experienced by other users). Finally, the options button opens a list with available options related to the whole story or the active chapter.

Figure 47: Timeline Story top menu bar.

By selecting the Add New Chapter button a new empty Editor page will be initiated, along with a new Event. This procedure can be repeated as many times as the user needs. When an event is created it is added to the bottom timeline bar but it also is ordered chronologically. This means that the navigation to the events through left and right buttons is done in chronological and not in order of creation order (Figure 48).

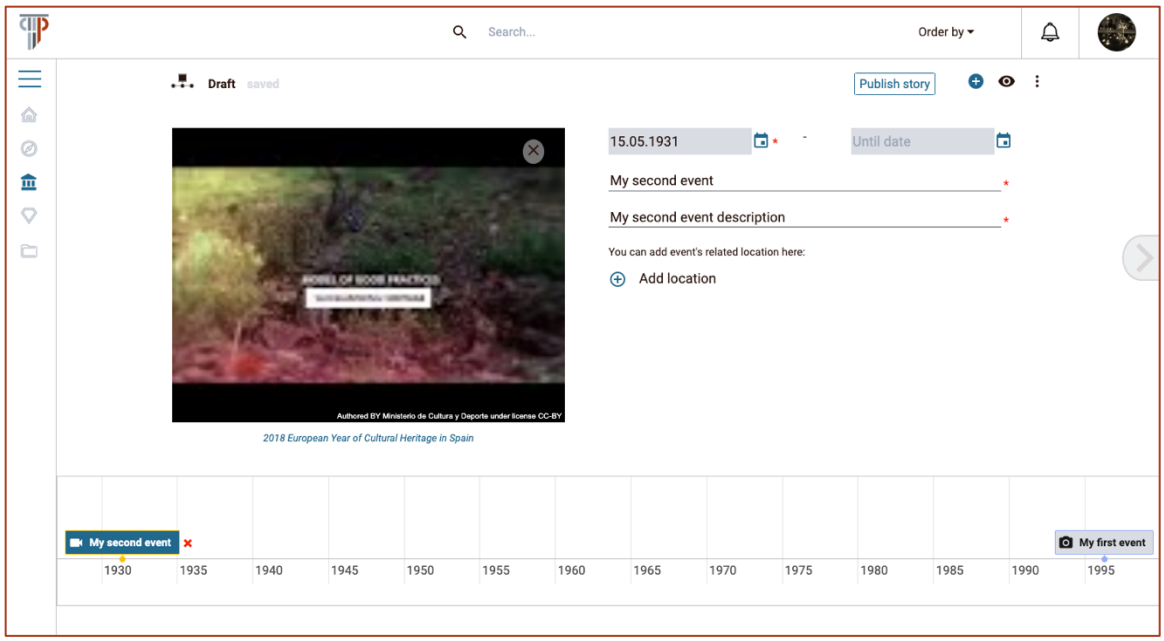


Figure 48: Adding a chapter in chronological order

In Preview mode, the user can overview the story as a whole. Timeline story is experienced as a wall (horizontal list of events) by moving to chapters through the next and previous buttons at the left and right of the page (Figure 49, Figure 50, Figure 51). The user can also navigate to specific event by clicking the event card from the timeline bar. The user can select the Stop Preview button in the middle of the page to return to the editor at any point

Figure 49: Preview mode (1/3)

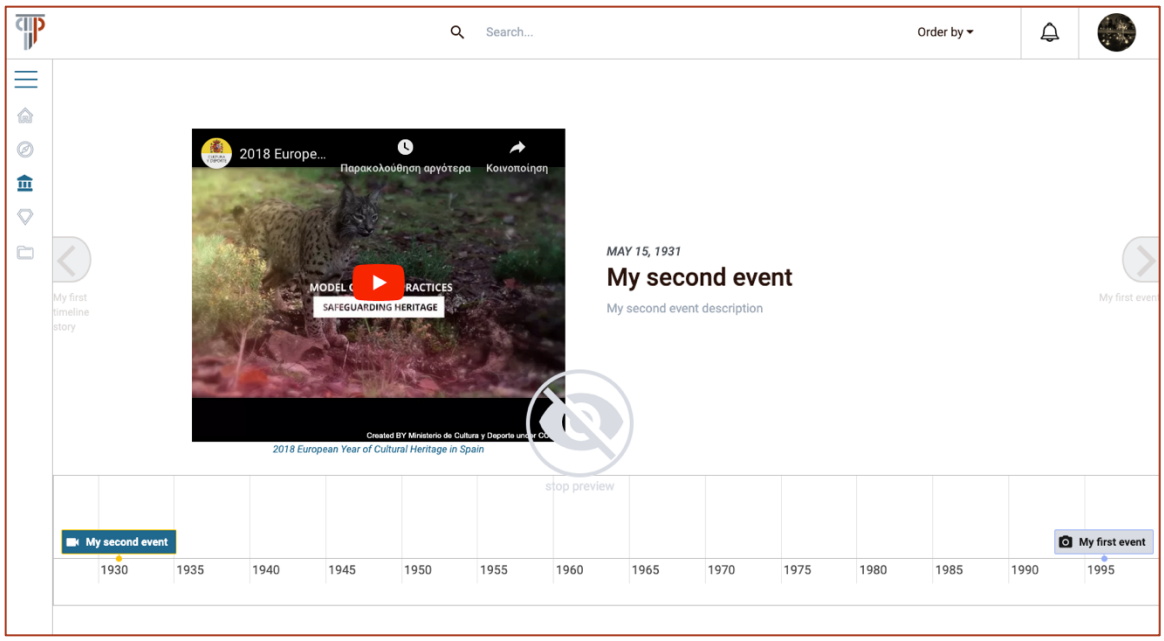


Figure 50: Preview mode (2/3)

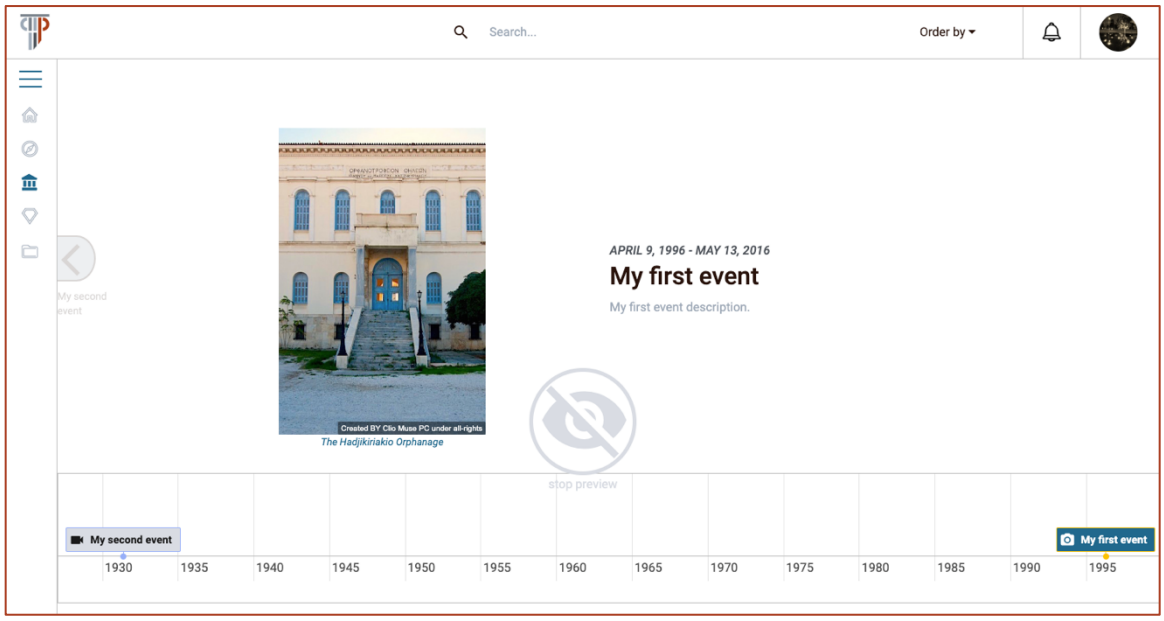


Figure 51: Preview mode (3/3)

The user can also perform actions through the options dropdown list (Figure 52).

- Edit story settings: User is navigated to edit story's metadata page.
- Preview story: Enables preview mode.
- Remove story: Deletes the whole story.
- Save story: Manually save the story.

- Add event location: Enables add location component related to the active event.
- Remove current event: Deletes the active event.
- Hints: Opens a modal with help functionality for the user to easily create a story (Figure 53).
- Quit editor: Exits editor and returns to user space.

Figure 52: Options dropdown list from top menu bar

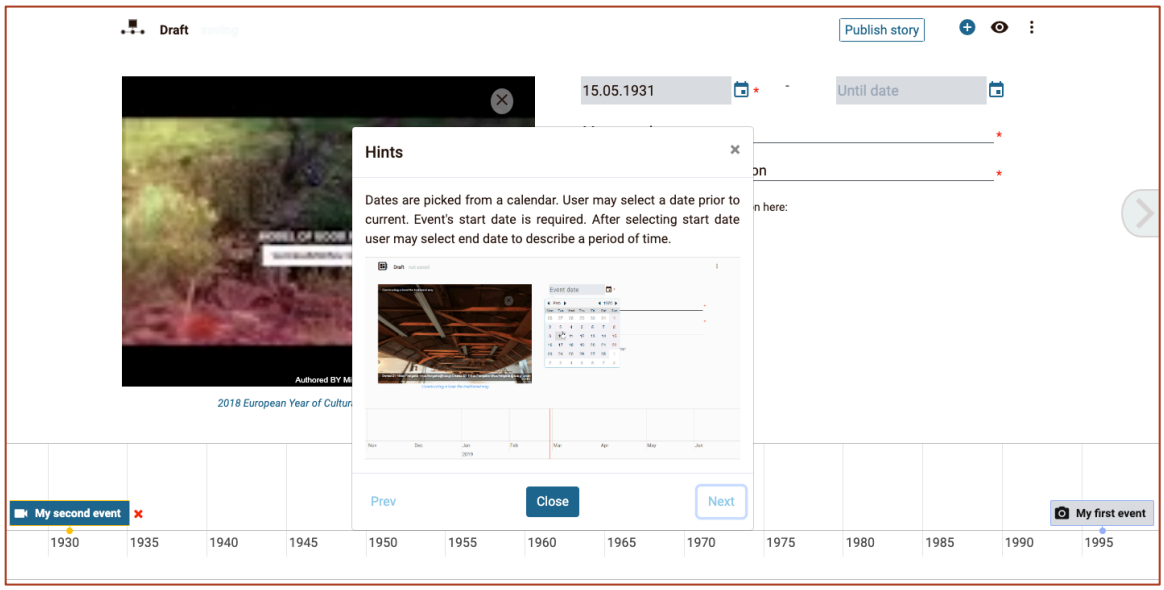


Figure 53: Hints modal

The core part of a Timeline Story is its metadata. The user can at any point review and change the metadata but will also be navigated to the latter just priot to publishing the new story. In the Edit Story metadata page the user can edit/add the story title, the description, the cover image and the location (Figure 54). Moreover, the user can

add/edit the story tags and story licence. Users creating a story must be notified that the story tags are auto-filled with asset tags added in the story. The Story licence starts as CC-BY by default, but can be changed manually by the user at any point. Another important aspect related to the story's licence is that it is directly affected by assets' licence used in the story. This means that it will change automatically if needed and some licence options might not be available to the user.

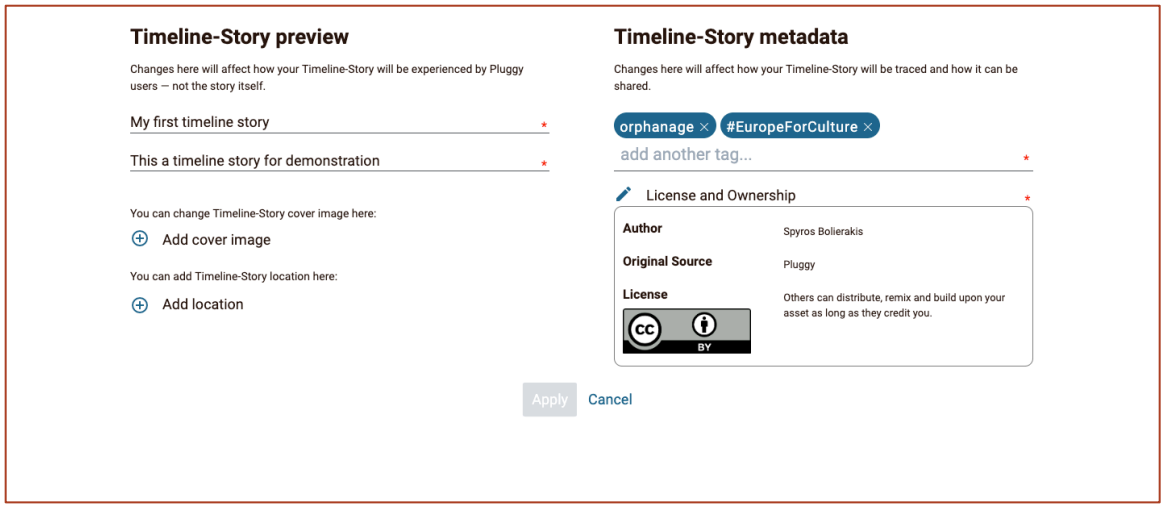


Figure 54: Timeline Story metadata page

4.1.2.3 Experiencing a Timeline Story

If the user decides to publish the Timeline Story,any other user can experience this story. This is achieved by navigating to the story's page where users will see all metadata (Title, Description, Tags, Location,Licence, Owner and even Related Exhibitions) and can-do social interaction such as Like, Share and Comment (Figure 55 and). Furthermore, if user is the owner of the story he/she is given the option to edit (navigates to Timeline Story editor) or delete the exhibition. If a user selects the view button located in the story's cover image, he/she will be directly navigated to the exhibition viewer where he/she will experience the created story (Figure 57, Figure 58 Figure 59). In the viewer the user can engage in social interactions,and the case that location for each event is provided, the user can activate the exhibition's map with all locations (markers) by clicking the "see story map" link, and can navigate to a specific event by clicking the corresponding marker.

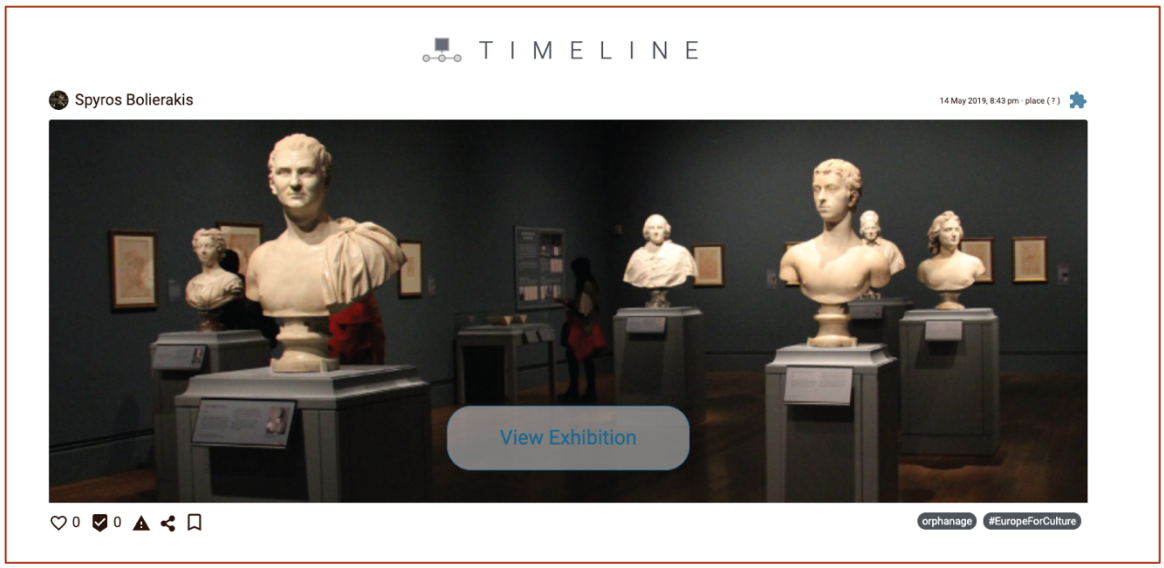


Figure 55:Timeline Story main page (1/2)

Figure 56:Timeline Story main page (2/2)

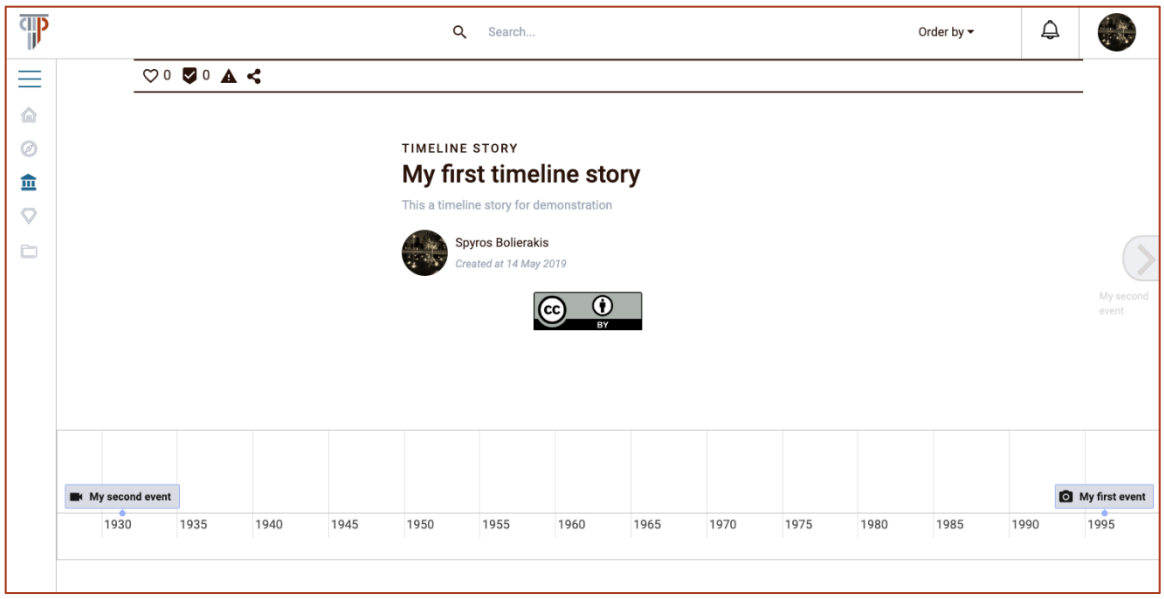


Figure 57: Timeline Story viewer (1/3)

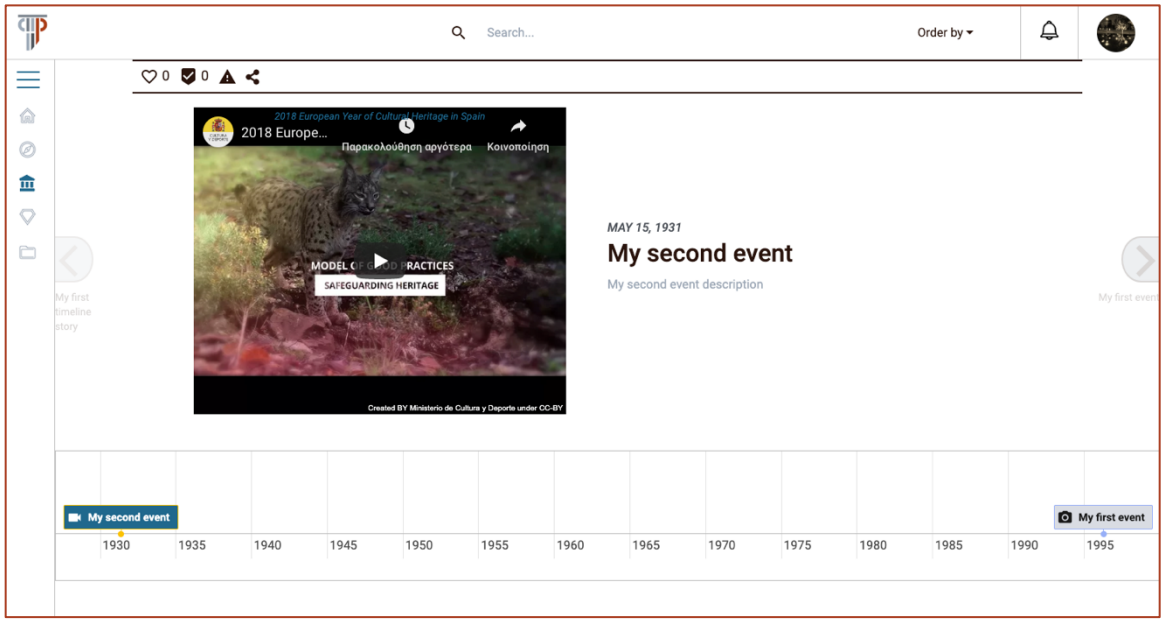


Figure 58: Timeline Story viewer (2/3)

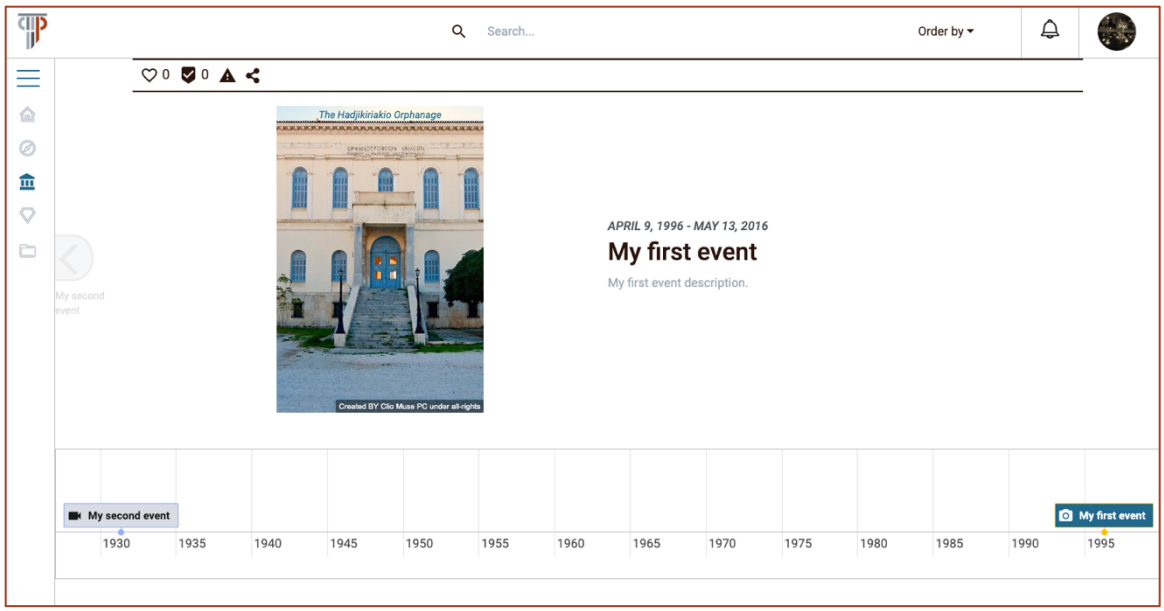


Figure 59: Timeline Story viewer (3/3)