Introduction

The AOR viewer can be accessed by clicking on this link: https://archaeologyofreading.org/viewer/#aor
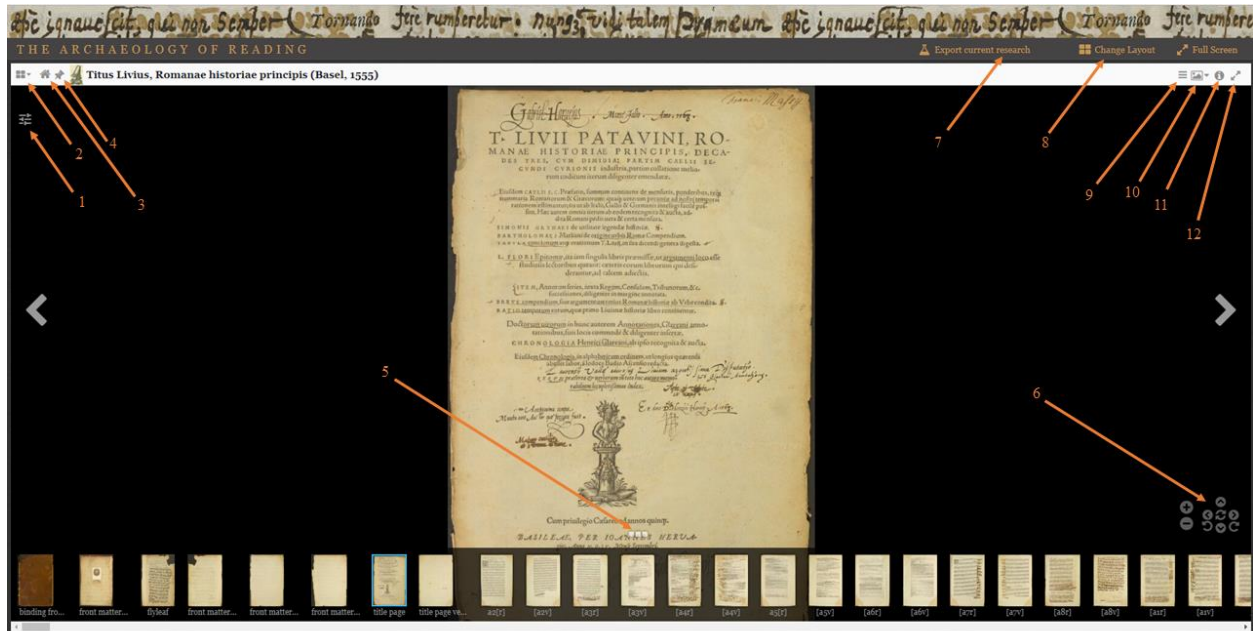
Book gallery

When first opened, the Mirador viewer will display the Book Gallery, a list of all the books in the AOR corpora with their first few pages shown.
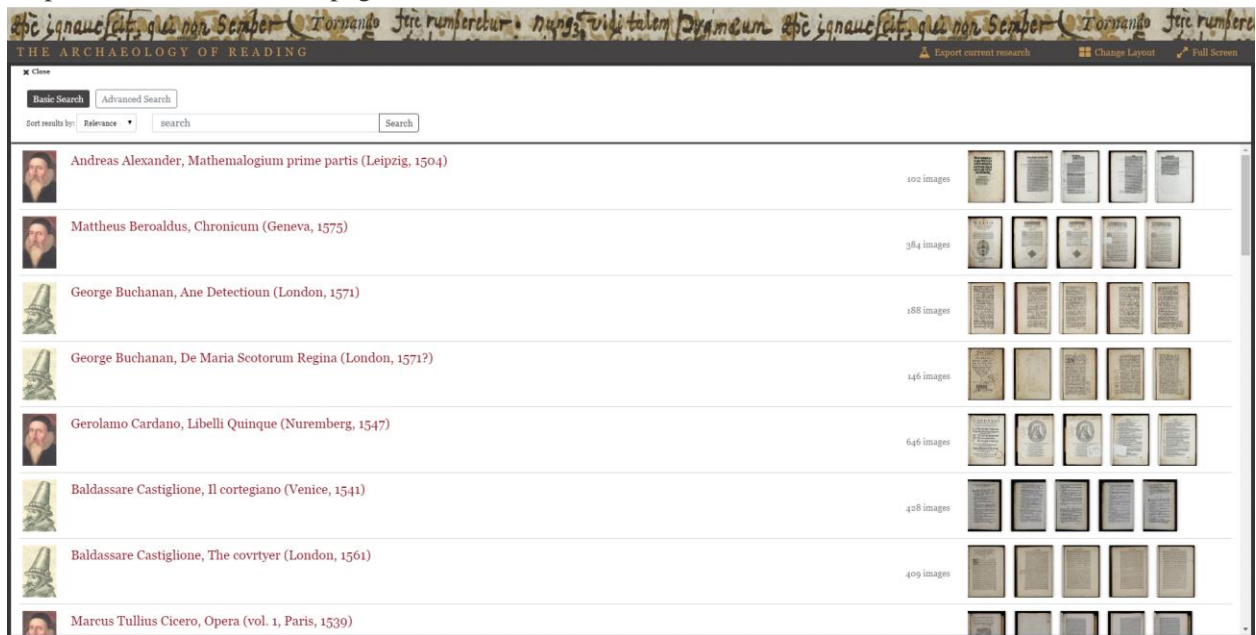
Select the book you wish to view by clicking on one of the page images. This will transition you to the book viewer (alternatively, clicking anywhere in a selected row outside of a page thumbnail will open a thumbnail browser of that book).

Image and transcription viewing

The book viewer has a number of functionalities which are highlighted in the following image and which will be explained in greater detail below. Within the book viewer, one can browse images by clicking on an image in the row of thumbnail images displayed in the bottom of the screen or one can use the arrow buttons on the right and left side of the screen. Due to the system of persistent URLs it is also possible to use the *back and forward button of the browser* to navigate.

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1) Toggle image manipulation	7) Export current research
2) Open new workspace	8) Change layout
3) Home button (open the book gallery)	9) Open transcription/search panel
4) Pin view	10) Open image view
5) Enable/disable thumbnails	11) Open metadata panel
6) Image manipulation keys	12) Toggle full screen

1. Image manipulation

This version of the Mirador viewer has several new options to manipulate the appearance of images, including brightness, contrast, and saturation.
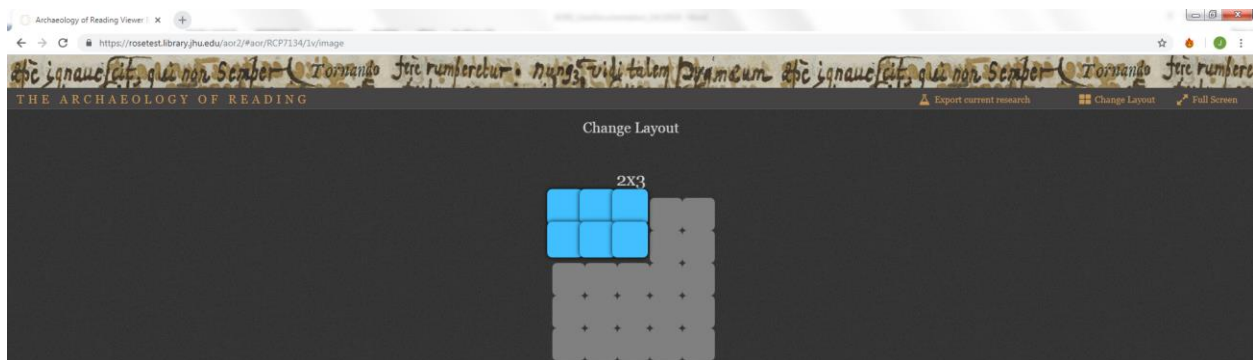
2. Open new workspace

The Mirador viewer allows for opening up to 25 (!) workspaces. This menu gives users the possibility to choose where (i.e. in relation to the active workspace) a new workspace will be opened.
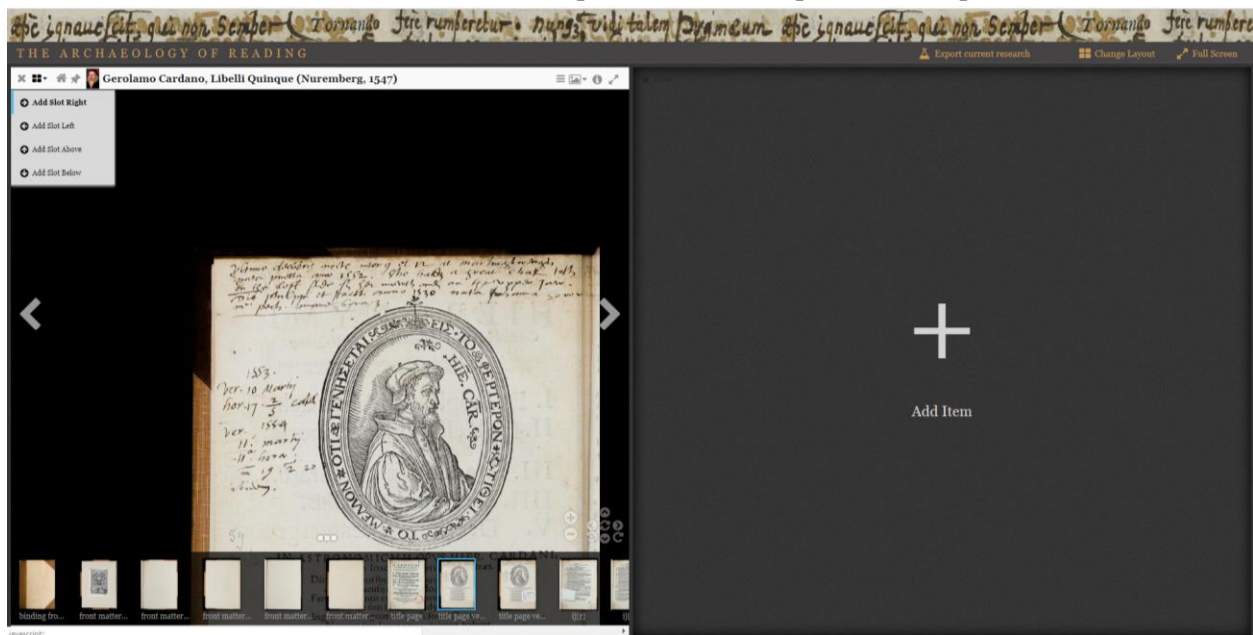

Alternatively, one can click on the 'change layout' button in the upper taskbar. This will enable one to open a number of new workspaces.

Note that when more than one workspace is open, the ability to use the browser history to navigate might be affected.

3. Home button

Re–open the Book Gallery by clicking on the home button. In this way users can select a new book to view. Clicking the close button located above the search box in the Book Gallery will return you to your content.
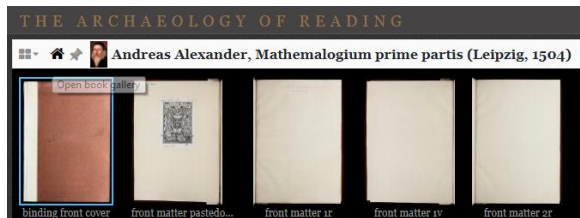

4. Pin view

In order to prevent navigation away from the current image in the workspace, click the pin button. A changed icon (black and with the pin pointing straight down) indicates that the pin function is active and all navigation away from this image is prevented.


5. Enable/disable thumbnails

In the book and image views, there is a thumbnail strip at the bottom that lets you browse thumbnails of the pages in the current book. Clicking on these thumbnails will change pages. This thumbnail strip can be hidden by clicking the ellipsis icon.
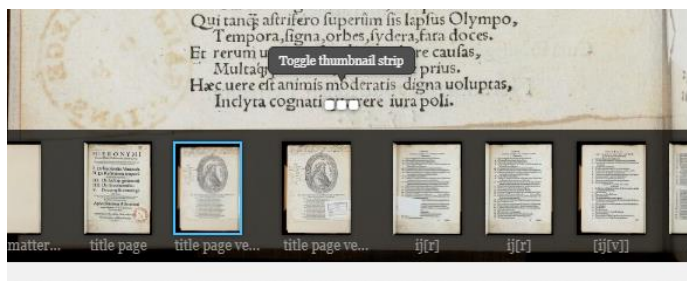

6. Image manipulation keys

The image can be zoomed and pan with a mouse or touch gestures. Clicking on the image will zoom in at that point. Using the mouse scroll wheel will allow you to zoom in and out. Clicking and dragging will pan the image. These operations can also be performed by using the controls on the bottom right of the image. The controls also support rotation in 90 degree increments. There are also button controls on the bottom right of each workspace to pan, zoom, and rotate. A home icon that will reset the image back to its default state sits in the middle.
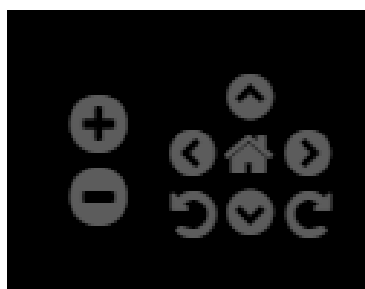
7. Export current research
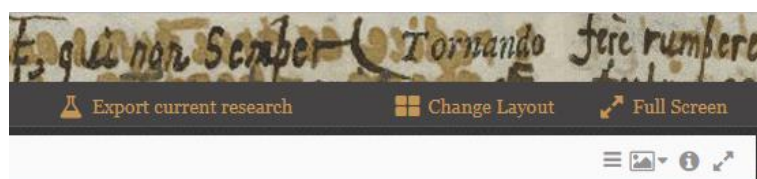
The ability to view and export one steps or pathways to the viewer is one of the major new additions to the AOR viewer. Clicking on the "Export current research" in the top bar will take one to the following overview:


This overview is a chronological list of the steps taken or activities undertaken by the user in the viewer, a powerful method to record the journey from 'A' to 'B' while doing research in the AOR environment. The list is dynamic: steps can be deleted (the red X button) and information can be added (the blue pencil button)

to each of the steps. To add more steps after editing or annotating the list, click the "Back to Viewer" button on the right of the masthead.

The list can be exported in two ways, namely as a simple HTML file and as a linked data graph, generated by RMap.

HTML

To start with the former, by clicking on the button 'Export as HTML' one has the ability to preview the export and to change the file name (see image below).
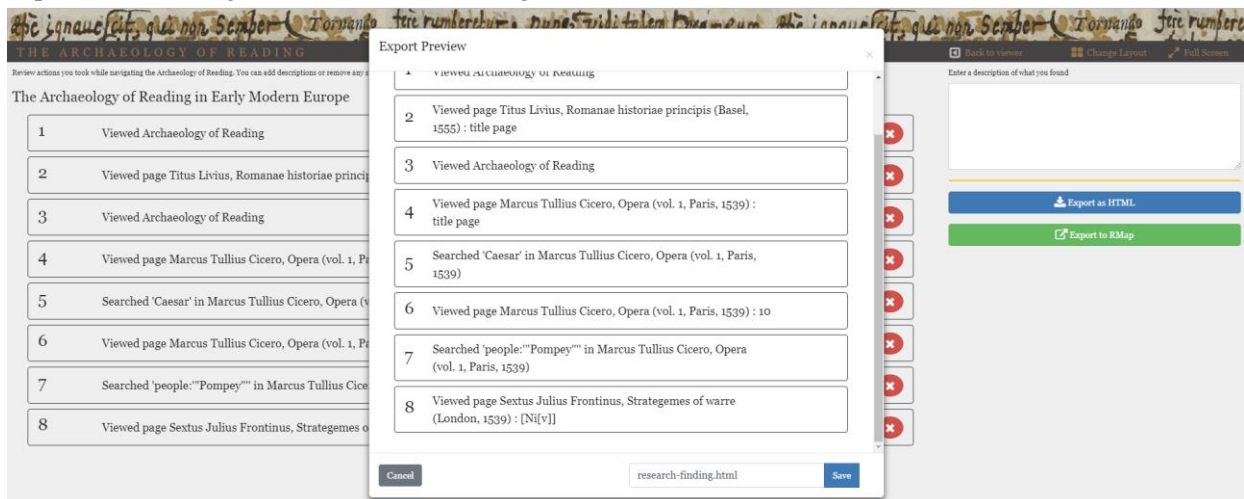
After having clicked on the save button, the file will be downloaded into the downloads directory on your computer's hard drive. This resulting document will be a simple HTML document containing a list with all the research steps. Each of this steps is a clickable link which will take one to that particular 'state' of the viewer that has been saved (e.g. a particular image, search result, etc).
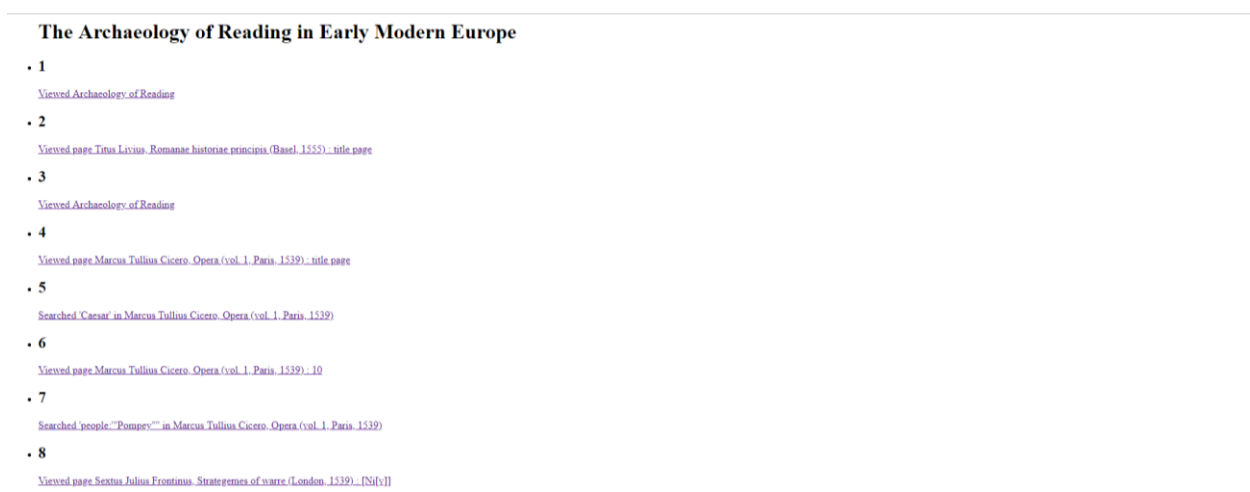

This export function makes it possible to store one's research and continue with it at some point in the future. It should be noted that when returning to the viewer by clicking on a link in the exported file, the

research history is wiped clean and starts anew (e.g. by clicking on the link below number 6, the viewer navigates to that particular image, but has not retrieved steps 1-5 and 7-8). However, one can continue one's research by simple clicking on the last link of the exported file. Since the content in this HTML file can easily be copied into other document, it is possible to connect the research steps saved in to various HTML file by copying everything, for instance, to a Word document.

RMap

Another, slightly more complicated yet much richer export function is the possibility to export one's research steps and findings as a RMap linked data graph. RMap or Resource Map, is a tool to create linked data graphs called DISCOs, the abbreviation of Distributed Scholarly Compound Object. Basically, a DISCO maps and links all the components of a scholarly object (e.g. an article) consists of, including authors, data sets, code, other publications cited, et cetera. We have leveraged the RMap technology to display the research steps taken in a linked data graph which can be exported and linked to one's own user ID in RMap. In this way, research findings can be exported and shared.

The process of exporting research steps as a RMap graph is a bit complicated. When clicking on the green "Export to RMap" button, a new window opens in which one is asked to provide a RMap API Key.
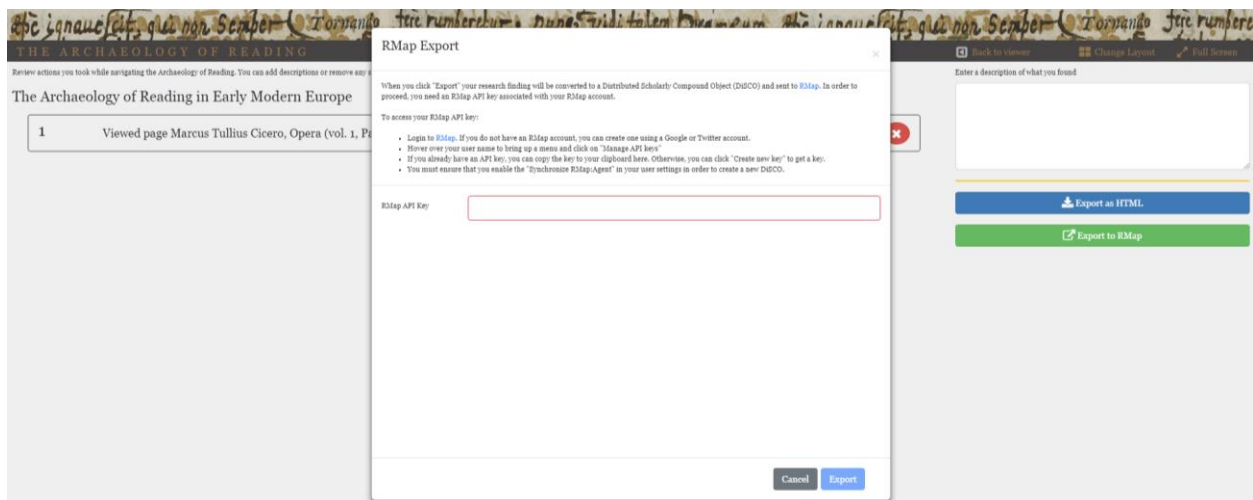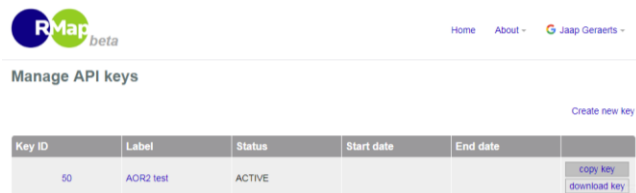

In order to acquire such a key, one has to login to RMap. Clicking on the link in the window above (or here) will take one to the RMap homepage where one can register.
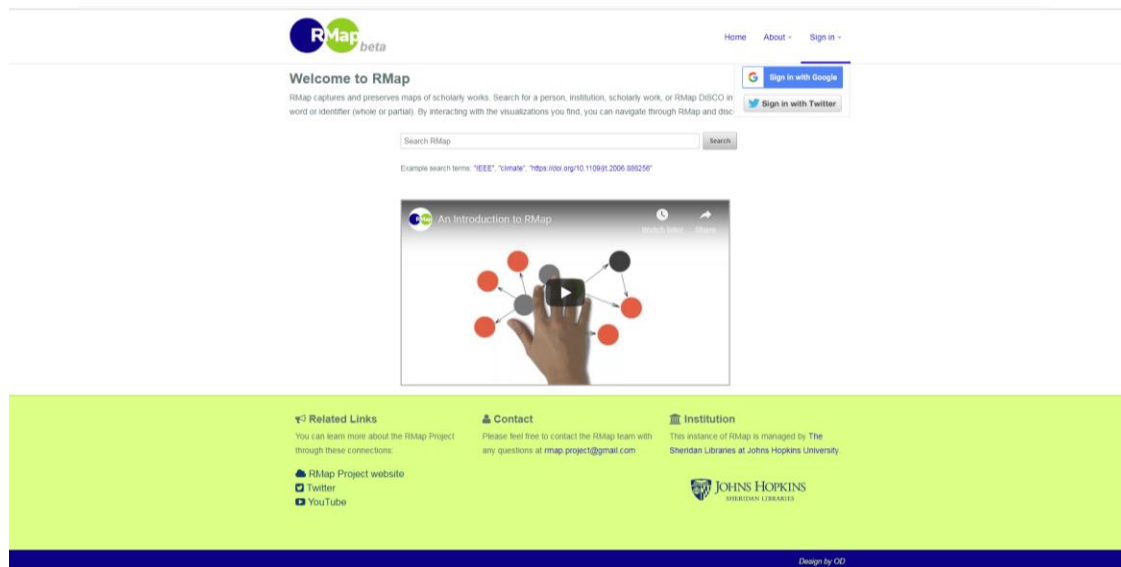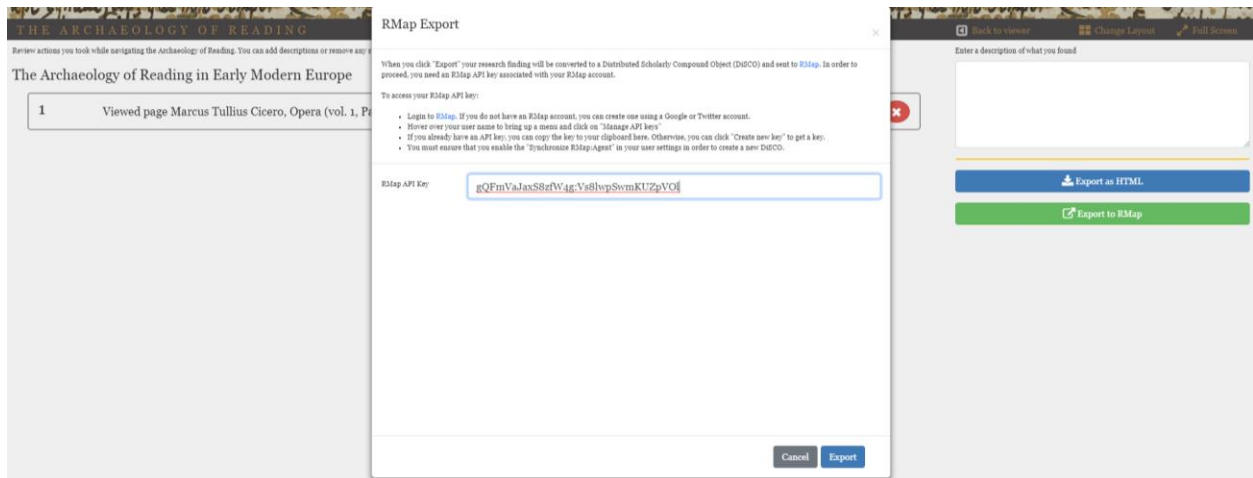
After having registered, sign in and go to "manage API keys".
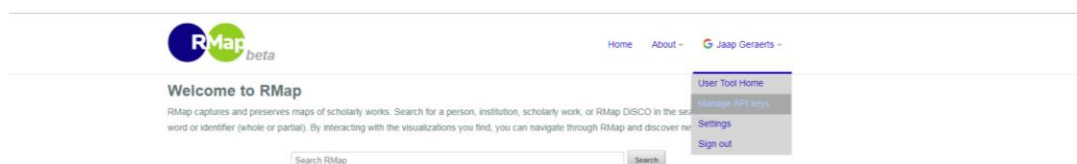
Now one can create a new API key or manage existing ones. Create a key and by clicking on "create new key" press "copy key to clipboard".

Now this key can be copied into the designed field in the open window in the AOR viewer. After that, click the "Export" button in the lower right corner of the window.
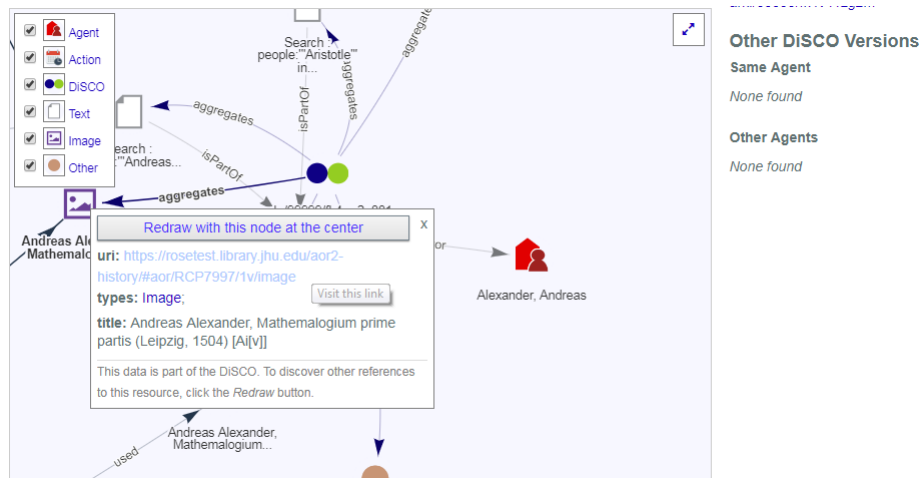
When the export is successful, a link is created and appears in the bottom of the window:
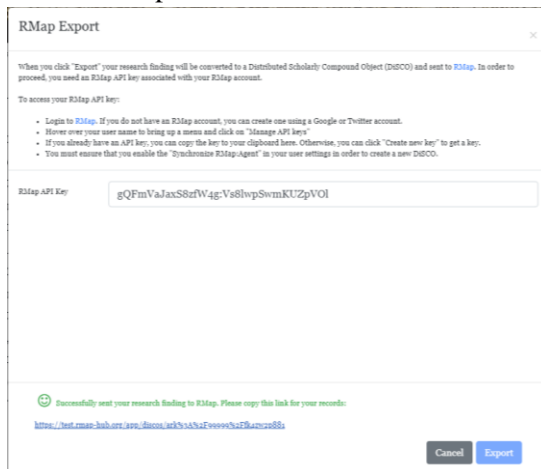
Clicking on this link will open the linked data graph:

This linked data graph is interactive and can be manipulated. Moreover, the individual components of the graph contain a URI which link straight to the viewer, similar to the clickable links in the HTML export.

For more information about the particular applications of the HTML and RMap exports, click here [opens a webpage].

8. Change layout

This button enables opening a number of new workspaces.
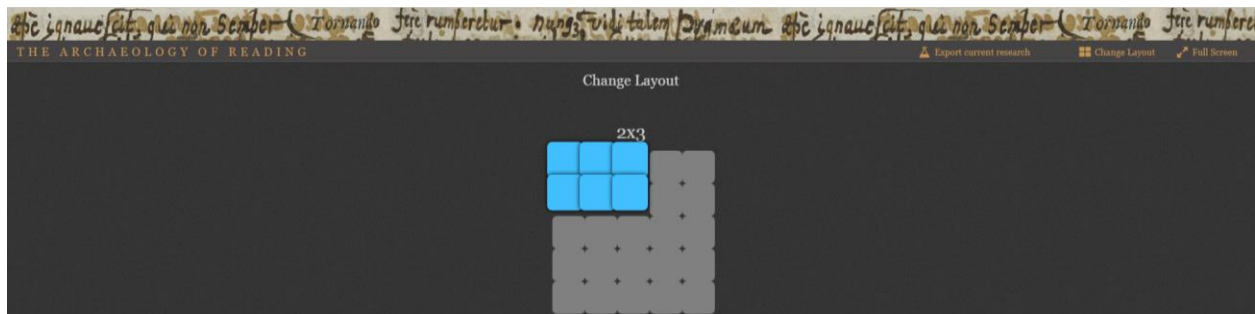
9. Open transcription/search panel

Open this panel in order to view transcriptions and translations of marginal notes or search the data captured in the XML transcriptions.

This will bring up a sidebar showing information about interventions in the text. Note that not all pages will have transcriptions associated with them. Moreover, not all the data captured in the XML transcription (for example, underlined text) are displayed in the transcription view. Most data serve search purposes; only marginal notes and their translations and symbols are displayed.

An explanation of Dee's and Harvey's annotations (or interventions as we like to call them) and the way in which we have tagged them in XML can be found in our Transcriber's Manual, the most recent version of which can be found on the [downloads page](#) of the AOR website.

Preceding the transcriptions are a set or icon which explain the position of the annotation of the page and the orientation of the page (for orientation, see the Transcriber's Manual, pp. 13-7).The first set of icons which deal with the position on the page are:

Icon	Position on page
▐	Left margin
▕	Right margin
▃	Tail
▀	Head
▣	Intext

The 'values' of the icons can be combined, for instance when a marginal note moves from one to another space on the page:
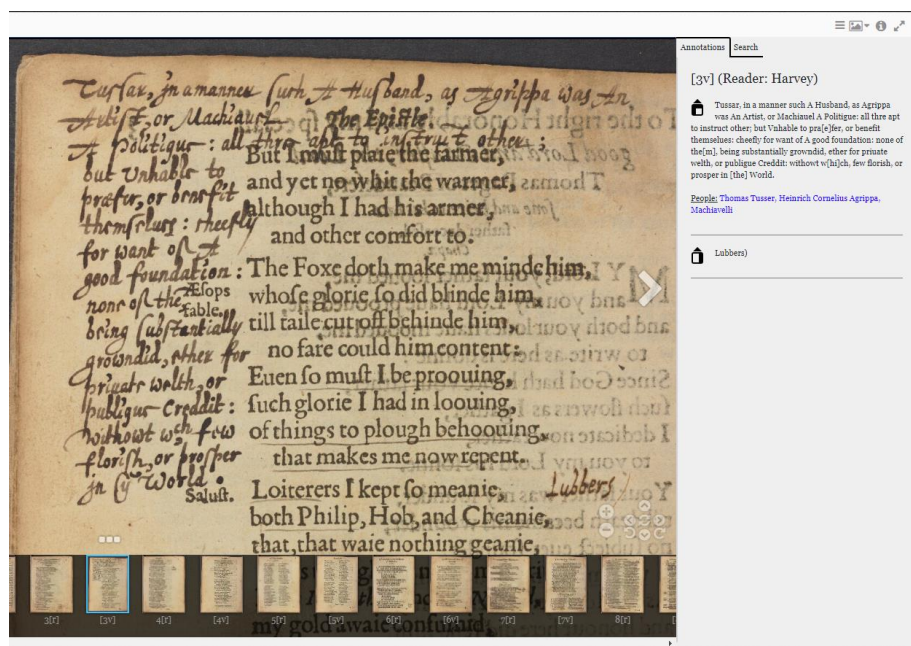
In this case, the left side of the square is black, indicating that this particular annotations is written in the left margins of the page.

In case an annotation is written on a blank page, this will be indicated by a empty or blank, i.e. non-filled square:

Around the circle icon, arrows denote the orientation of the page, as visible in the image above.

- Up arrow: 0 degree orientation
- Left arrow: 90 degree orientation
- Down arrow: 180 degree orientation
- Right arrow: 270 degree orientation

Search

Notice that some words in the transcription panel appear as hyperlinks:
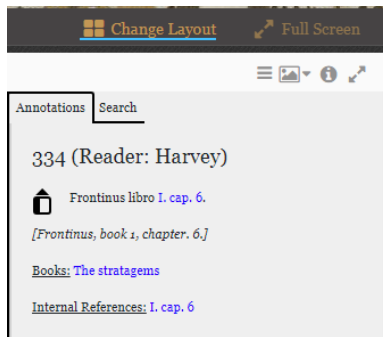
These are clickable links which enable users to search for a particular person, book, or geographical location within the book currently open in the workspace or across the whole AOR corpus, or to find more information about this entity in online resources outside of the AOR research environment. Internal references take one to a page within a book in the AOR corpus. Users can decide whether to open this page in the current or a new workspace.
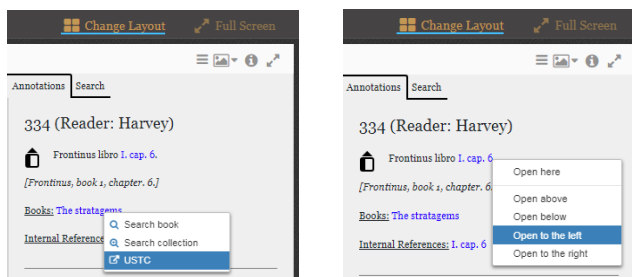
Alternatively, click on the 'search' tab in the transcription panel to launch searches.
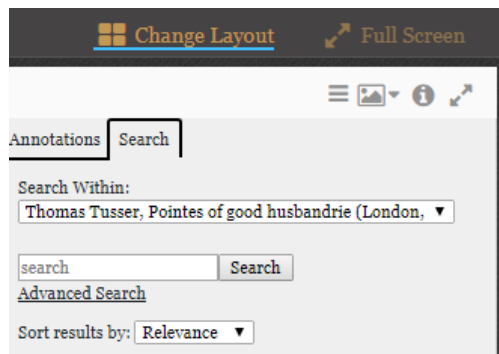
A search can either be across the entire corpus of books or within the book being viewed, based on the value selected in the 'search within' field:
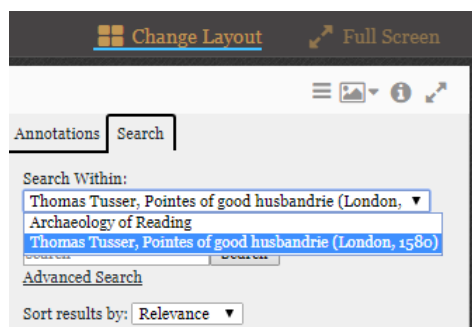
A simple search is a basic string search, which searches for a particular value across all the text associated with the different categories into which Harvey's interventions are divided (more about which below). A simple search therefore is a broad search, and users can use the advanced search to construct more detailed searches in order to drill down into the data captured in the digital transcriptions.

The advanced search screen can be opened by clicking on 'Advanced Search', underneath the basic search field (see the image above). Harvey's annotations are divided into several categories or forms, the most important of which are marginalia, marks, symbols, and underline. An advanced search allows the user to specify which categories are searched, which the user can select from a drop-down list:
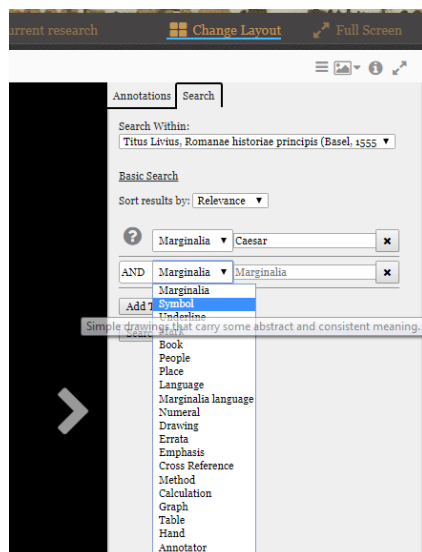
For example, one can search for the word 'Caesar' in the marginalia element, and the search will return instances of this word which are captured in the various attributes and child elements of the marginalia element, namely: marginalia_text element, the translation element, and the anchor_text attribute (this attribute captures the link between the marginalia and a word or words in the printed text).
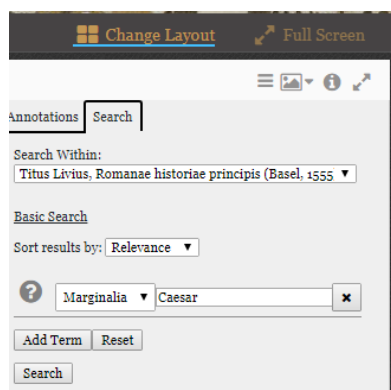
The advanced search allows users to construct more complicated queries, for instance by combining various categories of interventions. For example, one can search within the people that are mentioned in the marginal notes. Make sure to put the name of the person you are looking for in between inverted commas in order to find instances which exactly match the search value. If you don't do this and search for, say, John Dee, the search will return other names with similar values, e.g. John Winthrop.

By clicking on the 'Add term' button, another search row is opened, providing the user with the opportunity to select another form of annotation:
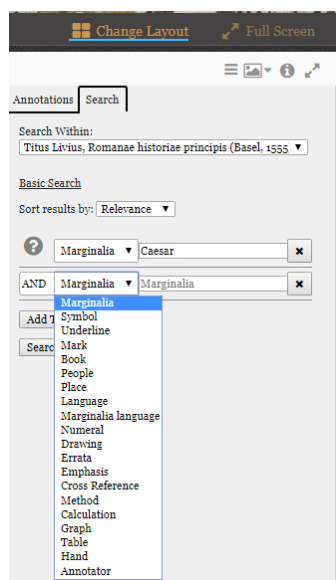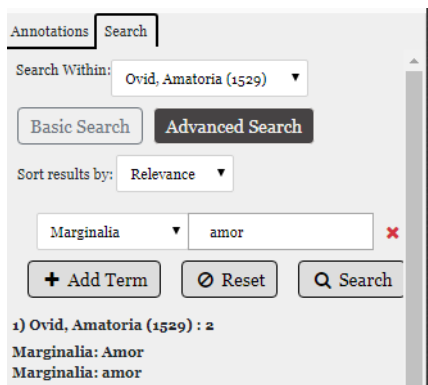
In this particular example, a user is searching for the pages in which the word Caesar appears in the marginalia tag AND a plus sign. AND is the default value of the boolean operator, which can also be set to 'OR'. Note that in an advanced search, the first categories specified by the user have precedence. For example, if the user searches for Marginalia Moon AND Underline Earth OR Mark Sun, the query is treated as Marginalia Moon AND (Underline Earth OR Mark Sun). Putting the query in a different order changes the meaning of the query and may result in different results

A match occurs if any of the set of keywords and phrases given by the user occurs in the specified categories. Keywords are separated and phrases are enclosed in double quotes. Each keyword and phrase can also be required to exist by prepending a "+" or required not to exist by prepending a "-".

Results are displayed in the same search panel and are returned in order of relevance. They may be paged through if there are too many to display at once. One should also note that a search for a particular word can yield several results even if this is not immediately apparent from the data that is displayed on the transcription panel. This is caused that the search and search results include data that are part of the XML transcriptions but are not displayed in the transcription panel. For example, this is the result for an advanced search for the word 'amor' in the marginal notes in Dee's copy of several of Ovid's texts.[1]

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[1]

https://archaeologyofreading.org/viewer/?q=marginalia%3A%27amor%27&m=30&s=relevance&type=advanced&service=aor%2FRCP9986-1#aor/RCP9986-1/binding%20front%20cover/image/search

As you can see, the word 'amor' is displayed twice. When navigating to this page and opening the transcription panel, the word 'amor' is only shown once:[2]
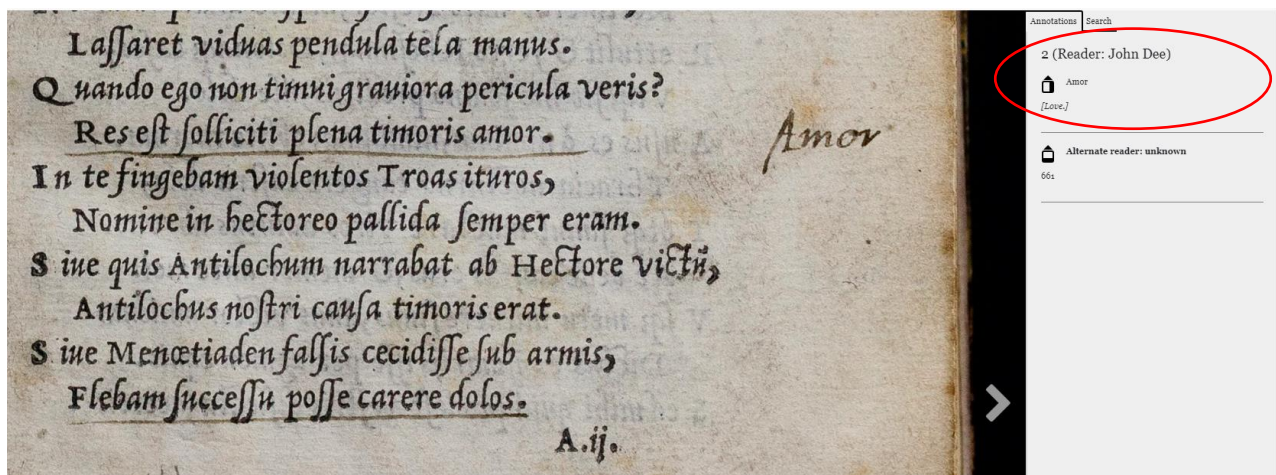
In the XML file, the marginal note is associated with the printed text – the unscored words in the printed text is captured in the 'anchor' attribute of the marginalia tag. The underscored printed text includes the word 'amor' and the search retrieves and displays both instances of the word 'amor'.

Each individual item of the search result is a clickable link. Clicking on the link with the left mouse button will open this item (and the digital image associated with it) in the workspace you are working in at that moment. However, clicking on a search item with the right button enables you to open it in a new workspace at a specific space on the screen in relation to the current workspace:

[2] https://archaeologyofreading.org/viewer/#aor/RCP9986-1/1r/image
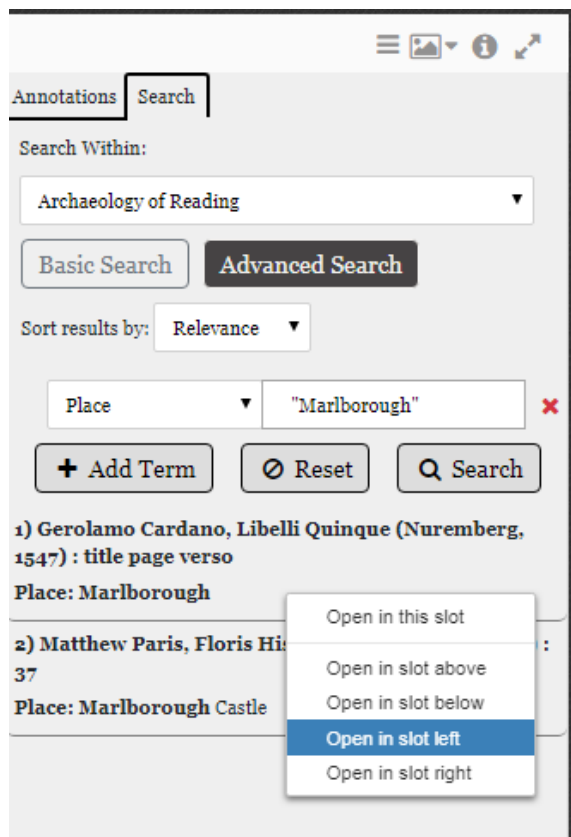
Also note that at any time you can flip between the search and transcription panel without losing the search results in the process.

Another possibility is to launch a search in the gallery/home page. This search functions similar to the search executed in the search panel of a workspace.
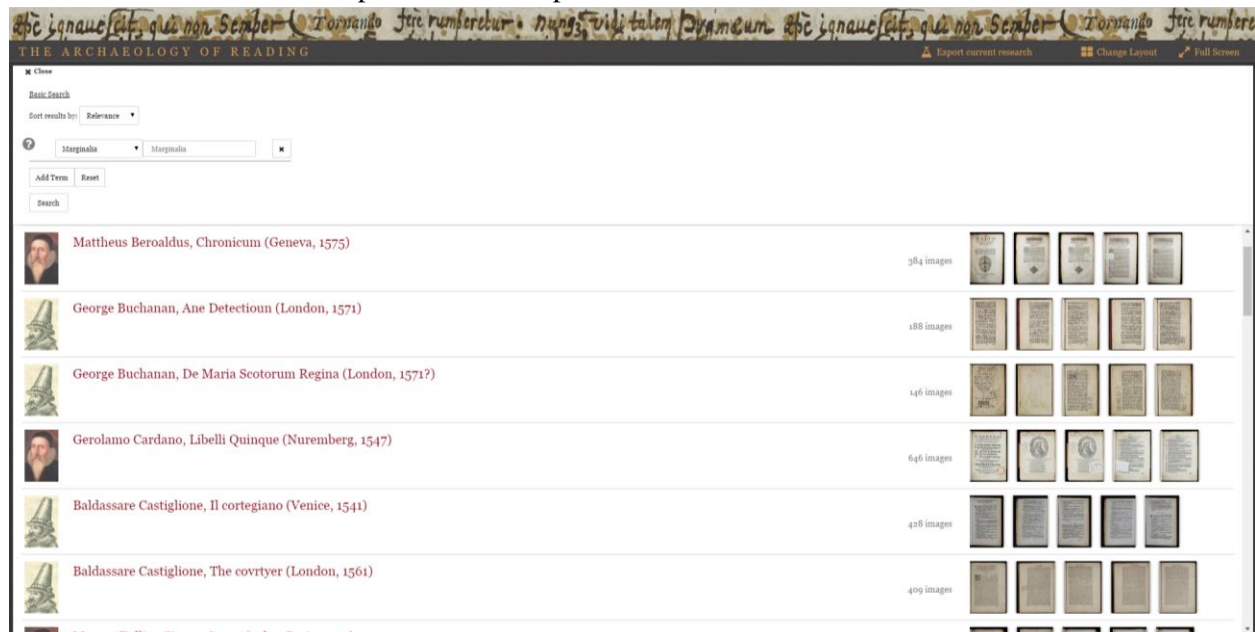
10. Open image view

Enables the user to view the images from different perspectives and in various formats. One can switch between image view, thumbnail view, book view, and scroll view by clicking on this icon: . The image view shows you a single page image. The book view shows page images together as an opening. The scroll view shows multiple page images together.
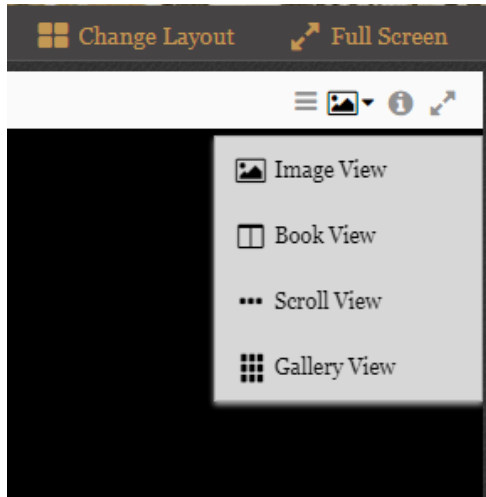
11. Open metadata panel

In this panel you can find more information about a particular imprint, including the date and place of publication as well as information about the book's current repository.

12. Toggle full screen

Enables to user to see the image in full screen mode. On can also do this by clicking on the 'full screen' button in the upper horizontal taskbar.