Atlascine – USER GUIDE

Context

Atlascine is an open-source software dedicated to map stories in order to help revealing their geographies as well as to invite users to listen to these stories. The idea of this software emerged in 2006 and its development has been shaped by the evolvement of cartographic thoughts, technologies and practices over the last 15 years. This project started with the idea of developing new forms of spatial expressions inspired by cinematographic technics to address issues raised by critical cartographers. The latest version (4) has been influenced by deep mapping and post-representational theories; Atlascine now combines the synthetic visual power of the map, with its potential to serve as a navigational platform within data while preserving the integrity of the original mapped material: the stories.

While cartography, usually uses data as a proxy to represent a spatial phenomenon, the link between the data and the map is often extremely difficult to trace back. With Atlascine, the link between the original data (i.e. the story) and the map is made fully transparent. The basic principle of Atlascine is that the story (i.e. audio or video) is connected to its transcript, which is connected to the map through tags. These tags are of two kinds: theme tags which define the color of the symbols; and place tags which define their location on the map. In other words, all the elements in the atlas are interconnected, offering different ways of visualizing the data and listening to the stories.

There are three major ways of engaging with Atlascine: it can be done as an (1) atlas user, (2) atlas contributor, or (3) atlas manager. **The atlas user** can be anyone interested in exploring, listening, analyzing and presenting the content of an existing atlas. For instance, individuals who might be interested in learning more about how Rwandan people experienced the 1994 genocide of the Tutsis of Rwanda can use The Atlas or Rwandan Stories for educational purpose (e.g. to teach about this genocide) (https://rs-atlascine.concordia.ca/rwanda/index.html). **The atlas contributor** is an advanced user who can modify the content of an existing atlas. For instance, an atlas contributor can add new stories to an existing atlas, add tags to existing stories, and add new media and new tags. Finally, **the atlas manager** oversees deploying and maintaining an Atlascine project. The atlas manager needs to be comfortable with technologies, but they can rely on the detailed documentation provided on the GitHub on the Atlascine project (https://github.com/geomedialab/atlascine).

Atlascine is a collaborative research project between the Geomedia Lab at Concordia University and the Geomatics and Cartographic Research Center at Carleton University (Canada). It has been used to develop different online atlases such as The Atlas of Rwandan Life Stories (https://rs-atlascine.concordia.ca/rwanda/index.html) and The Atlas of Intangible Heritage of Parc-Extension neighborhood in Montreal (https://rs-atlascine.concordia.ca/parcextension/index.html).

Guide for the ATLAS USER
*Note: Using Atlascine requires a good Internet connection since it renders a large volume of data.

ATLAS / MAP STORIES (MODULE 1) - When you arrive in this first module, you have different options to start using it, such as playing the video/audio file, clicking on one of cartographic ring symbols, or on one of the lines in the graph-timeline (see figure 1)
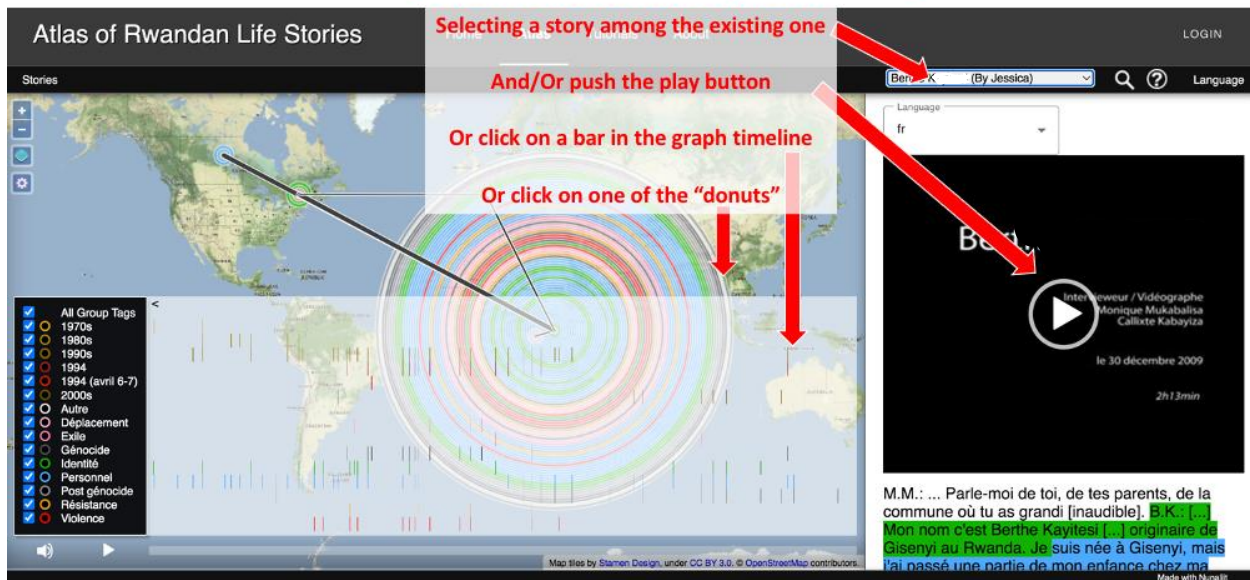
Figure 1 – Screen capture from the Atlas of Rwandan Life Stories (Source: https://rs-atlascine.concordia.ca/rwanda/index.html?module=module.stories).

Once you understand how to interact with the maps and the stories, you can explore further the content of the atlas as well some of its functionalities (see figure 2).

A – Overlays Rings / Links – This enables the user to hide / show the cartographic links (i.e. lines) and the rings (i.e. donuts). It is important to understand that the links connect the places based on the order they appear in the story. For instance, if a segment of text is tagged with the place "Montreal" and the next tagged segment is tagged with "Riga", a link (I.e., a line) will automatically be generated between Montreal and Riga. In other words, the links show the connections between places in the story line. On a side note, the links are dependent from the rings (which means that the rings can be rendered without the links), but the links cannot be rendered without the rings.

B – Background map – Choose the most relevant background map among a selection of open-source background maps (thanks to OpenStreetMap and Stamen).

C – Auto-Recenter Map – When selected, the map recenters automatically every time the story encounters a new place tag, which give the impression that the map moves with the story. This

function includes two dimensions: the geographic location (xy coordinates) and the zoom level. By default, the zoom level at which the map is recentered is 10 (on a scale of 1 to 22 with 1 showing the entire world and 22, a few square meters), but each location in each atlas can have its own default zoom level defined by the atlas contributor (see below). The user can also choose to have the auto-recenter animated to increase the impression of movement and displacement.
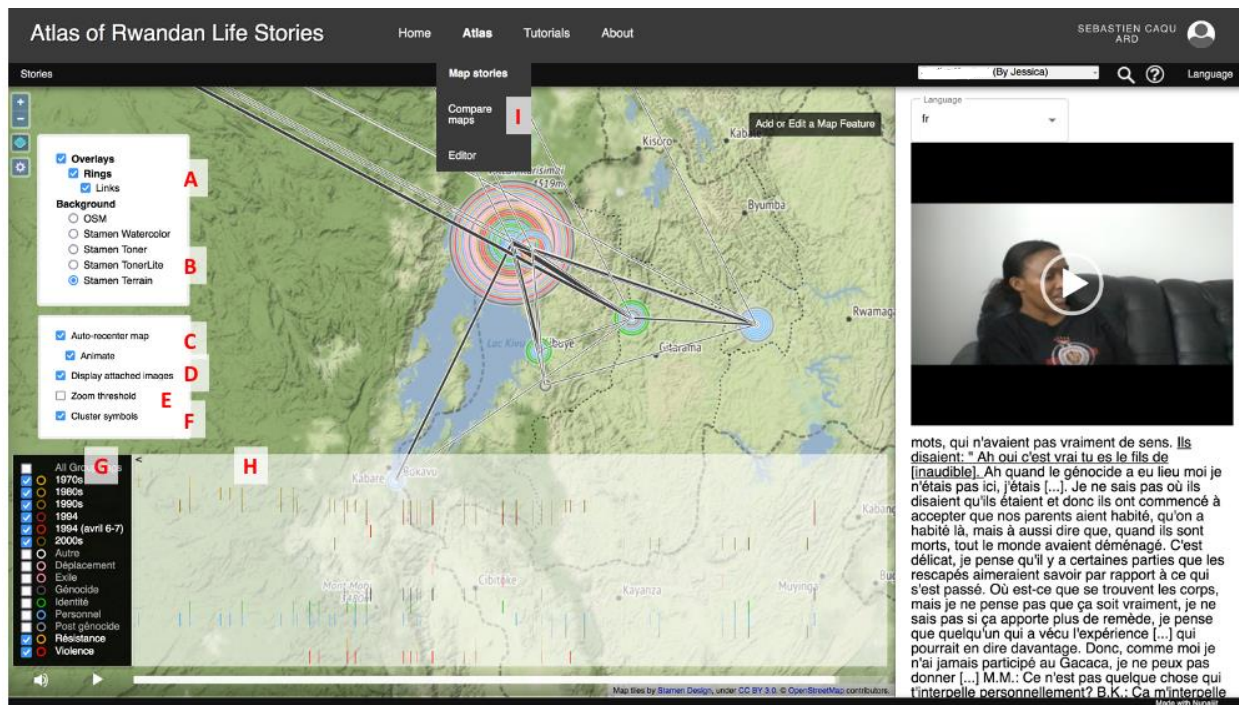

Figure 2 – The main functionalities available to the atlas user (source: https://rs-atlascine.concordia.ca/rwanda/index.html?module=module.stories)

D – Display images – An image (e.g. a photo, a drawing, a map) can also be associated to a segment of text. The atlas contributor can upload and associate images to segments of texts (see below), but the map user can decide to display or not the attached images.

E – Zoom Threshold – Once selected, the rings (and links associated to these rings) disappear once the user zooms at a finer level than their associated zoom level. For instance, once a user is zooming to a neighborhood (zoom level of 18), it might not be relevant to also show the data associated to an entire country (zoom level of 6). This feature makes circle disappear once the user zoom below the Zoom Threshold defined by the atlas contributor (see below).

F – Cluster Symbols – Activate and disactivate the clustering of rings.

G – Interactive legend – The user can hide or show any groups of tags that appear in the interactive legend. One important feature of Atlascine is that multiple tags can be associated to the same story segment, but only one color is associated to each ring (for clarity reason) and

this color is defined by the last tag that appear in the list of tags. This structure explains why certain rings might appear in a different color than what the legend suggest.

H - Interactive Graph timeline – This feature shows the distribution of tags throughout the story. It provides a visual synthesis of the distribution of tags and themes throughout each story. Displaying or hiding certain tags groups can be done through (un)selecting them in the interactive legend. Each bar in the graph timeline is interactive and can be clicked on to navigate within a story. The graph timeline can be hidden and displayed by clicking on the small arrow located on the top right of the legend (just near the red G on Figure 2).

I – ATLAS / COMPARE MAPS (MODULE 2) – This second module takes the user to a different environment in which all the stories mapped in the atlas can be combined and compared based on the themes that appeared in the legend in the previous stories map module. Instead of exploring the different themes associated to each story, with this compare maps module, the user explores the different stories associated to each theme to see where and for which themes stories overlap and how storytellers talk about the similar topics associated to the same places. This module has been designed to create bridges between stories and to use places to put them in relationships to each others.
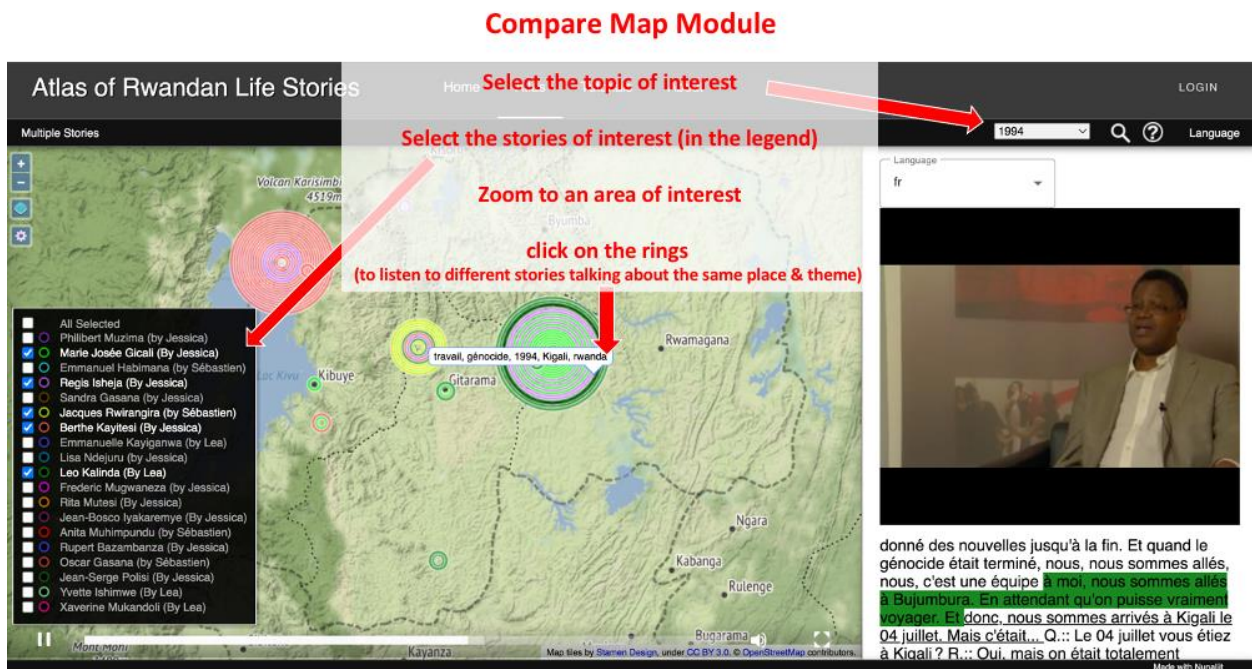

Figure 3 – The Compare Map Module (Source: https://rs-atlascine.concordia.ca/rwanda/index.html?module=module.multiStories)

Guide for the ATLAS CONTRIBUTOR

The atlas contributor is an advanced user who can modify the content of an existing atlas. To do so, the atlas contributor has access to a series of functionalities. You can test them here: https://rs-atlascine.concordia.ca/demo/index.html

L – LOGIN – To contribute to an atlas, the first step is to request a login (top right corner of the atlas (see Figure 4). Once this request has been approved, the atlas user can become an atlas contributor.

M – Tag Selection… – Clicking anywhere on the transcript gives access to a menu with 3 features. The Tag Selection feature opens a new window on the left in which the map user can see the different tags and media associated to a text segment, and the map contributor can modify them (see Figure 4).
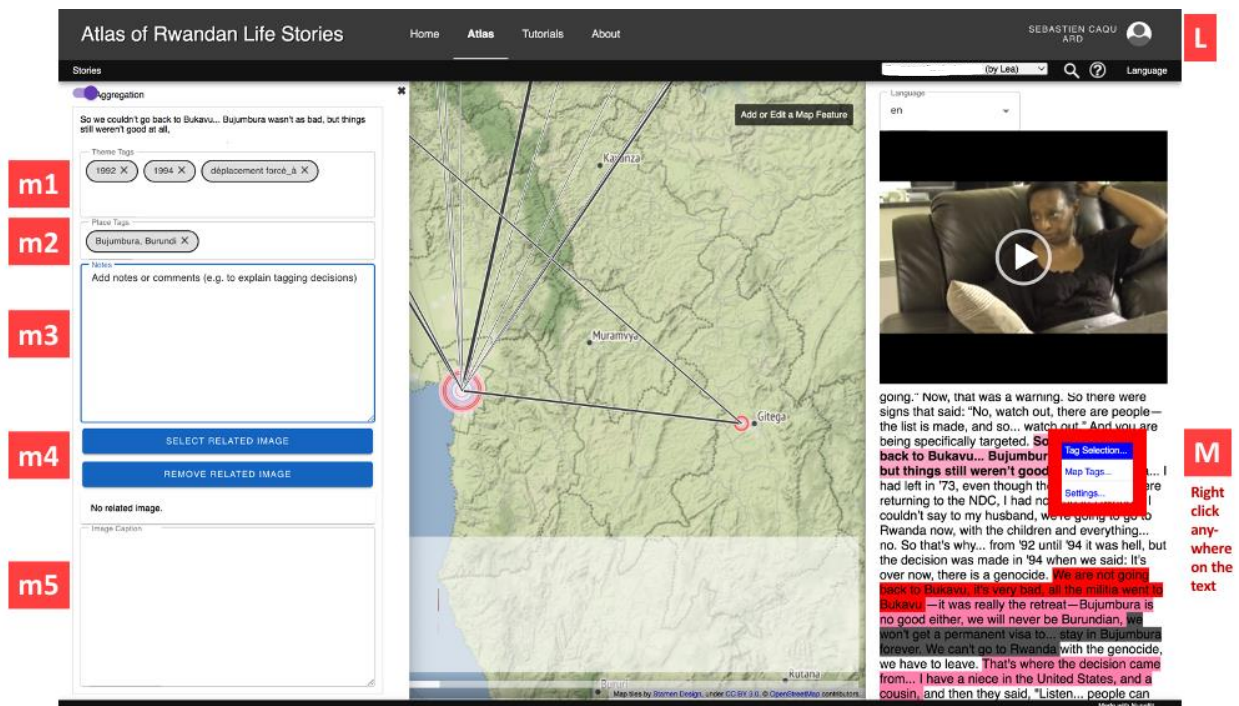

Figure 4 – Login (L) and tag selection (M) to contribute content (source: https://rs-atlascine.concordia.ca/rwanda/index.html?module=module.stories)

m1 – Theme Tags – A contributor can enter any theme tags they want in this box (make sure to hit "enter" after typing each tag). Theme tags define the color of the ring on the map (see Map tags below for more details). When several theme tags are entered in one box, the last tag that appears in that box defines the color for the text segment and the ring). (Tip: although any theme tags can be entered here, it is good practice to be consistent in the way tags are entered (e.g. spelling, capital letters) to avoid issues later). Make sure to click **Save** at the bottom of the window after making changes.

m2 – Place Tags - A contributor can enter any place tags they want in this box (make sure to hit "enter" after each place tag is typed). Place tags define the geographic location of each ring on the map (see Editor below for more details). When several place tags are entered in one box, several rings will appear simultaneously on the map. (Tip: although any place tags can be entered here, it is good practice to be consistent in the way place tags are entered (e.g. using capital letters, adding country names to cities). Make sure to click **Save** at the bottom of the window after making changes.

m3 – Notes - A contributor can add notes and comments to explain their decisions during the tagging process. This is part of a post-representation philosophy that drove the design of Atlascine, since it helps document all the decisions that have been made and understand their impact on the final map. Make sure to click **Save** at the bottom of the window after making changes.

m4 – Select Related Images - A contributor can associate an image to a text segment. To be associated to a text segment, an image should first be uploaded to the atlas (see below Editor Module). Once an image is associated to a text segment, it appears along with its caption when the story reaches this particular text segment (if the option D-Display image is turned on – see above). Make sure to click **Save** at the bottom of the window after making changes.

m5 – Image caption – A caption can be associated to an image. Make sure to click **Save** at the bottom of the window after making changes.

N – Map tags… – Clicking anywhere on the transcript gives access to a menu with 3 features. The Map tags feature opens a new window on the left in which the map user can see how tags are grouped and colored, and the map contributor can modify this organization (see figure 5).
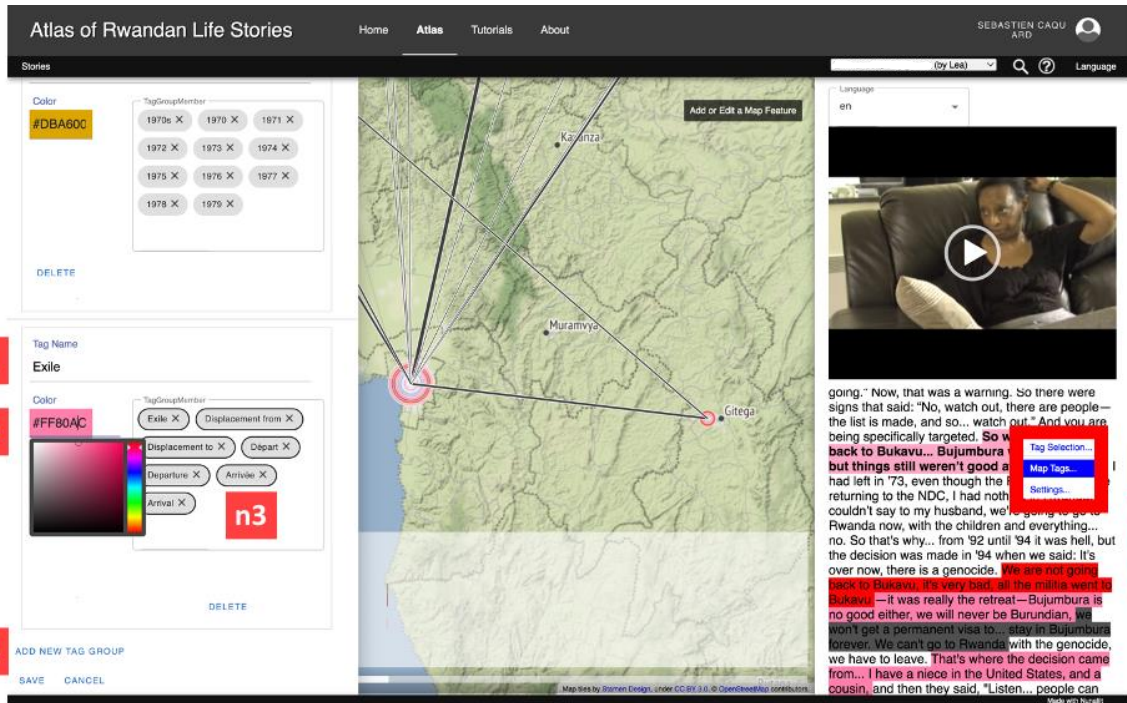
Figure 5 – Map Tags… (N) feature to define the way theme tags are grouped and colored (source: https://rs-atlascine.concordia.ca/rwanda/index.html?module=module.stories)

n1 – Tag Name – The tag name is the name that will appear in the interactive legend. It is a way of grouping multiple tag themes.

n2 – Color – The map contributor chooses the color they want to be associated to all the features associated to this Tag Name (i.e. color highlighting the text segment in the transcript, color of the ring on the map and color of the bar in the graph timeline).

n3 – TagGroupMember – In this box, the map contributor can add all the Theme tags they want to be grouped together in the legend. All the tags of a same TagGroupMember will appear the same on the map and in the graph timeline (as long as the spellings are exactly the same as the ones used in the theme tags). Tags can be added and removed at will from each TagGroupMember.

n4 – ADD NEW TAG GROUP – Use this function to create a new Tag Group, which adds a new topic in the legend. Tag groups can be added and removed at will. Make sure to click **Save** at the bottom of the window after making changes.

O – Settings… – Clicking anywhere on the transcript gives access to a menu with 3 features. The Settings feature opens a new window on the left in which the map user can control some of the settings for a given cinemap (see figure 6).
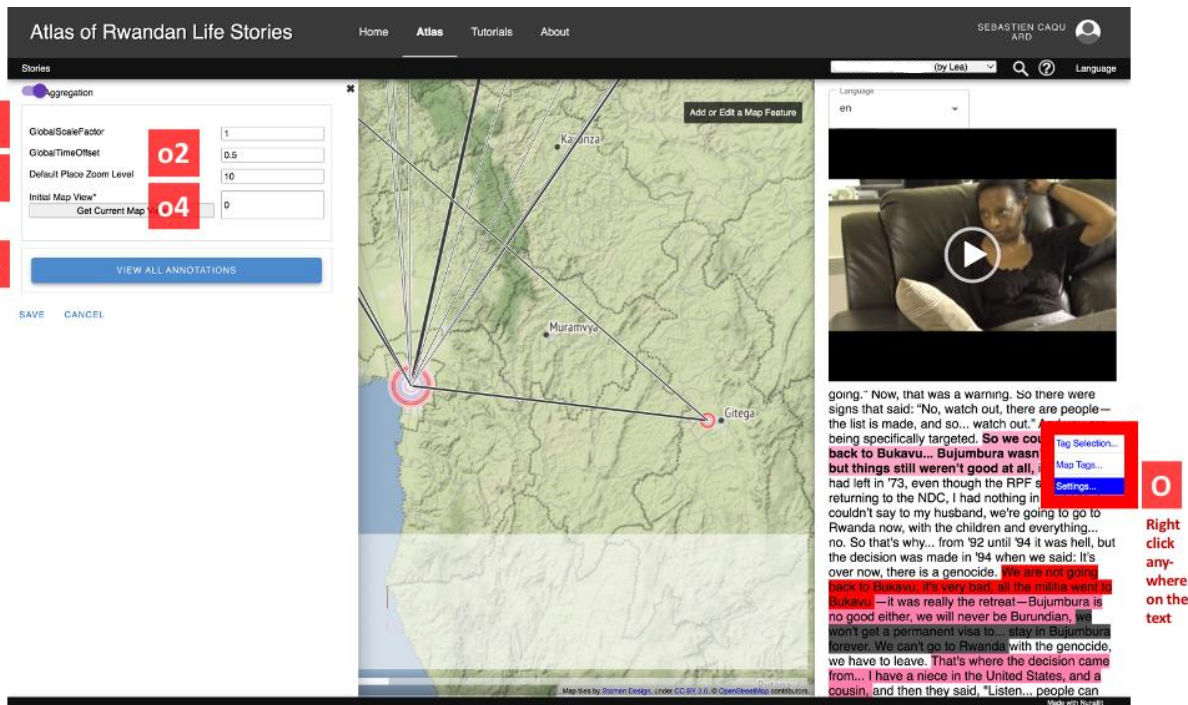
Figure 6 – Defining the general settings for a cinemap (source: https://rs-atlascine.concordia.ca/rwanda/index.html?module=module.stories)

o1 – GlobalScaleFactor – This controls the thickness of the ring. It applies a unique factor to all the rings. The bigger is the factor, the larger will be the rings on the map (and vice-versa).

o3 – Default Place Zoom Level – Serves to define the default zoom level for all the places that do not have a predefined zoom level (see editor section below for defining the zoom level and Auto-Recenter map and Zoom Level Threshold above for the implication of this function).

o4 - Initial Map View – This enables the contributor to define the bounding box used when accessing this particular cinemap. For instance, when an atlas focuses on a particular neighborhood, this map can be centered on this neighborhood at a local scale. This bounding box can be defined by zooming on the area of interest at the proper zoom level and clicking on **Get Current Map View**.

o5 – VIEW ALL ANNOTATIONS – This provides the list of all the text segments of the stories along with their associated data (i.e. Time frame, tags, images and captions). This list is also accessible through the editor module.

EDITOR (MODULE 3)

This third module gives access to the back end of the atlas where the data is managed (i.e. media, transcripts, tags, places) (see Figure 7).

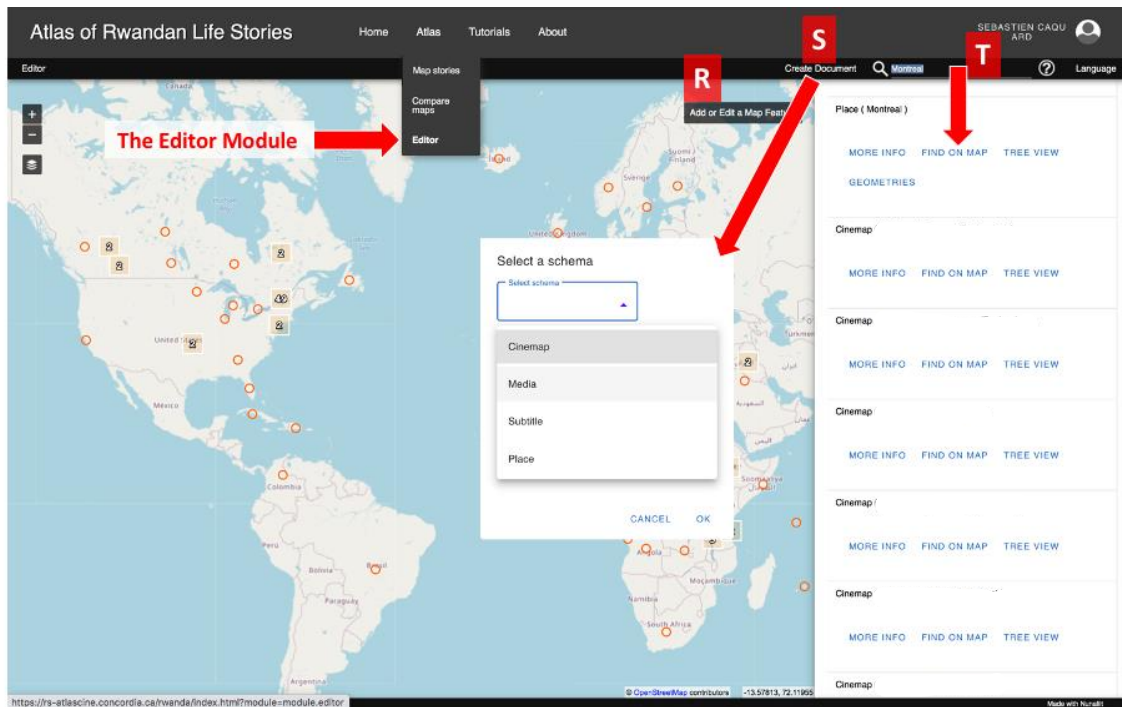Mode details about the different features of this module are available on our Github page: https://github.com/geomedialab/atlascine/wiki/How-to-use-Atlascine

Figure 7 – The editor module (source https://rs-atlascine.concordia.ca/rwanda/index.html?module=module.editor)

R - Add or Edit a Map Feature. This feature enables the contributor to add or edit places that could then be called and mapped with Place tags (see above). Only places that have been added here can be mapped. Places could be identified using a Gazetteer (Atlascine is connected to Geoname) using the **Na** tool or using the **Add a point to the map** tool. Once a new place is entered, the atlas contributor needs to name it and can also define its Zoom scale (if relevant). This enables the mapping and naming of any places in any language.

S – Create Documents – This feature is used to upload the files required to create an atlas: **Media** (that can be either a video, an audio file or an image); **Subtitle** which are required to create a cinemap (along with the associated audio or video file); **Cinemap** which is the outcome of the association of a Media and a Subtitle; the cinemap is what is used during the tagging and mapping process; and **Place** which enables adding new map features (see above) or importing a list of places along with their geographic coordinates.

T – Search the Atlas (magnifier icon) – This tool enables the contributor to search for any exiting document that is part of the atlas (e.g. media, cinema, place) and to access and edit its content. For more details about accessing and editing exiting documents, see our Github page: https://github.com/geomedialab/atlascine/wiki/How-to-use-Atlascine

Guide for the ATLAS MANAGER

All the instructions for installing and hosting your own Atlascine service are available on our Github page: https://github.com/geomedialab/atlascine/wiki/How-to-deploy-Atlascine

Enjoy, and let us know if you have any questions: sebastien.caquard@concordia.ca

The Atlascine Team

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