



GSOC 2022 DESIGN CHALLENGE I

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Google Summer of Code 2022

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1. Curriculum Vitae of the Student

Name: Utkarsh Tiwari

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Timezone: IST(India)

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2. Overview of the Project

The Cuneiform Digital Library Initiative (CDLI) represents the efforts of an international group of Assyriologists, museum curators and historians of science to make available through the internet the form and content of cuneiform inscriptions dating from the beginning of writing, ca. 3350 BC, until the end of the pre-Christian era.

The design of the whole framework has been unified earlier with a human-centric approach, but it still needs some changes still need to be made to the design for further better user experience and minimal use of javascript. We need to make an interactive, clean and simple interface such that it increases the accessibility of the website and can cater to a much greater group of people.

The project's main purpose is to develop a generic view that needs to be developed across the framework, with a user-centric interface for various pages. It also aims to make minimal use of Javascript to have a simpler codebase for the developers working on it and document the proper way to create new pages and use implemented design.

3. Goals and Deliverables

3.1 Implement the citation options for articles and other pages

- Adding an option on the article pages for citation where the user can cite the article by copying the details or downloading the data in BibTex or RIS format.
 - Adding a button, which, when clicked by the user, would open up a small window such that the user can choose the format(BibTex, RIS, or Text) in which he wants to cite the article.

Desktop Design:

To implement the citation of pages, we would be using a button, when clicked by the user, which would open a pop-up(can be implemented by HTML, CSS, JS) or a modal(can be implemented by Bootstrap). Also, on scrolling the page down, the button would disappear, and the citation contents would appear just before the footer. This can be implemented by adding a simple JS function or adding CSS.

After scrolling, we would add all the Cite information just before the footer where we would provide all the options of 'Copying to ClipBoard', "downloading it as BibTex or RIS'.

This feature can be implemented by using Modals that are provided by Bootstrap. We can customize the modal by giving the heading "Cite the Page," and to the modal's body, we can write the citation of the page and give an option for 'Copy to Clipboard'. Later in the footer

section of the modal, we could provide the user the option to download either the citation as BibTex or RIS format by adding two download buttons in front of both the options.

1. Copy to Clipboard: We can use JS to implement the citation option, particularly copy to clipboard. If JS is disabled on a user's browser, we can add a Js function, or we can make a function to copy the text to the clipboard:

```
function copyToClipBoard() {
  var copyText = document.getElementById("myInput");
  copyText.select();
  copyText.setSelectionRange(0, 99999);
  navigator.clipboard.writeText(copyText.value);
```

2. Download option in the form of BibTex or RIS: To implement the download of citation in the form of BibTex or RIS, we could use fpdf library to export citations of the page in the form of BibTex or RIS, which can be downloaded as a pdf. Eg: We can use the fpdf

```
<?php
App::uses('AppController', 'Controller');
require_once APP . 'Vendor' . DS . 'fpdf17' . DS . 'fpdf.php'; Would be saved and
class TestController extends AppController {
public function test(){
--Create fpdf.
$pdf = new FPDF();
$pdf->AddPage();
$pdf->Output('files/Report.pdf');
$pdf->text($x,$y,'Txt');
return $this->redirect(
array('controller' => 'Test', 'action' => 'test_new')
);
```

to generate a text file where the citation the user can download it.

Before:



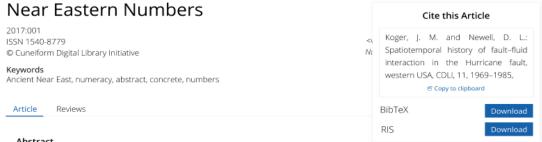
Updating the Abstract-Concrete Distinction in Ancient Near Eastern Numbers



After:



Updating the Abstract-Concrete Distinction in Ancient



Ē

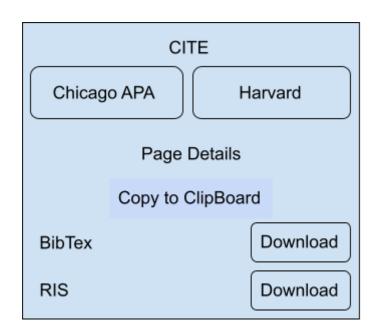
Abstract

The characterization of early token-based accounting using a concrete concept of number, later numerical notations an abstract one, has become well entrenched in the literature. After reviewing its history and assumptions, this article challenges the abstract-concrete distinction, presenting an alternative view of change in Ancient Near Eastern number concepts, wherein numbers are abstract from their inception and For users to cite the article, we can provide different reference types like **Chicago APA**, and **Harvard**, which can easily be implemented by using:

- 1. Navigation is available in bootstrap.
- 2. We can combine the modal with the Tabs option available in Bootstrap, and whatever type of reference the user wants to cite he can easily do so.

OR (Just a Suggestion)

 We can also give a small dropdown using the Bootstrap dropdown in the modal itself which will allow the user to choose the format(Chicago APA, Harvard) in which he wants to cite the page.



Just an example of how I plan to implement Tabs with Modal on Bootstrap:

```
<div class="modal-header">
 <button type="button" class="close" data-</pre>
dismiss="modal">x</button>
 <h3 ng-hide="newUser">Cite the Page</h3>
<a href="#details" data-</pre>
toggle="tab">Chicago APA</a>
   <a href="#access-security" data-</li>
toggle="tab">Harvard</a>
<div class="tab-content">
   <div class="tab-pane active" id="details">
     Refernce Details according to Chicago APA
   </div>
   <div class="tab-pane" id="access-security">
      Refernce Details according to Harvard
   </div>
</div>
```



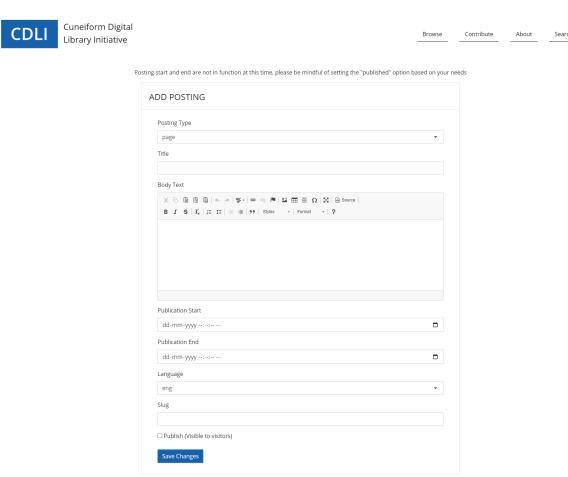
Mobile view:

For citing the page, a button would be provided on the lower right corner of the screen, which would allow the user to cite the page even when he's using a mobile.

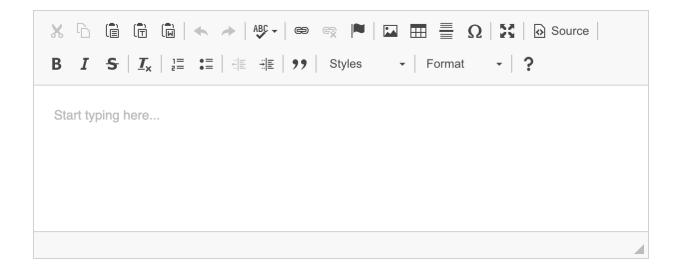
Issues related to this Idea: #584, #113, #737, #666

3.2 Implementing forms

- Implementing forms using Bootstrap such that all the forms look alike.
- Correcting the order of fields in some of the forms
- Give the same look to all the pages and all other Forms for better consistency, like the Posting Form:

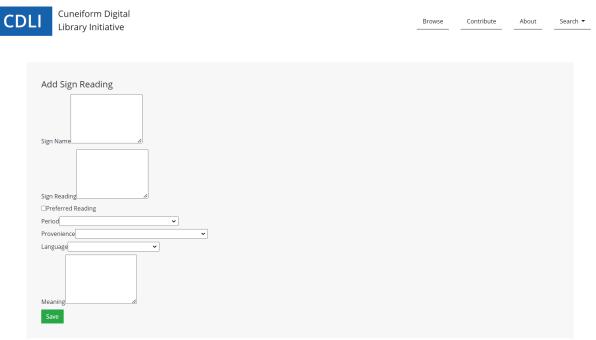


Adding CK Editor to the text fields such that users can add the text with all options available to customize their text ➤ To implement the CK editor instead of text fields which would give the user more freedom to add the formatted text.



* Add Sign Reading Form:

- > Revamping the Design of the form
- > Replacing text fields with CK editor if needed
- Giving it a cleaner look by following the design of the Edit Postings form
- Using bootstrap classes like form-wrapper for implementing forms



* Add External Resources and Archive Form:

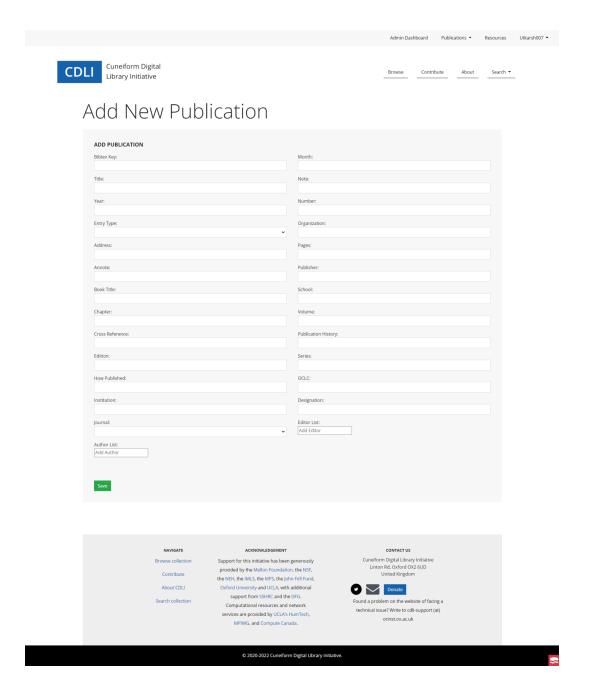
➤ Revamping the page and designing it like the postings form.

Using Bootstrap classes like form-wrapper and form control in CakePHP to implement it.

CD		Cuneiform Digital Library Initiative			Browse	Contribute	About	Search ▼
			ADD EXTERNAL RESOURCE External Resource Base Url Project Url Abbrev Save					
CDLI	Cuneiforr Library In			Brow	vse Cor	ntribute	About	Search ▼
	Library III	ADD Archi	nience	~				

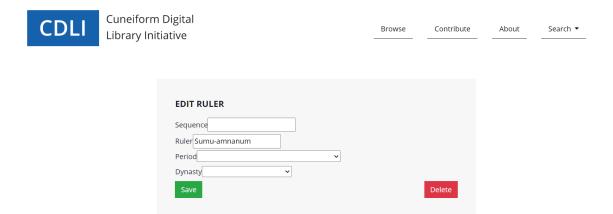
❖ Add New Publication Form:

- ➤ The footer of the Add New Publications Page is not correctly displayed.
- > Revamping the view of the page using CSS and Bootstrap



❖ Edit Rulers Form:

- > Revamping the complete edit ruler page using Bootstrap and giving it the same look as of other edit forms
- > Adding missing fields such as 'Provinces' in the form



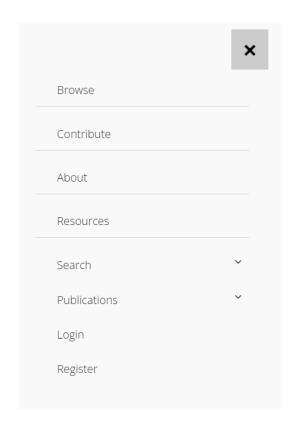
3.3 Resources Dropdown

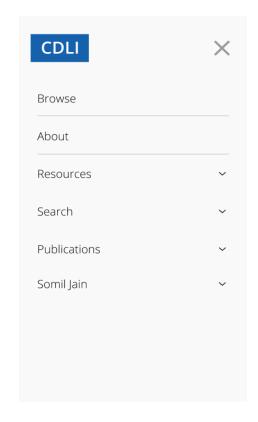
Implementation of Dropdown in Mobile View:

Currently there is no dropdown option for Resources.

Current Sidebar in Mobile View: without the Dropdown:

Expected Sidebar after
Implementing the Resource
Dropdown:

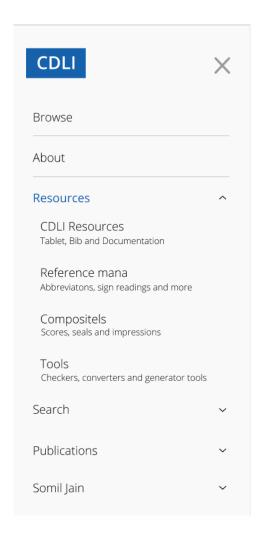




- The dropdown should show the list of resources so that it could be easily accessible by the user in the Sidebar of going to the resources page.
- ❖ The dropdown in mobile view can be implemented by using Bootstrap classes such as Dropdown or side-nav, which would open the shortlist of all Resources (CDLI Resource, Composite Text, Reference Material, Tools). We can also provide a dropdown using the Bootstrap classes for each Resource for CDLI Resources. We can have a dropdown that links to the resources that come under it, like CDLI Bibliography, CDLI Tablet, CDLI Documentation, and Cooked Agade.

Here in the drop-down menu, the dropdown items would be the various resources like CDLI Resource, Composite Text, Reference Material, Tools.

We can also provide links in the Dropdown that would lead to the Resources page at a particular resource heading.



Implementation of the dropdown on Desktop View:

I would be using the **dropdown** of Bootstrap to implement the dropdowns on the Desktop mode. So like the Publication dropdown, the resources dropdown can also be implemented.

Suggestion- We can also add a drop down to the dropdown items of the resources dropdown using the same Dropdown Bootstrap classes where we could give the user the option to directly access the particular resources under a heading.

Resources Dropdown in Desktop view:



CDLI Tablet

CDLI Bibliography

CDLI Documentation

References >

Abbreviations

Prefered sign readings

Sign lists

Ur III month names

Composite texts >

Composite literary texts & witnesses (scores)

Royal literary texts & witnesses (scores)

Seals and seal impressions

X Tools ✓

Catalogue & bibliographic data checkers

Uqnu: ATF & JTF editor /uqnu

Inscriptions & linguistic annotations checkers

Texts and annotations converters

Automated Annotations & translations generators

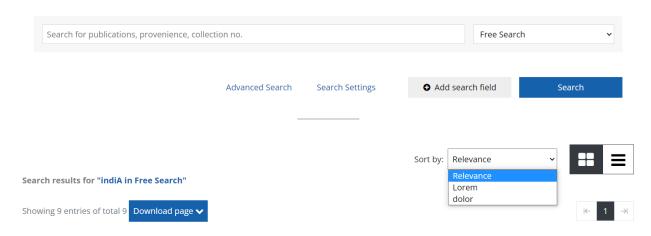
Using \$this->Dropdown we can implement a dropdown similar to the Downloads dropdown or we can directly use Bootstrap Dropdown classes to implement a dropdown menu since it would be responsive and easily adjust according to mobile or tablet or desktop. We can also use Bootstrap Grids to divide the dropdown into 4 parts and add content for each resource.

3.4 Search Page UI

- Revamping the UI of the search page such that it becomes more user-friendly and accessible to the user
 - > Adding Filter options in the Filter Categories Button

The look of the sort by options right now:

Search the CDLI collection



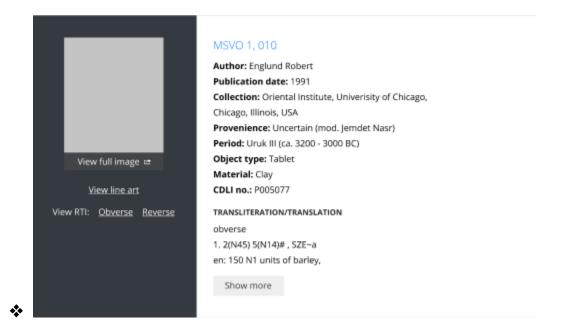
- Adding a toggle option for the description of the artifacts such that there is uniformity in the size of all the artifacts displayed in the search results. Hence, better toggle options for a description of the artifact.
 - ➤ Implementation:
 - Either using Javascript and adding a button using the 'button' class in Bootstrap and adding a JS function to toggle the lines of text we want to see

OR

■ We could use just CSS to hide or show the lines of text.

```
.show-hide-text
{ display: flex;
```

```
flex-wrap: wrap;
}
.show-hide-text a
order: 2;
 .show-hide-text p
position: relative;
overflow: hidden;
max-height: 60px; // The Height of 3 rows
 .show-hide-text p
 display: -webkit-box; -webkit-line-clamp: 3; // 3 Rows of
text -webkit-box-orient: vertical;
 .show-less
 display: none;
.show-less:target
display: block;
 .show-less:target ~ p
display: block; max-height: 100%;
 } .show-less:target + a
 {
display: none;
```



- Fixing the Download button option on Search Results Page :
 - ➤ The download button works fine in Desktop view but in case of Mobile/Tablet View it goes to an error page.
 - Hence using Bootstrap classes and necessary JS(if needed) fixing the download button option for mobile view.
- Fixing the filter option for Mobile View: Adding Bootstrap classes or JS function (if needed) be.
- Sorting the list of items (clicking on a heading will sort it by the item. There can be up to three)
 - ➤ Implementation of sorting the list of items in a column can be done with the help of \$this→Paginator→sort() which would allow the user to sort the list of columns in descending or ascending order.



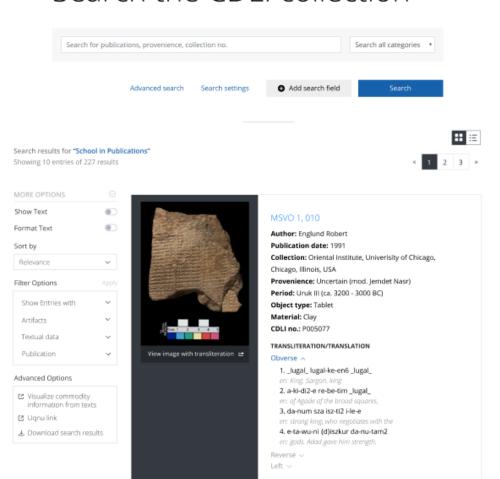
Browse

Contribute

About

Search ▼

Search the CDLI collection





3.5 Design and Implement common templates for Index and Single Entity Pages

- Revamping the design of the single entity pages and index pages
 - Author Pages:
 - Putting the author's details in a tabular format for better viewing
 - For implementing tabular format, I would be using the 'table' class of Bootstrap.
 - I have already added the Edit Author Profile
 option while resolving the issue #203 and hence
 will add two buttons 'Edit' (bootstrap classes:
 btn cdli-btn-blue mx-1) and 'Delete' (Bootstrap
 classes: btn btn-danger)
 - ➤ Adding the details of the publications related to the author in a tabular format for better access by the user.
 - ➤ Linking the Bibtex key such that when the user clicks on it, it takes them to the publication page and they can get all the details they want about the publication.
 - This can be easily implemented by \$this→Html→link();

➤ Current Design of the page



Abid, Basima Jaleel

- Institution:Email:
- Email:
- ORCID II
- This name should be presented in "Western name" order.

This profile was last modified on

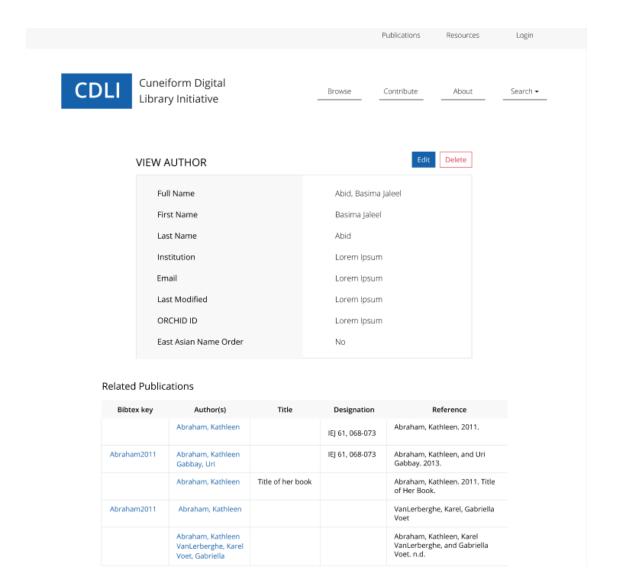
Publications

Abid, Basima Jaleel, and Amira Edan al Dahab. 2015. [TIMA 1, 001 (2015-217923)]
Abid, Basima Jaleel, and Amira Edan al Dahab. 2015. [TIMA 1, 002 (2015-217924)]
Abid, Basima Jaleel, and Amira Edan al Dahab. 2015. [TIMA 1, 003 (2015-217925)]
Abid, Basima Jaleel, and Amira Edan al Dahab. 2015. [TIMA 1, 004 (2015-217926)]
Dahab, Amira Edan al, and Basima Jaleel Abid. 2015. [TIMA 1, 005 (2015-217927)]
Dahab, Amira Edan al, and Basima Jaleel Abid. 2015. [TIMA 1, 006 (2015-217928)]
Abid, Basima Jaleel, and Amira Edan al Dahab. 2015. [TIMA 1, 007 (2015-217929)]
Abid, Basima Jaleel, and Amira Edan al Dahab. 2015. [TIMA 1, 008 (2015-217930)]
Abid, Basima Jaleel, and Amira Edan al Dahab. 2015. [TIMA 1, 008 (2015-217931)]
Abid, Basima Jaleel, and Amira Edan al Dahab. 2015. [TIMA 1, 009 (2015-217931)]



Page 1 of 27, showing 10 record(s) out of 270 total

> Expected Design after revamping the page



3.6 Raw Image Scanning (including fixing the backend)

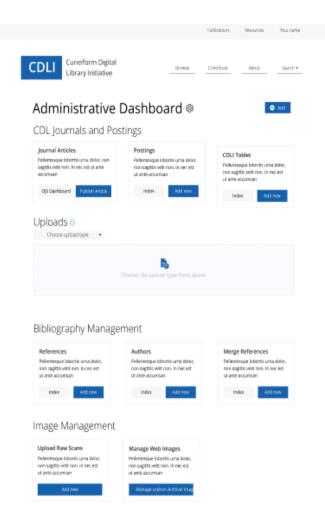
Implementing the Upload option on the Admin Dashboard Page (For Both Mobile and Desktop View)

> Frontend:

- Designing the frontend for uploading a file while getting some idea from Merge Request (https://gitlab.com/cdli/framework/-/merge_requests/319)
- If we have to take specific input from the user we can add required HTML like a png, jpg or other files like pdf,csv or any format.

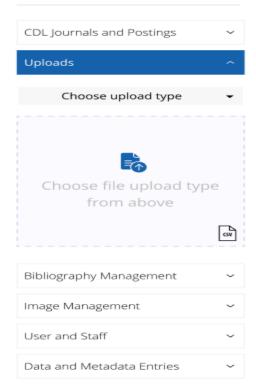
<input type="file" name="file_to_upload" id="file_to_upload" accept=".jpg, .png">

> Backend : Adding a PHP script which would allow the file to be saved on the server.



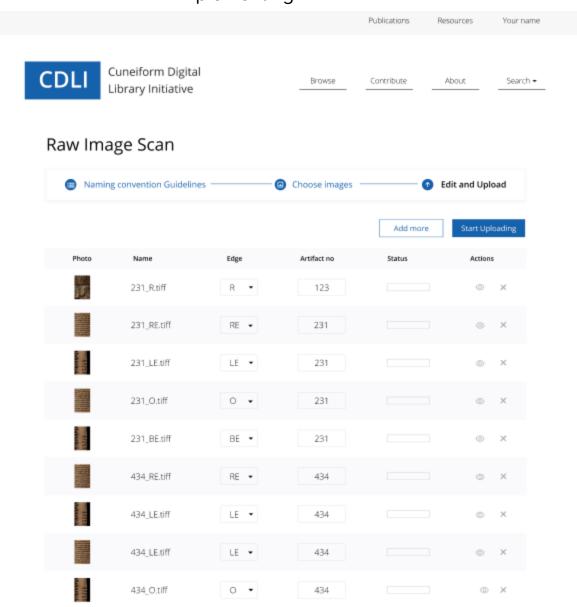


Admin Dashboard



* Raw Image Scan:

- > Fixing the frontend
 - Completing the PR which was already created on implementing the Frontend of the Raw Image Scan (https://gitlab.com/cdli/framework/-/merge_requests/3
 25)
 - Adding styling for the Raw Image scan page and implementing



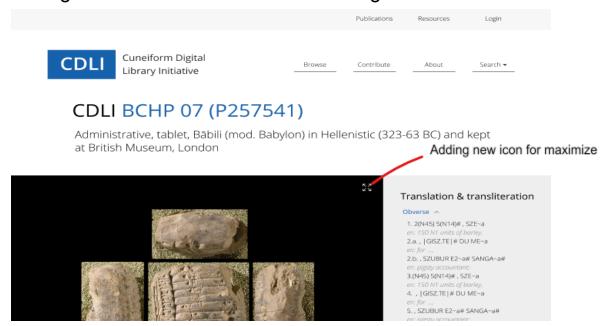


❖ Fixing the Backend:

- > Trying to fix the Backend for the raw image scan as well
- ➤ A PR has already been merged but the only change is that we would be using Wasabi (a cloud service) instead of local Minio server for the AWS Bucket

3.7 Artifact Page

❖ Adding another icon to maximize the image of the artifact

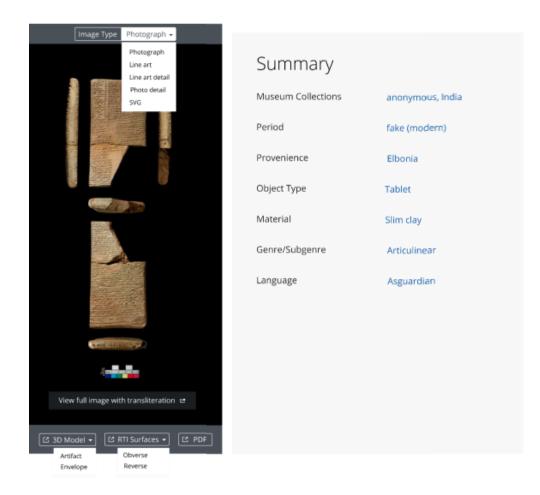


- Positioning the UX of the icon
- Adding the RTI



Change in the name of the OJS Dashboard

- Adding keywords in the details section of the table
- * Adding the name of the journal on the Journal Page
- Adding dropdown buttons on the lower end of the image for
 - >> 3D Model
 - > RTIsurface
 - > Pdf



Artifact information



4. Timeline

I. Phase 0 - Pre Community Bonding Period (Present)

- Fix current issues/bugs present and merge pending PRs.
- Explore the framework/codebase and post new issues(if encountered).
- Since CDLI uses CakePHP in its backend, I would explore more about CakePHP and its implementation.

II. Phase 1 - Community Bonding Period (May 20 - June 12, 2022)

- Discuss my plans for implementing project tasks in greater detail with mentors.
- Create a detailed schedule for the tasks and deliverables expected to be done.
- Check and determine if there are any dependent issues to be solved before starting the coding phase.

III. CODING PHASE - PHASE 1:

A. June 13 to June 26

- Implement a dropdown for the Resource option in Navbar on hover in Desktop View
- 2. Adding a Resources Dropdown for the mobile view
- 3. Adding different options in the dropdown.
- 4. Implementation of forms
- 5. Using Bootstrap to change the design of all the necessary forms
- 6. Revamp all the forms and add Ck editor wherever needed.
- 7. Test the implemented features

B. June 27 to July 10:

- 1. Revamping the Single Entity Page and Index Pages
- 2. Designing a common template for Index and Single Entity Pages

- 3. Adding the author's details in a tabular format for a better viewing experience
- Finish adding the related publication details in a tabular format

C. July 11 to July 17

- 1. Finish adding a new icon for maximizing the image of artifact
- 2. Positioning the UX of the icon
- 3. Adding the RTI option for artifact
- 4. Finish changing the name of the OJS DashBoard

D. July 18 to July 24

- 1. Finish adding the keywords section in the table of articles.
- 2. Add the journal's name on the Journals Page
- 3. Checking all the features implemented, and if something is left out, implement it
- 4. Documentation of all the added features and their implementation.

E. July 25 to July 29 (Deadline for Phase I Submissions)

- Mentors and Contributors start submitting Phase I evaluations
- 2. Sending report for Phase 1.

IV. CODING PHASE - PHASE 2:

A. July 25 to July 31

- 1. Implementing citation option
- 2. Adding an option for the user to Copy the Citation to Clipboard and implementing a modal/pop-up for the user to cite the page along with the citation details on the bottom of the page just above the footer

- 3. Add a cite option at the bottom of the page just above the footer for the user to cite page
- Adding an option for the user to download the article's citation as BibTex or RIS.

B. August 1 to August 7

- 1. Revamping the Search Page UI
- 2. Adding Filter options in the Filter Categories Button
- 3. Global Toggle for transliteration
- 4. Option if the data for the artifact has to be shown or not
- 5. Better toggle options for a description of the artifact
- 6. Sorting the list of items

C. August 8 to August 14

- 1. Adding features to the Single Artifacts Page
- Adding another icon to maximize the image of the artifact
- 3. Positioning the UX of the icon
- 4. Adding the RTI
- 5. Change in the name of the OJS Dashboard
- 6. Adding keywords in the details section of table
- 7. Adding the journal's name on the Journal Page

D. August 15 to August 28

- 1. Fixing the front end part of the Admin Dashboard uploads
- 2. Fixing the backend part of the Admin Dashboard upload
- 3. Fixing the front end of the Raw image scan
- 4. Try to fix the backend for Raw Image Scanning

E. August 29 to September 4

- 1. Rechecking and testing every implemented feature
- 2. Preparing Documentation
- 3. Submission of the final report

F. September 5

1. Final Project Evaluation and Code Submission

5. Why am I the right person to be chosen for the project?

Contributions to CDLI:

- I have been contributing to CDLI for a few months.I am quite active on Slack and Gitlab and always take the initiative to solve the issues.
- Given below are some of my contributions:

Issue	Merge Request	Status	Description
<u>#986</u>	<u>!556</u>	Merged	Ordered the articles (cdlj,cdlb,cdln,cdlp) according to their year and numbers in table
#203,#106	<u>!532</u>	Merged	Revamped User profile page and added option for user to edit their author and staff profile if it exists. Also added Author name and linked it to his profile page in the user details part. Implemented author and staff edit forms.
<u>#1025</u>	<u>!561</u>	Merged	Added pagination in the publications section in Author profile page
<u>#326</u>	<u>!542</u>	Merged	Revamped the external resources page. Ordered entries alphabetically according to their abbreviations and linked each abbr to its website
<u>#751</u>	<u>!550</u>	Merged	Added username validation for added security
<u>#985</u>	<u>!537</u>	Merged	Removed excess space from article index column and removed ISSN from cdlp
<u>#952</u>	<u>!514</u>	Merged	Added "John Fell Fund" in the Footer
<u>#890</u>	<u>!504</u>	Merged	Linked author to author page and journal

			index
<u>#441</u>	<u>!581</u>	Merged	Created virtual directory for cdli-accounting-viz
#441	<u>!573</u>	Pending	Working on creating a virtual directory for Rocketchat

• Currently I am working on issue #441 and #1092 which would help me gain insight about NGINX and image display.

6. Other Commitments

Currently, I do not have other commitments and would be able to provide 35-40 hrs per week without any issues.