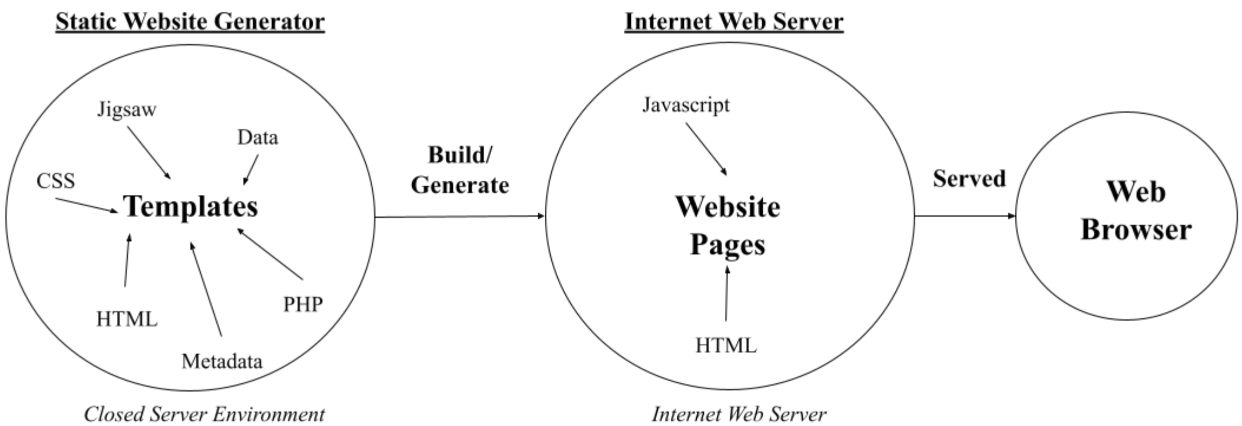
Appendix K

Static Website Generation

Matrix: Center for Digital Humanities and Social Sciences at MSU

Static website generators provide 1) underlying data infrastructure, 2) enhanced security, 3) sustainability, and 4) accessibility, all while serving traditional features such as search and browse. The term "static" primarily refers to how the web server handles the site. With a static site, each possible page of the site is pre-generated and sits on the server. The server does not need any special applications to process and run the website or maintain a database. For the server it is simply a collection of unchanging, pregenerated pages, i.e. the site is static. However, for the user, the site can appear to keep all of its dynamic qualities including the ability to search, browse, or run visualizations.



While traditional websites generate pages on demand, static site generators create pages in bulk and serve them statically. Static site generators, using open source technologies, facilitate this through the creation of page templates that combine page layouts, color choices, navigation elements, data, and metadata, which when built subsequently generate the static HTML files served on the website. PHP and the Jigsaw framework will be used for the creation of the templates. Jigsaw, an open-source product under the MIT License, has proven effective in other static generated websites, such as the Archive of Malian Photography (https://amp.matrix.msu.edu), also hosted by Matrix. The static site generator templates are located on a stable server environment, closed off from the internet. This state makes them not only secure, but also not require the traditional, cyclical updates required for codebases served on the internet.

The subsequently generated HTML pages do not require server-side processing and are generated in advance, allowing quick delivery to users' browsers. This simplifies the website infrastructure, eliminating the need for traditional scripting languages like PHP and MySQL on the web server and reducing security risks because they do not rely on server-side processing of arbitrary commands or databases, which are common targets for attacks. By eliminating dynamic code and database dependencies, static sites reduce the potential attack surface, making them less vulnerable to security breaches.

Prebuilt static pages also load faster, improving user experience. The generated static site can be hosted on any web server platform, offering flexibility and reliability. Hosting static websites is typically cheaper than hosting dynamic websites. Static sites require less server resources and can be easily hosted on inexpensive platforms or via content delivery networks (CDNs), which distribute the content globally, offer redundancy, and improve load times. This flexibility makes it easier to switch hosting providers or scale the website as needed. They are also easier to make accessible by meeting web standards. And most important for academics, they allow for the seamless separation of data from the style and structure of the website. For many projects that use content management systems and dynamic server environments, it can be difficult to isolate and work directly with the data.

While static sites typically lack interactive features like search boxes or browsing, JavaScript libraries can add these functionalities. JavaScript executes in the browser, and thus the efficiency depends on the user's device. Inherent here is the chief efficiency of static sites: transferring the workload from a single point, the server, to many points, the user, a process that post-2012 computers can easily handle. In general, static websites can handle high traffic volumes more efficiently because they serve the same pre- built files to every user. Caching can further mitigate repeated data downloads, enhancing performance. This makes them highly scalable, as the server load remains nearly constant regardless of the number of visitors. Static websites are more reliable because they do not depend on server-side processing or databases, which can fail or become slow under heavy load. The simplicity of static sites means there are fewer points of failure.

The project team is committed to reducing future setup and maintenance costs by using open- source software. The static site templates will use PHP and Jigsaw, along with cross-platform HTML and JavaScript, to serve the site through web browsers. This approach aims to ensure the website remains accessible and reliable, promoting digital sustainability in the humanities. As new photographs are added to the website, the build process for the site can be automated and scheduled, ensuring the public presentation remains up to date. The website will remain open and accessible and continue to grow for its users for years to come.

Appendix L

Guidance on Website Standards for United States Art Museums with African Art Collections

[updated 7/25/2024]

<u>Level 1</u>

This is the minimum amount of information that a museum should make public on their online database and its mobile interface regarding works of African art in their collection. Providing more information than this bare minimum is strongly encouraged, as outlined below in Additional Information. There should be adequate staffing to implement and maintain this level of transparency, as well as to make it accessible on computers and on mobile devices in an ongoing fashion. A secure web link should be used to ensure secure access (https: *rather than* http:).

Basic ID

- descriptive title
- artist (birth and death dates if known)
- culture
- nationality
- date if known
- materials
- dimensions
- credit line
- accession number

Photography

- preferably in color, study photos are acceptable note: absence of a photograph should not delay posting the basic ID; however, inclusion of a photograph is strongly recommended
- posting a photograph may not be culturally appropriate for every artwork

Source

- how it was acquired
- from whom it was acquired

Designated museum contact

- clear, easily accessible and up to date statement on the website of who to contact at the institution regarding questions and information about the African art collection
- preferably a person's name or at least an identified role, email, phone number, mailing address

A link to information about rights and reproduction

A basic statement that collection records are an ongoing endeavor to document objects as fully as possible and that historical content included in records may use derogatory, racist and/or harmful language

- Examples:
    - Terms of use for Pitt Rivers Museum Database of Object Collections
    - National Museum of African Art (see "Content Statement" in record)

A mobile interface for the collection database so that all information can be accessed from a mobile device

Additional Information, to be added as possible

More complete ID

- Fuller provenance
- Exhibition history
- Publication history

An invitation for individuals or communities to submit information about objects

Information about an object's conservation treatment history or information about how this information can be requested

Information about steps for initiating a restitution or repatriation process and internal processes for a restitution claim

A more developed content warning or disclaimer

- See for example Digital Benin: https://digitalbenin.org/documentation/use-of-derogatory-racist-and-harmful-language

Open access policy for images

See for example The Metropolitan Museum of Art:https://www.metmuseum.org/about-the-met/policies-and-documents/open-access