

August 19, 2020

TO: Library Accessibility Alliance

c/o Robert Van Rennes, Big Ten Academic Alliance

FROM: Wendy Queen

Director, Project MUSE

Project MUSE is grateful to have been invited to participate in the third-party accessibility evaluation program administered by the Library Accessibility Alliance and funded by the Big Ten Academic Alliance and Association of Southeastern Research Libraries. We are committed to the accessibility of our platform and products, and we appreciate the opportunity to improve on our performance through the identification of issues and recommended solutions in the report provided by Deque Systems, Inc.

Upon receiving the report from Deque in June 2020, our technical team undertook an implementation plan to address all concerns raised in the report, and we are pleased to share that this plan is now complete and all of the identified issues have been mitigated, with one exception. In the evaluation of a Project MUSE journal article page, item #3 in the Automated Findings and item #4 in the Manual Findings are both related to our use of a third party plug-in ("AddThis") to support social media sharing of our content. We recognize that continued use of this plug-in is not acceptable to support accessibility standards and are actively evaluating alternative methods to support this functionality, with meeting accessibility needs a required feature for any new option selected. As soon as suitable alternative is identified, we will replace the AddThis plug-in and this final issue will be resolved.

Following please find an itemized response detailing the mitigation action taken to address each item raised in the Deque accessibility evaluation for Project MUSE.

Accessibility is a core organizational value of Project MUSE. We invite anyone interested to learn more about our accessibility practices, as well as access current VPAT documentation and a guide we have prepared for our participating publishers to help educate them on best practices for making the content accessible on our platform, at https://about.muse.jhu.edu/about/accessibility/. We welcome any questions or concerns about accessibility of the MUSE platform or content either via the form at this link or by email to muse@press.jhu.edu.

Project MUSE Response to BTAA Accessibility Report

PROJECT WIDE ISSUES

Automated findings using Axe

- 1. SC 1.4.3 Elements must have sufficient color contrast, yellow and white gives a contrast ratio of 1.66
- **+ SOLUTION** instances of yellow and white converted to yellow and dark blue to give contrast ration of 7.03:1
- 2. SC 1.4.3 Elements must have sufficient color contrast, light blue and white gives the contrast ratio 2.85:1
- + SOLUTION light blue font color changed to dark grey for contrast ratio of 7.22:1 on light gray background; light blue color moved to bottom border stripe of Book label
- 3. SC 1.4.3 Elements must have sufficient color contrast, orange and white gives a contrast ratio of 3.2:1
- **+ SOLUTION** orange font color changed to dark grey for contrast ratio of 7.22:1 on light gray background; orange color moved to bottom border stripe of Issue and Article label

Additional manual findings using NVDA screen reader

- 1. SC 1.4.3 Hovered links have a low contrast ratio of 2.83:1 as use the blue #2ba6cb with a white background
- + SOLUTION hovered links changed to blue #217F9C with contrast ratio of 4.55:1 on white background
- 2. SC 1.4.3 Initial hovered link "ACCESS PROVIDED BY..." changes to blue #258FAF on a dark blue background giving the contrast ratio 2.21:1
- + SOLUTION hovered "ACCESS.." link updated to change from white to #E6E6E6 on hover with a contrast ratio of 6.62:1 on dark blue background
- 3. SC 3.3.2 Label is not persistently shown for the search field when data is entered + SOLUTION hidden label added and search input has aria-label attribute
- 4. SC 4.1.2 Search link (made to look like a button) does not have a valid href so not keyboard accessible
- **+ SOLUTION** search link changed from anchor tag with href to button tag
- 5. SC 1.3.1 The heading structure is not in sequential order starting with an H1 to structure the page sections
- + SOLUTION page heading structures adjusted to be sequential starting with an H1

PROJECT MUSE LANDING PAGE

https://muse.jhu.edu/

Automated findings using Axe

- 1. SC 1.4.3 Elements must have sufficient color contrast, orange and off-white gives a contrast ratio of 3.18:1
- + SOLUTION orange font color changed to dark grey for contrast ratio of 7.22:1 on light gray background; orange color moved to bottom border stripe of Issue and Article label
- 2. SC 1.4.3 Elements must have sufficient color contrast, light blue and off-white gives the contrast ratio 2.83:1
- + SOLUTION light blue font color changed to dark grey for contrast ratio of 7.22:1 on light gray background; light blue color moved to bottom border stripe of Book label
- 3. SC 1.4.3 Elements must have sufficient color contrast, red and white gives the contrast ratio 3.99:1
- **+ SOLUTION** red font color changed to dark grey for contrast ratio of 7.22:1 on light gray background
- 4. SC 1.4.3 Elements must have sufficient color contrast, light blue and off-white gives the contrast ratio 2.8:1
- + SOLUTION light blue links changed to darker blue #217F9C for a contrast ratio of 4.54:1 on off-white background

Additional manual findings using NVDA screen reader

- 1. SC 2.4.7 The previous and next buttons have a barely visible keyboard focus indicator + SOLUTION dotted border added to keyboard focus of previous and next buttons
- 2. SC 1.4.1 Links in the MUSE News only use a change of color to indicate they are links visually and vary in a ratio of less than 3:1 with the surrounding text
- + SOLUTION MUSE news links changed to #217F9C for contrast ratio of 4.5:1 with surrounding text and underline added to indicate they are link

PROJECT MUSE RESULTS PAGE

https://muse.jhu.edu/search?action=search&query=content:perry%20mason:and&min=1&max =10&t=header

Automated findings using Axe

1. SC 4.1.1 - id attribute value must be unique

- + SOLUTION where a unique id value was previously being used on multiple elements, the id was changed to a class
- 3. SC 1.4.3 Elements must have sufficient color contrast, grey and white text combinations give the contrast ratio of 2.76:1
- **+ SOLUTION** elements with grey text on white background or white text on grey made darker for contrast of at least 4.5:1 or higher

Additional manual findings using NVDA screen reader

- 1. SC 4.1.2 The menu that expands or collapses does not share it programmatically with the screen reader (
- SOLUTION added aria-expanded attribute that updates with the menu being opened or closed
- 2. SC 4.1.2 The links "Add Field" and "Search" are not assigned an href so are not keyboard accessible
- **+ SOLUTION** link elements that are anchor tags without href changed to button tags
- 3. SC 1.3.1 Radio buttons and checkboxes are not grouped by the owning label using a fieldset and legend
- + SOLUTION fieldset and legend structure added to groups of radio buttons and checkboxes
- 4. SC 1.3.1 Groups of radio buttons and checkboxes are in lists rather than using the correct semantics for groups of form controls
- **+ SOLUTION** list elements changed to divs inside groups of radio buttons and checkboxes and surrrounded by a fieldset with a legend heading
- 5. SC 3.3.2 Labels are not persistent for form controls as rely on placeholder text or visual location
- + SOLUTION these form controls use the aria-label attribute
- 6. SC 1.3.1 The checkboxes are not labelled with the visual label for each checkbox, instead you hear a hidden label applied to all checkboxes
- **+ SOLUTION** label is assigned to each checkbox with 'for' attribute matching the checkbox unique id
- 7. SC 1.1.1 The cover images of each book has the same alt tag that is not descriptive in context to the image.
- **+ SOLUTION** alt tag updated to be unique to each cover using the publication title

8. SC 1.3.1 – The list of results does not contain the exact number of results as partially loads the list until the user is at the bottom of the page.

+ SOLUTION - the list of results contains the full number of the results set which progressively loads upon scrolling or tabbing with keyboard

COURTING TRUTH ARTICLE

https://muse.jhu.edu/article/380649

Automated findings using Axe

- 1. SC 4.1.2 ARIA roles used must conform to valid values
- + SOLUTION ARIA roles updated for validity
- 2. SC 1.4.3 Elements must have sufficient color contrast, grey text on white gives the contrast ratio 3.75: 1
- + SOLUTION instances of gray text with low contrast made darker for contrast ratio of at least 4.5:1 or higher, in some cases a ratio increased to 7.1:1
- 3. SC 1.3.1 and must only directly contain , <script> or <template> elements + SOLUTION AddThis plugin to be addressed in future

Additional manual findings using NVDA screen reader

- 1. SC 1.1.1 Image links to expand the images have no alternative text
- + SOLUTION data-title attribute added to image links with alternative text
- 2. SC 2.4.3 Opening modals of images does not move focus to the modal (it cannot be focused at all with the keyboard)
- + SOLUTION focus moved to modal window upon opening
- 3. SC 2.4.3 Closing the modals does not return the focus to the items that triggered the modal but to the top of the page
- SOLUTION focus returns to item that triggered the modal upon closing modal
- 4. SC 2.1.1 Adding more Social Media list cannot be focused or opened with the keyboard + SOLUTION AddThis plugin to be addressed in future

BROWSE PAGE

https://muse.jhu.edu/browse

Automated findings using Axe

- 1. SC 1.4.3 Elements must have sufficient color contrast, light blue and off-white gives the contrast ratio 2.8:1
- + SOLUTION light blue links changed to #284f84 for contrast ratio of 8.26:1
- 2. SC 4.1.2 id attribute value must be unique
- + SOLUTION unique id values implemented

Additional manual findings using NVDA screen reader

- 1. SC 4.1.2 The menu that expands or collapses does not share it programmatically with the screen reader
- **+ SOLUTION** added aria-expanded attribute that updates with the menu being opened or closed
- 2. SC 2.4.7 Next and previous buttons do not have a visible keyboard focus
- + SOLUTION dotted border added to keyboard focus of previous and next buttons

ADVANCED SEARCH

https://muse.jhu.edu/search

Automated findings using Axe

- 1. SC 1.3.1 and must only directly contain , <script> or <template> elements + SOLUTION removed instances of invalid direct elements inside and lists
- 2. SC 1.4.3 Elements must have sufficient color contrast, grey and white text combinations give the contrast ratio of 2.76:1
- **+ SOLUTION** elements with grey text on white background or white text on grey made darker for contrast of at least 4.5:1 or higher

Additional manual findings using NVDA screen reader

- 1. SC 4.1.2 The menu that expands or collapses does not share it programmatically with the screen reader
- **+ SOLUTION** added aria-expanded attribute that updates with the menu being opened or closed
- 2. SC 4.1.2 The links "Add Field" and "Search" are not assigned an href so are not keyboard accessible
- SOLUTION link elements that are anchor tags without href changed to button tags
- 3. SC 1.3.1 Radio buttons and checkboxes are not grouped by the owning label using a fieldset and legend

- + SOLUTION fieldset and legend structure added to groups of radio buttons and checkboxes
- 4. SC 1.3.1 Groups of radio buttons and checkboxes are in lists rather than using the correct semantics for groups of form controls
- **+ SOLUTION** list elements changed to divs inside groups of radio buttons and checkboxes and surrrounded by a fieldset with a legend heading
- 5. SC 3.3.2 Labels are not persistent for form controls as rely on placeholder text or visual location
- **+ SOLUTION** these form controls use the aria-label attribute
- 6. SC 1.3.1 The checkboxes are not labelled with the visual label for each checkbox, instead you hear a hidden label applied to all checkboxes
- + SOLUTION label is assigned to each checkbox with 'for' attribute matching the checkbox unique id