The Client

Green Aqua is a UK based vendor that specializes in carrying high quality aquascaping merchandise. They carry the top brands of the aquascaping world and actively promote the hobby through show rooms, social media, and participating in numerous nature conventions. Their online presence allows potential customers from around the world to not only purchase aquascaping equipment and livestock, but to also allow them to explore and further their knowledge about the hobby of aquascaping.

The Goal

Green Aqua's website allows it's users to view their content and purchase merchandise in a very detailed approach. However, there are some elements found within the website that have room for improvement. These elements include the navigation bar, effective use of visual patterns, and organization of information.

This case study will observe Green Aqua's current online presence and discuss potential improvements to the usability of the mentioned items above with the goal of increasing website traffic, increasing the number of sucessful purchases, and to decrease potential abandonment from the user as they browse through the website.

Subject of Concern 1 - Navigation Bar and Product Category Listing Improvements

The debatable use of navigation tab priorities, lack of consistent ordering between the navigation bar and the product category listing below the hero banner, and the questionable placement and lack of prominence of the "Sale" tab have the potential to confuse users as they browse through Green Aqua's homepage, and may result in lower traffic and sales that could have been avoided.

Subject of Concern 1 Breakdown

The image in Figure 1.1 displays the homepage of Green Aqua's online store. The first tab found in the navigation bar is the iconic Home button, and next to it is the tab "Brand". Shopping by product brands may be a more common practice for users that are more familiar with the hobby, however, to the average user or to a user that is new to aquascaping, shopping by brand may not be the most ideal tab to start their aquascape shopping experience.
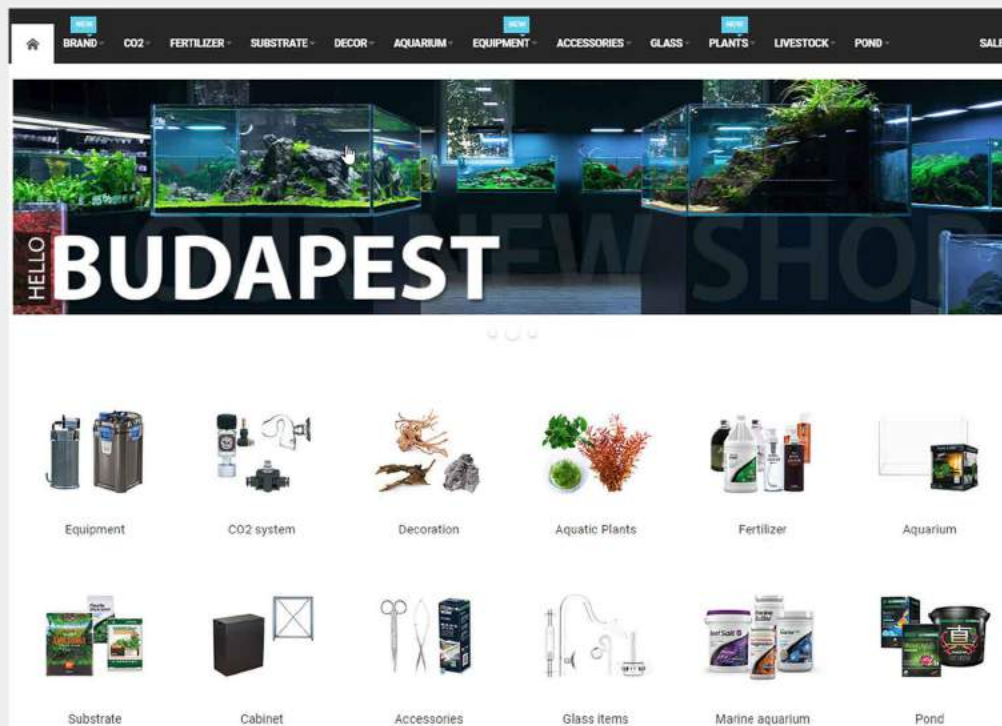

Figure 1.1

Subject of Concern 1 Breakdown - Continued

Green Aqua's homepage displays a category listing that has a more visual presence below the hero banner. Each category is represented by an image in addition to text and seems to mimic the tabs found in the navigation bar. However, they do not follow the same order as the navigation bar displays "CO2" as the first category after "Brand", and the selection category below the hero banner displays "Equipment". The product category listing also has additional categories that are not found in the navigation bar - "Marine Aquarium" and "Cabinet" which unfortunately makes the inconsistency between the navigation bar tabs and the product category listing more apparent.

Green Aqua's "Sale" tab is currently located on the far right corner of the navigation bar. It's location is not as accessible as the rest of the navigation tabs and because it shares the same color with the other navigation tabs, it's visibility is not as prominent. The word "Sale" is a major factor in E-commerce because it attracts customers/users, and it encourages them to click the tab to view what items are for sale. By having the "Sale" tab share the same color as the navigation tabs and placing it on the far right side of the navigation bar, Green Aqua reduces the accessibility that users have to view items that are for sale which can lead to a decline in potential sales.

Figure 1.2 displays a task analysis graph that outlines the potential actions users can do if they want to browse Green Aqua's website to specifically look for items that are on sale. As suggested by the task analysis, the "Sale" tab is acessible to the user, but because of the placement of the "Sale" tab, users have the potential to browse other items and be presented with other items that are not for sale. Providing users with a quicker access to view items that are on sale gives the user more flexibility to shop by sales, or to browse through other items, potentially increasing the chance of a successful purchase.
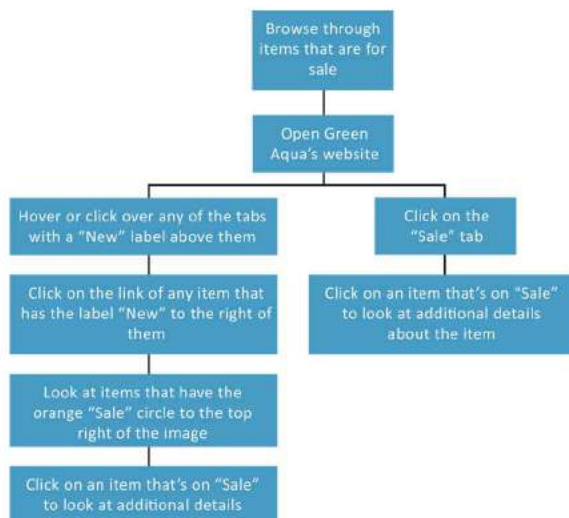

Figure 1.2

Before and After

Figure 1.3 displays a mock-up of the reformatted look fo the navigation bar and the product category selection below the hero banner. The "Sale" tab is more prominent and visible, giving users easy access to shop by sales while also allowing users to browse through Green Aqua's website and shop through specific categories. The navigation bar and the product category selection reflects the item categories in the same order, providing a much more consistent look to the homepage.
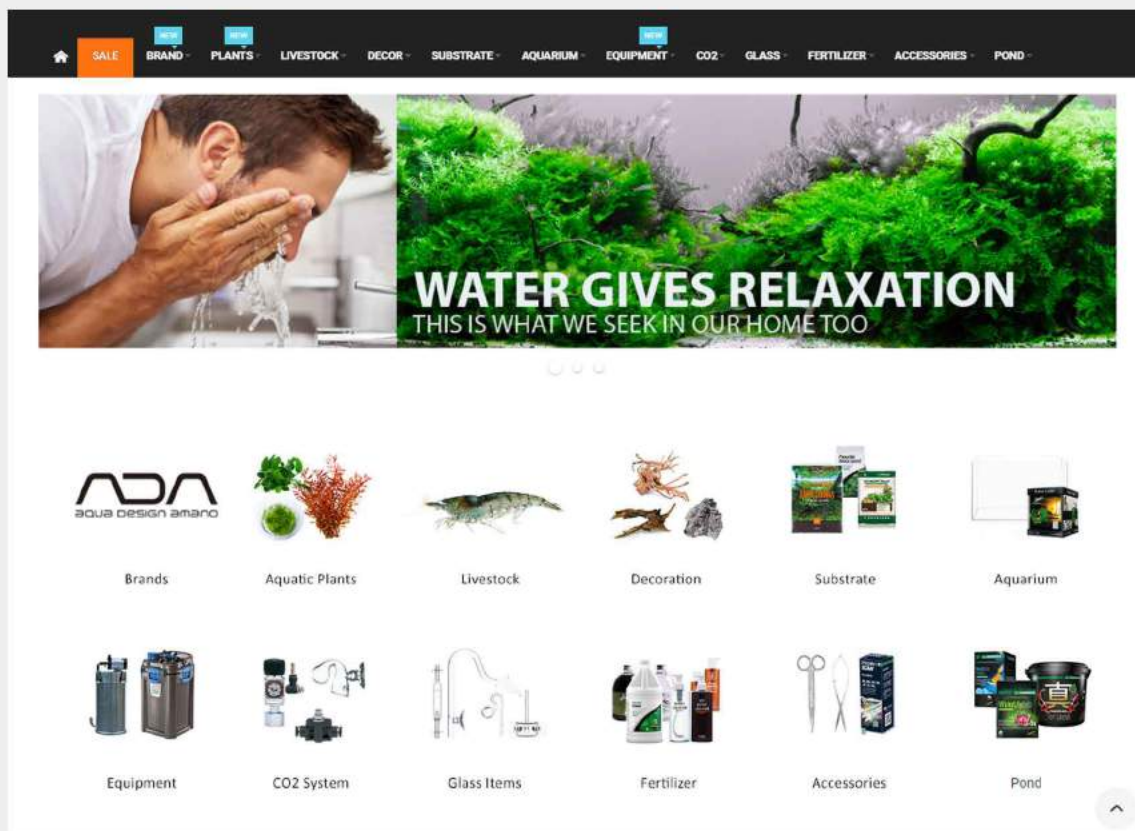

Figure 1.3

Subject of Concern 1 Solution

By having the navigation bar tabs reworked and reflect the same order as the product listing below the hero banner, the overall layout of the homepage is now more consistent and the navigation tab priorities appeal to a more broad audience. Relocating the "Sale" tab and making it more visually prominent will attract and invite users to follow through and click on the tab, which can potentially result an increase in sales.

Subject of Concern 2 - Visual Cues for Call to Action Elements Used Incorrectly

Misused visual cues for call to action elements are found within Green Aqua's website and can lead users to expect a certain behavior when they interact with the element, only to instead be in a state of confusion when the expected behavior does not follow through.

Subject of Concern 2 Breakdown

Throughout Green Aqua's website, clickable items such as buttons have a distinct color that differentiates them from other components within the website. This color can be seen when the user's mouse pointer hover over them. Figure 1.4 displays Green Aqua's product information page and the expected behavior of hovering over the "Add to Cart" button.
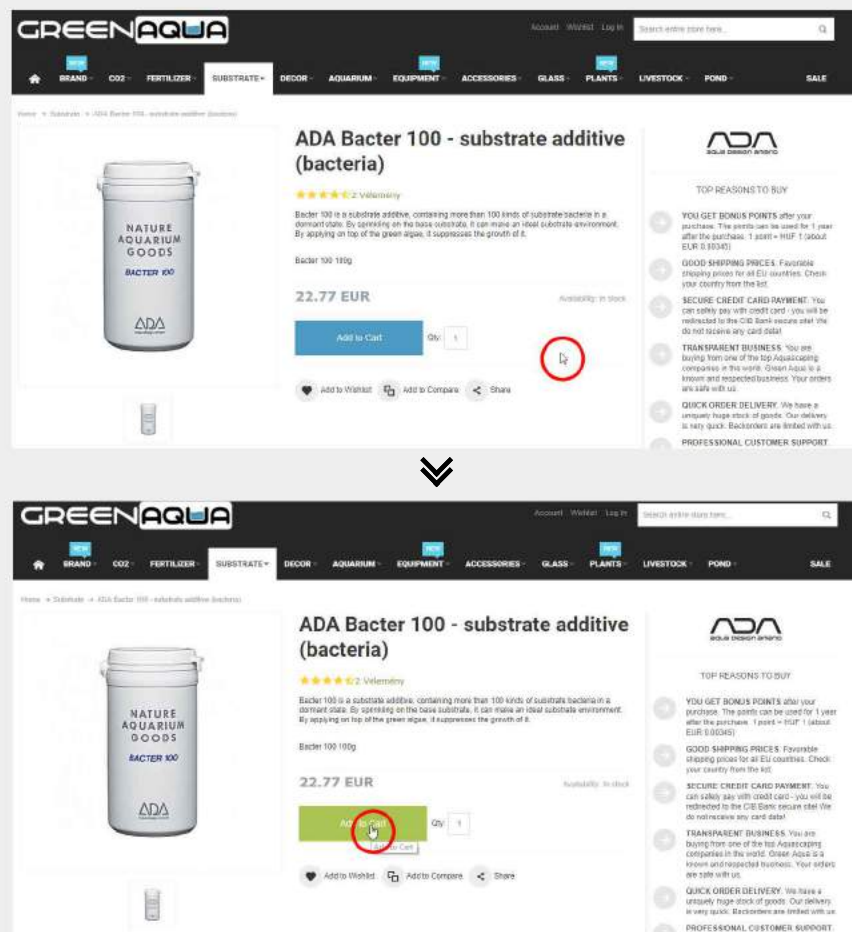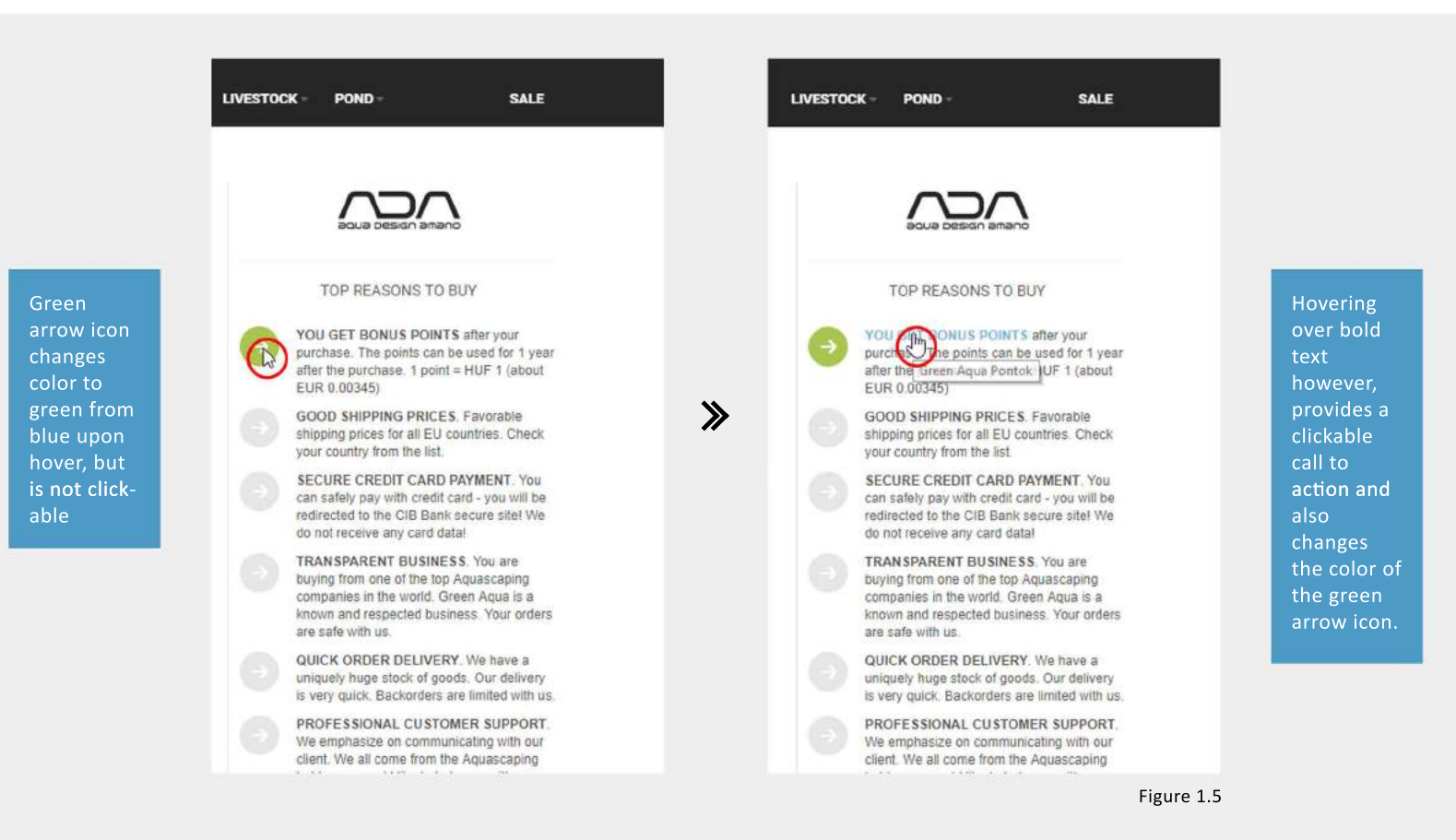

"Add to Cart" button turns green on hover

Figure 1.4

Subject of Concern 2 Breakdown - Continued

Color changes are visual cues that are commonly found and used throughout websites and at first glance, Green Aqua's usage of it seems standard. However, the issue is made apparent when users explore the content within the column to the right of the product description. Figure 1.5 displays the same visual cue behavior as the "Add to Cart" button when the mouse hovers over the green arrow icon, but instead of having the same behavior, it does nothing, and users instead of the hover the bold and all capitalized title text to generate a call to action. This is a significant difference in expected behavior between two elements that utilize the same visual cue on the same page.

Green arrow icon changes color to green from blue upon hover, but is not click-able

Hovering over bold text however, provides a clickable call to action and also changes the color of the green arrow icon.
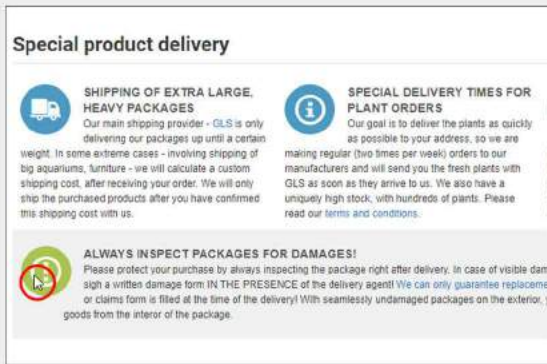
Figure 1.5

Five users were tasked to explore the Top Reasons to Buy column after adding an item to their cart and going back to review another product and to select the "Good Shiping Prices" article within the column. All five users moved their mouse over the arrow and when it changed colors, proceed to try and immediately click on the article and showed signs of slight confusion as to why nothing happened and/or why the mouse cursor did not change to indicate a clickable element.

This same pattern can also be found when the user scrolls down on the product information page and hover over Green Aqua's term sand conditions. Figure 1.6 displays what the section looks like.

Christopher Atmadja
Instructor: Kristian Secor
Case Study 1 - Green Aqua
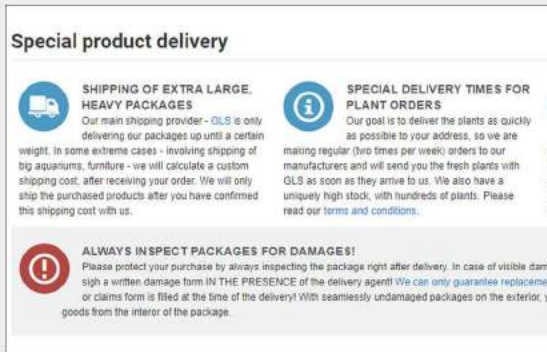
Green Aqua has a terms and contitions notification near the bottom of their product page and in a normal state, the red icon with an exclamation point is red in color

Hovering over the exclamation point icon, the icon changes colors from red to green, but not click-able
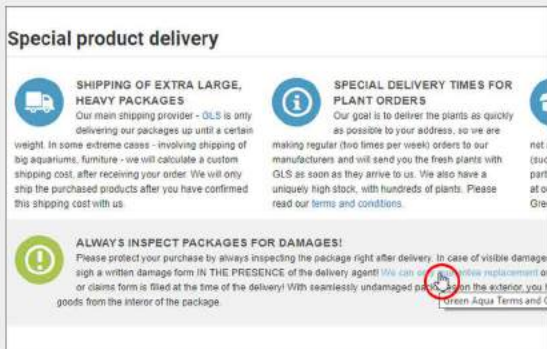
Only when the user hovers over the link does the clickable call to action appear.

Figure 1.6

Subject of Concern 2 Solution

Green Aqua should maintain a specific purpose for each visual pattern that they use and utilize a new pattern if necessary to reduce potential confusion by the user as they browse through the website. In the example of the "Top Reasons to Buy" column, Green Aqua can use a new visual pattern and make each article's text block clickable and still maintain the color change of the arrow, rather than just the bold text being clickable. Figure 1.7 displays a mock-up of the potential change utilizing an existing visual cue in Green Aqua's website - a drop shadow effect that appears when users hover over an item.
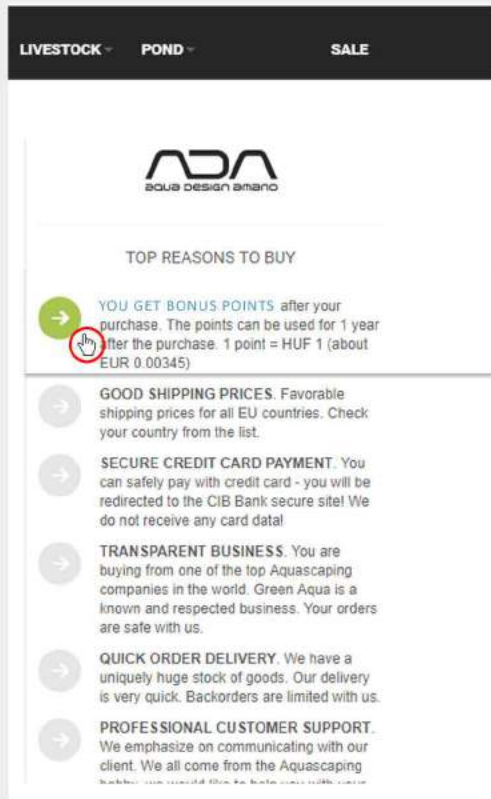
The user hovers over the text block and the cursor changes to indicate a clickable call to action element. The color changes are still maintained for added emphasis, and the drop shadow effect acts as a divider line between the selected element and the next element.

Figure 1.7

Subject of Concern 3 - Lack of Information Organization Within the Articles Section

The articles found within Green Aqua's article section is not organized properly can potentially confuse users who are looking for more information about the hobby due to the alternating positions of graphics associated with each article and inefficient use of information hierarchy.

Christopher Atmadja
Instructor: Kristian Secor
Case Study 1 - Green Aqua

Subject of Concern 3 Breakdown

Like many hobbies, aquascaping is no stranger to the need for more in depth guides and information to the average user. Information is vital not only to the promotion of the hobby and Green Aqua itself, but also to provide users with valuable knowledge of the hobby and to help them make the right decisions. Providing users with correct information has the potential of having them return to the website to make purchases as they gain experience in their hobby. With how essential guides and information are to any user, whether experienced or new, organizing the information in a consistent and readable manner is paramount and there is room for improvement in this aspect within Green Aqua's website.
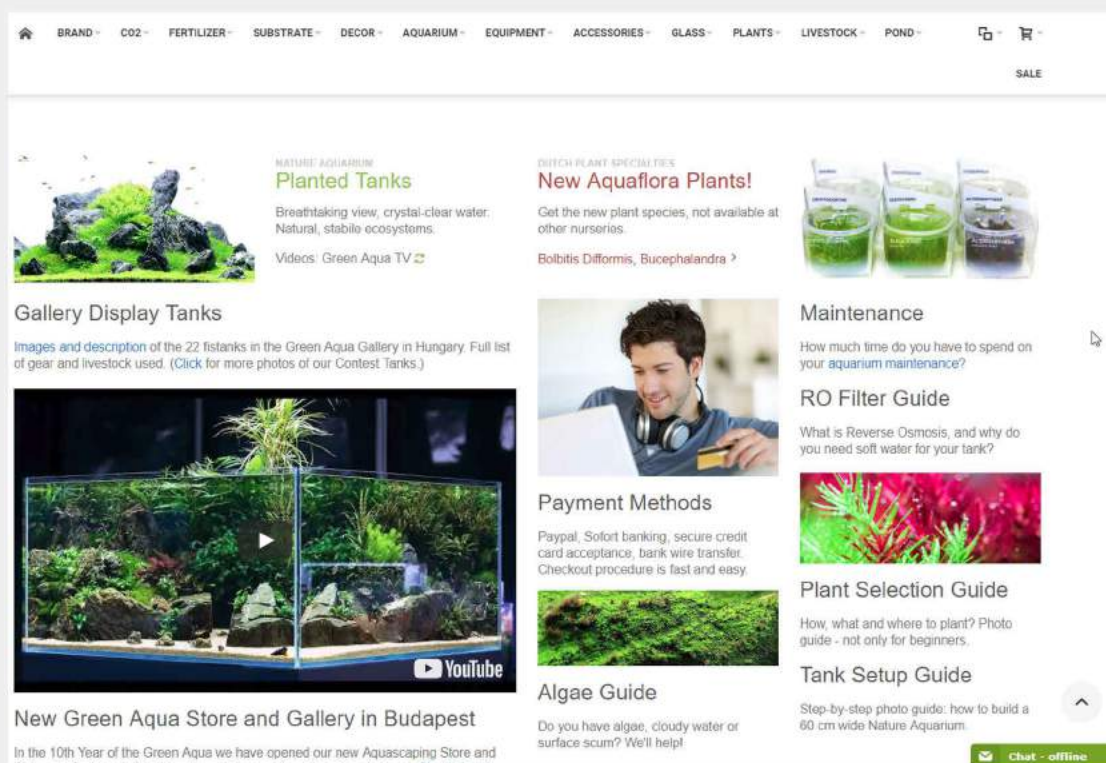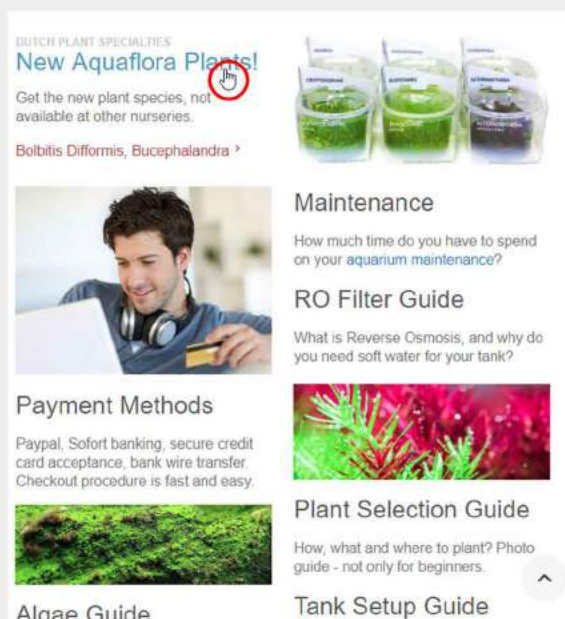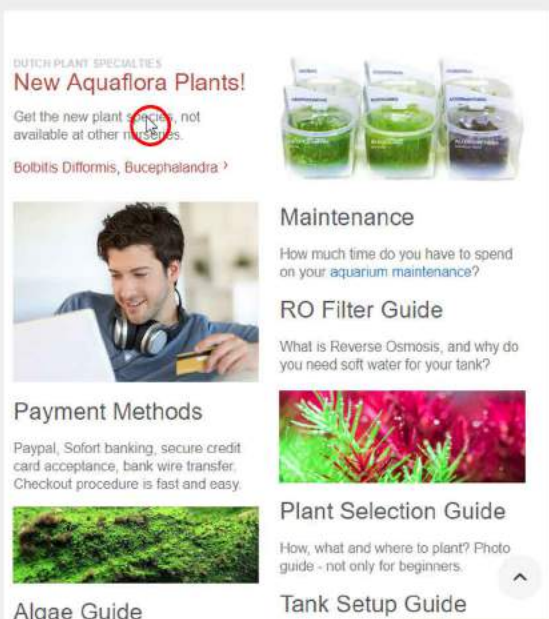

Figure 1.8

Figure 1.8 displays Green Aqua's article section that is visible once the user scrolls down past the products section. This section is essentially an information overload to the user because although the content is separated into two columns, the lack of clear separation between each individual content makes the section look cluttered. In addition to this, there appears to be no form of proper hierarchy of information.

Subject of Concern 3 Breakdown - Continued

The left column displays the article "Planted Tanks" as the most top left and due to it's placement, would indicate that this is one of the most important pieces of information for the user. Although this may be correct, users will often gravitate towards the Youtube video instead as any form of animation or video will be more attractive than reading an article. The video graphic is also much larger than the article section above it, so users will naturally gravitate towards the video section instead of the "Planted Tanks" article.

The right column uses alternating graphics and also has an article that discusses Green Aqua's payment methods. This article looks out of place because it is the only article relating to Green Aqua, and the alternating graphics are more distracting than helpful to the user because there is no clear distinction/division between which graphic belongs to which description. Some articles such as the "RO Filter Guide" do not have an image that correlates to the article, which can potentially add more confusion to the user.

Figure 1.9

Unfortunately, Green Aqua's pattern of color change returns in the article section. Figure 1.9 shows that the title of the article is a link that users can click on to learn more about the particular topic. It is interesting to note that the header text for the "New Aquaflora Plants!" section is red, the "Planted Tanks" text shown in the previous image is green, and all articles below have a black color for their header text. Although this may be intentional and a form of notifying users some "easy" articles that they can and/or should read, the overall design choice to have the title text colors different but still change colors when hovered over seems questionable at best.

All of these factors combined can potentially lead users that navigate to this section to skip reading the useful and informative articles and in the worst case scenario, lose interest in the hobby and abandon the website due to the amount of information that seemingly needs to be known before starting their aquascaping journey.

Subject of Concern 3 Solution

Reorganizing the articles section with information heirarchy in mind will bring the articles section additional value and make it more inviting to the user to browse through. This may result in new hobbyists researching more in-depth into aquascaping and may even encourage them to make purchases through Green Aqua's website.

Figure 1.10 displays a mock-up of the reformatted articles section. A drop shadow effect was chosen to be consistent with the visual cue Green Aqua has when users hover over an individual product that they have for purchase. The divider lines in between each article disappear if the user hovers over the article associated with the divider line.
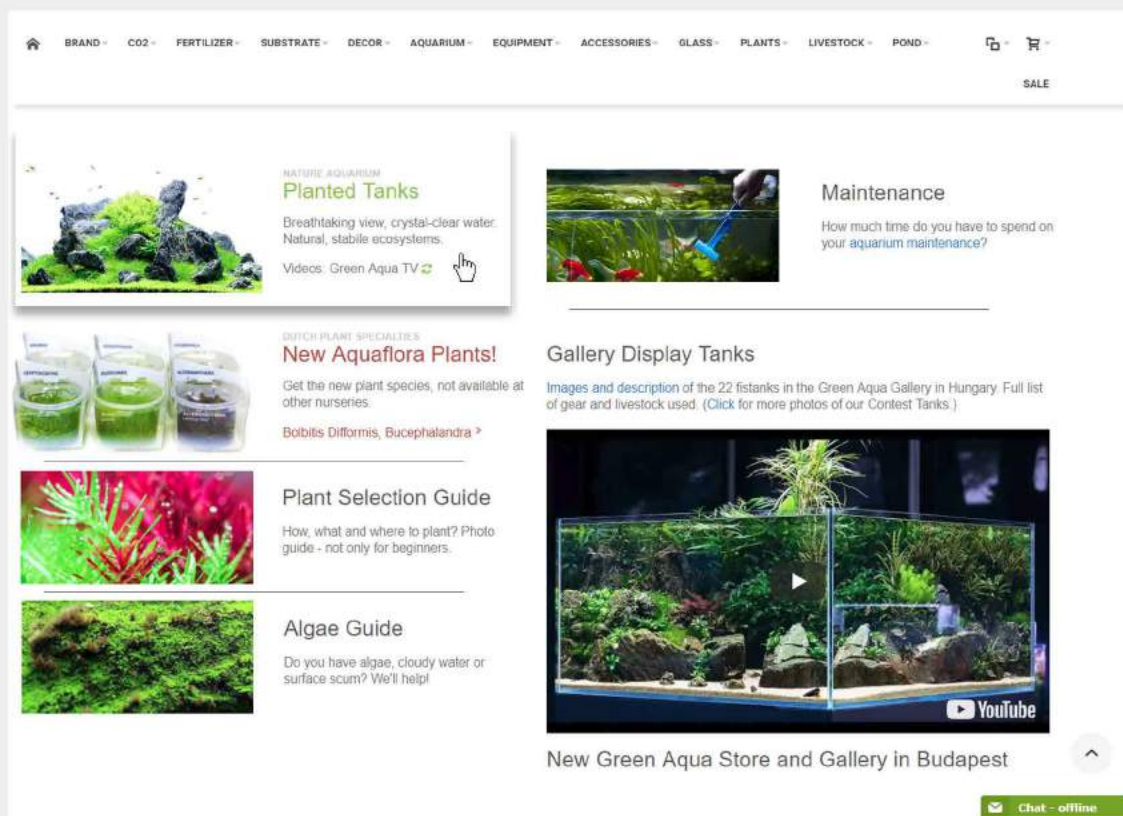

Figure 1.10

The Conclusion

By making small adjustments to their website, Green Aqua can create a more consistent online presence that targets a broader range of audience and also promote the hobby of aquascaping.

By having a navigation bar that parallels the product category selection, users can easily browse through either forms of exploration. The prominent "Sale" tab invites users to check out what items are for sale and potentially increase the sales that Green Aqua can secure without detracting them from browsing other items by a specific category.

Using a different existing visual pattern to indicate clickable articles will prevent confusion from expected behaviors of call to action buttons

Reorganizing the articles section to have a more accurate information heirarchy adds value to the articles section and becomes a secondary reason for users to browse to Green Aqua's website and adding their credibility as an expert vendor the aquascaping world.