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Cart 360

Critical Reflection 1

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*Seamless Seams: Crafting Techniques for Embedding Fabric with Interactive Actuation*

is an academic report which details the research surrounding actuating textiles using conductive sewing and embroidery. The design research conducted by the artists explores the visual, technical and thematic benefits of Shape-Memory Alloy (SMA) in smart textiles. Their final product uses SMA thread and embroidery to produce movement and reactions typically achieved by tools like servo motors, thus “softening” the technology embedded in this project. The paper states that many e-textile projects take the approach of fixing “electronic sensors, pneumatic or motor actuators into existing materials”(987). However, the paper posits that traditional textile crafting techniques like knitting and weaving using conductive fibres can create alternative and perhaps more impactful results in the field of smart textiles.

The paper goes into great detail about the research and the traditional craft techniques used to create the final product. However, it rarely or ever stops to consider the cultural impacts and histories of these techniques. In this text, I wish to argue why the fibre crafts used in this experiment exhibit feminine, feminist and gender-nonconforming themes that disrupt the patriarchal subtexts that reside in most technological fields.

Craft and fibre arts have historically been associated with women’s and other oppressed groups movements and thus carry a strong historical narrative with it. Beth Ann Pentney states that “handknitting has a long and varied history that is culturally and regionally specific and

always enmeshed in issues of gender, class, and economics”, reinforcing the notion that most craft is practiced outside of the patriarchal artistic canon. Furthermore, knitting, embroidery and quilting have all been used by activists groups like the Suffragette movement, NAMES Project AIDS Memorial Quilt, and countless Indigenous tribes. PBS writes about Cleve Jones, the creator of the AIDS Memorial Quilt, stating that “sewing panels became a way for survivors throughout the country to honor their dead and to channel their grief into something positive and proactive”(WTTW). Other examples include the anonymously created *Crazy Quilt* which detailed the women’s suffrage movements in the late 19th century (*Arstor*), and the works of Inuk textile artist Elizabeth Angrnaqquaq. Despite the contribution of traditional male influences in textile fields like fashion design, it is silly to deny the influence of these oppressed groups struggles on these older and more traditional crafts. Thus, the historical narrative surrounding fibre arts contributes to the research in *Seamless Seams*.

One must also consider the patriarchal values embedded in traditional technological and digital fields. While many of history's most important mathematical and computational figures have come from marginalized groups (Ada Lovelace and Alan Turing for example), computer theory and interactivity are still dominated by men and referred to as male spaces. This does not mean that women are not allowed to join these fields, but there is still a cultural message that encourages men to join these fields and discourages women from pursuing similar areas of research. With this in mind, it is not unreasonable to conclude that certain machines and materials are gendered as well. Margaret Brenston cites that “much equipment tends to be gender-typed. There are machines and tools suitable" for men – saws, trucks, wrenches, guns and forklifts, for example – and those "suitable" for women — vacuum cleaners, typewriters and food processors”(Center for Media Literacy). For the sake of my argument, I would like to add a

sewing machine to the list of “suitable” machines for women, a tool often associated with the feminine practice of dressmaking. When one takes into consideration the gendered association of these machines, they can begin to understand how the incorporation of sewing thread and weaving in a computational project breaks down these gendered constructs associated with this field of research. In fact, the paper states in its closing notes that the viewers and participants mainly valued the absence of “demanding” technology in the final project. This example demonstrates the biases ordinary people associate with certain materials, with hard materials often being perceived as masculine and tough and soft materials being perceived as feminine and welcoming. In short, the use of feminine-associated tools and crafting materials contradicts the cultural association with computational design.

In short, the historical narrative surrounding craft and the incorporation of feminine-associated tools in this study subvert patriarchal and masculine themes within the field of interactive research. Hopefully more designers, artists and creators will continue to incorporate techniques that have historically aided those without a voice to create new, inclusive and inviting projects.

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