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To Freedom and the Moon

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Design Mentor Statement: This design was created in a sophomore-level apparel patternmaking course. Students learned patternmaking techniques by hand and in CLO 3D and were tasked to apply these techniques to create a bodice and skirt ensemble inspired by a decade between 1930-1980 of their choosing. The purpose of this mentorship relationship was to teach the student patternmaking techniques, CLO 3D workflow, and guide the student through the steps of the design process. I chose to sponsor this student's work because they pushed the boundaries of the assignment requirements, experimented with challenging materials and techniques, and produced a final design with exceptional craftsmanship. I enjoyed watching the student tackle design challenges head on and never waiver in their ability to produce the intended design.

Statement of Purpose: *To Freedom and the Moon* is inspired by the second wave of the Women's Rights Movement and the Space Race from the 1940s – 1970s. During this time, women were key players behind World War II and the Space Race but continued to face inequality through discrimination in the workplace and unequal pay (Milligan, 2023). WWII and the following Space Race were pivotal times in history where women took on new roles and contributed to the workforce. For example, during WWII, more than six million women took wartime jobs in factories, three million volunteered with the Red Cross, and 200,000 served in the military (The National WWII Museum, n.d.). In addition, during the Space Race, women came from all over the world to work at NASA as "calculators," making calculations that would ultimately be responsible for sending astronauts to the moon (Holt, 2019). The purpose of this design is to create a wearable art ensemble that commemorates the strength of working women in the 1940s – 1970s.

Aesthetic Properties and Visual Impact: This design pays homage to working women during WWII and the Space Race who portrayed strength and courage to fight for equal rights. The vinyl fabric choice was made based on the image in Figure 1. In this image, a working woman during WWII inspects a piece of reflective sheet metal. As the woman looks at her reflection in the metal, her strength and vitality come through. The structured nature of the metal symbolizes the strength that woman gave to gain their freedom and independence. Gold metallic vinyl was selected for this design to represent the unyielding and unbreakable metal. The button-down shirt under the vinyl pieces is made from a white polyester fabric with gold button accents. The classic button-down shirt elements, including the rolled collar, buttons, and cuffs nod to the working women and typical women's workwear. However, there is an extreme cut-out in the

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back of the shirt to add elegance and make a statement about sex discrimination in the workplace.

The silhouette of this garment is made from three modular pieces that are shaped to stand away from the body and resemble a rocket ship. The rocket ship is aiming towards the goal of women's equality in the workplace and beyond. The three modular pieces include the bodice, a maxi skirt, and a mini skirt/bodice overlay (Figure 2). The three pieces can be mixed and matched to create numerous design possibilities. In addition, the left sleeve has a zipper at bicep level to allow the sleeve to change from long to short, providing more design options for the wearer. When all three modular pieces are worn together, the shaping of the vinyl as it curves away from the body creates an aerodynamic movement, symbolizing the efforts of women to fight for equal rights. This of course also nods to the women behind the scenes of the Space Race, working as "computers" to perform the calculations needed for experiments (Holt, 2019).

Process, Technique, and Execution: After researching the selected decades and sketching design possibilities, the design process began with the patternmaking of each piece in the ensemble. The bodice was pattern-made by hand with pencil and paper, while the maxi skirt and mini skirt/bodice overlay were pattern-made in CLO 3D from a digitized skirt block and printed on a plotter (Figure 3). In the construction of the bodice, French seams and bias binding were used to conceal seams and raw edges. The waist dart of the bodice was moved to the side seam, mimicking the dart placement of a typical women's button-down shirt. When constructing the vinyl maxi skirt and mini skirt/bodice overlay, experimentation was done to determine what structure elements were needed to create the 3D shape. In the end, boning channels were sewn into the underside of the vinyl and copper wire was wrapped together and inserted into the boning channels. The undersides of the vinyl are lined with gold polyester lining fabric for a clean finish. Lastly, separating zippers were placed throughout the vinyl pieces for ease of donning and doffing. The separating zippers provide versatility to the wearer to decide in what combination each modular piece will be worn.

Cohesion: *To Freedom and the Moon* symbolizes the pursuit of the Women's Rights Movement towards equality, and the strength it took women to obtain it. The gold metallic vinyl stands as a symbol of strength and equality. "To Freedom" is the pursuit of equality that women fought for during the second wave of the Women's Rights Movement and "the Moon" is the achieved goal that many women worked towards.

Originality and Innovation: Overall, this design represents the working women of the 1940s – 1970s who were behind the scenes of WWII and the Space Race. The use of vinyl to create modular 3D elements produced an innovative wearable art ensemble.



Figure 1. Work clothes for safety and efficiency.



Figure 2. Modular Options.



Figure 3. CLO Skirt Patterns.

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