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Armor and Amour
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Armor and Amour is an artistic outcome grounded in French history, namely the interpretation of Joan of Arc, and modern 3D printing technology. The combination of historical reference and 3D printed embellishment resulted in the finished piece which exhibits the contradictions of Joan of Arc's legacy, with aesthetic interpretations of both past and present.

Joan of Arc, a young peasant girl living in rural France during the medieval period, believed that she had been divinely chosen to lead France to victory in its long war with England. With no military training, Joan convinced prince Charles to allow her to lead a French army to the besieged city of Orléans. In a matter of weeks, the French achieved victory over the English. Shortly thereafter, Joan was captured by enemy forces. She was tried and found guilty of witchcraft and heresy, and was burned at the stake in 1431, at the age of 19. Known as the Maid of Orléans, Joan was canonized, and has been an enduring emblem of inspiration for France.

Joan of Arc's legacy is bereft with contradictions. Her story is true, but it has taken on mythical proportions. J. M. Antente, in an article about Joan, states "there are Joans for all flavors and all political and ideological spectra. She is a rebel heroine to some, a conservative myth to others; a republican emblem for some, a monarchic symbol for their rivals; a devout Catholic in some cases, a heretic par excellence in others" (2014, p. 68). Daniel Bensaid, in his book titled *Jeanne de Guerre Lasse*, theorizes that Joan is a "fragile balance between history and myth" (1991 p. 79). In an interview, Bensaid discusses her appeal, stating "it is the enigma of this shepherdess becomes a true military leader, particularly in the use of artillery, and has an inspiration, an amazing political acumen". This is ultimately juxtaposed against "the fact that she is convicted of an offense of transgression of gender norms sharing! The charge against her is still a man's dress and hair cut" (Alouf, 1999. p. 2).

Indeed, after her capture, her trial was predicated upon on her faithfulness to the voices directing her to help France, and the fact that she wore men's clothing. She had worn men's military style clothing as a means for fighting alongside her army, undetected. While in prison she continued wearing men's attire. At one point, Joan confessed her guilt and agreed to wear women's clothing. But it was not to last, days later "She put back on her men's clothing and reaffirmed her belief in her voices and her refusal to abide by the authority of the earthly Church. She stated that she had retracted only out of fear of fire, but that her voices had ordered her to tell the truth" (Antentes, 2014, p. 85).

The story of Joan's perseverance, and the dichotomy of appropriating soldier's dress, is the inspiration for *Armor and Amour*. Thorough research was done on historic chainmail and armor styles. The resulting chainmail plate style was then created in Rhinoceros 3D modeling software

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and printed on a Makerbot Fifth Generation 3D Printer in polylactic acid (PLA). Holes were designed to facilitate the linking of silver rings to create an articulated structure that could move like historic chainmail. Much has been written about 3D technology. In the article *What 3D Printing Means for Fashion*, the author states "3D printing is nothing short of a new industrial revolution" (Morand, 2016, p. 3). He describes details for application such as "3D printing can be used for rigid structures meant to adorn a garment" (p. 3).

The silhouette for *Armor and Amour* was based on research indicating cultures used specific terms for each garment made from chainmail. Derived from the French, a shirt is called a hauberk. A layer of chainmail sandwiched between layers of fabric is called a jazerant. Chainmail armor provided an effective defense against slashing blows by edged weapons.

The *Armor and Amour* silhouette was inspired by the jazerant layer concept, and the silhouette embodies the duality of Joan of Arc's dress as both a female shepherdess and male warrior under cover. The form is inherently feminine, a fitted bodice, with peplum, but with a drape front feature that can alternately expose or cover the soldier's chainmail armor feature on the wearer's left shoulder. It is feminine in style, but with a masculine, armor-inspired embellishment that conjures covert strength. The color palette was chosen to further emphasize this duality. Charcoal for the design mimics the steel plate of traditional armor, but the amethyst color at the shoulder belies femininity, with a nod to the purple hues indicative of monarchies of medieval times.

Armor and Amour is a design marrying the past and the present, the male and the female, the ancient technology of war-craft armaments and the modern technology of 3D printing. As in the work *Cultural Exchanges* by Michael Mamp and Su Kyoung An (2016), this work combines a technologically aided design process with culture and historical references as an aesthetic foundation. It is a work grounded in research, that of culture, and history, along with a design process that explores how the past consistently informs the future. It is intended to illustrate the strength, resiliency and duality of the female spirit.

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