Aura Satz

Between the Bullet and the Hole, 2015, HD video, color, sound, 10 minutes 35 seconds.

Spanning film, sound, performance, and sculpture, Aura Satz’s historically anchored projects often celebrate the achievements and inventions of women. “Her Marks, a Measure,” Satz’s solo exhibition at Dallas Contemporary, presents two recent works—the dual slide projector installation Her Luminous Distance, 2014, and the film Between the Bullet and the Hole, 2015—which focus on women who compiled data as so-called human computers, enabling advances in astronomy and ballistics, respectively. The show is on view from January 17 through March 20, 2016.

ALL MY WORKS explore diagrams and traces; these become abstractions of presence. My previous projects looked at traces of voices, sound inscriptions, and writing techniques. I am primarily interested in traces that look nothing like their source and that give materiality to what is ultimately immaterial or imperceptible.

Between the Bullet and the Hole came about after I found some amazing images of bullet sound waves and early experiments in what’s called Schlieren photography in a book by Dayton Clarence Miller titled Sound Waves: Their Shape and Speed from 1937. As I started looking into ways in which ballistics are abstracted in diagrammatic form, I came across forensic examinations of microscopic scratches on bullets, markings made by the barrel of a gun, as well as other traces that can be read forensically.

The film takes as its starting point the role of women studying ballistics during World War II and their remarkable contribution to early computer programming. What they were doing was interpolating the trajectory between the bullet and its target based on data from firing tables. Between the Bullet and the Hole is in itself an act of interpolation between images of bullets and holes, punch cards and computer diagrams, rulers and sound waves of explosions featured in the film. The work challenges the viewer to question how one might decipher such data and take in the indigestible forensic aftermath of violence.

Her Luminous Distance is a companion piece about a group of women astronomers, also known as “human computers.” Beginning in the 1890s and well into the 1920s, they worked at Harvard University on painstaking astronomical observation and classification, mapping the stars and calculating their positions. Women who were good at math were brought in to do this work. But it was considered a somewhat tedious clerical job, and although some made significant scientific discoveries that led to publications, they were essentially conduits for data to be collected and stored.

The task of all these women was to measure. That was their primary role, their labor: measuring the distance of the stars to the earth, between a bullet’s starting point and end point. In doing so, they were also making their mark in history by contributing to astronomical discoveries as much as computer programming.

Many of the works I’ve made about women and technology are concerned with putting them on the map, making them visible. In Her Luminous Distance, I included slides of craters on the moon named after women astronomers, which are quite small and, for the most part, on the dark side of the moon. One of them is called Leavitt, after the deaf astronomer Henrietta Swan Leavitt who discovered that some stars have a variable light instead of a regular pulse. The fact that she was looking at variable stars and the idea of women’s names being associated with imperceptible craters on the moon seemed an apt metaphor for women having a moment of slight visibility and then receding in the distance of history.

For these two projects I wanted to use the language of a blink comparator to try to reenact the kind of looking that these women were doing. A blink comparator is a perceptual device that enabled astronomers to spot tiny differences between photographic plates by putting them on top of each other and making them blink. Her Luminous Distance is not quite a film; it’s two static frames flickering in a dual slide projector installation with a shutter that creates a blinking effect. Likewise, the images in the Between the Bullet and the Hole
appear like a Ping-Pong game: They flash back and forth, side to side, making your eyes look harder. Similarly I wanted the sound (composed by Scanner) to be constantly rattling, like metal striking another metal, a ricochet sound.

The title of the show, “Her Marks, A Measure,” is a play on words. I think of the film on ballistics particularly as being about people whose job it was to measure, but for me it’s also a measure against a certain impulsive acceleration of violence. There needs to be a space for thinking about and measuring the impact of gun culture.

— As told to Agnieszka Grata