DI-SIMULATED CROWDS (2018) by Anna Ådahl
HD Video and video installation
15 mins
available at https://vimeo.com/267534688
Password: triptyk
Website: https://www.annaadahl.com/works/disimulated-crowds-2018

When observing today's crowd simulations, we see subjects, agents in organised patterns correctly negotiating space and others. The cooperation is impeccable.
We are not impeccable. The algorithms programming the ideal digital crowd do not encompass our defaults. On the contrary they use default settings to reproduce us virtually.
—voice-over from Di-Simulated Crowds (2018)

The film focuses on the vocabulary, tools and human representation in various types of software that is used for modelling and tracking crowd behaviour.

Featured in the film are clips from online crowd simulation tutorials: perfectly coordinated swarms, mass body crushes, campsites and religious gatherings such as the Hajj in Mecca. These clips are juxtaposed with newly shot scenes of gestures and postures drawn from the digitally simulated crowd agent whose programmed behaviour is re-enacted by two dancers (Rebecca Chentinell and Pär Andersson). The film also includes optical surveillance devices used to track humans in crowds and urban settings. These devices study crowd behaviour in order to compute statistics and gather data. The graphic output and definition from this information is usually rendered as geometric shapes, dots and numbers or lines giving us an aesthetic perception of how crowd behaviour is tracked and studied.
In the soundtrack of the film a voice-over, generated by a speech edit software/robot voice, interlaces the information and the instructions from the software tutorials with the artists´s (my) own observations and analysis.

Di-Simulated Crowds is a three channel film (which can be exhibited as an installation), in a triptych format, the image sequences are positioned next and simultaneous to each other. The juxtaposition of the three sequences, within the triptych format of the film, allows for an ongoing associative analysis which can be made by how the viewer observes the filmic installation. As the eyes wander from one sequence to another there is a subjective editing, selection process. This subjective viewing proposes an immersive and active editing process linked to artist Harun Farocki and filmmaker Jean-Luc Godard statement, as well as according to the logic of Aby Warburg's *Mnemosyne Atlas.* ' an image informs and analyses another image by juxtaposition'.

The film includes sequences where two dancers enact and unravel the behavioural and choreographic characteristics of the default agents of the crowd simulation software both in a focused studio environment as well as out in the urban realm such as the underground. Where the default agents programmed body interacts with the people going about with their daily habits within the system-operated vicinity of the underground.
When the film is shown in its intended large (installation) format the dancers become life size, the identification with the images of the dancer's re-mediation of the digital crowds becomes physical, nearly palpable. This allows for an embodied understanding of the

proposed images of the simulated and tracked crowds where the common denominator between the images remains the human body, in its natural, performing, tracked and simulated form.

The use of found sequences and clips of showreels and tutorials from online platforms of crowd simulations and multi-target tracking system contextualise the films within the use and purpose of these technologies rather than within a personal creative framework. The films use clips from showreels and tutorials of the given software to understand for whom and how they are to be used. What we are to see is that the crowds are there as cost-effective props, to be smashed or killed. A digital crowd without real human value rather a hollowed representation of a crowd without the spirit of one.
To be noted is that the crowd simulation software which is used for feature films proposes a crowd aimed to fight, be killed or lifeless zombies. The same software is then used for crowd management purposes or crowd safety, to organise and protect life. Hence, a dichotomy within itself of how humans are to be portrayed and handled.

The film's juxtaposition between the crowd simulation images, the tracking systems and the performers enacted choreographic scheme of the digital agents produce confrontations and associations which reveal through difference the mathematical characteristics of the crowd simulations rationalised behaviour and that of the human bodies complex nature and inherent irrational behaviour. One example is the directive of 'avoiding collision' _where the agents are programmed to avoid each other as they would avoid an object, with no empathy, not recognising the human characteristic of the other agents. This attitude portrays a crowd with no solidarity or connection amongst the agents. There is no bond between the agents except for that of synchronised movements– a common motion and dynamic flow, but not a common agency driven by a social consciousness.