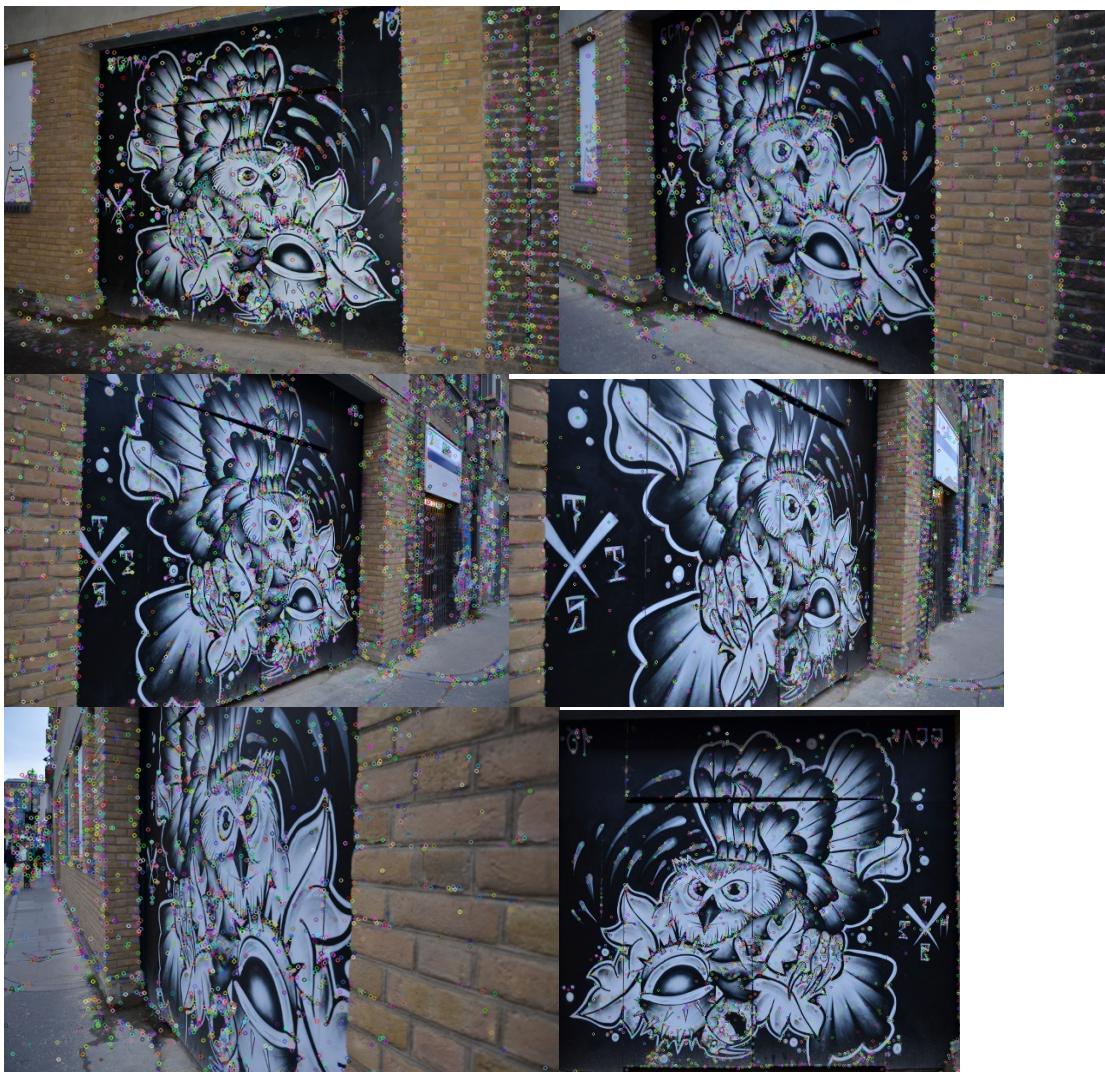


The goal is the use transformation matrixes to get images warping for many applications.



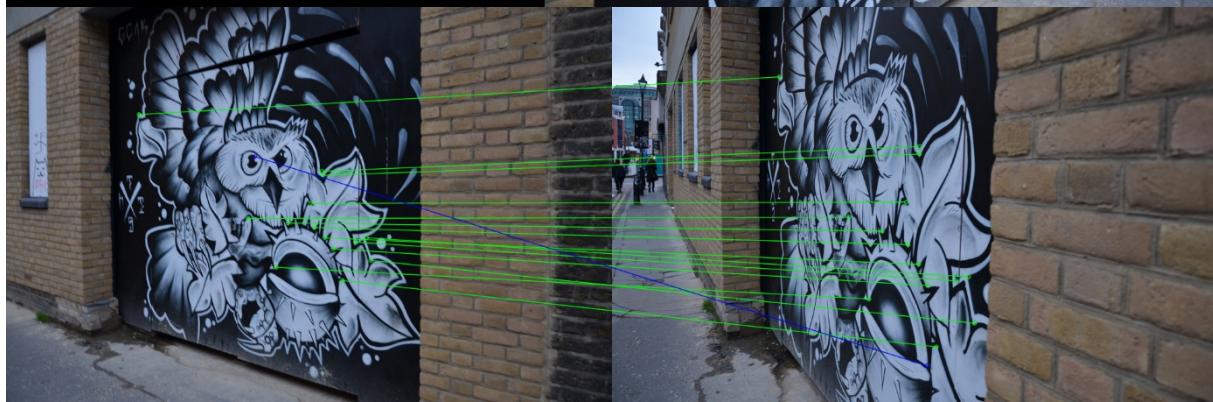
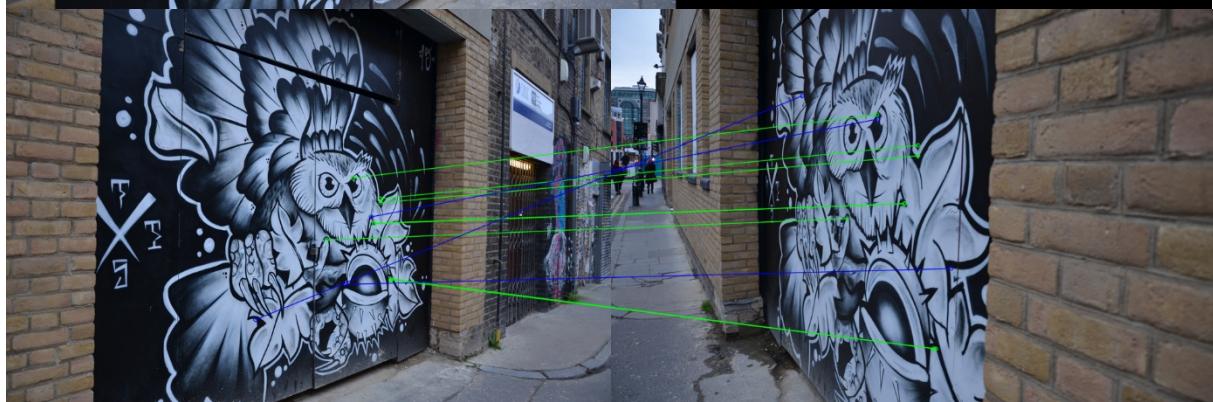
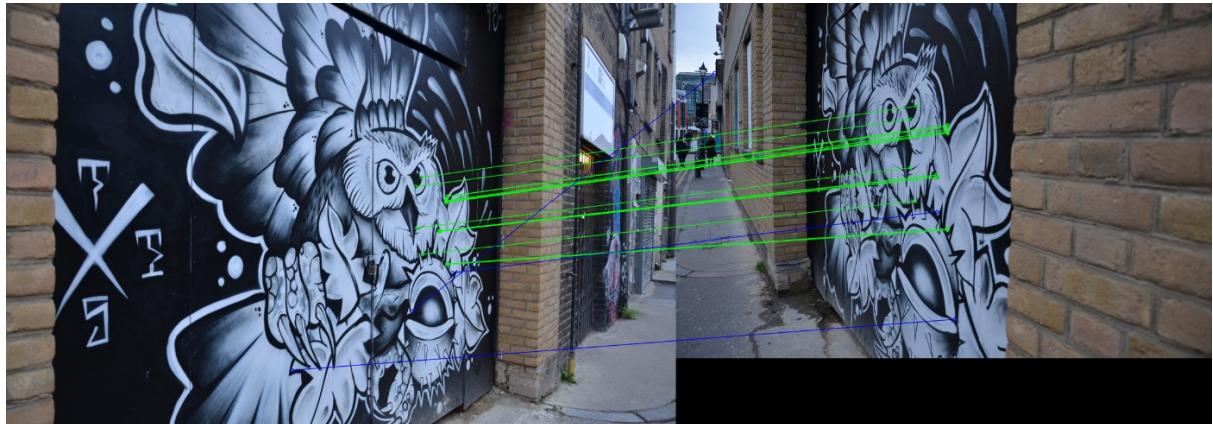
Sift gave many kep points and good matches.

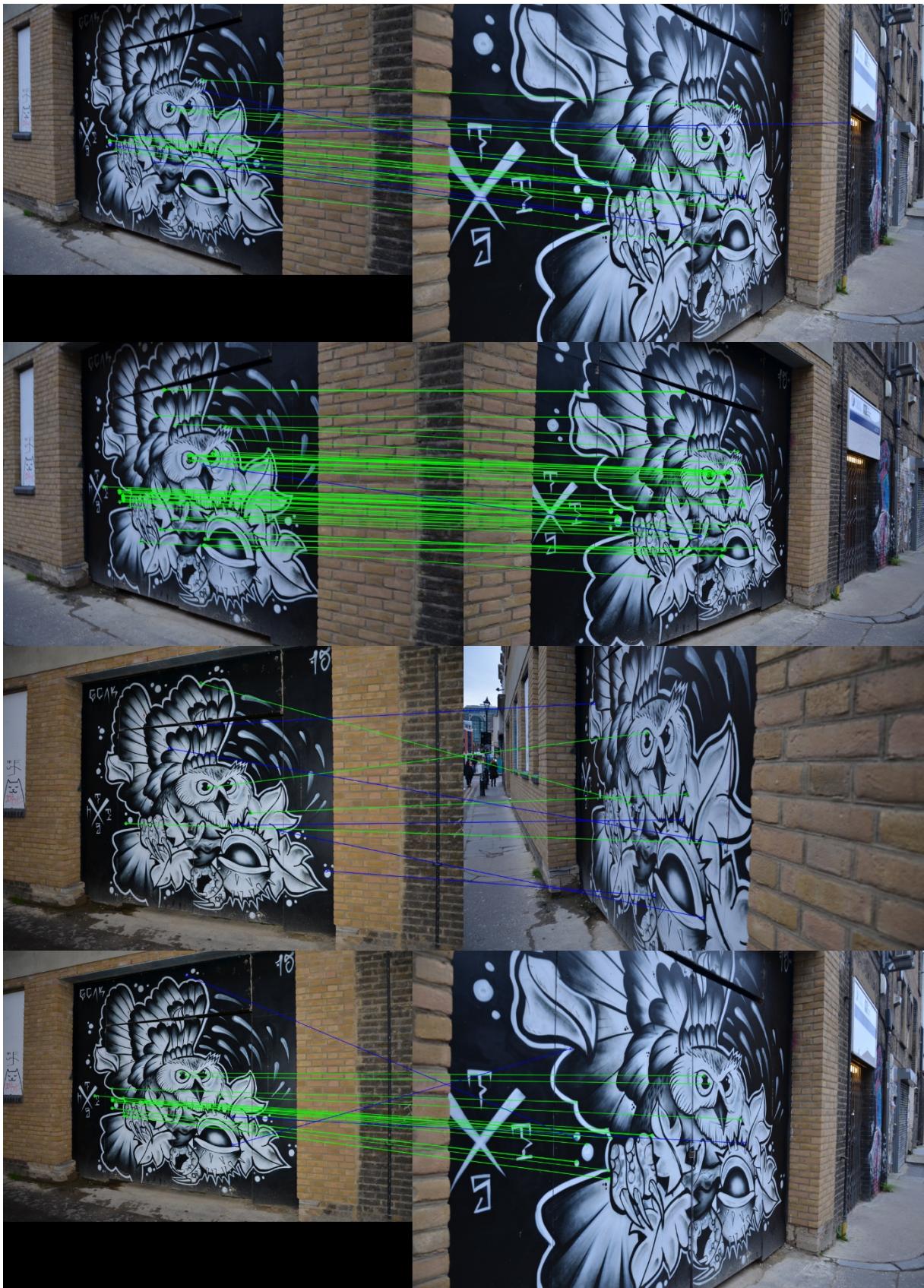


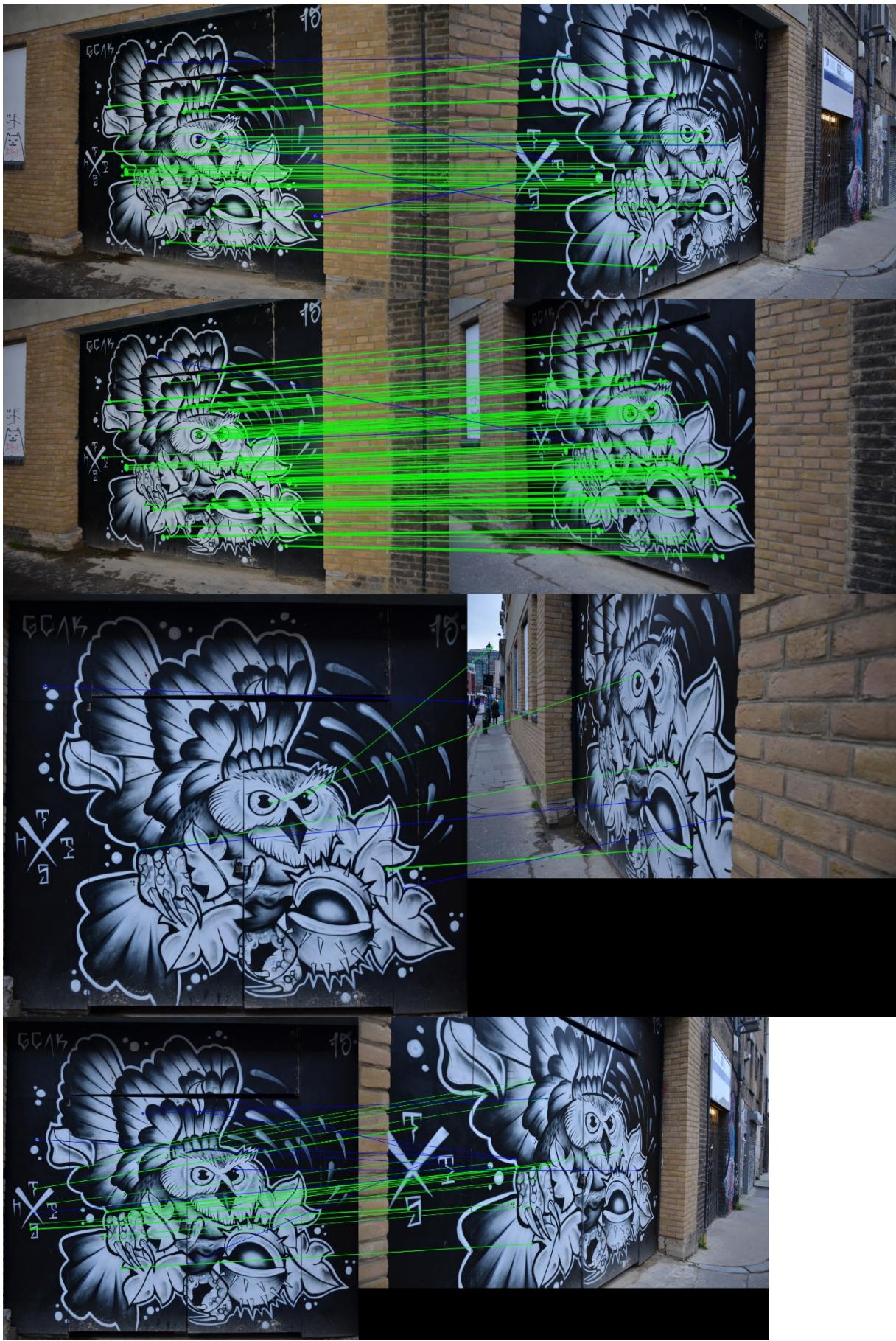
Orb gave less key points but still good matches.

For the matching I used sift since it gave more kp to check and most used. With the threshold of .75. It worked fine so I didn't give bad results.

DLT is used the transform the image to another plane placed on overlapping points. Finding the transformation matrix and checking if it is good with ransac is used. 4 points are selected and a matrix is gained than tested on other ky points . If it is within the error range of 5 it is accepted point and if accepted points are higher than it is a good matrix. I tried with 1000 and 2000 iterations .









For warping i warped using DLT than blended with copying at first. It was okay but not very good so I used averaging and got better so I used that. Maybe linear blending could be better but averaging also works on most cases. Graffiti did not give a good result. For the canvas size after transforming I checked the boundaries than resides it.



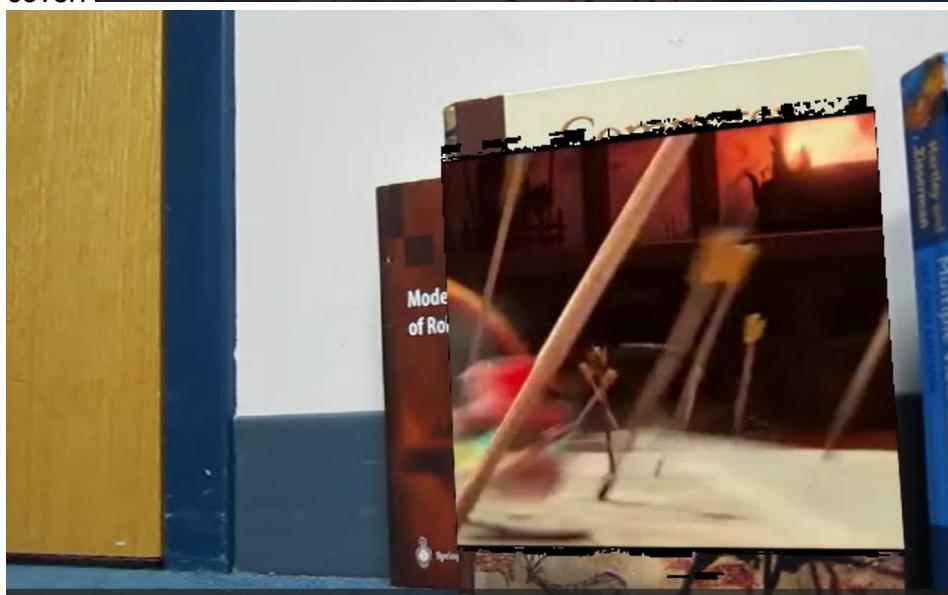
NEW WAR, NEW WEAPONS

The First World War was the first industrialised war, in which the scale of conflict and the number of soldiers involved were unprecedented.





For the AR part I just took 3 screenshots and video is not seen in some frames and I don't know why it fails on some frames but for the most part video is correctly warped into the book



<https://drive.google.com/file/d/1AI6DIFRENU7DC8YRJqGX9whSQiLsGwtB/view?usp=drivesdk>