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“Unraveling the Logics of Landscape”
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Abstract form

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Type of presentation: (oral or poster)	<i>Oral</i>
Title of presentation:	<i>Using military cartographic sources to reconstruct the Belgian World War One front zone</i>
Name of organized session OR conference theme:	<i>Spatial analysis based on categorial map data: How to address fluctuating landscape processes through the analysis of historical cartographic sources, landscape representations and spatial data</i>

Abstract (maximum 300 words):

During World War One, several military cartographic sources were produced, each with their own purpose to supporting military practices. WWI aerial photographs, military topographical maps and trench maps of both the German and British army are known and include a lot of information about the militarised landscape. WWI played a key role in the development of aerial photography, since pilots making those pictures became the eyes of the army and replaced the traditional observers. Aerial photography was recognised as a new ‘weapon’ and especially used to observe the situation of the trenches in the non-dynamic battlefield in Flanders Fields. Also trench maps were produced as overlay on topographic maps. Last, the British army produced maps of the battlefields and hinterland, using their own symbols, categorization and place names. In this study, the different military cartographic sources are used to analyse how the landscape was influenced

and changed by the military activities during WWI, but also how the landscape determined the military strategies. First, special attention will go to the information (content and quality) represented on the military cartographic sources and their potentiality to study the landscape dynamics during the war period. Second, the landscape changes in the war period will be assessed to understand the overall dynamics before, during, and after WWI for a study area around the city of Diksmuide. The different cartographic sources are integrated into a GIS-database. Based on the spatial and temporal changes in the study area, different landscape trajectories will be defined, referring to different military activities and their impacts on the landscape. These trajectories will be compared with the trenches and bunkers recognised on the aerial photographs. Finally, a 3D-visualisation of the military landscape is reconstructed by draping the WWI-aerial photographs on the LiDAR elevation model, to provide a better understanding of the conflict landscape.