AI in deformation analysis of historic quay walls in the Netherlands

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SUMMARY

Dutch urban areas like in the city of Amsterdam are well known for their historic canals. Lesser-known is that maintenance of the surrounding quay walls is often overdue. Deformation of quay walls is the best indication that a problem with the quay wall is developing, that might ultimately result in collapse. Because it is impossible to regularly measure all quay walls with traditional surveying equipment at acceptable costs, Antea Group has started the development of a new technique. In photo images, quays are mathematically compared with the nearby facades in order to find deformations of the quay with millimeter precision. This method will enable us to carry out measurements and to do risk assessment on all quay walls in the municipality of Amsterdam faster and at substantially lower costs than the current methods.

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