The time course of visuospatial information in drawing from memory

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Abstract: A number of studies indicate that eye movements play an integral role in visuospatial memory during perceptual-motor tasks like making a sandwich or drawing a recently perceived scene from short-term memory. The present study analyzed spatial distributions of eye movements to test the decay of visuospatial memory and its effect on perceptual-motor task performance. Participants viewed images of natural scenes for 30 seconds each, and after each image was removed for either a 15 or 30 second delay, participants drew the image from memory. Results showed that eye movements during drawing became less like those during viewing after the longer delay compared with the shorter one. This decoupling of eye movements was also reflected in performance, in that drawings were nominally less similar to their corresponding images after the longer delay period.