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LASER SCANNING OF A MONOLITHIC COLUMN DURING PROCESSING IN MIDDLE EGYPT

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Abstract. From ancient quarries around Akoris in Middle Egypt, which belong to the Ptolemaic and Roman periods, the stone blocks could be carried to the working area located in the outside of the city. Those blocks included a giant monolithic column measured approximately 14m in length, which had been cracked for reasons unknown and must have contributed to disuse of monolith. The first deal is a comparison of plans drawn by the point clouds by laser scanning with those coming from plane-tabling, which had been one of popular methods for measuring in the last century. This part shows how the laser scanning technology is useful in far better measuring and documentation of the site. The second discuss is about a detailed assessment of the procedure of processing through the observation of chisel marks and the detail analysis about the 3 dimensional data. In the result, we are succeed to show the restoration of the procedure of the proceedings using guidelines and a wooden curve since we concentrate attention on the point of abstracting the centre line and shaving the surface into the round shape.

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