new suggestion of a low-angle impact that would create an oblique basin. This new resolution provides greater motivation for this project, as our findings lend support to this idea. The other major theory regarding the cause of the crustal dichotomy is endogenic, and requires a first-order mantle convection cell. There is no reason to expect a similar crater retention age within and outside the influence of this mantle convection cell because if the mantle had been recycled to resurface the lowlands, the highlands would be unaffected. That our results show clear correlation on either side of the dichotomy boundary places doubt on an endogenic process. The crater retention ages derived in this study reflect a single event that resurfaced much of the Martian terrain, from the lowlands well into the highlands. Our study of crater retention ages for several small regions of Mars has proven useful in providing insight into the full extent of the event that created the crustal dichotomy seen on its surface. More comprehensive results would require a comparison of these localized regional studies with highland and lowland CRAs derived from a global population of all visible craters, QCDs, and CTAs inside and outside the proposed rim. This is a work in progress by M.A. Wyant.

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