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## Abstract

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## Keywords

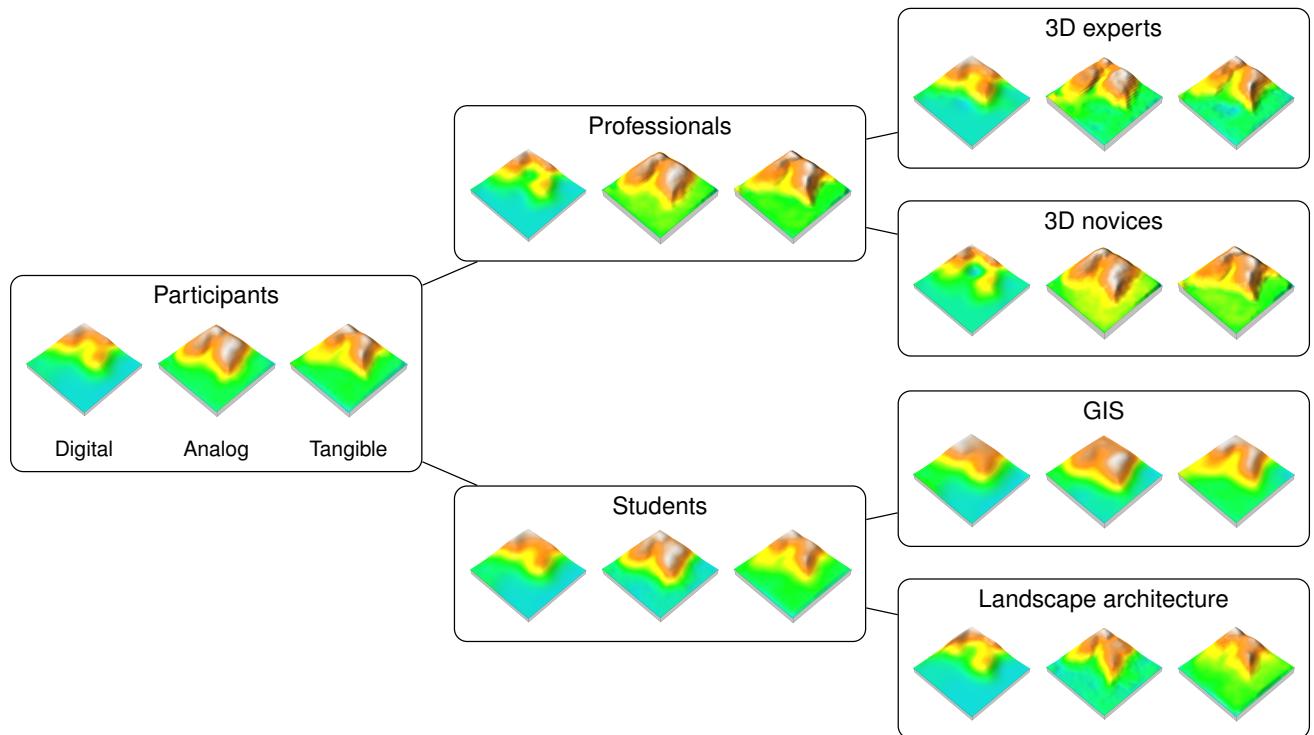
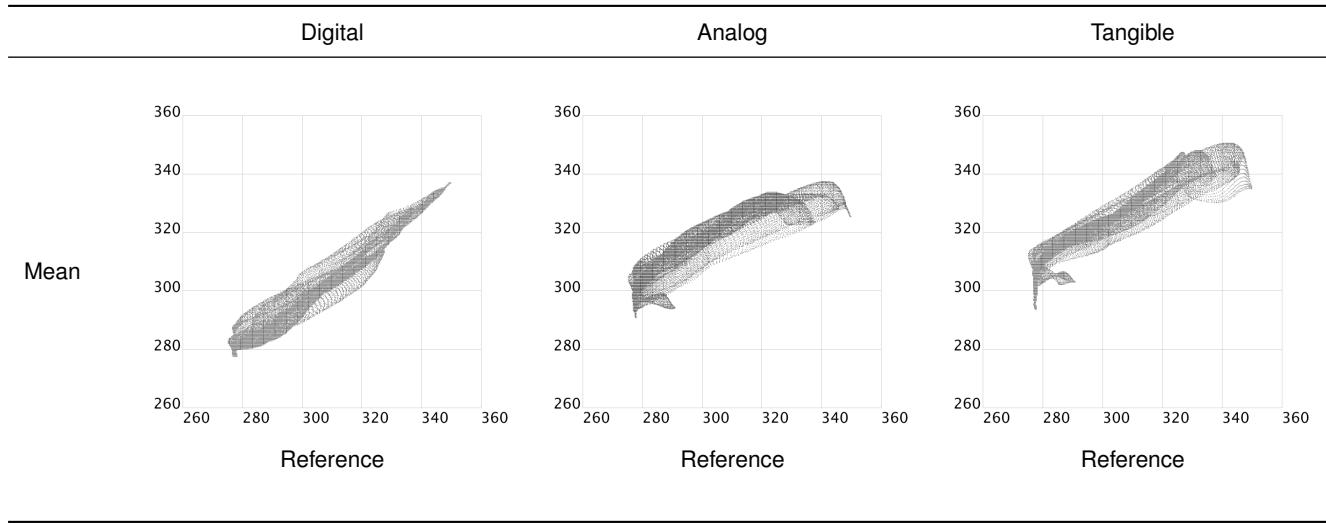
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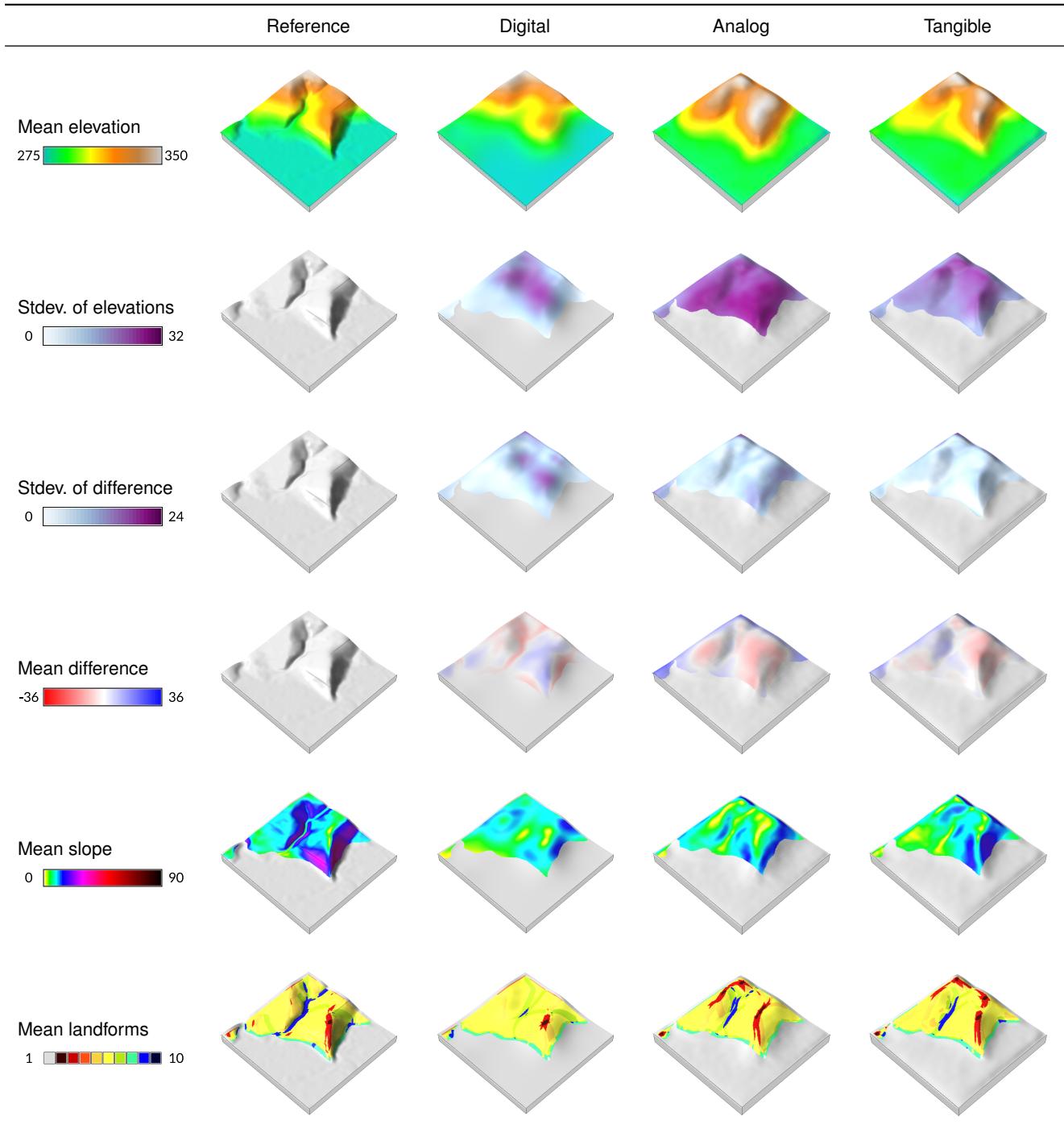
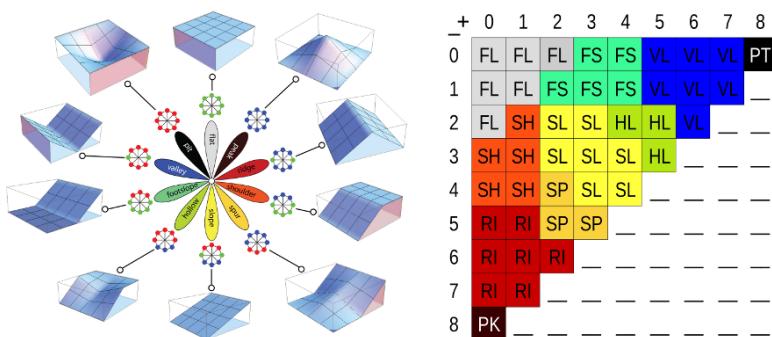
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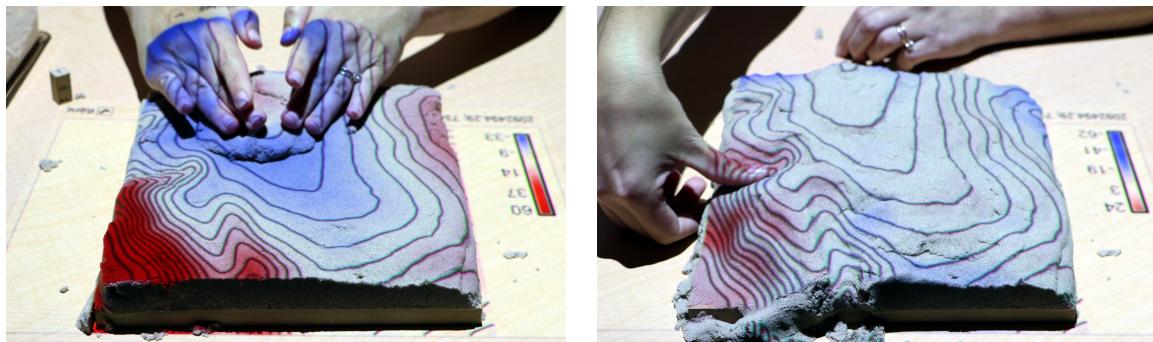
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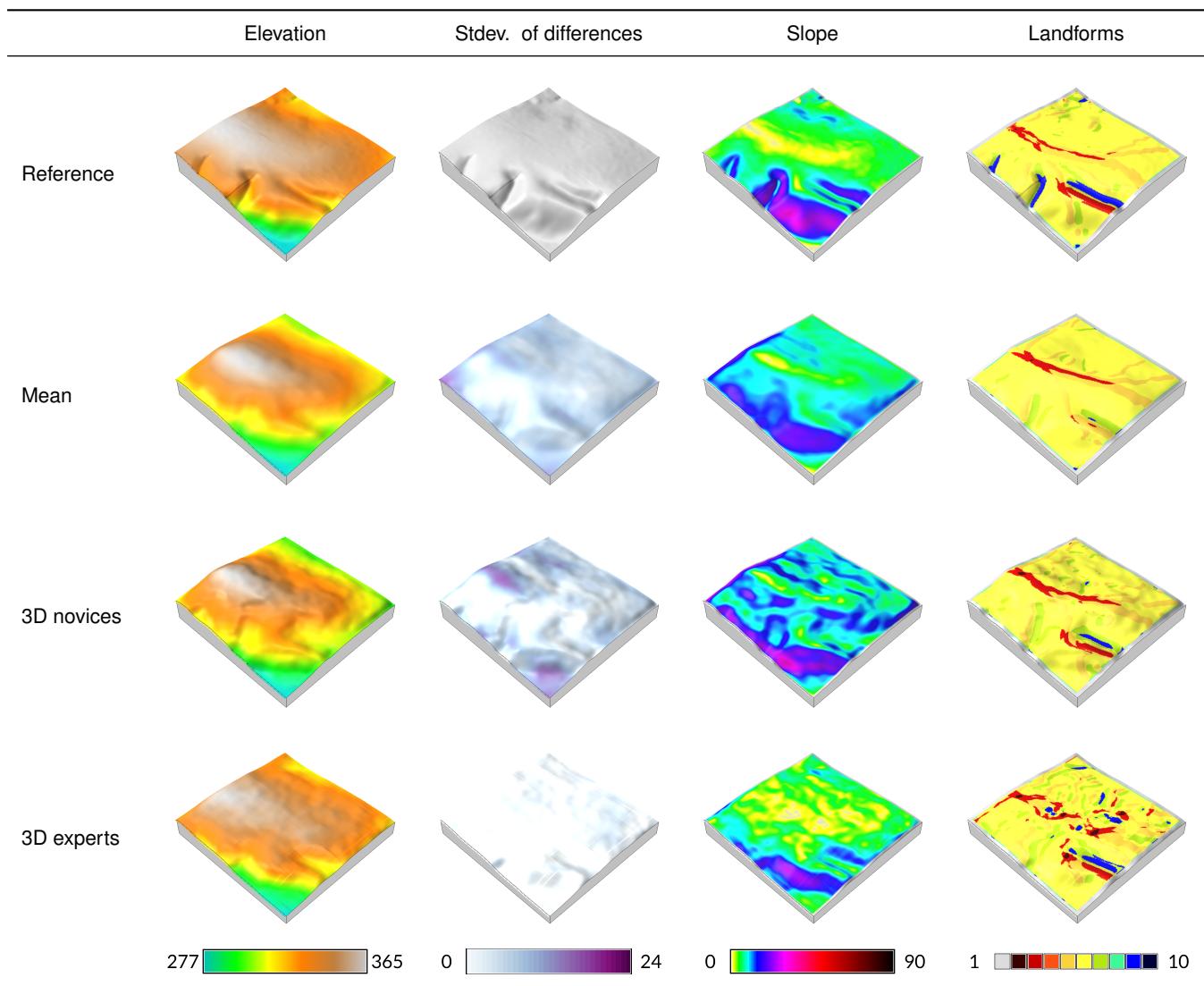
**Table 1.** Bivariate scatterplots of elevation values**Figure 1.** Pairwise comparison of the mean digital elevation models by category of participants

**Table 2.** Topographic experiment: maps of per-cell statistics and geospatial analyses draped over 3D topography for all participants**Table 3.** Landforms identified by *r.geomorphon*: 1) flat, 2) peak, 3) ridge, 4) shoulder, 5) spur, 6) slope, 7) hollow, 8) footslope, 9) valley, and 10) depression. Source: ?.

**Table 4.** Cut-and-fill experiment: a participant sculpts the study landscape using Tangible Landscape's difference analytic, which shows where to add sand (blue) and remove sand (red).

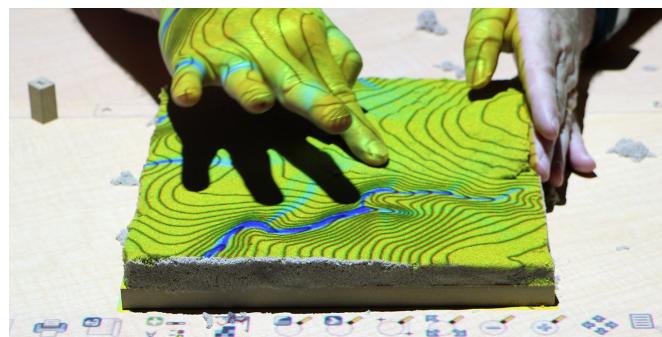
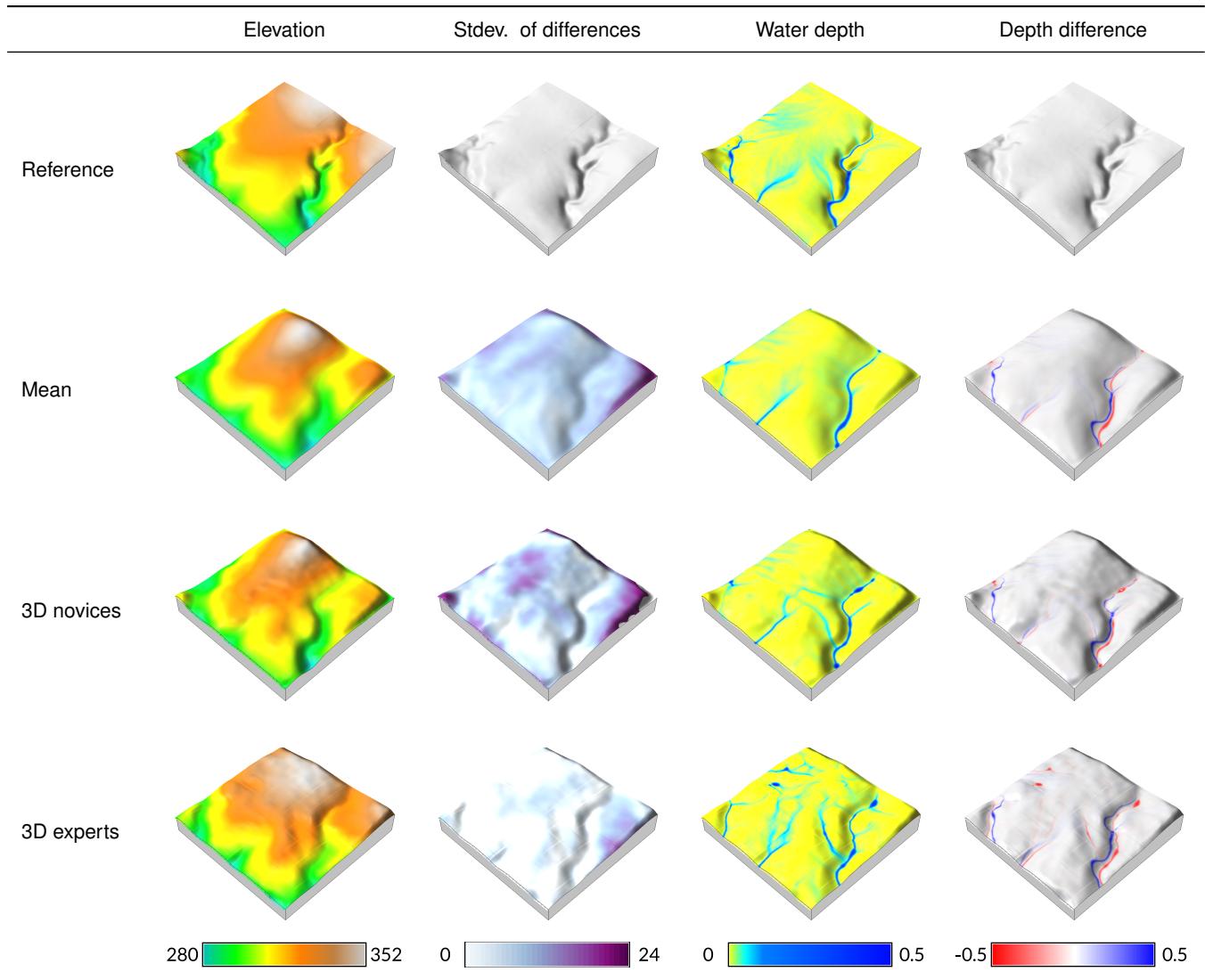


**Table 5.** Cut-and-fill experiment: maps of per-cell statistics and geospatial analyses draped over a 3D rendering of the topography for all participants, 3D modeling novices, and 3D modeling experts



**Table 6.** Cut-and-fill experiment: percent cells

Method	Concentrated flow		Ridges		Valleys	
	Reference	Mean	Reference	Mean	Reference	Mean
Difference	1.94	0.90	4.27	2.93	2.96	0.13

**Table 7.** Water flow experiment: A participant sculpts the study landscape using Tangible Landscape's water flow analytic.**Table 8.** Water flow experiment: maps of per-cell statistics and geospatial analyses draped over a 3D rendering of the topography for all participants, 3D modeling novices, and 3D experts**Table 9.** Water flow experiment: percent cells

Method	Concentrated flow		Ridges		Valleys	
	Reference	Mean	Reference	Mean	Reference	Mean
Water flow	3.28	2.26	1.18	2.99	4.77	3.70