Embodied Spatial Cognition in Tangible Computing

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CCS Concepts: •**Human-centered computing** → **Human computer interaction (HCI); Laboratory experiments;**

Additional Key Words and Phrases: Human-computer interaction, tangible interfaces, interaction design, physical computation, embodied cognition, spatial thinking, geospatial modeling

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Table I. Percent cells with ridges

Method	Reference	Mean	Stdev
Difference	4.27	3.46	3.25

Table II. Percent cells

method	ridges		valleys	
	reference	mean	reference	mean
water flow	1.18	3.72	4.77	3.86

Table III. Minimum distance (ft)

method	concentrated flow		ridges		valleys	
	reference	mean	reference	mean	reference	mean
digital	0	12916	0	110419	0	98806
hand	0	10162	0	24005	0	676450
augmented	0	7121	0	19599	0	31401
difference	0	25073	0	35656	0	114378
water flow	0	28321	0	37918	0	26166

1. TABLES

Table IV. Percent cells

method	concentrated flow		ridges		valleys	
	reference	mean	reference	mean	reference	mean
digital	0.89	1.12	2.10	0.69	2.90	0.56
hand	0.89	0.80	2.10	4.00	2.90	1.66
augmented	0.89	0.77	2.10	4.13	2.90	1.48
difference	1.07	0.73	4.27	3.46	2.96	0.22
water flow	2.55	1.99	1.18	3.72	4.77	3.86

Table V. Minimum distance (ft)

method	concentrated flow		ridges		valleys	
	reference	mean	reference	mean	reference	mean
digital	0	12916	0	110419	0	98806
hand	0	10162	0	24005	0	676450
augmented	0	7121	0	19599	0	31401
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