Community science reveals insights into metal pollution and environmental justice

Matthew Dietrich[1*], Leah R. Wood[1], John T. Shukle[1], Angela Herrmann[1], Gabriel M. Filippelli[1,2]
[1] Department of Earth Sciences, Indiana University–Purdue University Indianapolis, Indianapolis, IN, USA
[2] Environmental Resilience Institute, Indiana University Bloomington, Bloomington, IN, USA

*Corresponding author email:
 mjdietri@iu.edu

Supplementary Document
Supplementary Text 1:

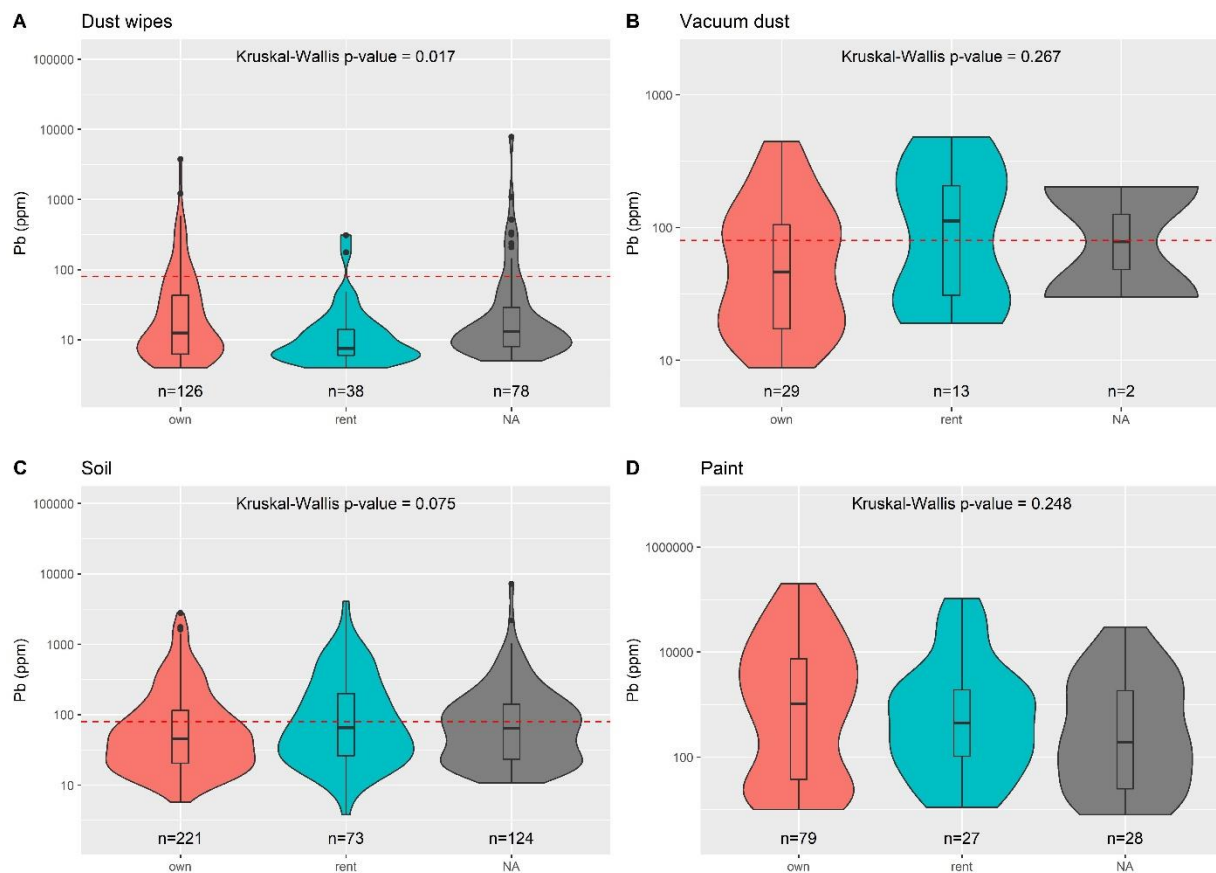Soil Mode—Three separate, 60-second beam scans with an Ag tube anode for the elements:

|											
P	S	Cl	K	Ca	Ti	Cr	Mn	Fe	Co	Ni	Cu
Zn	As	Se	Rb	Sr	Y	Zr	Nb	Mo	Ag	Cd	Sn
Sb	W	Hg	Pb	Bi	Th	U					

Supplementary Text 2:

Geochem mode—Two separate, 30-second beam scans with an Ag tube anode for the elements:

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Mg	Al	Si	P	S	Cl	Ca	Ti	V	Cr	Mn	Fe
Co	Ni	Cu	Zn	As	Se	Rb	Sr	Y	Zr	Nb	Mo
Ag	Cd	Sn	Sb	W	Hg	Pb	Bi	Th	U		

Fig. S1: Embedded boxplots within violin plots displaying the distributions of Pb concentrations (ppm or mg/kg) for (a) dust wipes, (b) vacuum dust, (c) soil, and (d) paint. The boxes represent the interquartile range (IQR) of 25th–75th percentiles of data, the horizontal line is the median, and the whiskers represent 1.5 times the IQR. Nonparametric Kruskal-Wallis tests of log10 transformed Pb concentrations between renter, owner, and N/A (no response) responses are also provided. The y-axes are transformed on a log10 scale, and the dashed red lines represent California's safe screening soil Pb level of 80 ppm.
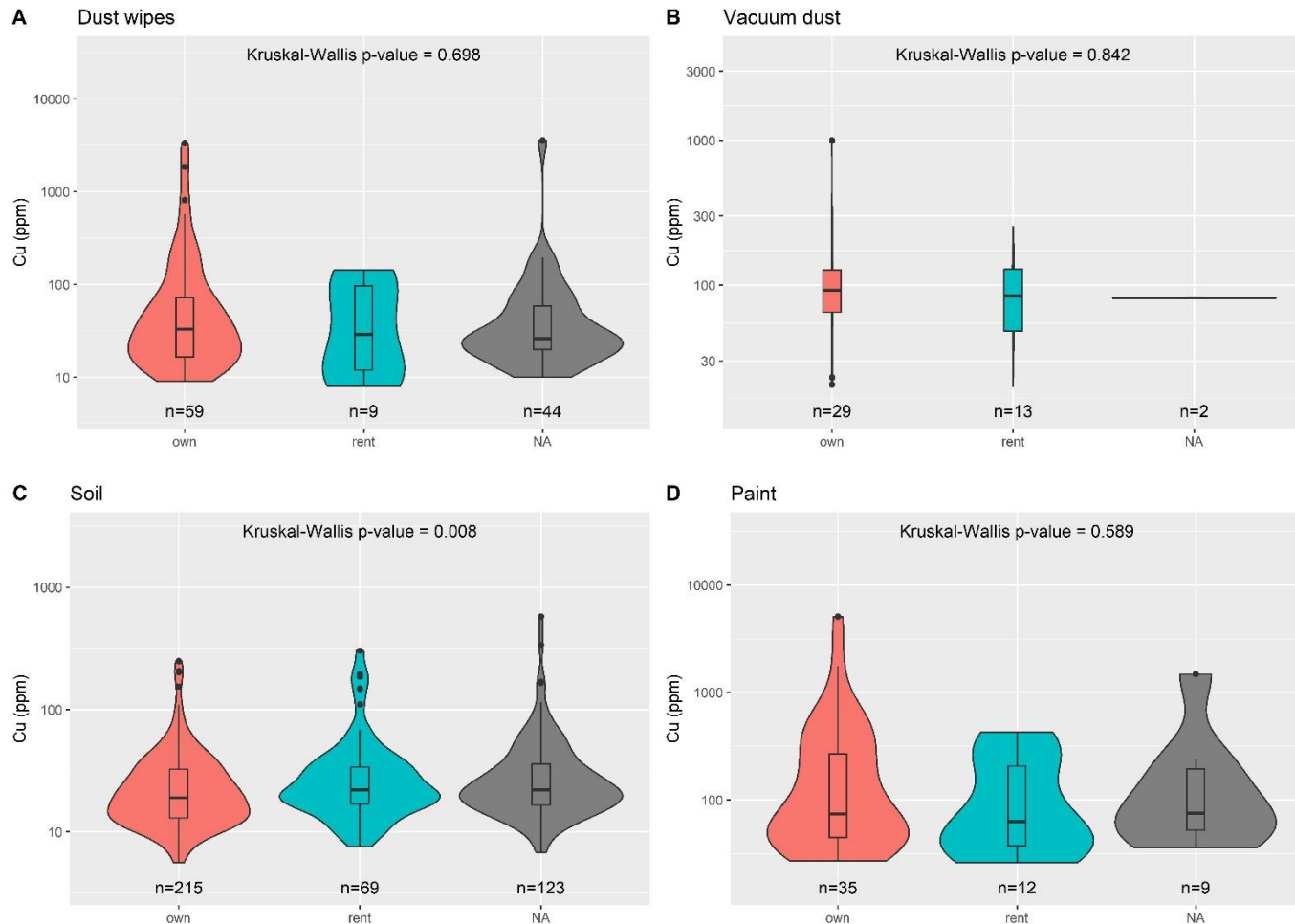
Fig. S2: Embedded boxplots within violin plots displaying the distributions of Cu concentrations (ppm or mg/kg) for (a) dust wipes, (b) vacuum dust, (c) soil, and (d) paint. The boxes represent the interquartile range (IQR) of 25th–75th percentiles of data, the horizontal line is the median, and the whiskers represent 1.5 times the IQR. Nonparametric Kruskal-Wallis tests of log10 transformed Cu concentrations between renter, owner, and N/A (no response) responses are also provided. The y-axes are transformed on a log10 scale.
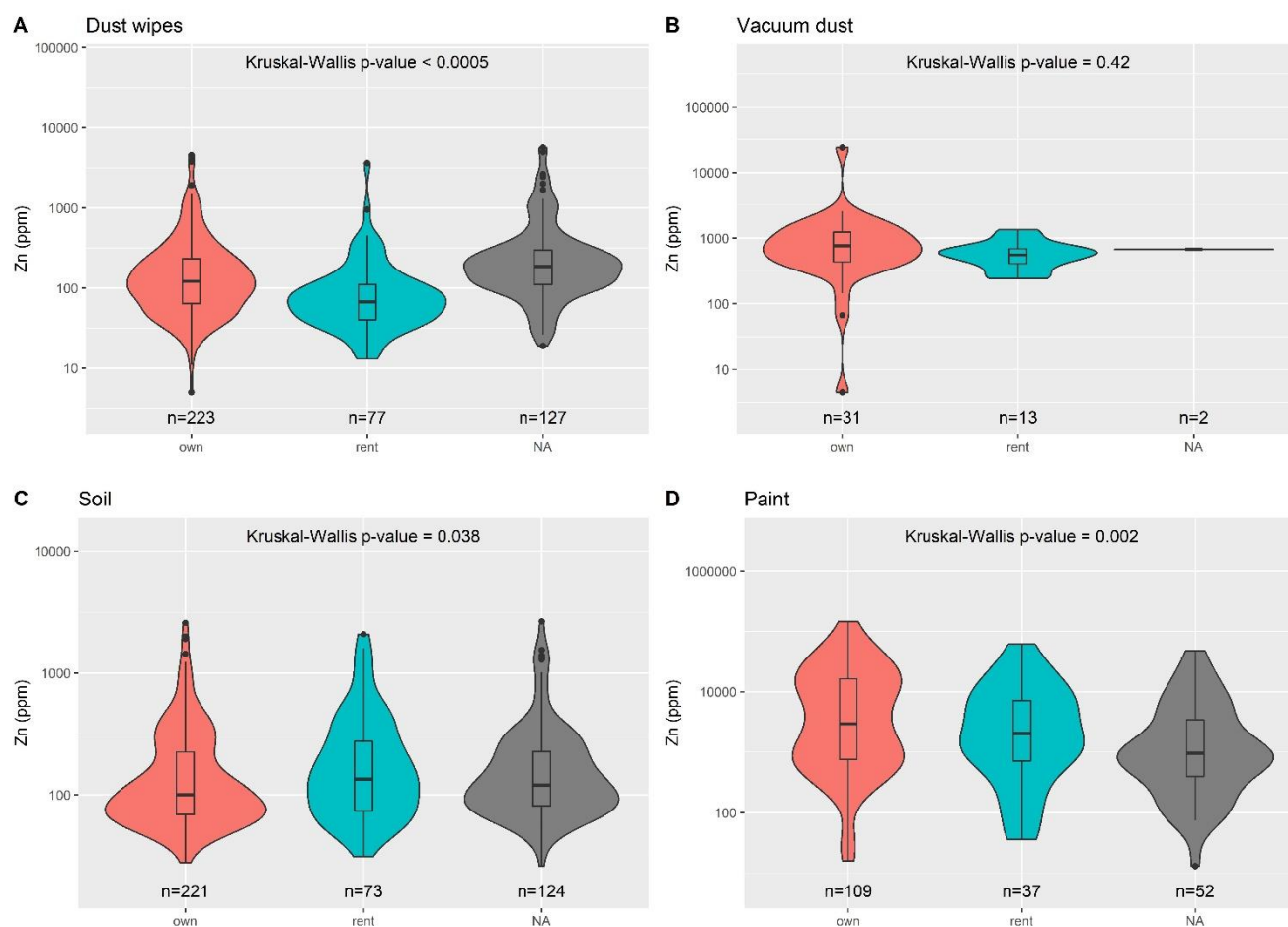
Fig. S3: Embedded boxplots within violin plots displaying the distributions of Zn concentrations (ppm or mg/kg) for (a) dust wipes, (b) vacuum dust, (c) soil, and (d) paint. The boxes represent the interquartile range (IQR) of 25th–75th percentiles of data, the horizontal line is the median, and the whiskers represent 1.5 times the IQR. Nonparametric Kruskal-Wallis tests of log10 transformed Zn concentrations between renter, owner, and N/A (no response) responses are also provided. The y-axes are transformed on a log10 scale.
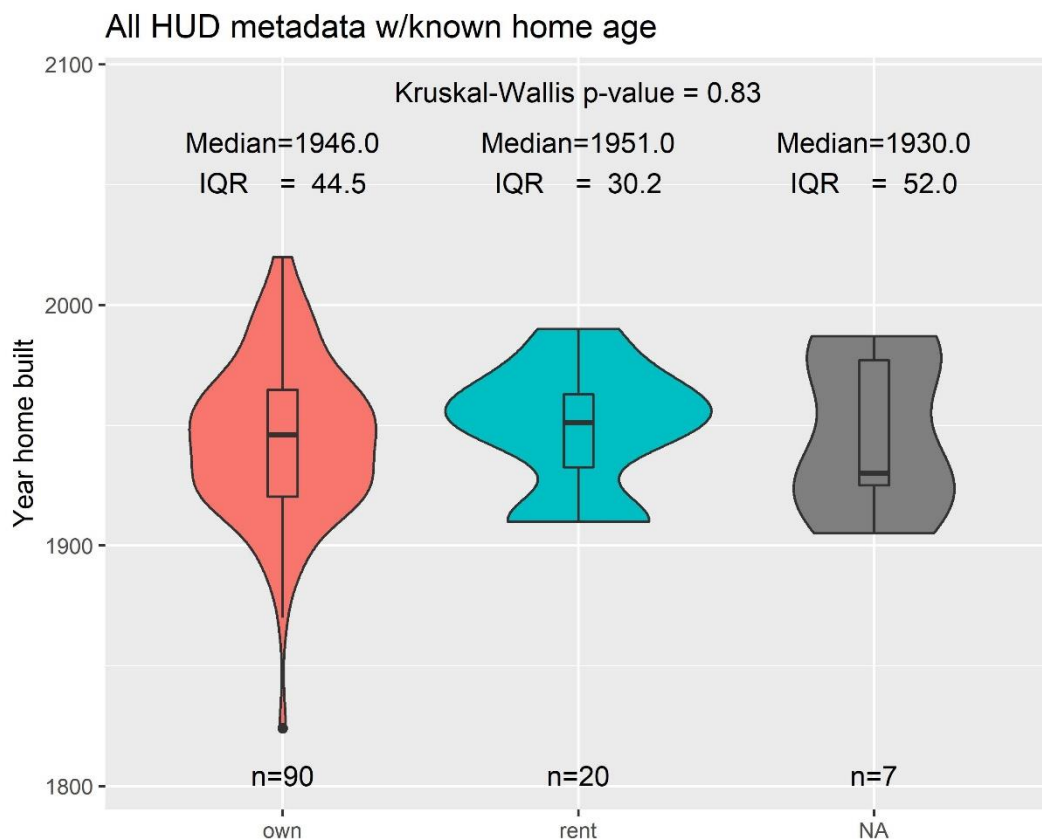
Fig. S4: Embedded boxplots within violin plots displaying the distributions of housing age based on rental, ownership, or N/A home status. The boxes represent the interquartile range (IQR) of 25th–75th percentiles of data, the horizontal line is the median, and the whiskers represent 1.5 times the IQR. A nonparametric Kruskal-Wallis test of housing age data between renter, owner, and N/A (no response) responses are also provided.

Table S1: Bulk XRF Zn, Cu, and Pb data (ppm or mg/kg), as well as participant questionnaire response data, XRF specs, and sampling type.

See Excel Supplementary File.