

# Loyalty vs. Heresy: Kitbashing and Materiality Negotiation in Tabletop Games

Runhua Zhao, Michele Newman

University of Washington  
1410 NE Campus Pkwy, Seattle, WA 98195  
[runhz@uw.edu](mailto:runhz@uw.edu), [mmn13@uw.edu](mailto:mmn13@uw.edu)

## KEYWORDS

Analog Games, Warhammer, Kitbashing, Materiality

## EXTENDED ABSTRACT

Scholars have long emphasized materiality as a key feature of tabletop games, highlighting the dynamic interplay among physical components, players, and spatial configurations (Germaine and Wake, 2023). Building on this tradition, this work positions games as active participants in the co-production of meaning rather than passive carriers of representation, drawing on perspectives such as vibrant materiality (Bennett, 2016). Within this orientation, analog games are understood as assemblages in which human intention and creativity, material affordances, and rule structures jointly configure meaning, including information experience (Germaine and Wake, 2023).

This abstract argues that kitbashing in tabletop games is an information practice in which players negotiate meaning through material modification under rule-based constraints. Kitbashing refers to the modification, recombination, conversion, or personalization of miniature figures by combining components from different kits, sculpting new elements, or incorporating player-made parts such as 3D-printed additions. Here, “information practice” refers to the processes through which players create, interpret, and stabilize meaning through interactions among material forms, rule systems, and social negotiation. This abstract further proposes that miniature bases function as material anchors: non-negotiable physical features that stabilize shared interpretation and gameplay consistency while still enabling creative expression.

In many strategy games, materiality carries the information of game mechanics, “the obstacles and affordances that govern how the game unfolds,” regardless of cultural contexts (Brian Upton, 2015, p. 10). Player interactions with terrains, miniatures, rulebooks, and physical spaces generate tensions around agency, authority, and interpretation. Player expressions — narrative, aesthetic, and strategic — must be continually negotiated with rule systems and community consensus. These negotiations reveal complex relationships among players, game mechanics, and institutional authorities such as tournament organizers (Carter et al., 2014). Within these complexities, players must determine how far their expressive choices can diverge from formal rules while maintaining shared understanding. However, the processes through which these complexities are shaped remain underexplored, particularly in relation to material modification. This gap limits our understanding of how crafting practices and mechanical constraints jointly shape information and play in tabletop ecosystems.

Proceedings of DiGRA 2026

© 2026 Authors & Digital Games Research Association DiGRA. Personal and educational classroom use of this paper is allowed, commercial use requires specific permission from the author.

To address this gap, this research examines kitbashing in *Warhammer 40,000* (Games Workshop, 1987) as a case study. The game provides a rich site for analysis because its tightly regulated rule system coexists with a vibrant culture of player-driven modification. Supported by a major company, with formal tournaments and extensive official miniature lines, it also maintains a large community of hobbyists who produce both official and customized figures. This enables systematic comparison between standardized and kitbashed miniatures. As a practice, kitbashing intervenes in the game's material language, allowing players to express identity, narrative intent, and aesthetic preferences while asserting interpretive ownership over their creations.

These tensions become particularly visible during kitbashing, where personal creativity must be balanced against complex rule systems (Carter et al., 2014). Each miniature occupies space on the battlefield, typically defined by its base size or physical dimensions. The form of a miniature conveys critical information about identity and capability, often through recognizable elements such as weapons that correspond to specific mechanics (Meriläinen et al., 2023). At the same time, institutional actors such as event organizers establish boundaries, determining whether kitbashed miniatures are valid in competitive contexts. Even in indie games such as *Turnip28*, where no official miniatures exist, rules still specify size constraints, reinforcing the importance of shared material standards (Turnip28, 2021).

In many *Warhammer 40,000* kitbashing practices, the base remains materially consistent with official models, establishing an irreducible constraint within the system. The base is closely tied to core mechanics that rely on spatial measurement, including movement, attack range, and objective control (Games Workshop, 2023). As a result, bases function as non-negotiable focus of materiality: while weapons, poses, and decorative elements may be altered, the base anchors the miniature within the game's mechanical framework. In some cases, players may use visually ambiguous components and declare their meaning before play, highlighting the negotiated nature of representation.

Bases thus operate as material anchors that ground negotiation between player creativity and rule systems. For example, visibility rules in competitive play determine whether a miniature can be targeted based on line of sight, imposing constraints on size and shape (Games Workshop, 2004). For miniatures without bases, measurement rules often rely on the miniature's extremities, reinforcing the need for approximate consistency with official dimensions. These practices demonstrate how shared standards emerge through a combination of formal rules and community agreement.

A kitbashed miniature, therefore, becomes a negotiated material information artifact: flexible enough to support individual expression yet stable enough to maintain consensus across gameplay contexts. Kitbashing can be understood as an information practice that generates creative solutions within rule-based systems in which players and games co-produce meaning. In this sense, it aligns with Buckland's notion of informing (1991), as well as Upton's (2015) emphasis on the mutual shaping of systems and players.

This perspective calls for a framework that treats the materiality of miniatures as both an information system (Järvinen, 2007) and a process of becoming (Ingold, 2012). Such a framework foregrounds the material independence of miniature components, which exist both within and beyond gameplay contexts as craft artifacts.

Ultimately, this project positions kitbashing not merely as aesthetic customization but as a structured information practice. It reveals how material constraints, rule systems, and player creativity co-produce meaning in analog games. By foregrounding miniature bases as material anchors, the study offers a lens for understanding how stability and flexibility

are negotiated in craft-based gaming systems, and how information emerges through the interplay of materiality and play. Future research can explore players' perspectives and extend the research to broader tabletop games or craft spaces.

## ACKNOWLEDGMENTS

We would like to thank all our reviewers and the conference organizers for their feedback and support.

Special thanks to Aleksey Morozov, Pavel Samsonov, and Tianyi Zhang for all the paint nights and Warhammer games. Special thanks to Gareth and Todd for amazing kitbashing inspirations and tips. The first author is also grateful to Dr. Stephen Groening for encouraging them to create miniatures as a way to preserve their sanity during the PhD program. The second author also thanks Dustin Walton and Missy for their continued support and late nights talking about tabletop roleplaying games. Finally, a very special thank-you to our lab and amazing advisors, Dr. Jin Ha Lee and Dr. Jason Yip, for taking us to a Warhammer shop in Yokohama — an adventure made even more memorable when we discovered it was closed for a holiday!

## REFERENCES

- Bennett, Jane. 2010. *Vibrant Matter: A Political Ecology of Things*. Durham: Duke University Press.
- Buckland, Michael K. 1991. "Information as Thing." *Journal of the Association for Information Science and Technology* 42 (5). University of California: 351–60.
- Carter, M., Gibbs, M., and Harrop, M. (2014). Drafting an army: The playful pastime of Warhammer 40,000. *Games and Culture*, 9(2), 122-147.
- FitzGerald, Max. 2024. *Turnip28*. Tabletop game. United Kingdom.
- Games Workshop. 1987. *Warhammer 40,000*. Tabletop game. United Kingdom: Games Workshop.
- Games Workshop. 2004. *Warhammer 40,000 Rulebook*. 4<sup>th</sup> ed. London; Games Workshop.
- Games Workshop. 2023. *Warhammer 40,000: Core Book*. 10<sup>th</sup> ed. London; Games Workshop.
- Germaine, Chloé, and Paul Wake, eds. 2023. *Material Game Studies: A Philosophy of Analogue Play*. London; Bloomsbury Academic.
- Ingold, Tim. 2012. "Toward an Ecology of Materials." Edited by D Brenneis and PT Ellison. *Annual Review of Anthropology* 41 (1). Palo Alto: Annual Reviews: 427–42.
- Järvinen, A. (2007), "Games Without Frontiers: Theories and Methods for Game Studies and Design", PhD thesis, University of Tampere, Tampere.
- Meriläinen et al., 2023. "Lead Fantasies: The Making, Meaning and Materiality of Miniatures." In *Material Game Studies: A Philosophy of Analogue Play* by Chloé Germaine and Paul Wake. Bloomsbury, 2023.
- Turnip28, 2021. *Swollen Magglette*. Issue One. Turnip28.
- Upton, Brian. 2015. *The Aesthetic of Play*. 1st ed. Cambridge, Mass: The MIT Press.