

Consumer Insight Maps: The Map as Story Platform in the Design Process

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ABSTRACT It is now common practice to conclude the research or analysis phase of a design project with a “framework” to capture and describe the stable, structural aspects of the research findings. By definition, frameworks tend towards abstraction and simplification, thereby helping the core design team distill their insights. The downside of a framework is that abstraction and simplification make the work less useful and communicative to anyone who has not experienced the richness and full context of the data. In the conventional design process, this poses little problem, as the people who develop the tools also use the tools. In today’s more open design and innovation processes that engage multiple stakeholders, the framework’s abstraction is often confusing and can create a barrier to diffusion and implementation of ideas.

This paper explores an alternative approach to qualitative synthesis that uses the structural and cognitive affordances of *maps* to organize and display consumer insights while preserving critical detail. For convenience we call these Consumer Maps. By their nature, maps present key features in context, allowing the reader to orient to the territory, and deliver enough density to support macro and micro readings, while permitting the user to be self-directed in the process. In this paper, we explore Consumer Maps that share all of these attributes, and evaluate their potential as a tool for design and communication.

Geographic maps have predictable organizing structures—latitude, longitude, North, South, East, West—that create familiarity and allow end users to process the content. What might be the equivalent for Consumer Maps? In this paper, we consider four candidate structures—zones, elevations, topographies, and blueprints—that design practitioners can use to develop Consumer Maps as powerful, visual story platforms that speak to diverse stakeholders.

INTRODUCTION Design practice today is an increasingly open process. Complex challenges and organizational circumstances lead to expanding numbers of project stakeholders, the targeted engagement of more specialists, and core teams that have fewer people and less attention. Not surprisingly, this creates significant new communication challenges. Project leaders must now connect to more people at key moments in the design and development process, but these individuals will not possess a full scope of the project and may have limited contextual understanding of the content.

The conventional approach to capturing and distilling design insights is to create a summarizing “framework” that simplifies (and frequently visualizes, in diagram form) the high-level findings and linkages. The framework is an important point of convergence for core team members. However, in an open process, frameworks can lose their effectiveness. The insights they encode are only accessible with assistance.

The paradox of the framework is that while it simplifies and sharpens meaning for an expert audience, it obscures and impedes meaning for the broader audience—an audience that may include stakeholders that are key to successful implementation.

This paper explores one approach to help resolve this paradox: Consumer Insight Maps. By employing the tools and perspective of physical geography, Consumer Insight Maps promote emotional contact with research, showcase important complexity in consumers’ lives and support persistence of the consumer voice throughout (and often beyond) a design process.

THE MAP AS COMMUNICATION PLATFORM

There is something about maps that is so fundamental, so basic to our cognitive processes and the way we think about the world, that the term is used metaphorically in just about every academic discipline.¹ In fact, we use the term “map” to describe almost any activity that concerns the organizing or planning of things that are complicated. But if the act of mapping seems innate, the understanding of maps is not.

Comprehending maps is a complex process of perception (the way our eyes feed information to the brain) and cognition (the way our brains interpret information, the actual act of “sense-making”). Successful maps have two central features that aid this process.

First, maps present data *in context*, differentiating them from diagrams. This point is significant: most data representations show us data out-of-context, cutting away important details that provide nuance and interpretation (flattening the depth), or separating the data out from

adjacent data that create important contrast and context (limiting the spread). Showing data in context, therefore, is critical to efficient and accurate cognition.

Second, maps have an *underlying structure* or coordinate system that organizes the information into a continuous, navigable topography with defined boundaries and details. This structure is often overlaid with data that has been visually coded (by color, shape, size, etc.). Both the underlying structure and visual coding are important because they can accelerate (or hinder) the viewer's perception of the data.

As visual coding is a native skill for designers, the rest of this paper focuses on how designers might conceive new structures to convey qualitative insights in context.

CREATING CONSUMER MAPS: THE CHALLENGE OF STRUCTURE

Making the content of a map accessible and useful requires an underlying structure that feels familiar, allows the viewer to orient quickly and to be self-directed in their reading. Geographic maps have predictable organizing structures—latitude, longitude, North, South, East and West—that create familiarity and allow end users to process the content quickly. What might be the equivalent structures for Consumer Maps?

Over the past twenty years, it has become conventional in design research to use temporal maps to analyze and illustrate customer behaviors and experiences. As a result, practitioners now have standard time-based visualizations—experience maps, journey maps and, more recently, Stuart Karten's mode maps²—that can be deployed to tell interesting research stories without overwhelming amounts of labor. These early explorations have solidified into repeatable design tools.

But what about *spatial* constructs? Spatial reasoning is something most of us do instinctively.³ Below are four spatial structures borrowed from cartographic and architectural conventions—*zones*, *topographies*, *elevations* and *blueprints*. Each of these has been used to shape research insights into Consumer Maps.

FIGURE 1A:

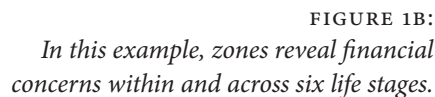
Zones present data that is unified in topic but discrete in kind.

1. ZONES

Zones support discreet data and clusters of data.

Qualitative analysis tends to yield collections of interesting and important findings that may not easily form a grand unified theory. Zones are well-suited to present data that is unified in topic but discreet in kind. Zones on a page create, in effect, information “districts” of content. Shape and size of the zones can signal importance or quantity of data, and adjacencies can signal relationships between related content. Zones can contain sub-zones, permitting different rules and variable usage that need not be standardized. This is a highly flexible approach to structure that also works well with existing generic analysis frameworks (see FIGURE 1A below and FIGURE 1B on the following page).

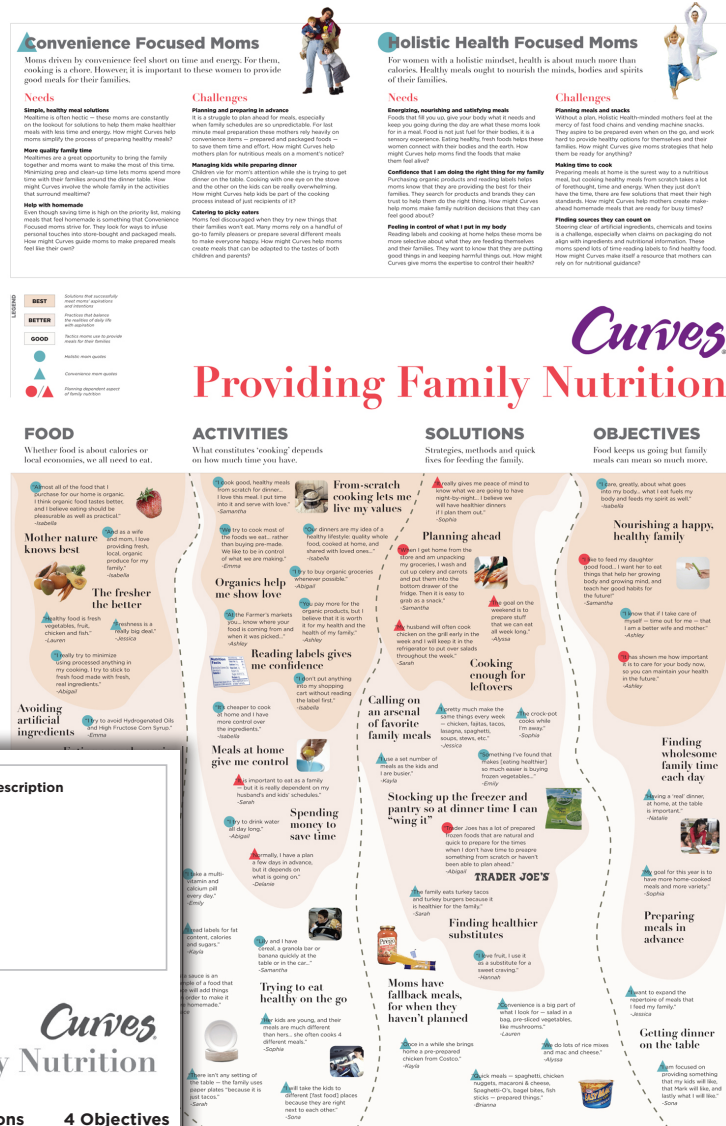
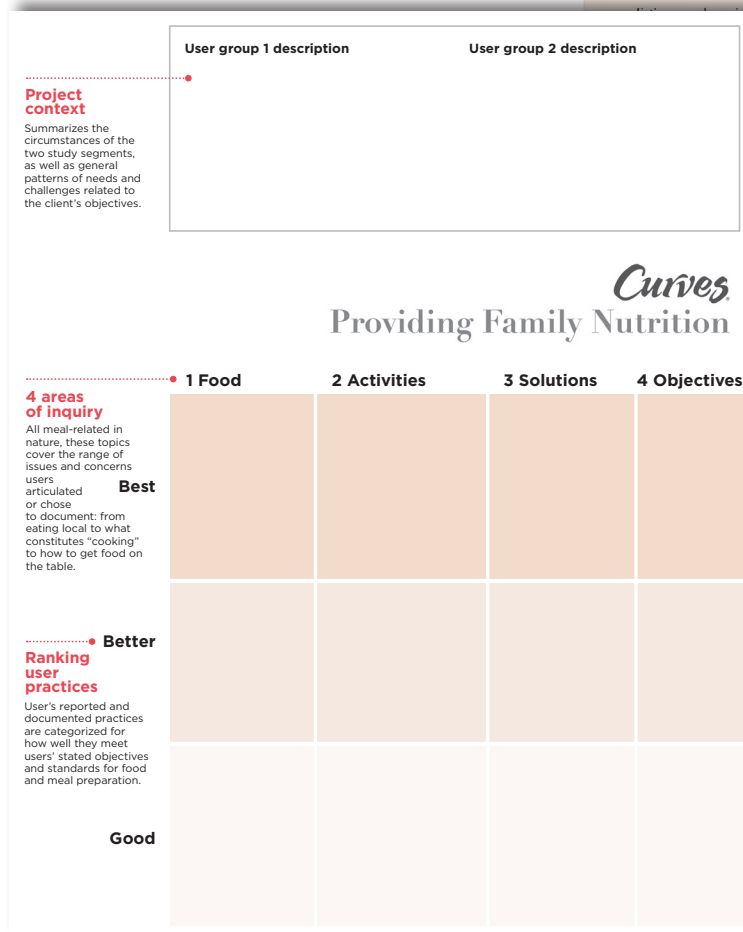


[illegible]

2. TOPOGRAPHIES

Topographies support data that fall in a series, on a spectrum, or a scale. A team on a tight timeline will often revert to simple analytic approaches, e.g., ranking or ordering user behaviors using loose metrics like good/better/best or positive/negative/neutral. By “matrixing” a generic ranking system with project-specific points of interest, the team can break big data into smaller, more organized data collections. With an underlying grid established, the analyst can plot diverse elements — stories, images, examples, quotes—to create a contiguous field of data over an ordered background using proximity and separation to generate a meaningful topography.

FIGURE 2:
Topographic visualization is deployed here to chart moms' nutrition practices.



3. ELEVATIONS

Elevations compare data with hierarchy or layers of insight. For study purposes, design teams often place a client-articulated challenge, say online shopping for home and family. This opens up the aperture on the design problem, and reveals layers of context and meaning to generate a more holistic picture. Elevations, a convention used in cartography and architecture, are well-suited to convey layers, hierarchy, and progression in data. Elevations are typically used to display levels of structure, but can also show progression along conceptual dimensions. Common progressions that are useful in analysis and amenable to elevation structures include: concrete to abstract (user objectives); basic to most advanced (user practices); and essential to aspirational (user wants and needs).

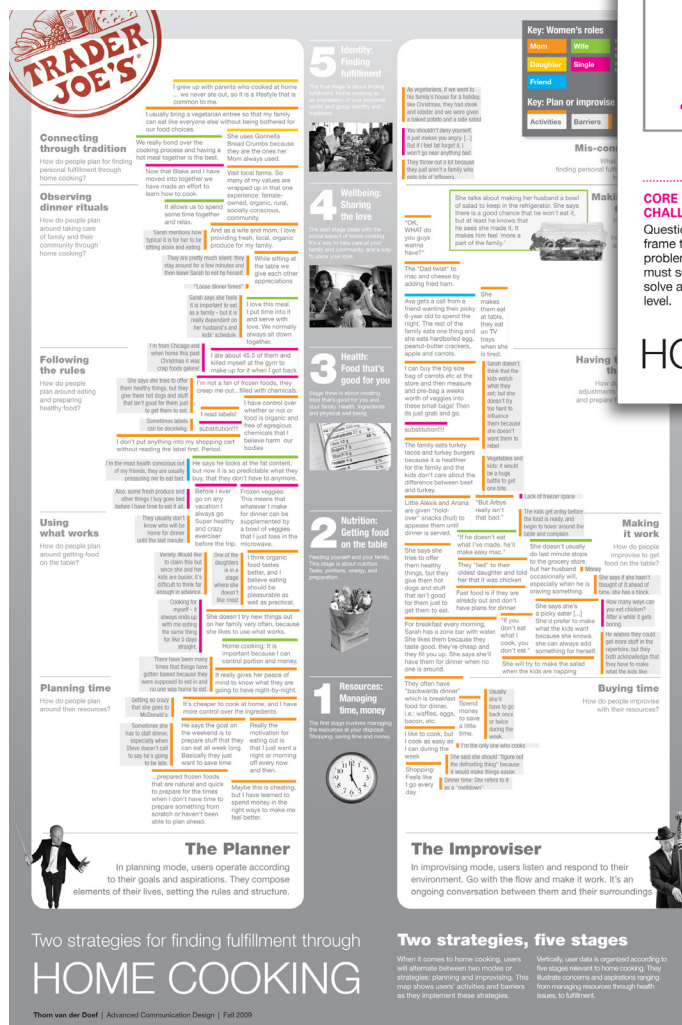


FIGURE 3: An elevation can be used to describe five levels of objectives present when cooking for family.

This Consumer Map gives insight into the complex physical and emotional challenges of home cooking. The horizontal axis organizes two modes of nightly meal prep (gleaned from research). The vertical axis outlines five levels of user objectives, ranging from concrete—getting dinner on the table—to most abstract—building family identity and fulfillment through cooking.

The map elements are stories and quotes from research participants, with added visual coding to distinguish meal prep *factors* (horizontal lines) from *barriers* (vertical lines); additionally, line color distinguishes different family members.

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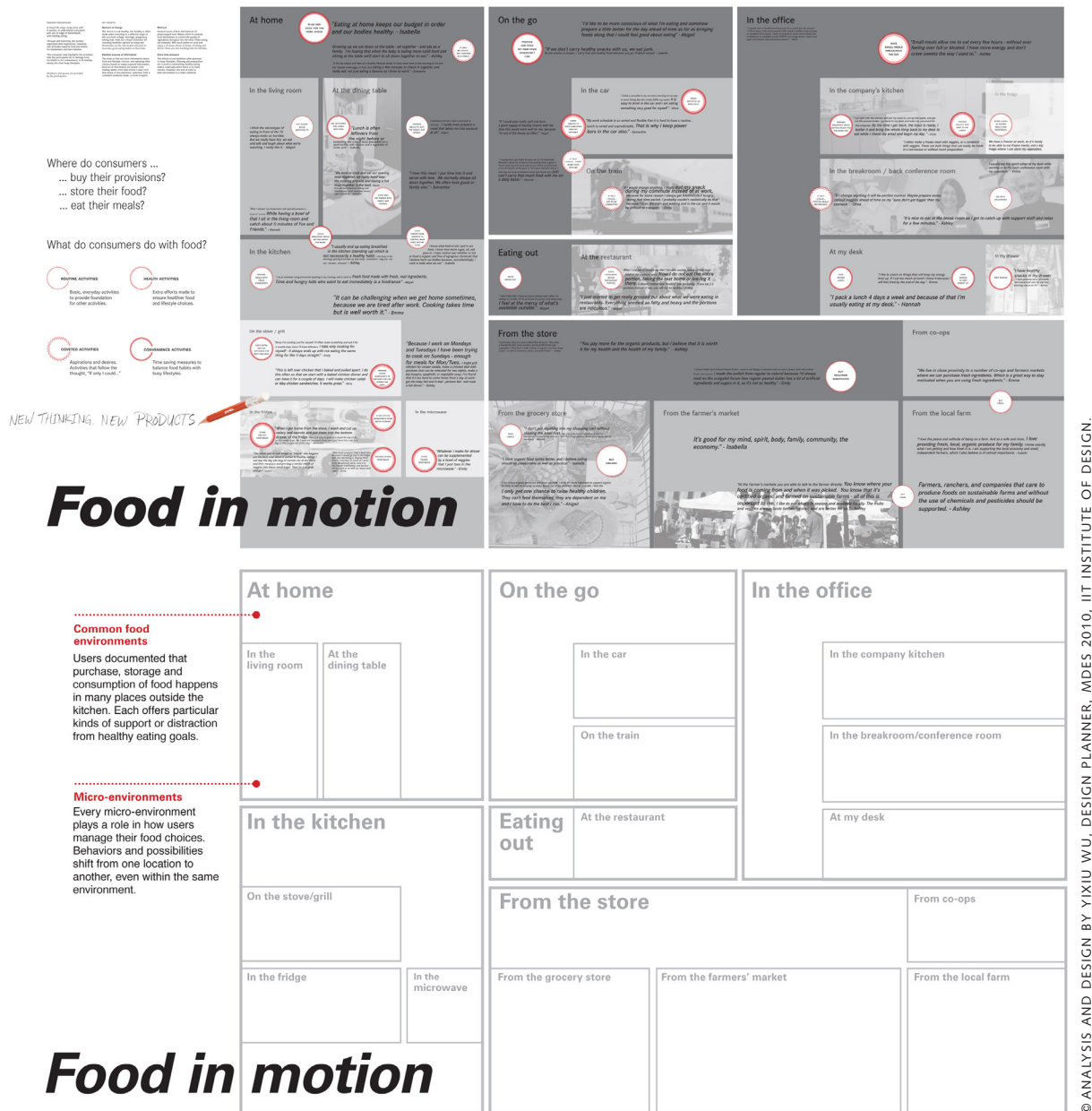


FIGURE 4: This blueprint tracks the ways and places people manage their food.

4. BLUEPRINTS

Blueprints help track data occurring in multiple environments. In our last example, the convention of the blueprint—a term most literally taken from architecture—permits teams to organize insight according to actual physical space. Blueprints permit teams to anchor important user behaviors to specific environments, as well as to look across those environments for patterns and opportunities. Like zones, blueprints enclose data within defined boundaries, drawing the viewer's eyes to collected segments,

rather than to individual units of data. But blueprints can be used metaphorically as well. Rather than literally mapping the territory, blueprints can leverage size, shape, and position on the page to reflect insight. In one instance position on the page can signal the importance of a space. In another, size might suggest intensity of activity levels. Blueprints, unlike literal maps, can collapse distance or other geographic realities that don't matter to the study at hand, freeing up space to present more data.

After asking study participants to document their eating activities for ten days, this Consumer Map organizes that data by reported locations for food purchase, prep and consumption. The blueprint clusters seventeen reported food activity locations into five larger locations. The structure is populated with map elements in the form of user pictures, stories, and quotes. Food-related activities are called out in red circles; they are visually coded by line pattern to distinguish between routine, healthy, convenience, and coveted activities and then coded again by size to signal importance.

CONCLUSION

Consumer Insight Maps are designed to take the complexity of consumers' lives—the dense, messy, interconnected ambitions, activities, anxieties that thread throughout their days—and *flatten them out* so that we might examine them more systematically.

But in addition to organizing findings, Insight maps have more general utility to design teams and the organizations that hire them. They:

1. *Externalize what we know*—take all the disjointed facts and scattered insights and push them together.
2. *Put everything in one place*—allow us to see everything all at once (a powerful advantage over sequential tools such as design briefs or presentation decks).
3. *Organize that information* by some larger system that helps clarify the relationship between bits of information.
4. *Create a whole* from parts and pieces, integrating separate but related elements into a cohesive construct that provides a new way to analyze and comprehend many variables.
5. *Allow us to share* that information with others, supports discussion and collective analysis.
6. *Support quick retrieval of information* and repeated referencing because it's externalized into one visual plane.
7. *Enable the creation of many itineraries* from the same topographic understanding; internal and external teams can revisit the map over time and

derive new and significant information as their focus and tasks evolve.

8. *Create a permanent record* that can be referred to and added to over time. The map grows as the team understanding grows. In today's dynamic environments, data persistence is highly valuable.

The central challenge in developing Consumer Insight Maps as a broadly useful tool in the design process is to make them easier and more efficient to produce. Consumer Insight Maps today are precious, singular artifacts. In the future, with a good understanding of how different structures might be best suited for particular types of findings and particular types of organizational users, Consumer Insight Maps can become a mainstay of the open design process.

BIOGRAPHY

Kim Erwin is a visiting associate professor at the IIT Institute of Design since 2009, having been a member of the school's adjunct faculty since 2006. In her fifteen years of practice, Kim has specialized in the communication and application of strategic user research, first with innovation planning firm Doblin and then as an independent consultant. Her research and teaching focus on the most information-intensive aspects of design practice—in particular the conversion of user research and secondary research into stories and frameworks that designers and business leaders can use as a basis for action.

NOTES

1 Arthur H. Robinson and Barbara Bartz Petchenik, *The Nature of Maps: Essays toward Understanding Maps and Mapping* (Chicago: University of Chicago Press, 1976), 1–22.

2 Helen Walters, "Design Research Conference Report," *Businessweek.com* (September 24, 2007).

3 Arthur H. Robinson and Barbara Bartz Petchenik, *The Nature of Maps*, 86.