Analysis

‘Design’ goes Dutch

Army considerations for unconventional planning and sensemaking

Ben Zweibelson

What is the ‘design movement’ within military thinking, and how did it affect Western militaries, the Dutch in particular?¹

The ‘design movement’, triggered first in the late 1990s in the Israeli Defense Forces and soon spreading to the American shores, has in recent years expanded into many Western military institutions such as the Canadian, Australian, and now Dutch. Within this turbulent transformation in how militaries make sense of complex problems, there are many tensions between doctrinal-centric frameworks and those of intensely theoretical and postmodern approaches. It is on this theoretical side of “sensemaking” where military professionals break out of traditional and generally linear ways of understanding (and interacting with) the world.² This can indeed make design rather unsettling for doctrine writers, planners, trainers and educators, traditionalists, and those who continue to demand simplification, uniformity, and predictability in warfare.

Design matters for all modern military organizations confronting 21st century complexity. This is certainly the case in The Netherlands, a small country that has proved to be one of the more ‘willing and able’ European force providers over the past few decades. It was one of the first armed forces in Europe to make the switch to expeditionary operations in the 1990s and it has since then participated in many such operations — including challenging ones such as in the Southern Afghan province of Uruzgan.

The Dutch have a long-standing tradition of policy pragmatism that includes a willingness to experiment with new forms of decision-making. The Dutch ‘polder’-model of consensual decision making has been reinvented numerous times since its first appeared in the early Middle Ages, when the various segments of Dutch society had to work together to ‘design’ new solutions for the perennial struggle with water management. The Netherlands is also home to the ‘Dutch design’ school of architects, graphic, product and fashion designers that have acquired an international reputation for innovative, experimental approaches to problems. In many sociological and organizational ways, the Dutch are more primed to incorporate the more radical postmodern and theoretical aspects of the military design movement than perhaps other Western militaries.

First principle for Dutch application: appreciating paradigms

For Dutch reflection on military sensemaking, design is not (just) a methodology. Design operates across the entire paradigm of an organization’s outlook on reality. Paradigms are “a fundamental image of the subject matter within a science” ... that “serve to define what should be studied, what questions should be asked, how they should be asked, and what rules should be followed in interpreting the answers obtained.”³ To gain understanding of
what paradigms are and how they function, we need to adapt new language and novel concepts from beyond standard and traditional military knowledge. This is difficult, because military organizations routinely resist change, particularly to anything indoctrinated or tied to tradition and self-identity. We tend to become creatures of habit, and cast out those that attempt to transform organizational structure despite military follies and failures. Although, complexity features uncertainty, emergence, and rapid transformation, these forces require us to adapt along with it and generate new ideas, new language, and new practices that are simply not in our institutionally accepted vocabularies.

Paradigms consist of ontological (what knowledge is, and is not), epistemological (how we know we know something, and why), and methodological (the rules, principles, constructs) choices that usually operate implicitly — we hardly realize we make those choices at all. If a military chooses to make design function merely at the methodological level within an established paradigm where anterior ontological and epistemological choices effectively steer designers down a pre-determined course, they miss some of the fundamental design elements right out of the gate. This means that they may be excluding some potentially highly promising options from their solution space just because they confined that space to the dimensions that they are familiar with.

Designers must remain critical thinkers that operate at a deeper level than just a planning methodology. We must be able to recognize and appreciate how we and our profession, our institution make sense of the world. We must be able to “think about how we think” and even “think about thinking about how we think” to help free us from ‘groupthink’ and other cognitive traps. Design challenges many things, especially those that tend to be invisible or potentially “off limits”.

**The value of metaphor for designing Dutch military solutions**

Metaphoric construction is essential for design, because through metaphor we construct new information and can share it with those that desire it. Metaphors help fold two different disciplines into one another, allowing two ideas that normally are wildly different to interact in a new and exploratory way. To expand upon metaphoric value requires a bit of clarification up front on the difference between explicit and tacit knowledge.

Social science offers a useful distinction for designers in the construction of knowledge. Explicit knowledge is considered easy to convey, such as explaining to someone over a telephone how to find an address on the internet, or instructions for assembling a bicycle out of a box. Tacit knowledge is very hard (if not impossible) to convey, such as telling someone over the phone how to ride a bicycle for the first time, or expecting Picasso to explain to a room full of aspiring painters “how to be creative.” While explicit knowledge lends to imitation and rote memorization that make military drills and tactical actions so effective, they fail miserably to prepare our military for complex, dynamic environments. Surprise, paradox, and emergence require something more tacit than explicit for us to make strategy.

Tacit knowledge is maddeningly difficult to capture into doctrine or a convenient slide presentation, and both complex military environments and design feature high degrees of tacit processes. Largely explicit processes function in only the simplest systems (also called
closed systems) and become the foundation for nearly all military doctrine and decision-making methodologies. To design is to rely heavily upon metaphors because they help draw designers into largely tacit constructs; this paradoxically is why hard sciences shun the use of metaphor in formal products. In order to verify something and repeat the results, we cannot be playing around with ambiguous metaphors! As psychologist Jerome Bruner stated succinctly, “Journals of science do not give space to rambles through metaphor,” yet even science relies heavily upon metaphoric development as a process to build novel ideas that later becomes the focus for testing.⁵

When the Dutch think about Dutch thinking...

To ‘think about how we think’, we must focus on cognitive actions that often are hidden, implicitly operating behind the scenes yet directing us in profoundly significant ways. Thomas Kuhn, in ‘The Structure of Scientific Revolutions’ in 1962, defined shared worldviews as “paradigm” which involves the epistemological practice of how organizations interpret knowledge.⁶ Philosopher Paul Ricoeur’s ideas on the paradoxical nature of narratives, surprise, and how we humans preconfigure ‘plots’ before we arrange information has great utility.⁷ Donald Schön, another noted sociologist, wrote extensively on reflectiveness and how tacit knowledge is both difficult to convey and tricky to even expose for consideration.⁸ Design thinking draws from all of these works (and many more), seeking hybrid and novel approaches where multiple and paradoxical perspectives occur. How might a Dutch observer make sense of a complex situation differently than an American, or an Afghan? We all tend to use slightly (or radically) different paradigms when interpreting reality.

Dutch designers might explore alternate paradigms, and “glance through other telescopes” that provide potentially radically different perspectives upon the very same situation under examination. By then considering the paradoxes, tensions, and cooperative aspects of various paradigms when viewing the same situation, a design approach would capitalize upon all of these. Further, there are an infinite number of nuanced paradigmatic choices out there; the critical and creative designer might blend two, four, or move paradigms together for a superior product.

When a military organization relies upon doctrine (methodological process) and uses ontological choices such as “there are centers of gravity and levels of war” in sense-making, the designer must (be able to) divorce herself from these when approaching a dissimilar paradigm. One cannot force an alternate paradigm to also accept the same ontological choices (levels of war, centers of gravity) or even rely upon similar military doctrine. When this happens, we are simply letting our preferred paradigm run the show, and dominate our entire sense making. This makes for powerful illusions that twist our understanding of reality, where the further we commit to that worldview, the deeper we fall into a collective groupthink that denies anything but our interpretation. This makes for dangerous decision-making.

How Dutch design teams might avoid ill-fitting “wooden shoes”

Many organizational variables create initial conditions for what personnel might join a design team. Security concerns, intra-service, inter-agency, and international concerns
abound. Military organizations have a tendency to keep many things “close hold” and compartmentalized. Beyond these initial barriers, organizations use their preferred paradigm to further limit design team options before even considering the design problem.

Many of the paradigmatic aspects of the military organization (whether Dutch, American, or another military) drive certain decisions on the design team, including rank, level of control, and political structure (hierarchy versus plural democracy). In some situations, design teams might battle institutional rivalry, the protection of rituals or traditions from critical reflection, or members that place status, rank, or experience over logic and creativity. In other situations, smaller core groups might share more of the design theory, while the larger groups are not introduced to design theory due to time constraints and institutional resistance. Dutch design requires great tailoring.

Dutch design teams need to be as diverse as possible without violating security. If a NATO or coalition team features a wide cast of characters with significantly different perspectives, the team has a better opportunity for critical reflection and an implicit resistance to ‘groupthink’. Design teams need to consider temporarily dismantling the traditional military hierarchy for the group, and rely upon more of a plural democracy process. Designers should produce many rich pictures and products as they gain greater understanding, but they cannot confuse internal design products with the final design deliverable. The deliverable cannot be a reproduction of an internal design product, and designers need to be heedful of their own tendency to grow attached to work that represents their design journey. In other words, Michelangelo never showed the piles of stone chippings to any audience, although other sculptors (like designers) probably would be quite interested in the process to produce the final statue. For the primary audience, they want the statue, not the chips and debris. The statue is the design deliverable, but all the dust and stone debris that got us to the statue need to remain inside the design team’s studio.

Of dam builders and champions: where might Dutch design travel?

Our military organizations are hierarchical, largely centralized, and feature a strong combination of institutionalisms (tradition, status, position, personal relationships) as well as symbolism (language, doctrine, processes) that in many ways inhibit design from gaining much of a foothold. If anything, the continued follies and failures of traditional military planning and decision-making over the past decade of persistent conflict has only opened up a door that previously was bolted shut. Social scientists such as Peter Berger and Thomas Luckmann move against the objectivist perspective and offer a constructivist view where societies construct reality. These interpretivists, post-modernists, complexity theorists, and constructivists offer alternative paradigms, use a different language, employ different concepts, and take none of the usually implicit choices of the preferred military worldview (functionalism) for granted. Yet within most military professional education programs and training centers, only approved military doctrine and the single dominant view are offered for sensemaking in military situations. Will Dutch professional defense education follow suit?

Traditional Anglo-Saxon military planning (espoused in functionalism) continues to fail to make sense of difficult situations, and we are not adapting nearly as fast as our military rivals (the Islamic State and other terrorist factions, criminal cartels, regional warlords, and
opposing hybrid threats — even Putin and the Russian General Staff). Design is creatively destructive in nature. While traditionalists argue to preserve earlier incarnations despite current failures, design tends to depart from convention and break apart cherished structures. This becomes dangerous. It is often extremely challenging to tip over sacred cows without a large mob growing from within the institution to stop you. The current design movement is multi-national, yet each military organization strongly favors an internal hierarchy of major actors, coupled to each service attempting to brand “design” within their own self-relevance. These are tricky obstacles to overcome.

Lastly, embracing design does not require one to also reject exclusively (and only) using traditional linear planning, however it does require an awareness that both descend from dissimilar paradigms. Simply sandwiching design into an initial step in traditional planning merely promotes a single paradigm perspective.

Conclusions: Low Lands design has potential to bloom now

Although many in the Anglo-Saxon military doctrine writing industries may find this unsettling, design is not (and never will be) captured succinctly within one military service’s or nation’s playbook for performing design. That sounds paradoxical, and it should be. Design thinking resists codification, and much in the way famed Dutch artist M.C. Escher’s fantastic drawings challenged us to consider paradoxical images, military design also requires a great appreciation and tolerance of paradox. Any expectation that the American, the Israeli, or British militaries are the default leader in military design thinking lacks appreciation of what design stands for. Complexity and emergence usher in unexpected transformation, and surprise is both a good thing and a reminder that efforts to “predict how things will go” are largely a futile endeavor for complex military situations.

The Dutch military is far smaller than the United States military, yet this may provide more flexibility and a resistance to bureaucracy in some regards. Simply put, the Dutch may be able to transform their professional education system faster, with greater flexibility, and adapt any emergent design innovations without the same number of barriers and institutionalisms associated with larger military hierarchies. While this is no excuse for careless or ill-informed decisions, design thinking is not a fad. It is also not something one might tuck into the larger machinery of traditional planning constructs, where it might serve as yet another cog in the vast system of other collaborative ideas shackled to the same worldview. If anything, smaller militaries such as the Dutch offer fertile and exciting ground for rapid design advancement.

The modern era of near instantaneous communication and information sharing is a double-edged sword. Some have charged that the United States military is oversaturated in our information collection and comprehension, a view I tend to agree with. Yet the global and social connectivity now available ushers in new military collaborations where design thinkers and practitioners meet with teachers, doctrine writers, academics, and leaders from across the globe. If enemy groups, radical extremists, and various criminal syndicates can collaborate in these new and informal exchanges of ideas and resources, we should embrace it as well. Military professionals need not limit themselves to a particular unit, service, nation, or worldview, provided nothing confidential or classified is violated. With the speed that the Dutch military can implement design, we would not be surprised in the
slightest in the future to see other military professionals such as the Dutch as the ones
trailblazing new paths, forming new ideas, and anticipating a deeper and more accurate
understanding of complexity for military applications. The finger is out of the dam, and
metaphorically, in this case, that is a good thing!

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2. On ‘sensemaking,’ see: Karl Weick, “Rethinking Organizational Design”, in Managing as
Designing, ed. Richard Boland Jr. and Fred Callopy (California: Stanford Business Books,
2004), p. 47. See also: Anne Kinsella, “Constructivist underpinnings in Donald Schön’s
theory of reflective practice: echoes of Nelson Goodman”, Reflective Practice (7:3,
2006), p. 279. Both Schön and Weick offer notions of “reflective practice” and
“sensemaking” for understanding and critically thinking about organizational knowledge.
3. George Ritzer, Sociology: A Multiple Paradigm Science (Boston: Allyn and Bacon, 1975),
4. Thomas Kuhn, The Structure of Scientific Revolutions; 3rd ed (Chicago, University of
Chicago, 1996).
5. Paul Ricoeur, Time and Narrative, Trans. Kathleen Blamey, David Pellauer (Chicago:
6. Donald A. Schön, “Educating the Reflective Legal Practitioner,” Clinical Law Review (Fall
1995, Vol. 2:231), p. 243. “Tacit knowing or knowing-in-action has this property...we are
unable to describe what it is that we do.” See also: Donald A. Schön, “The Crisis of
Professional Knowledge and the Pursuit of an Epistemology of Practice” in Teaching and
the Case Method, Instruction Guide, ed. Louis Barnes, C. Roland Christensen, and Abby J.
7. Jerome Bruner, Actual Minds, Possible Worlds (Cambridge, Massachusetts: Harvard
8. George Ritzer, Sociology: A Multiple Paradigm Science (revised ed.), (Boston: Allyn and
Bacon, 1980), p. 7. See also: Thomas Kuhn, The Structure of Scientific Revolutions (3rd
