Design Resources in Movement-based Design Methods: a Practice-based Characterization

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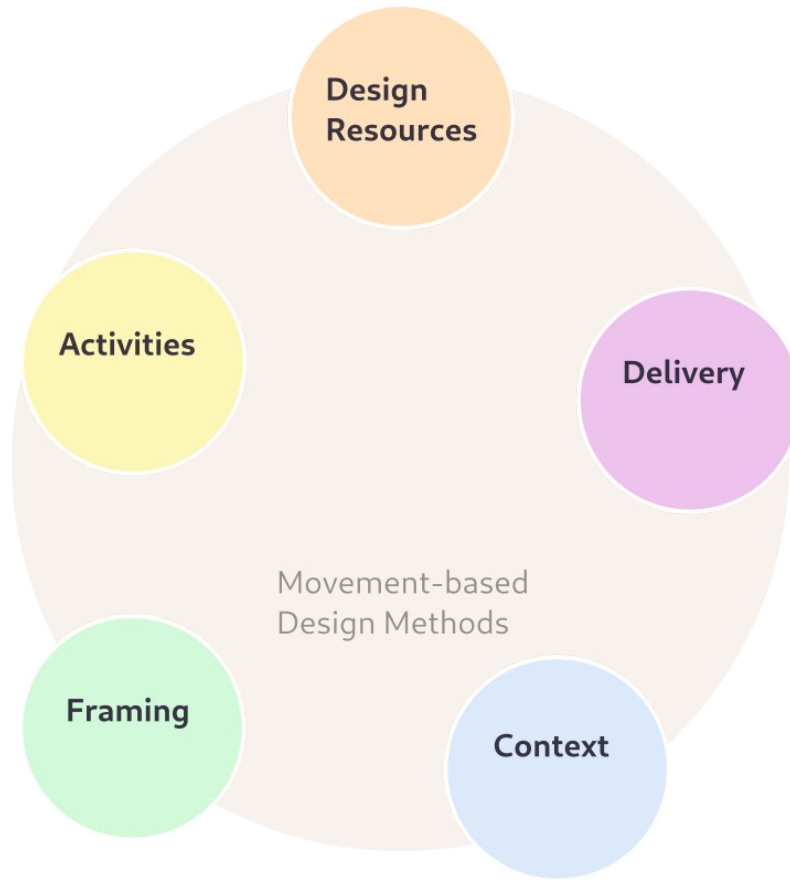Robby van Delden[3]

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Design Resources in Movement-based Design Methods: a Practice-based characterization

- Context and Aim

- Background

- Methodology

- Findings

- Examples

- Conclusions

Context: Movement-based Design Methods

- Early insights into embodied experience

- Multiple phases of design project

- Known and Documented Methods:

  - not always well-suited for a given project

- Designers often adapt or create them ad hoc

Our Aim

- Guiding designers in selecting, adapting or creating their methods

- Comprehensive characterization of methods

- Salient characteristics of methods that influence their applicability in different contexts

Background

- Relevant Movement-based Design Methods and Strategies
  - Bodystorming: Sensory Bodystorming, Performative Prototyping
  - Somatic Connoisseurship
  - Soma Design
  - Embodied Sketching
  - Estrangement
  - Role-playing: Informances, Larping
  - Service Walkthrough and Interaction Relabelling

Background

- Typography of Movement-based Design Methods
  - Andersen et al. (2020), seven submediums and three design stages
  - Wilde et al. (2017), focus on estrangement
  - Loke and Robertson (2013), focus on first-person perspective of person in movement

Our Work

- Bottom-up approach

- Larger corpus of methods

- Set of general and non-exclusive categories
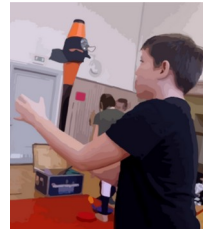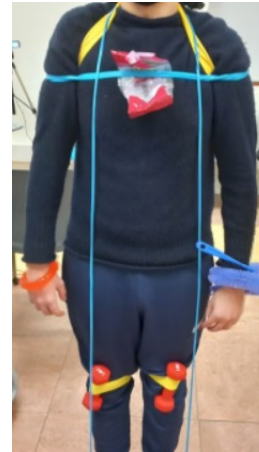
- Recommendations for the reader

Methodology

- 41 movement-based design methods in 12 interaction design projects

Methodology

- Thematic Analysis

Space

Movement

Design Resources

Objects

Design Phase

Activities

Crafting

Methods

Sensorial Explorations

Acting Out

Movement-based Design Methods

Facilitation

Delivery

Planning and Logistics

Documentation

Play

Framing

Perspectives

Context

Outcomes

Starting Point

Challenges

Goals

Movement-based Design Methods

Design Resources
- Space — Physical, Virtual, Hybrid, Delimitation, Room Size
- Movement — Body Regions, Qualities, Contact, Moving with Objects, Constraints & Superpowers, Instrumental Domain, Engagement
- Objects — Physical Objects, Cards, Technologies, Affordances, Subversion

Activities
- Design Phase — Sensitizing, Inspiration, Iteration, Evaluation, Divergence, Convergence, Technology
- Crafting
- Methods — Research, Interaction Design, Embodied Design, Warm-up
- Sensorial Explorations
- Acting Out

Delivery
- Facilitation — Tasks, Instructions, Level, Participants, Experts
- Planning and Logistics — Tasks, Involvement Level
- Documentation — Data Collection, Video, Body Maps

Framing
- Play — Playfulness, Fun, Games, Game Design
- Perspectives — First Person, Second Person, Third Person, Physical Models, Children

Context
- Outcomes
- Starting Point
- Challenges
- Goals

Moving with Objects

Contact

Body Regions

Qualities

Movement

Constraints
& Superpowers

Instrumental Domain

Engagement

Space

Physical

Virtual

Hybrid

Delimitation

Room Size

**Design
Resources**

Objects

Physical Objects

Cards

Technologies

Affordances

Subversion
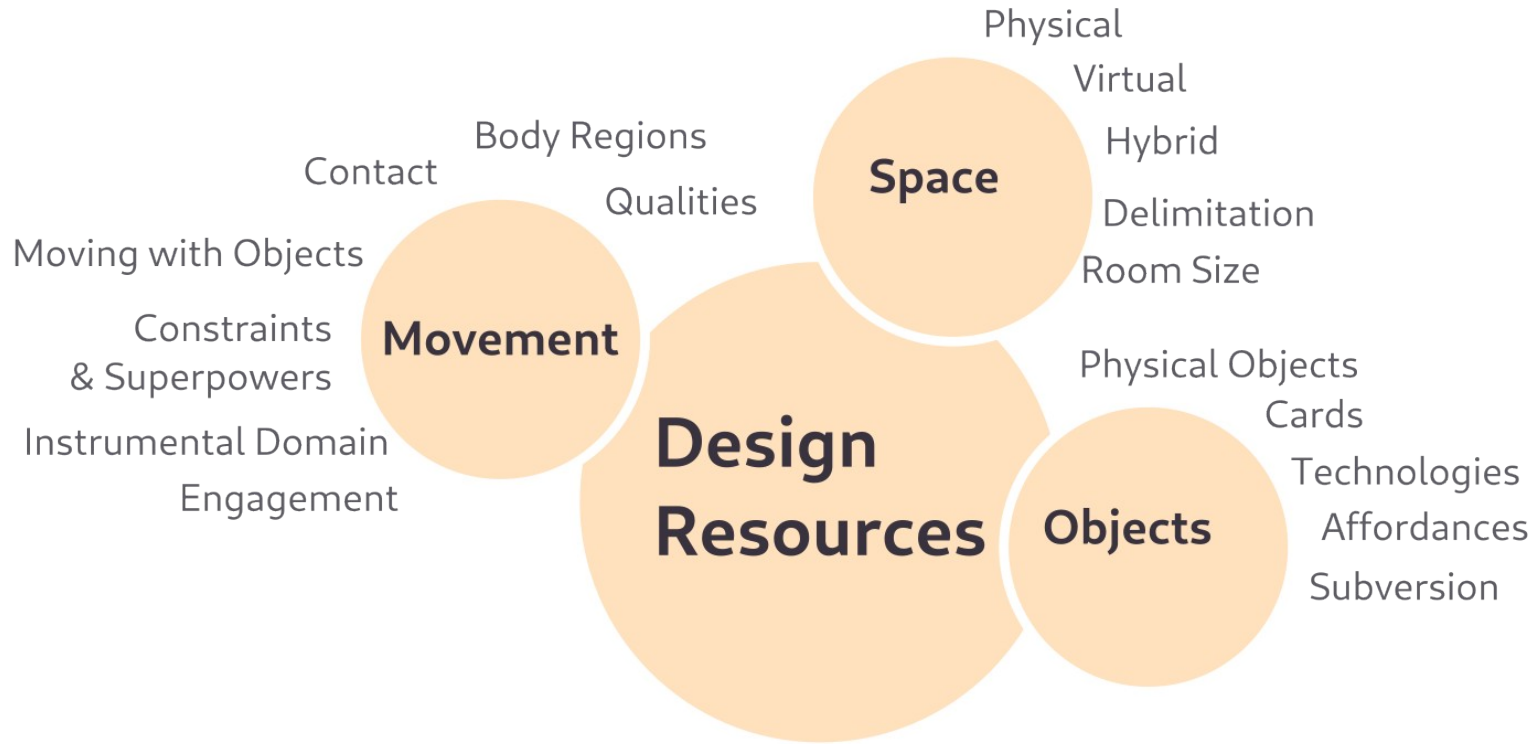
Examples

- Bodystorming Basket

- Focus on Design Goals

- Levels of Engagement

Bodystorming Basket

Bodystorming Basket

Design Resources

Objects

Physical Objects

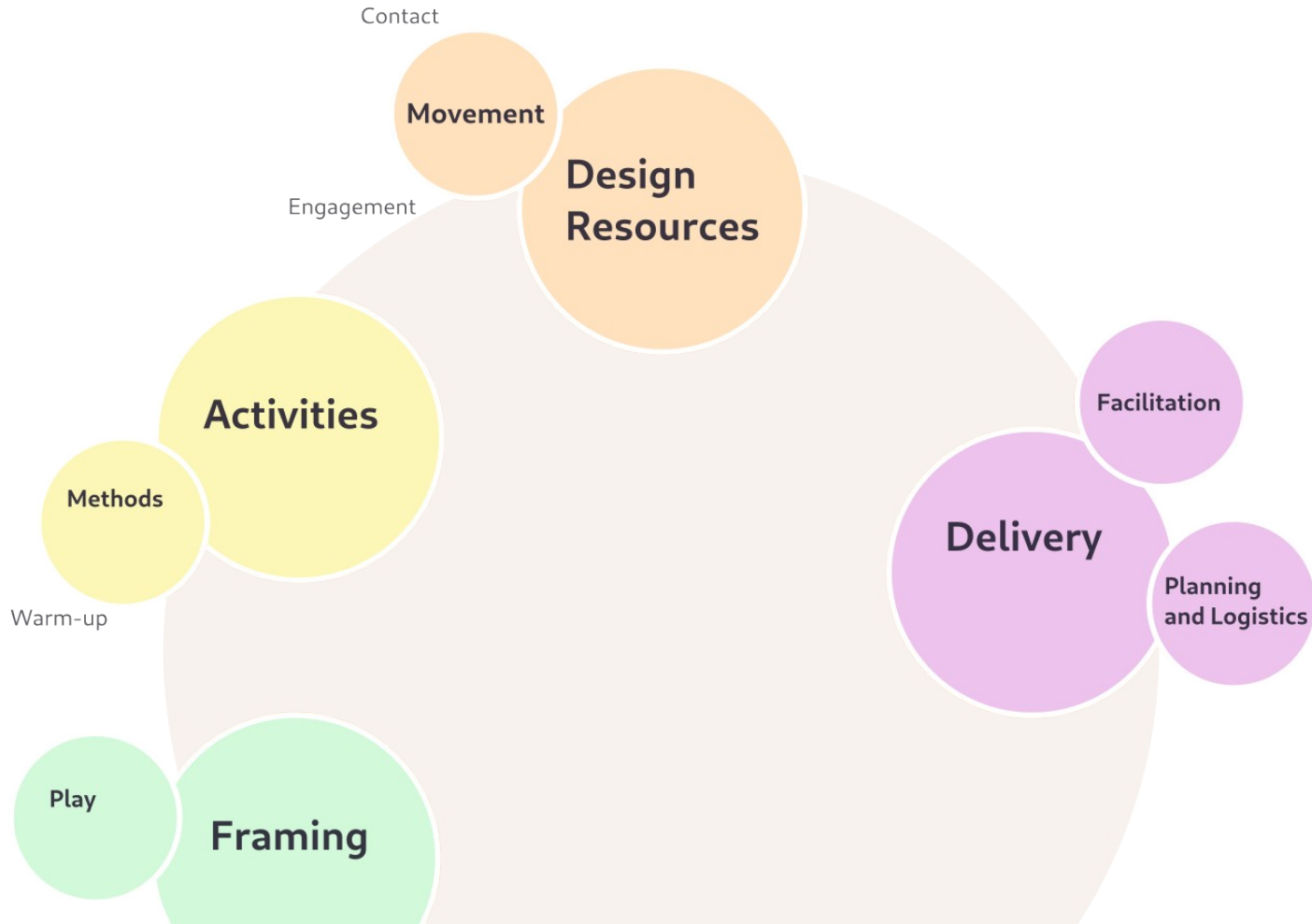Technologies

Affordances
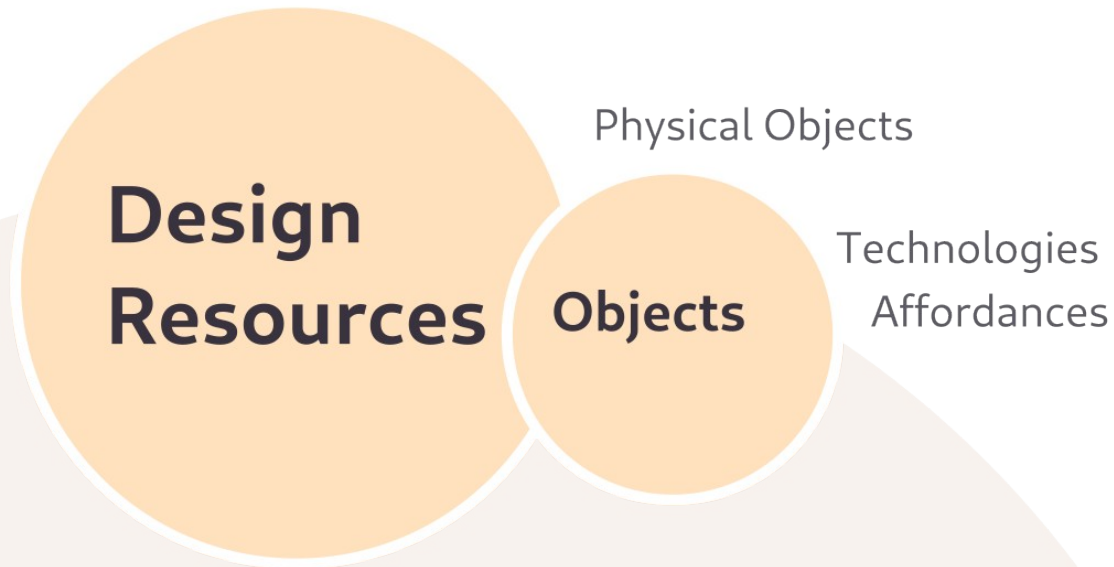
Focus on Design Goals

- Explicitly bring to the forefront of design activities:
  - Body orientations
  - Proxemics
  - Movement Qualities
  - Physical Contact

Focus on Design Goal

Contact

Qualities

Movement

Design Resources

Facilitation

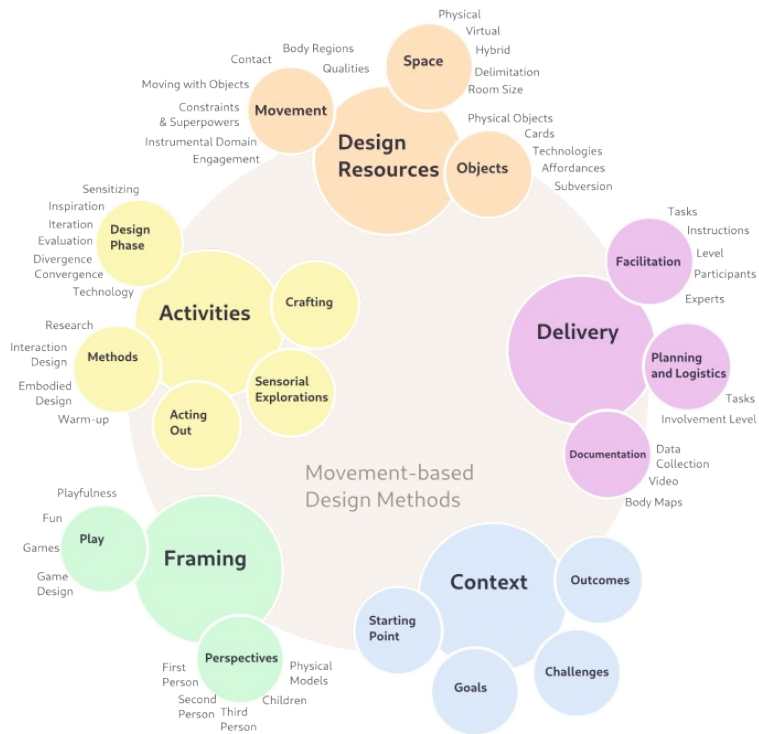Delivery

Planning and Logistics
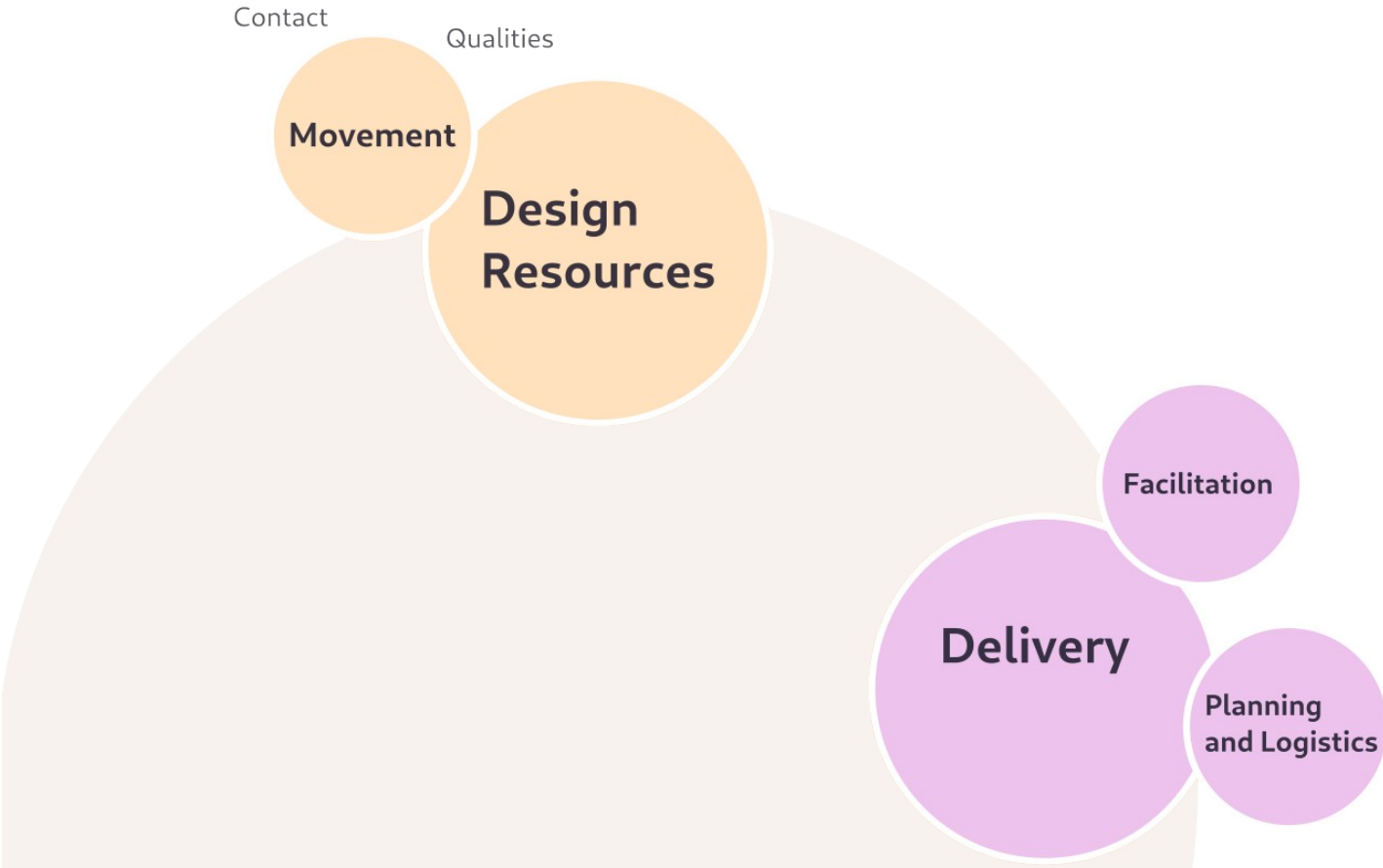
Levels of Engagement

Levels of Engagement

- Engagement should be at the core of the design of movement-based design activities

- Expectations should be tailored

- Alternate between energy levels

- Address the risks of physical injury

- Safe space: trust and consent

- Warm-up and games

Conclusion

- Focus on design resources in movement-based design methods with illustrative examples and action points

- Novice designers might benefit the most

- Not enough to overcome barriers of engagement

- Clearing up the space

- Articulation of tacit knowledge

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