reflecting 1st week

Research Design

Design Research

研究計画をつくる

{

目的を設定する

仮説をたてる

先行研究をしる

方法論をきめる

データ収集方法をきめる

発表方法をきめる

発表相手を設定する

知への貢献 King, Keohane,Vera(2004)

１）先行研究において重要と見なされるものの、体系的な研究がなされてはいない仮説
→それが正しい・間違っていることを示す論拠を見つける

２）先行研究において受け入れられているものの、実は間違いではないかと思われる仮説
→間違っているか、もしくは別の理論が正しいのか探求する

３）先行研究において論争となっている問題を解決したり、１つの立場を指示する証拠を提示
あるいは、その論争が意味のないものであったことを論証する

４）先行研究において重要な研究テーマが見過ごされてきたことを論じ、その分野における
体系的な研究を進める

５）ある研究分野において何らかの目的のために設計された理論や証拠が、
別の研究分野にも適用しうることを示す

Four Key Concepts

Scott&Garner(2012) Doing Qualitative Research

Research Questions

Research Design/Strategy

Research Methods

Research Activities

Five (six) basic categories

Scott&Garner(2012) Doing Qualitative Research

Ethnography

Historical-Comparative Research

Social Autopsy

Participatory Action Research/
Community-based Participatory Research

Discourse Analysis/
Analysis of Cultural Artifacts

+Multi-Methods

デザインの研究の変遷

1962　「意地悪な問題」としてのデザイン　ユーザ参加型デザイン

デザイン手法・設計プロセス論　デザインプロセスの省察的分析　情報処理

HCI
インタラクションデザイン

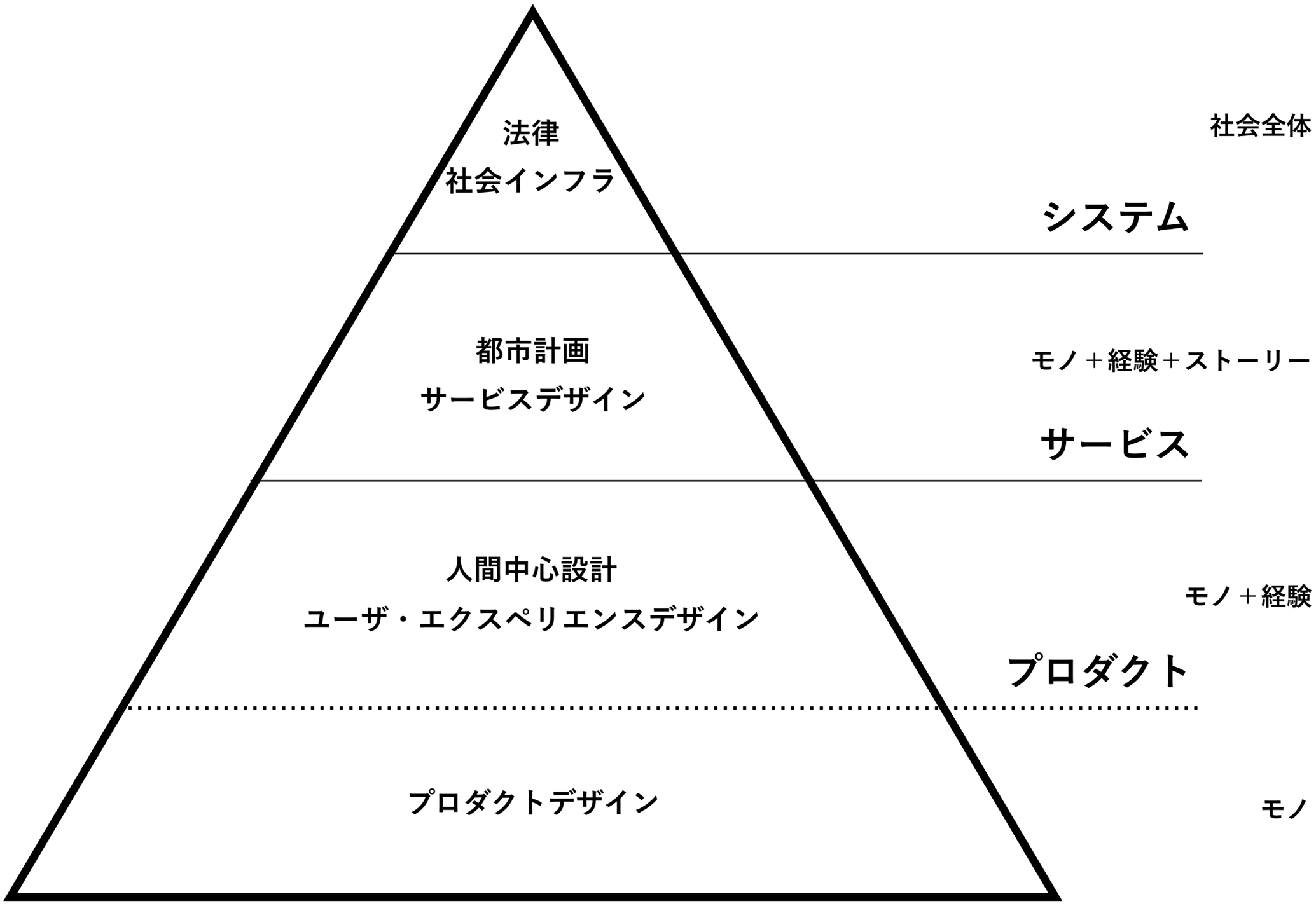
ユーザ中心設計

認知論的転回

メタデザイン　人間中心設計　デザイン思考

2015　サービスデザイン　サステナブルデザイン

デザインの研究領域の拡大と複雑化



what is research in art and design?

Christopher Frayling (1993-4), *Research in Art and design*

Research into design: involving pure theoretical investigations:

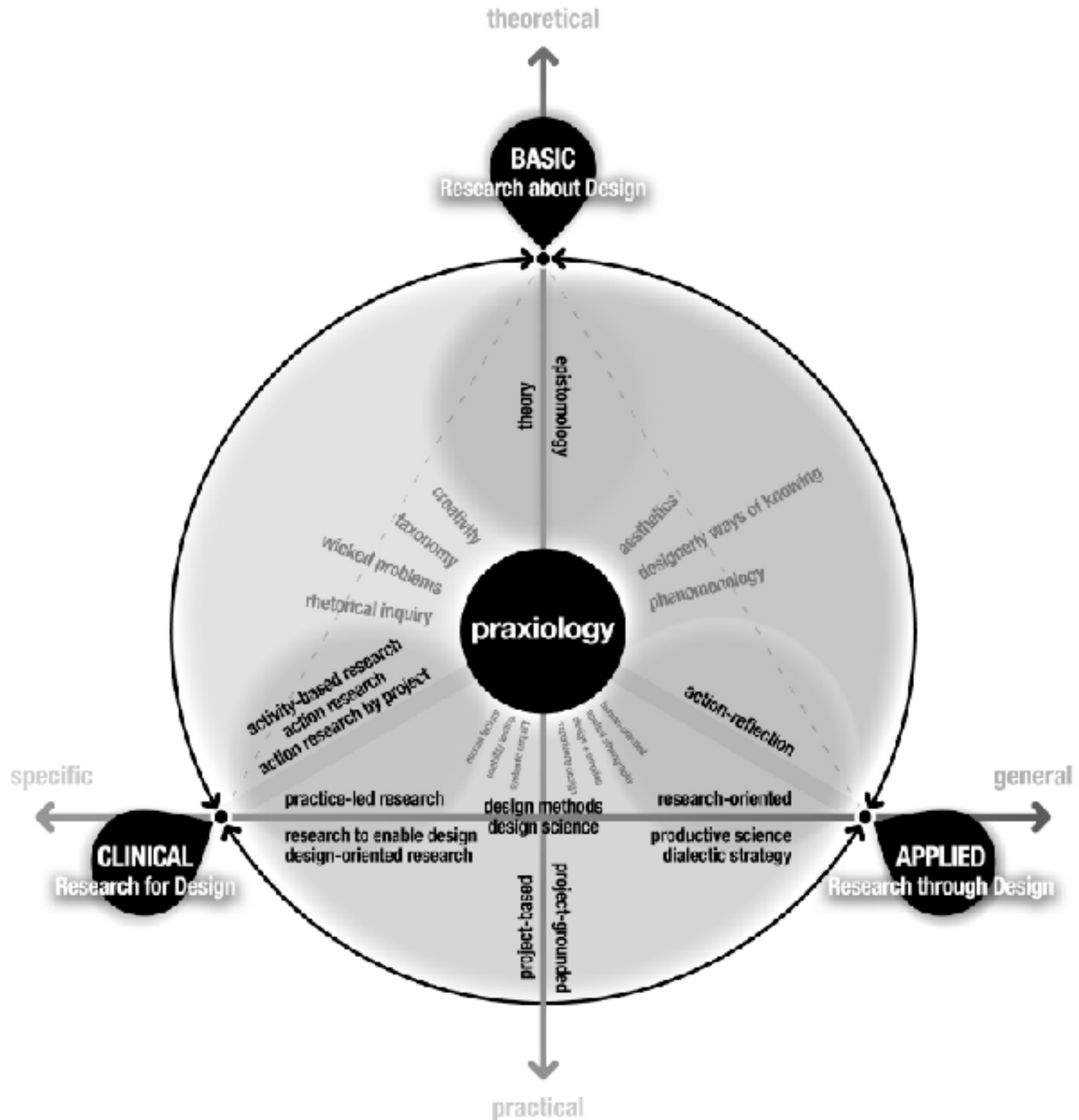
the main objective is to understand a context or history from different perspectives such as design criticism and historical research.

Research for design: involving the development of new artifacts:

the goal is to visually communicate new knowledge, but the practice does not lead the whole research process.

Research through design: involving both understanding:

the process of design itself and developing new design actions, artefacts or methods.



Louis Frankel (2010),
The complex field of research: for design, through design and about design

2nd Week
Design Research

participatory, inclusive, collaborative

！今週の目標

デザインリサーチの歴史的変遷を俯瞰し、インクルーシブデザインに至るまでの流れについて理解する

！重要なポイント

インクルーシブデザインを始めとする人間中心設計のプロセスにおいては、従来のデザイナーにさらなる役割としての「調整」役が求められる。

インクルーシブデザインにおけるデザインリサーチは、デザイナーを助けるための新たな態度、手法として期待される。

Historical Views on Design Research

-1960s to the present-

Usual Suspects

{

John Christopher Jones

Bruce Archer

Morris Asimow

Geoffrey Broadbent

Christopher Alexander

Horst Rittel

Bryan Lawson

Donald Schon

Nigel Cross

Richard Buchanan

Lucy Suchman

Donald Norman

Christopher Frayling

デザイン方法論の試み 初期デザイン方法論を読む

吉田武夫

！デザイン方法の経緯

1950年代のウルム造形大学における思想と教育活動に端を発し、1962年の第一回国際デザイン方法会議（conference on design method)においてJohn Christopher JonesやBruce Archerらによって成立した。

！1962年の国際会議：Conference on Design Methods

経験と勘に依存していた設計・デザイン活動を客観的に捉え、合理化をはかり、 体系化することを試みたと言える。ここでいわれるデザインとは、人工物の構想、 企画、計画、設計などを指す。1962年のConerence on Design Methodsにおいては、絵画から都市までが研究発表のテーマにのぼった。

！デザイン方法論とは

「デザインの諸相に対し何らかの客観的規範あるいは尺度による構造化とその応用」 「デザインの諸問題に対し何らかのモデル解析による解の発見とその応用」 のように、デザイン開発に関する客観化、あるいはモデル化の方法がデザイン方法論とされる。 （日本デザイン学会デザイン方法論）

デザイン方法論の試み 初期デザイン方法論を読む

！Nigel Crossによる整理

67年頃からいくつかの性格を異にする流れが生じた結果、線状の歴史をたどることが困難になったとしつつも、デザイン方法論の系譜を暫定的に以下の４つに整理した：

１）計算機科学に関するもの：CAD、合理的または科学的方法

２）創造性に関するもの：ブレインストーミングやシネティクスなどの発想法

３）参加型デザインの方法：デザインプロセスに素人が参加する方法

４）急進的デザイン方法論：新しい手法そのものの検討

！Nigel Crossによる領域の整理（Developments in Design Methodology)

１）デザインプロセス・マネジメント

２）デザイン問題の構造

３）デザイン活動の本質

４）デザイン方法の哲学

Developments in Design Methodology
ed. Nigel Cross

Development of systematic procedures for the overall management of the design process and techniques.

PROBLEM:
1) emergence and the necessity of systematic approaches = increasing technological changes
2) efficiency and reliability of design process = increasing complexity of design tasks

SOLUTION:
1) emphasis on extensive problem exploration /analysis
2) systematically establishing the interconnections between factors so that all the sub-problesm are identified
3) first breaking down the overall problems into sub-problems and then attempting to synthesize a complete solution by combining partial solutions
(ANALYSIS-SYNTHESIS-EVALUATION or AIDA, the Analysis of Interconnected Decision Areas)

NOTE:
It was not acknowledged as a simple, complete linear process.
Designer is continually cycling through 3 steps proceeding from the more general to the specific.

Developments in Design Methodology

Horst Rittel and Dilemmas in a General Theory of Planning

WICKED PROBLEM:
He argues that any search for scientific bases for solving problems of social policy is bound to fail, because of the very nature of these problems. Science has been developed to deal with “tame” problems, whereas planning problems are “wicked” problems. He goes on to outline 10 properties of wicked problems:

1. There is no definitive formulation of a wicked problem

2. Wicked problems have no stopping rule

3. Solutions to wicked problems are not true-or-false, but good-or-bad

4. There is no immediate and no ultimate test of a solution to a wicked problem

5. Every solution to a wicked problem is a 'one-shot operation'; because there is no opportunity to learn by trial-and-error, every attempt counts significantly

6. Wicked problems do not have an enumerable (or an exhaustively describable) set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan

7. Every wicked problem is essentially unique

8. Every wicked problem can be considered to be a symptom of another problem

9. The existence of a discrepancy representing a wicked problem can be explained in numerous ways. The choice of explanation determines the nature of the problem’s resolution

10. The planner has no right to be wrong

Developments in Design Methodology

ACCORDING TO RITTEL:

First Generation methods were based on the wrong premises to be really useful in design. They had been drawn from the system engineering techniques of military and space missions, and therefore were not wholly adequate to the wicked problems of planning and design.

ARGUMENTATIVE APPROACH:

Perhaps the most important of these is that the design process is based on an argumentative structure, and that expertise and relevant knowledge is assumed to be distributed amongst a wide range of participants. Thus Second Generation methods are intended especially for a more participatory approach, in which the role of the planner or designer is that of a midwife or teacher rather than the role of one who plans for others. Both Horst Rittel and Christopher Alexander suggest greater participation in design as a key reason for their changed perspectives on design methods.

The Methodology of Participatory Design

Clay Spinuzzi Volume 52, No.2, May 2005, Technical Communication pp.163-175

Participatory design originated in Scandinavia in the 1970s and 1980s. This early Scandinavian work was motivated by a Marxist commitment to democratically empowering workers and fostering democracy in the workplace. This avowedly political research aimed to form partnerships with labor unions that would allow workers to determine the shape and scope of new technologies introduced into the workplace.

Some Scandinavian researchers set out to develop an approach that provided a set of "language games" (Ehn and Kyng 1991, pp. 176–177) that would allow software developers and workers to collaboratively develop and refine new technologies —allowing workers to retain control over their work. These researchers turned to action research, in which ethnographic methods are linked to positive change for the research participants (see Glesne 1998 for an overview).

The Diversity of Participatory Design Research Practice at PDC 2002-2012

Kim Halskov, Nicolai Brodersen Hansen E.Motta Available online 23 September 2014

Fundamental aspects of participatory design.

Politics	People who are affected by a decision should have an opportunity to influence it
People	People play critical roles in design by being experts in their own lives
Context	The use situation is the fundamental starting point for the design process
Methods	Methods are means for users to gain influence in design processes
Product	The goal of participation is to design alternatives, improving quality of life

情報デザインの教室 情報デザインフォーラム編

１９７３年

PARCで開発されたマウスによって操作するコンピュータが開発され、GUIをデザインするためにユーザインタフェース（UI)のデザインが発達し始めた。

１９７９年

アメリカの心理学者ジェームス・ギブソンがアフォーダンスを提唱、後にドナルド・ノーマンがアフォーダンスをデザインに適用、認知科学の知見が情報デザインに組み込まれた。

１９８０年代

リチャード・ソウル・ワーマンが提唱するような情報のわかりやすさをデザインすることや、ノーマンが提唱するような使いやすい構造をデザインする議論など、ユーザ中心設計（のちの人間中心設計）がわきおこってきた。

２０００年代

ユーザの体験全体をデザインするには、ユーザ評価のように評価室での１人のユーザが単体の機器を使用することをテストするような調査だけではなく、実際のユーザが複数の機器やサービスを使用する日常生活全体を調査することが求められた。そのため、文化人類学のフィールドワークなどの手法を取り入れ、ユーザの活動をデザインに取り込むために様々な手法が発達した。

エンジニアリングデザイン 製品設計のための考え方

Nigel Cross

Lawson（1984）

実験的研究において、デザインエンジニアたちと科学者たちが同じ課題を解く方法を比較した。科学者たちは、最善の解決案を作り出すために隠された法則を探り出そうとして、課題を体系的に理解しようとする戦略を用いる傾向があった。これに対してデザインエンジニアたちは、はじめに試行錯誤した後、良好な、あるいは少なくとも許容できる解決策を見つけるまで、様々な解決案を提案しようとする傾向があった。

実験結果からは、科学者たちは解析的手法によって課題解決に取り組もうとし、デザインエンジニアたちは創造的手法によって課題解決を図ろうとすることが示された。科学者たちは「課題を重視した戦略」を使うのに対し、デザインエンジニアたちは「解決案を重視した戦略」をつかうのである。

Darke （1984）

デザインエンジニアたちが解決案の探査スペースを狭め、そして早期に解決案の構想を得るために、デザイン課題に「一次生成案」（ primary generator）を用いることを見出した。この一次生成案は、厳しく限定された拘束条件、またはデザイン課題から引き出される解決案の可能性に基づいている。課題は解決案の考慮なしには十分に理解できない。したがって、思いついたとりあえずの解決案が、課題の検討、あるいは理解のために用いられるのは当然のことである。解決案のスケッチを描くことは、デザインエンジニアが思考の結果を確認するための、そして、ドナルド・ショーン（Schon, 1983）が「状況との内省的な対話」と呼んだ、デザイン思考の本質である課題探求を進めていくための一つの方法なのである。

Wicked problems in design thinking Richard Buchanan (1992)

Designerly ways of knowing Nigel Cross (2001)

Why are design problems indeterminate and, therefore, wicked?

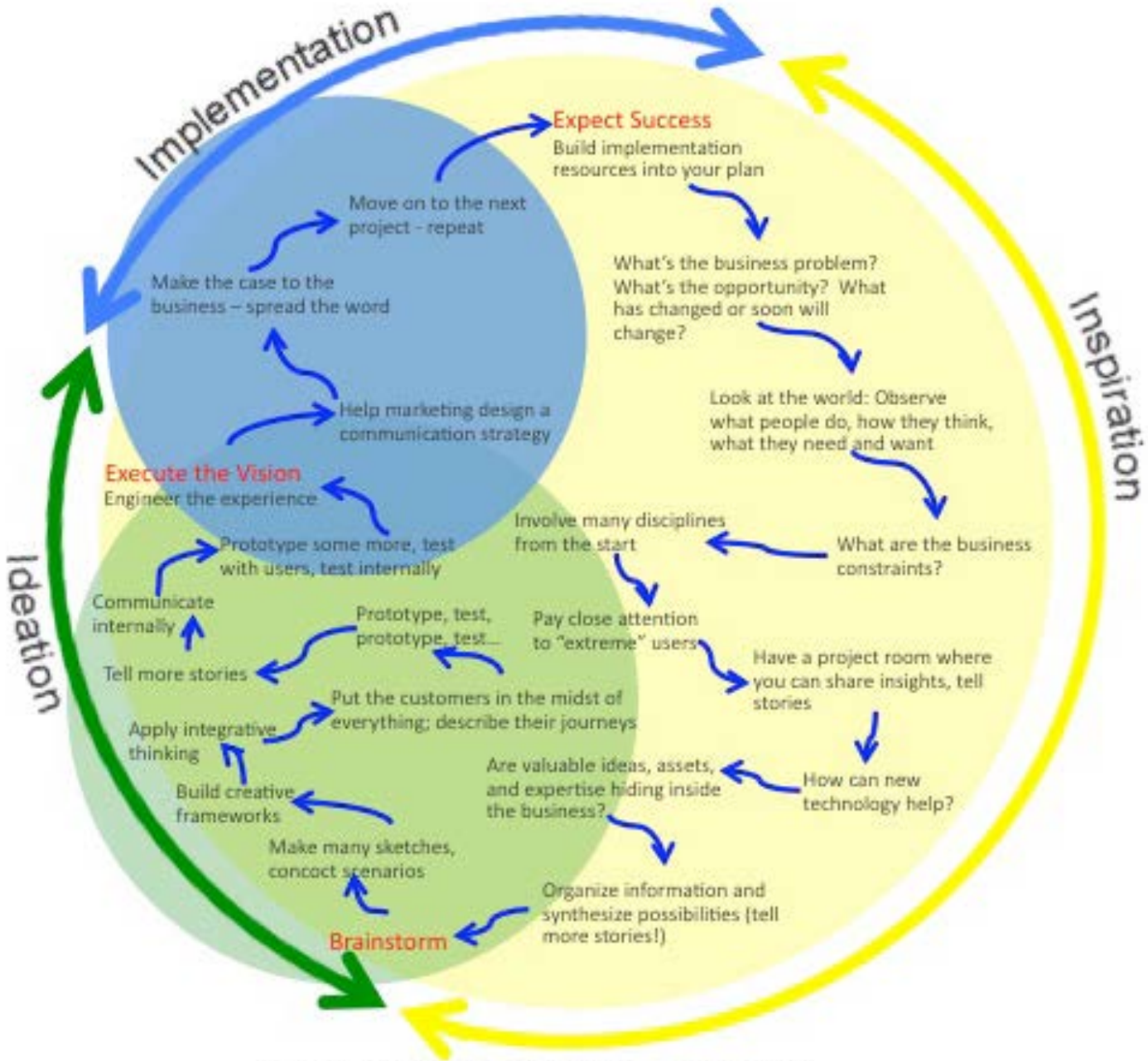
The answer lies in the peculiar natures of the subject matter of design. Design problems are ‘indeterminate’ and 'wicked’ because design has no special subject matter of its own apart from what a designer conceives it to be.

The subject matter of design is potentially universal in scope, because design thinking may be applied to any area of human experience. But in the process of application, the designer must discover or invent a particular subject out of the problems and issues of specific circumstances.

Design Thinking

How Design Thinking Happens

Three Spaces of Innovation



Source: Design Thinking, by Tim Brown, HBR June 2008

Tom Kelly and IDEO

Understand
市場、クライアント、技術、そして、問題に関する認識されている不満について理解する。

Observe (Synthesize)
潜在的な欲求などを実世界の人々を観察することで発見する。

Visualize
新しいコンセプトとそれを使う顧客を視覚化する。

Evaluate (Refine)
プロトタイプを評価し、ブラッシュアップをを短い期間で迅速に繰り返す。

Implement
新しいコンセプトを実装し、商品化する。

IDEO and Human Centered Design

JP translation available online for free under the Creative Commons

http://designthinking.or.jp/index.php?ideo

IDEO and Human Centered Design toolkit

イントロダクション

H 理解：HEAR

理解段階は、人間中心デザイン（HCD）手法による関係者との調査準備プロセスによって、イノベーションへの道しるべを示します。

C 創造：CREATE

創造段階は、チームが特定の分野で学んだことを具体的な解決策に転換する際の役に立ちます。

D 実践：DELIVER

実践段階は、アイデアとプロトタイプを実行可能な解決策と計画に変えるツールを提供します。また、デザインを計画して繰り返し続けるための、学習計画を立てる上でも役に立ちます。

INCLUSIVE DESIGN

Definition of Inclusive Design

The British Standards Institute (2005)

"The design of mainstream products and/or services that are accessible to, and usable by, as many people as reasonably possible ... without the need for special adaptation or specialised design."

インクルーシブデザイン

３つの仮説

１：エクストリームユーザーとしてのマイノリティから着想を得ると
一般的にはより多くの消費者に役立つはず、という仮説

２：ユーザーのニーズと願望を深く取り入れることで、ビジネス的
見地から好影響が見込まれる、という仮説

３：ユーザーによるデザインプロセスの関与が、デザイナーに
より斬新な問題解決策を導くことが可能、という仮説

ユニバーサルデザイン

7つの原則

どんな人でも公平に使えること。（公平な利用）
Equitable use

使う上での柔軟性があること。（利用における柔軟性）
Flexibility in use

使い方が簡単で自明であること。（単純で直感的な利用）
Simple and intuitive

必要な情報がすぐに分かること。（認知できる情報）
Perceptible information

うっかりミスを許容できること。（失敗に対する寛大さ）
Tolerance for error

身体への過度な負担を必要としないこと。（少ない身体的な努力）
Low physical effort

アクセスや利用のための十分な大きさと空間が確保されていること。
（接近や利用のためのサイズと空間）
Size and space for approach and use

言葉と定義の違い?

インクルーシブデザイン(UK)

デザイナーが携わる製品やサービスが

できる限り幅広いユーザーニーズを満たすプロセス

ユニバーサルデザイン(US)

特別な製品や調整なしで、最大限可能な限り

すべての人に利用しやすい製品、サービス、環境のデザイン

人と人、社会にある課題を解決する「インクルーシブデザイン」という考え方

―九州大学大学院芸術工学研究院　平井康之准教授インタビュー

http://www.ashita-lab.jp/special/3346/

ユニバーサルデザインには「どんな人でも公平に使える」や「使ううえでの柔軟性がある」、「使い方が簡単で自明である」など「ユニバーサルデザインの7原則」というものがあり、それがデザイン発想の基本にあります。7原則の内容はほとんどがユーザビリティー（使い勝手）についてであり、機能性重視という特徴があります。

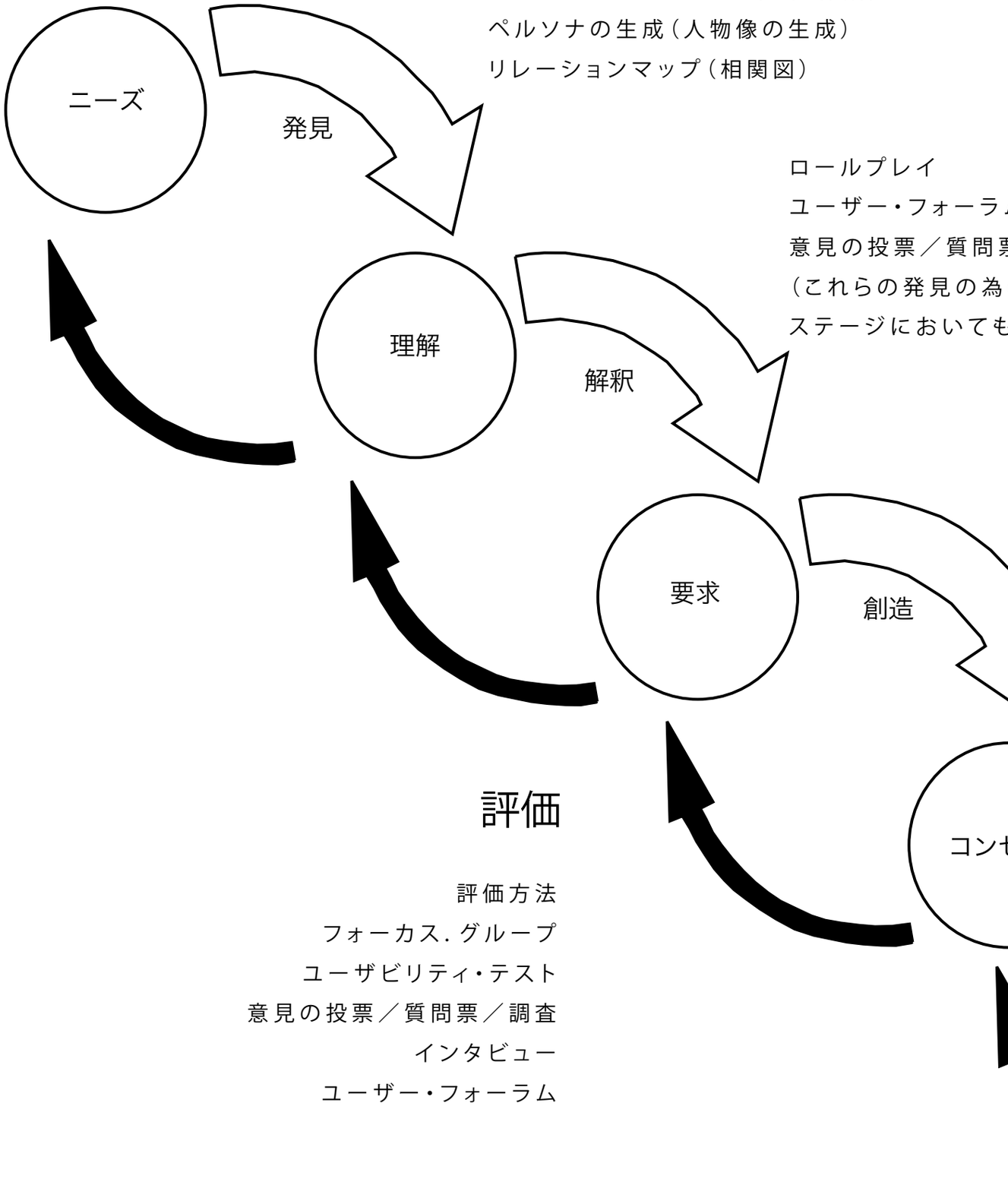
ユニバーサルデザインの7原則は明文化された基準になっており、同時に企業やデザイナーが守るべきガイドラインにもなっています。なので、ユニバーサルデザインはできた製品を検証するのに向いていると考えています。それに対し、インクルーシブデザインは“人々とともに考える“、つまり「コ・デザイン（co-design）」の考え方と言っていいでしょう。ユニバーサルデザインのように原則はつくりません。製品の企画やニーズの模索の時点、初期段階から多様な人々に参加してもらって一緒に考えていくんです。

インクルーシブデザインは「意見を聞いて取り入れてものをつくる」ものではありません。デザインに協力していただく多様な人々と一緒に課題を共有することが基本ですが、最終的なまとめ役はデザイナーです。みなさんからの意見をどう取り入れるか、さじ加減が非常に重要ですが、決して彼らの「ために」つくるわけではありません。そこにいる人々はデザインに対する気づきやインスピレーションを得て、一緒にデザイン（co-design）を行うための「パートナー」なんです。個人個人の持つ複数の主観を組み合わせ、同意を成り立たせている状態「間主観」という考え方がありますが、それに近いと思っています。

インタビュー
シャドイング（追尾・追跡調査）
ビジュアルエスノグラフィ（写真・映像記録）
ダイアリー・キーピング（日記作成）
ペルソナの生成（人物像の生成）
リレーションマップ（相関図）

ロールプレイ
ユーザー・フォーラム
意見の投票／質問票／調査
（これらの発見の為の方法は、理解／要求の
ステージにおいても応用が可能となる）

フォーカス・グループ（ユーザー・フォーラムの展開）
デザインのためのシナリオ生成
カルチュラル・プローブ（関連する文化・現象の調査）
デザイン・ドキュメンタリー
（デザインのシナリオ制作のためのヴィジュアル記録）
リードユーザーとの協同（制作物評価のためのユーザー選定）



コ・クリエイション（協働）
ファースト・プロトタイプの作成（ラフ）
ユーザビリティ・テスト

評価方法
フォーカス. グループ
ユーザビリティ・テスト
意見の投票／質問票／調査
インタビュー
ユーザー・フォーラム

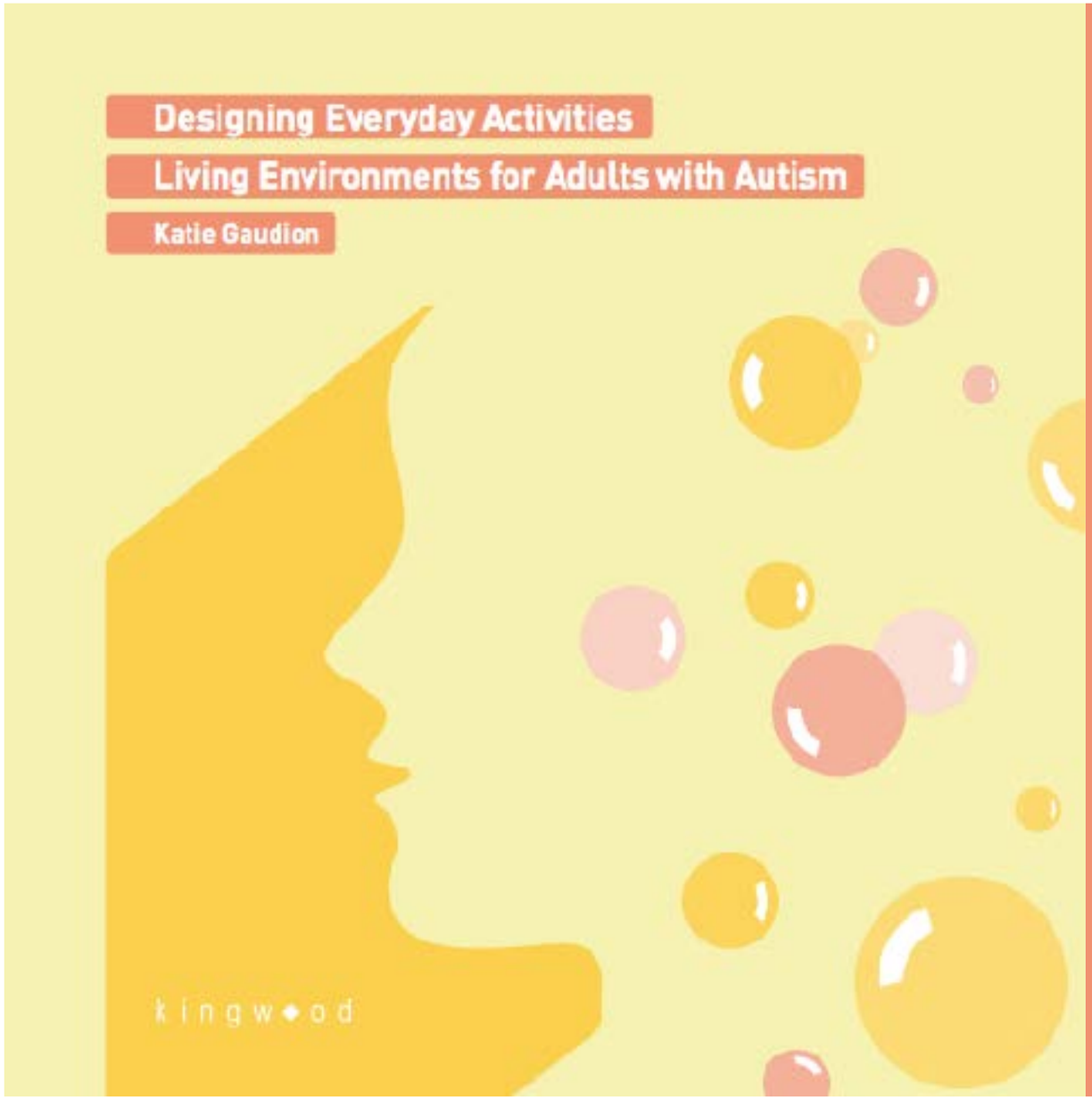
Royal College of Art

THE HELEN HAMLYN CENTRE FOR DESIGN

http://www.hhc.rca.ac.uk/462/all/1/Publications.aspx

Case Study 1

Designing Everyday Activities
Living Environments for Adults with Autism



About the research partners

The Kingwood Trust
Kingwood is a registered charity providing support for adults and young people with autism. Its mission is to pioneer best practice which acknowledges and promotes the potential of people with autism and to disseminate this practice and influence the national agenda. Kingwood is an independent charity and company limited by guarantee.
www.kingwood.org.uk

kingwood
PIONEERS IN AUTISM

The Helen Hamlyn Centre for Design, Royal College of Art
The Helen Hamlyn Centre for Design provides a focus for people-centred design research and innovation at the Royal College of Art, London. Originally founded in 1991 to explore the design implications of an ageing society, the centre now works to advance a socially inclusive approach to design through design research and projects with industry. Its Research Associates programme teams new RCA graduates with business and voluntary sector partners.
www.hhc.rca.ac.uk

Royal College of Art
THE HELEN HAMLYN CENTRE FOR DESIGN

BEING
BE NG was commissioned by The Kingwood Trust to shape and manage this ground-breaking project with the Helen Hamlyn Centre for Design. BEING is a specialist business consultancy that helps organisations in the public, private or charitable sectors achieve their goals through the effective application and management of design.
www.beingdesign.co.uk

BEING

http://www.hhc.rca.ac.uk/CMS/files/Everyday_Activities.pdf

Everyday activities are important to enable adults with autism to lead more independent and fulfilled lives. But how they might perceive those activities – and the domestic objects associated with them – can be a challenge. Can a design-based approach encourage greater engagement in daily activities?

Research

Objects of Everyday Use

As a visual aid to help adults with autism identify the everyday activities that might appeal to them, the research team designed a set of 43 cards called Objects of Everyday Use. Each card depicts a different type of activity, which is described in simple words and images.

Many daily tasks involve the use of an object. Designed objects usually have characteristics that either imply how a given object might be used, or that prompt an inference about its usage that may or may not be correct.

Even if a person understands the implied affordance accurately, using an object still demands some or all of a range of human skills: motivation, physical dexterity, motor skills, planning and organisational and social communication skills.

Most of us have acquired these skills and use them unthinkingly in our daily lives. However, we all have different needs, abilities, cultural values, interests and sensory preferences which influence our decisions about what objects we choose to use and which activities we prefer. We might decide to use a mechanical lawn mower rather than an electrical one because we prefer the sound.

We might decide to purchase a red Henry vacuum cleaner with a smiley face rather than a visually more sophisticated model simply because we like the colour and smiley face. We might eat with chopsticks rather than western cutlery if we come from a country where that is the norm. We might like to use a vacuum cleaner because we like the sound it makes. We might prefer to dry dishes rather than wash them because we prefer not to get wet hands. We might enjoy mowing the lawn because we like the smell of freshly cut grass.

A simple activity like boiling an egg requires the support of objects or 'mediating artefacts' (Hutchins 1996). Taking the egg from its protective box, pouring water into a saucepan, turning on the hob, waiting for the water to boil and finally peeling a hard-boiled egg, are all actions that stimulate sight, sound, touch, smell and eventually taste. Every designed object in that

domestic process engages a sensory response. In other words, designed objects stimulate our reaction to them.

A key aspect of the research was the use of self-reported questionnaires and performance-based assessment commonly used by healthcare practitioners to help determine a person's ability and level of independence in performing everyday activities. These include Katz's Index of Independence in Activities of Daily Living (1970) and The Lawton Instrumental Activities of Daily Living (IADL) scale (Lawton & Brody 1969). These questionnaires help to create an understanding of the limitations involved with an everyday activity and help to develop guidelines for interventions in planning for someone's future and monitoring their progress.

This leaves the question of the usefulness of such questionnaires to a person with autism. The questionnaires immediately exclude anyone who finds it difficult to read and write. The use of tick boxes also leaves no room for more shaded responses.

Such questionnaires further fail to take into account the diverse nature of autism and the variable effect of the physical environment upon an autistic person's ability to perform everyday activities. For example, a person with autism may score low on their performance when using a telephone, not because of the task itself but because a particular instrument's design may inhibit its use in their case.

Someone who is hypersensitive to sound may be able to cook a meal only if the kitchen is quiet. If the kitchen is noisy and full of people, this may prevent them from cooking altogether, so resulting in a negative answer in a questionnaire that does not allow for such shades of response.

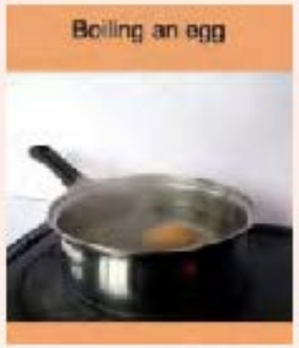
In response, the research team used the activities featured in these daily living questionnaires as a basis for designing a set of 43 visual cards, called Objects of Everyday Use. Each card featured a photographic image, which acted as a visual prompt that explicitly represented each everyday activity. The cards were held together with a pivotal screw that made it easy to concentrate on one card/activity at a time while the pivoting design created a playful and tactile object in itself.

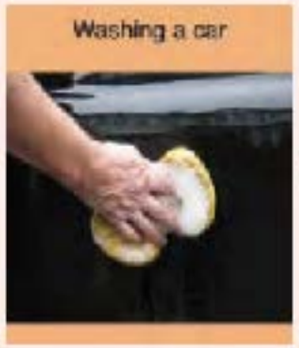
The images helped the participant conceptualise what the activity might

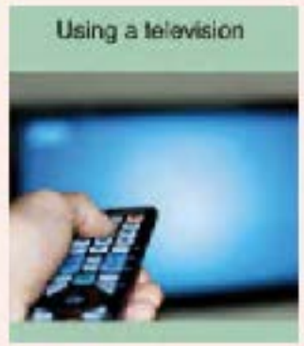
be and express preferences. The name of the everyday object's inventor was also added (quite incidentally revealing that many of the objects were invented long before any contemporary awareness of the nature of autism).

On the reverse side of each card there were three simple questions about each activity. There was also space for responders to expand their answers and convey a little more about why they enjoyed certain activities.

Objects of Everyday Use







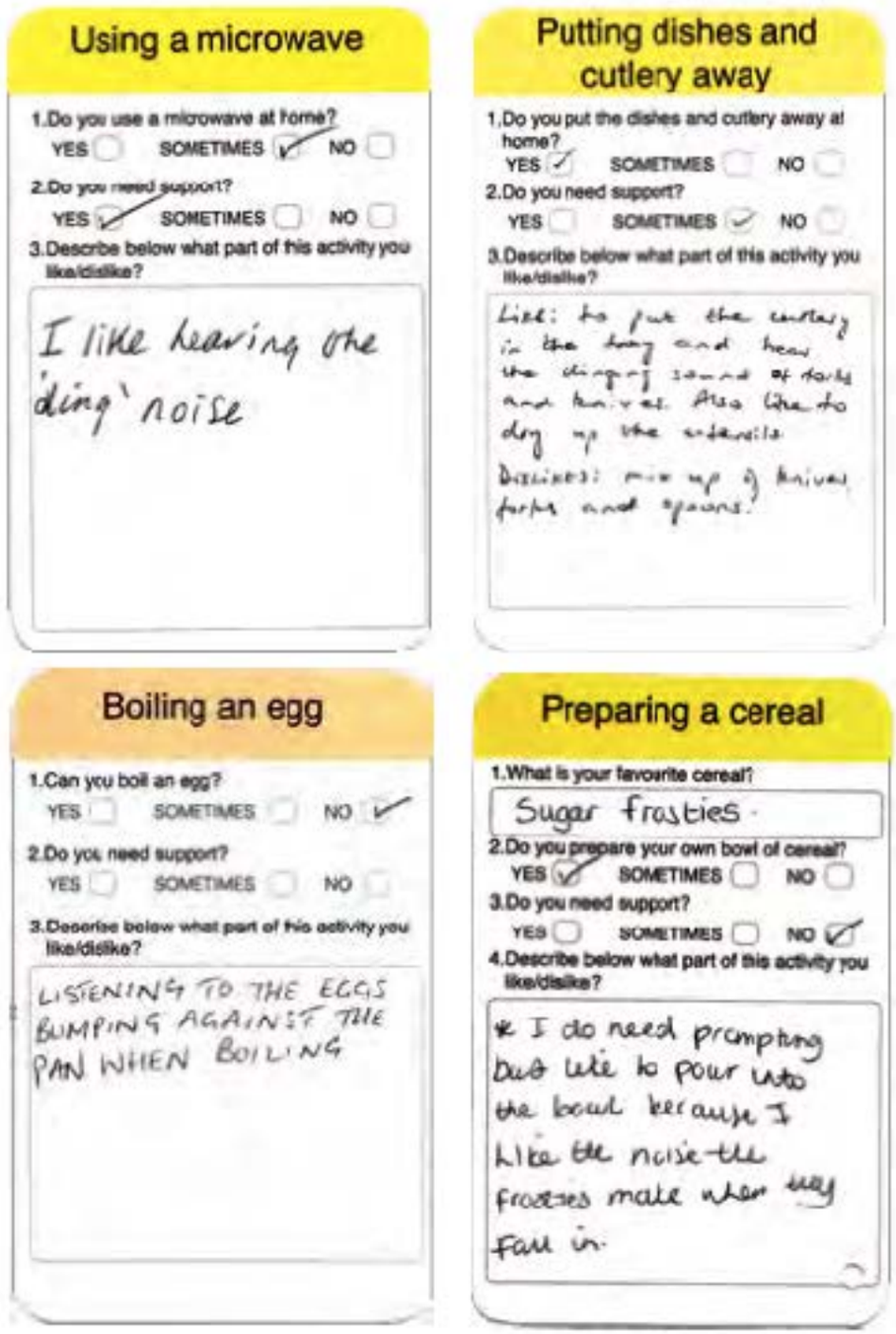
Objects of Everyday Use

Results

The research team invited 18 people that Kingwood support to take part in the Objects of Everyday Use exercise. Some of the participants' responses were expressed through drawing. The insights gained encouraged Kingwood staff and those they support to work together and prompted a reassessment of everyday activities seen in terms of personal likes or dislikes.

The cards enabled the research team to explore patterns and correlations between the most popular and least popular activities, the amount of support required to perform an activity and the reasons, when possible, why the participants liked or disliked various activities. The diagram opposite illustrates this.

'The cards made me think about if someone really likes the sound of the cutlery when setting the table. The first thing I'm going to do, to be more person centred, is to talk about cutlery or pick the cutlery up.'
Kingwood support worker



Support staff observations

Key Findings

Sensory preferences

The research identified four key findings from the Objects of Everyday Use cards and the Doing Things With Things booklets, which support an initial hypothesis as described below.

Everyday environments are furnished with myriad items that stimulate an assortment of sensations. For people who find it difficult to filter, adjust and process stimuli, these can trigger either enjoyment or anxiety. For example some people with autism are affected by details and aspects of the environment that many people may never register or consider: walking on a shiny floor or listening to the extractor fans and things in C minor pitch.

The design methods revealed that a person's choice of everyday activity can be influenced by such sensory preferences. Understanding an individual's particular sensitivities can help support staff to anticipate how they may respond to new activities. On the right are some examples of the activities that Kingwood residents enjoyed doing and the reasons why.

Washing clothes

- I like putting my clothes in the washing machine
- I like watching clothes spin around
- I like switching the machine on and see it filling up with water

Boiling an egg

- I like listening to the eggs bumping against the pan when boiling
- I like the way the egg moves around
- I put the egg in water and watch it boil

Vacuuming

- I like the noise
- I like Henry because he is blue and I like him on low speed
- I like to turn the vacuum cleaner on and off

Hanging washing out to dry

- I like to see my clothes lining up nicely
- I like how the wind blows the clothes
- I like to touch and smell the clothes when I pass

Putting dishes and cutlery away

- I like the noise
- I like to put the cutlery in the tray and hear the clinging sound of forks and knives
- I don't like it when the knives and forks mix up

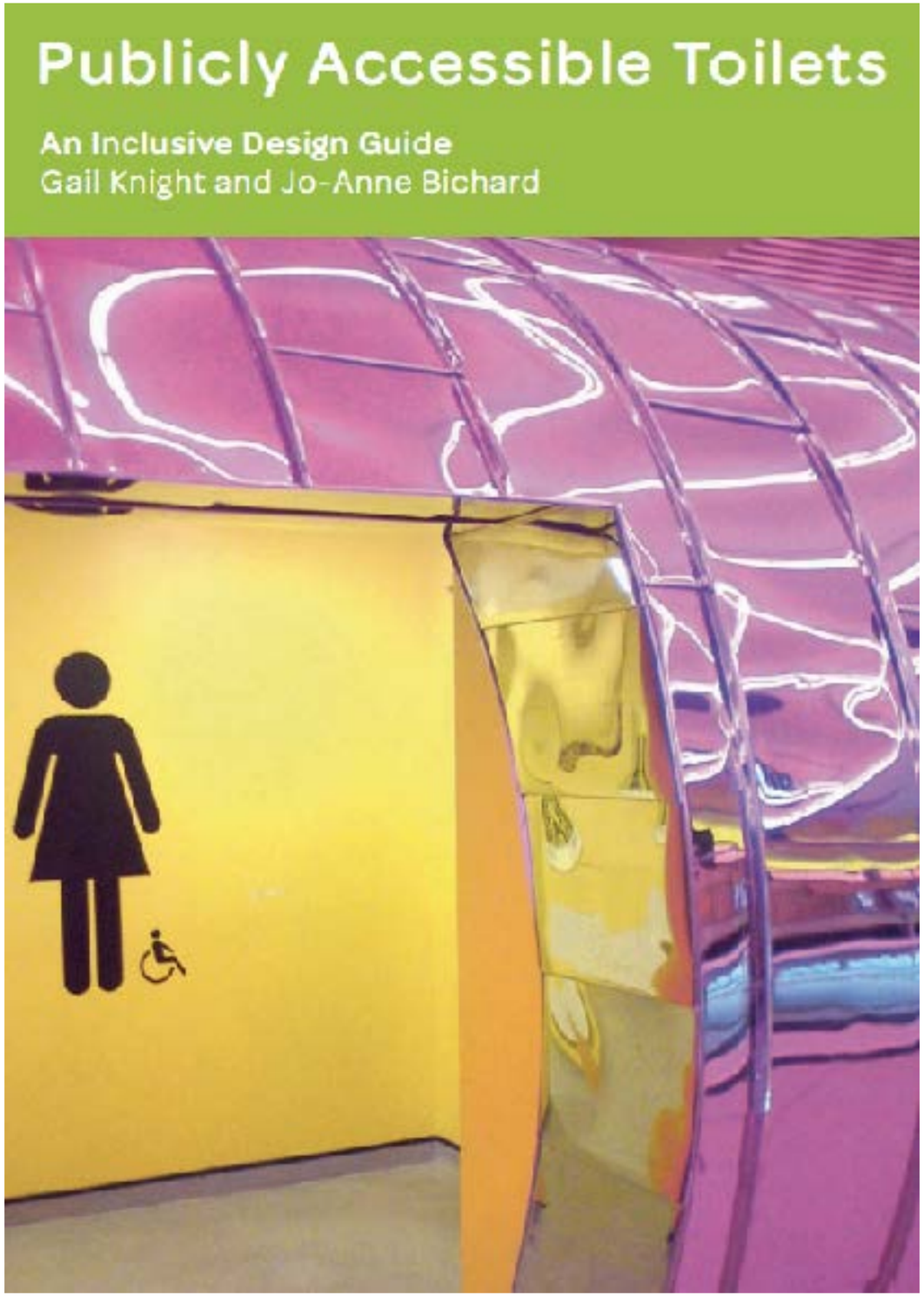
Toasting bread

- I like hearing the toaster click
- I like it when the toast pops up
- I like to smell and feel the heat during toasting

Observations made by support staff

Case Study 2

publicly accessible toilets –an inclusive design guide



http://www.hhc.rca.ac.uk/CMS/files/Toilet_LoRes.pdf

How to use this guide

This guide has been developed from an inclusive design philosophy. It aims to incorporate the needs, aspirations and desires of people of all ages, abilities and ethnicities, who will become the future users of its design outcomes.

'Publicly accessible toilets' refers to all toilets that the public can access without having to buy anything. This includes those in shopping centres, parks and transport hubs, as well as the public toilets and community toilet schemes provided by the local authority.

This research uses current examples of good and bad practice to illustrate solutions.

The guide has been developed for built environment professionals such as architects, planners and designers, and for providers of publicly accessible toilets, such as local authorities, to help them to make design decisions about their facilities.

We have also aimed this guide at members of the public who may be seeking examples of provision that is more accessible for all potential users, or how public toilets might be managed by the community.

Publicly Accessible Toilets – An Inclusive Design Guide has been produced to complement the following resources:

The Accessible Toilet Resource a guide that focuses on the design of the accessible 'disabled' cubicle

At Women's Convenience A handbook on the design of women's public toilets

British Standard BS6465: Part 4 which has been developed especially for the design and management of public toilets

Details of these publications are given in the 'More Information' section at the end of this guide.

Why This Matters

We live in an ageing society

In order to maintain our health and wellbeing into old age we are encouraged to adopt healthier lifestyles. Many activities that support health and wellbeing take place outside of the home, from taking walks in the local park to meeting up with friends and relatives for social engagements.

Most design solutions for our ageing society have focused on the decline of eyesight, hearing, physical mobility and cognitive function. However, after dementia, the loss of continence is the greatest fear of many older people and often becomes the primary reason for people to move into managed care environments. Whilst urinary function reduces with age, it can also be diminished by medication taken for the management of chronic health conditions such as heart failure, some forms of cancer, Parkinson's and Alzheimer's disease.

Continence conditions have made many older people limit the amount of time they are away from home, and in some cases, can be a major contributory factor in stopping them from leaving home altogether. In 2008, Help the Aged (now Age UK) found that being incontinent is very distressing for older people, causing social isolation, embarrassment and discomfort for millions.

A report on public toilet provision (Help the Aged, 2007) found that 80% of respondents did not find it easy to locate a public toilet, 78% found public toilets not open when they needed them and over half (52%) agreed that a lack of provision prevented them from going out as often as they liked. So important is the issue of toilet provision for health and wellbeing of the global ageing population that the World Health Organisation has cited it as a major factor in their Age Friendly Cities Guide.

There are a number of socio-cultural factors that prevent wider dialogue about publicly accessible toilets: that we find the subject distasteful, that we are embarrassed to discuss these needs or that it is seen as 'funny'. Yet the issue of accessing and using a toilet when away from home is a serious barrier to wider participation in public life.

As our ageing society reframes the retirement age, working lives will be extended resulting in more people continuing to commute. Therefore it is essential in our infrastructure that we have access to toilets throughout the transport journey if we are to support the needs of the ageing body.

"Some of them you are supposed to put your hands under the tap and the water comes on automatically, some of them you are supposed to push the top down, some of them you are supposed to turn round and some of them don't work."

Woman aged 74

"I absolutely hate those toilets where you've got a sanitary bin squashed up against one leg and a toilet roll dispenser squashed against the other. An extra ten centimetres would mean I don't have to touch those things."

Mother, 37, of a child aged 3

Local area maps are useful for people to plan their next move, especially if the maps show the location of other toilets.

Sharps bins are useful for people who need to inject medication. Safety pin or disposable razor symbols show other uses and reduce the association with drug use.

Offsetting the toilet within the cubicle would allow more space on one side for the necessary bin. Alternatively, a bin could be built into the cubicle wall.

Some men have Paruresis (Shy Bladder Syndrome). Dividers between urinals offer men more privacy.

A hook near to the toilet or sink keeps bags off the floor, safe from theft, and within reach for those that need to access personal belongings.

People carry lots of items in their hands: handbags, shopping, drink bottles, umbrellas, folders. A shelf keeps objects off the floor.

Bins are essential for people using continence pads. They must be provided for both men's and women's toilets.

There is a need for an all-purpose bin to take continence, menstrual and general waste, so that it can be provided inside the cubicle in the limited space that is available.

CLEANING AND MAINTENANCE

The public toilet is for some people a place of work.

- Cleaning and maintenance staff need a place to park and a storage room for equipment.

- Attendants also need heating, and a place to sit.

Having the same cleaners for the same facilities helps to create a sense of ownership for the cleaners and better communication with the public.

"There is a suggestion to stop having full-time attendants. This is driven by budget cuts, but there is a legitimate argument. In the middle of winter there may not be any visitors around at all"

Park Manager

"She gets paid, she has a white net curtain which she has hung up in her office, nice bright and clean, you should have a look! And the toilet is clean and if it's raining they put down cardboard so it doesn't get all muddy. Nice toilet."

Woman aged 72, prescribed water tablets

"That's part of the beauty of having someone cleaning every toilet at every visit, he has to wait for each toilet to be empty, and therefore notices if someone's hiding in one. "

Cleaning Contractor

"Elsewhere in the station if you want to ask about a train you're unlikely to ask a cleaner, you'd find someone else, but in the toilets you've got no choice. So language is important. It should be a priority job."

London Station Manager

"At the time there was a lot of concern from council members about drug abuse. We certainly didn't want to provide an opportunity for that, so we felt quite strongly that it was attended."

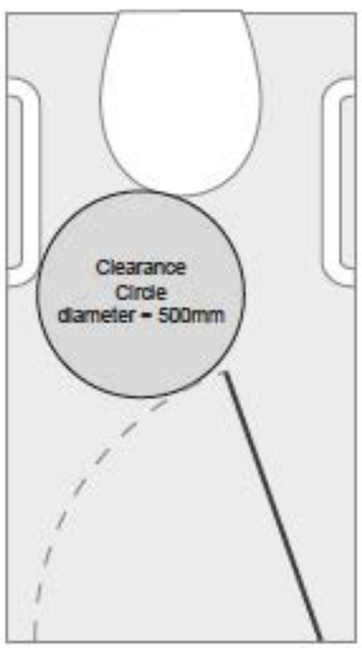
City Council Officer

Design Ideas

AGE-FRIENDLY CUBICLES

The age-friendly cubicle would incorporate some elements from the ambulant cubicle. It would be slightly wider then most existing cubicles and it would include handrails on either side of the toilet. The door locks are 'accessible' (can be opened with ease by a closed fist), the toilet paper dispenser can be accessed by someone with arthritic hands, and the flush is of a lever design (wall inset flush systems can be difficult for people with arthritis to operate). Coat and bag hooks are essential, and, where space allows, shelves are recommended.

Ideally the age-friendly cubicle would become the standard toilet cubicle. This would allow growing numbers of older people to access suitable toilet provision and relieve pressure on the unisex accessible 'disabled' toilet.



DIRECTIONAL SIGNS

This pedestrian fingerpost includes all relevant information: direction, walking distance, pictograms of the facilities, opening hours, stepped-access and payment. Providing the public with more information allows the user to decide whether the facility would suit their needs.