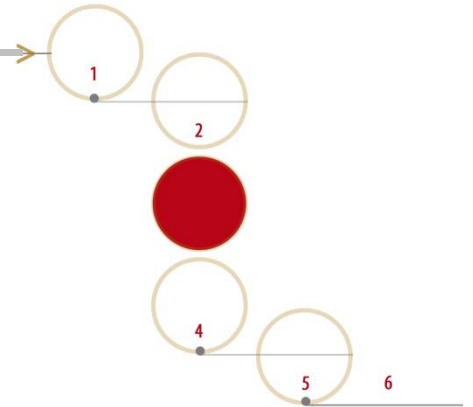


CHAPTER 3

THEORETICAL INVESTIGATION



“Of the most basic things in our behavioural repertoire, eating is the most accessible and effective for conveying our messages to others”

(Fox, n.d.).

Chapter three investigates the three outlined theories. To create a platform for the theoretical investigation, background of the interior environment and the context of the proposed programme are discussed. Thereafter the theories to be investigated are: sustainable development, human centred design and lastly experiential design. These theories will unfold into various relevant sub-categories. Experiential design will be recorded as a focal sub-theory of human centred design. It will investigate and establish a new theory of experience centred design in the interior environment, specifically looking at both the user and the interior. This chapter will holistically seek to establish contributing concepts and interior design strategies for spatial implementation.

3.1

BACKGROUND

3.1.1

THE INTERIOR ENVIRONMENT

3.1.1.1

TOOL FOR KNOWLEDGE AND EDUCATION

User interaction within a dynamic interior space can be seen as a conveyor of knowledge. The nature of an interior is dependent on the aesthetic quality, materiality, sensory exploration and functionality, from which the user will gain specific meanings (Poldma, 2010). This combination of interior qualities suggests temporality, in order to host multiple activities and meanings to occur simultaneously.

The experience of the user should be interpreted before designing the physical parameters. An informed design will then deliberately portray the intended information.

3.1.1.2

TOOL FOR BEHAVIOUR AND INFLUENCE

Although a designer considers the intended interactions and knowledge to be gained, a user's experience is subjective and personal in nature. This is due to the user's implicit perceptions rather than thinking about the intended implications (Storkerson, 2010).

None the less, the interior context in which people live and work directly influence their behaviour and way of living (Lockton, 2011). A study by (Wu, DiGiacomo & Kingstone, 2013) provides empirical support that a person's surroundings can have a profound and positive impact on behaviour.

As conclusion, unsustainable notions can be counteracted by implementing the message of sustainability. A context which both suggests sustainable norms and constrains its counterpoints is in essence a stimulant for sustainable behaviours in itself (WU, et al., 2013). As example, the elimination of refined foods and the exposure to various organic processes will encourage sustainable behaviours.

Although theoretically sound, effective behavioural change encouraged through the interior as platform, has not yet been evaluated. This will be investigated in the proposed programme.

3.1.2

PROGRAMME: RESTAURANT CONTEXT

3.1.2.1

TIMELINE

Most food was made and consumed domestically throughout Western history, the first European civilization (Fox, n.d.: 12-13) (Timemaps, n.d.). People, described as wandering hunter-gatherers, followed where the food went (Joubert, 2012: 3-4). Eating out was seen as a notion for travellers. A French institution was the use of special reserved foods for occasions or as a symbol of status. From these grand beginnings, eating out was imitated by the middle class as a culture (Fox, n.d.: 12-13).

The word restaurant comes from the verb, to restore. It is seen as a restorative and special event, different from the day to day routine. This difference in normality created take-ways and junk food. The modern industrial food system created fast and processed food. Other than searching for food or taking time to prepare meals, the act of eating is easily available and accessible (Joubert, 2012: 4). This type of food is otherwise condemned as non-nutritious and dangerous to one's health (Fox, n.d.: 12-13).

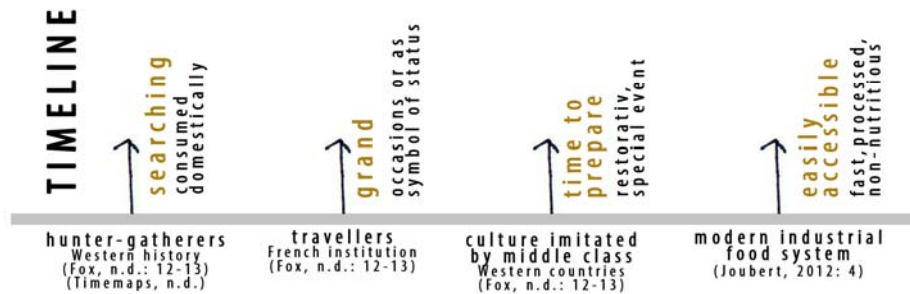


Diagram 3.1.1: Timeline of the restaurant context

3.1.2.2

RESTAURANT DESIGN AND PSYCHOLOGY

The interior of a restaurant is divided between barriers and fields (*diagram 3.1*). Barriers are defined as walls, screens, symbols and objects; to portray separate functions and feelings. Fields are defined as shapes, size, orientation and environmental conditions; which serve as the spatial layout and flow of space to create these feeling (Baraban & Durocher, 2010: 75). The interaction between the barriers and fields, such as between the inside and outside or between the front and back of house, communicate information about the quality of the dining experience and food itself.

The purpose of a restaurant should be both functional and psychological by being for both eating but with an added value to and for the inhabitant. The manipulation of spatial arrangements and consequent narratives add this psychological effect (Baraban & Durocher, 2010: 75). Restaurants should also strive to be informative, a concept currently not yet mastered. People like seeing what goes on behind the scenes. To enhance the experience and interest of the users, one should bridge interior thresholds (*diagram 3.1*).

By considering cognitive-behavioural techniques, the sensorial eating experience can be altered or enhanced. A food psychologist Elizabeth D. Capaldi, PhD, suggests eating changes with repeated exposure or new pairings (American Psychological Association, 2001: 83-112). These strategies can be translated into interior concepts, by designing repetitive and unconventional ways of encountering the eating experience, in a spatial manner.

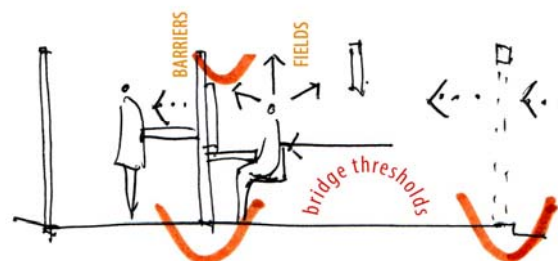


Diagram 3.1.2: Illustration of interior barriers and fields, suggesting the bridge between these thresholds

3.2

SUSTAINABLE DEVELOPMENT

This term can be defined as the improvement of present needs, without compromising future development abilities (Kaushik, 2010: 32). This theoretical investigation will address concepts and strategies for growth within the context of the proposed programme. It aims to create a restaurant environment, promoting sustainable principles.

3.2.1

RE-DEFINING FOOD: PROCESS-ORIENTATED VIEW

“Objects should not be taken in isolation, defined on their own, and then considered in their relations to other objects. Instead, relations are primary, and objects are defined in terms of the network of relations of which they are part – between other parts of the physical world, other temporal instances present and past, and perhaps between non-physical moments as well”

(Eastman, 2003: 27).

The current food system is rooted with many problems. To mention a few; food security, the unhealthy Western Diet, food without nutritional value, diseases such as obesity and unsustainable environmental concerns with its use of fossil fuels (Meisner-Jensen, 2011: 37-38). It is said that the reason for these global food problems are: “Rooted in our evolutionary programming, culture and rare faulty genetics but are underscored by the modern food system and changing lifestyles” (Joubert, 2012: 16). The problems are due to the conventional approach of thought towards food. It views food as mere objects, even as commodities, which exist in a particular moment of time (Joubert, 2012: 15). This view makes food unrelated and detached from its’ lifecycle process of manufacturing, distribution and consumption.

An alternative perception, a redefinition of the entire field of food, is proposed in a dissertation by Jon Meisner-Jensen (2011). It aims to address the food system problems through the lifecycle of food. It is referred to as a process-oriented view towards food.

This view developed from a philosophy called event ontology, developed by Alfred North Whitehead. This philosophy perceives the world as always being in motion, and what we perceive as reality are simply glimpses of incidents based in a stream of processes (Whitehead, 1978: 211). An object, such as food, doesn’t merely exist without a history of becoming. The act of becoming, which is the process, is a more accurate perception of reality. The “being” of food as object, is closely interlinked to its process of becoming (Meisner-Jensen, 2011: 17).

In conclusion, this view adds temporal value, connecting food in a time-frame from its origin through to the consumption or end phase (Meisner-Jensen, 2011: 43-44). This view is familiarized by the term; farm-to-table or farm-to-fork (*referred to in section 2.1, number A2 & A3*). It also connects food to its relationship with the consumer, making it more about the user’s interaction with food and the experience of eating.

(figure 3.2.1)

THEORETICAL INTENT

PHILOSOPHY (Whitehead, 1978)
EVENT ONTOLOGY

ADAPT THEORY (Meisner-Jensen, 2011)

“DESIGNING THE EXPERIENCE, NOT THE FOOD.”

PROCESS ORIENTATED VIEW



TEMPORAL VALUE = SEASONALITY

SPATIAL INTENT

LIFECYCLE

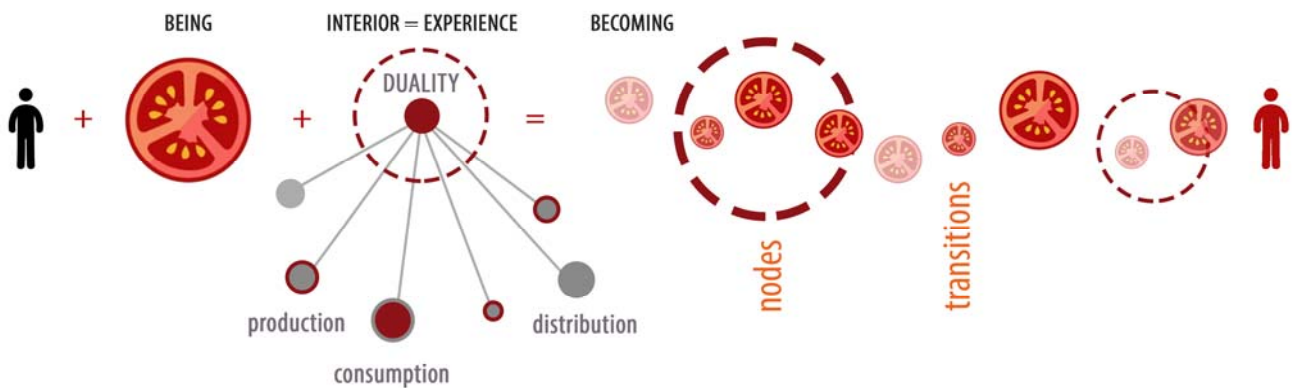


Figure 3.2.1: Diagrammatic representation of a process oriented view
(Interpretation by author from (Whitehead, 1978) and (Meisner-Jensen, 2011))

3.2.2

ORGANIC FOOD MOVEMENT

*"Eating organic isn't a trend. It's a return to tradition"
(Taylor, 2015).*

People are unaware of nutritional values. The packaging contents are mysteries to decipher and often misleading. As such, finding out what our food consists of is often a job more for the scientist (Pollan, 2006: 4-5). The industrial food system and its packaging, is a clear indication of the destructing processing methods of natural properties and nutritional value (Beck, Kretzschmar & Schmid 2006: 3).

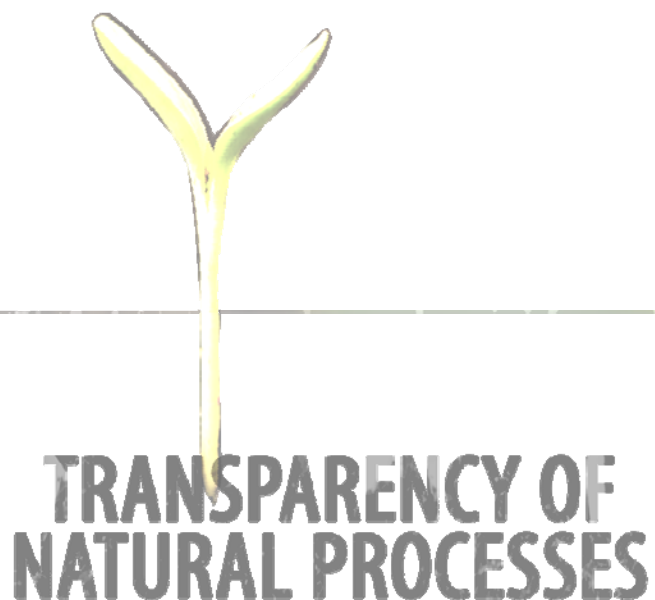
Designer Philippe Starck (Mills, 2010) points out that there are essentially just two trends of food, namely: "The artificial, processed "fast" foods and ingredients that still dominate supermarket shelves; and the return to organic, unadulterated "slow" food. Designers are mainly interested in the latter."

The organic food movement is a reaction against this modern industrial food system, as it highlights these problems of future food concerns. It moves from seeing food as object for consumption, by returning to tradition, which sees food as nutrient. It aims to view food production as an organism sustaining itself (Meisner-Jensen, 2011: 32). The practice of this movement furthermore represents a profound engagement with nature and its culture (Pollan, 2006: 10). Transparency of processing methods is the most important concept, to attain this nutritious view (Beck, et al., 2006: 3).

The movement is further seen as the food consumption movement of sustainability, addressing various matters of abundance (Meisner-Jensen, 2011: 36-37), (Kuepper, 2010: 3-13), (Ripe, 2015), such as:

- Enhance human health and well-being, as natural produce is nutrient rich, pure in its raw state, without added synthetic compounds, chemicals or pesticides.
- Ecological importance. Organic farming enriches natural habitats and its production has a low carbon footprint due to minimal transportation and storage energy needed. It protects natural resources. It reduces water use and doesn't pollute the soil with fertilizers. It lastly aims to be waste free, by eliminating food loss and waste between harvesting, consumption and distribution. It builds on close-looped systems and recycling principles.
- Ethical concerns, as a novel handling of animals and plants promote their welfare. Nature is also not seen as a commodity or for profit.
- Economic prospects, as local farming contributes to the community with job creation.
- Social benefit. Farming constitutes the sharing of knowledge, cooking and culinary skills.

*"For the organic food,
the less it's designed,
the better it is"
Philippe Starck.*



As conclusion to this food movement, it is stated that consumers who buy organic are more interested in their health. They also require indications of information on the gentler processing methods, such as non-genetically modified foods (GMO) irradiation and heating (Beck, et al., 2006: 4). This is typically addressed with creative labelling solution. This relates back to the proposed urban foodie target user (refer to 2.4), which seeks to be more organic, creative and intentional in their influence.

For the purpose of this dissertation, a more viable solution is to expose all processes, through which consumers will be educated to develop a sustainable food habit. The characteristics of this movement, as state above, will be incorporated within the educational and operational systems of the interior environment. Characteristics of transparency and natural processes will be showcased. In essence, the organic movement also reflects simplicity in its design, as it refers to less processing (Mills, 2010).

3.2.3

URBAN AGRICULTURE

*“Grow food where people live, and grow it more sustainably”
(Farmeradmin, 2014).*

There is an increased interest in food, which can be addressed with the issue of a sustainable pattern of living (Gorgolewski, Komisar & Nasr, 2011: 1). This trend specifically emphasizes the importance on what, when and how we eat. Urban agriculture, or also referred to as urban farming, is the solution. It brings the farm to the city and seeks to make everyone a farmer (Calitz & Drakes, 2016). It encourages people to be co-producers rather than consumer, by reconnecting cities to their food systems (Gorgolewski, et al., 2011: 2). This notion has the potential to be sustainable, if it is driven by consumers attentive to know where and how their food is produced (Farmeradmin, 2014).

Urban agriculture addresses modern urban life in order to reshape our cities towards sustainable living. It is the growing, raising, processing and distribution of food and or livestock, directly for the urban market, within an urban area. It taps into the resources, services and products in the urban context to in return generate resources. It dominantly aims to create an interlinked connection of space with the community, ecology and economy (Mougeot, 2006: 4-6). It subsequently considers local food production systems with increased accessibility, water efficiency, the elimination of pest management, the reduction of transportation and lastly the removal of refrigeration (Farmeradmin, 2014).

The practice of urban agriculture is ever expanding in terms of the variety of techniques and ingenuity developed. The United Nations Development Program has identified over 40 farming systems, some to mention; horticulture, aquaculture, vermiculture (earthworms), using recycled food waste, kitchen gardens and market gardens (Smit, Nasr & Annu, 2001: 1-2). On rooftops, in window boxes and school grounds, the practice of urban agriculture can take place anywhere and everywhere.

Urban farming proclaims sustainable development (Smit, et al., 2001: 3-5) (Mougeot, 2006: 22-23) with the following highlighted benefits:

- Food is locally produced which improves nutritional health.
- This notion assists in the problem of food security.
- It has an economic benefit by lowering the expenses for food purchases.
- Creates job opportunities and address social equity with income-generation.
- Reduce carbon footprint (gas submissions) due to the close proximity of the farming lessens travel costs. It furthermore eliminates mechanical processing.
- Reduce pollution and improve air quality through green-spaces (a sense of well-being).

***“The ultimate goal of farming is not the growing of crops,
but the cultivation and perfection of human beings”***
Masanobu Fukuoka.

3.2.3.1

URBAN FARMING SYSTEMS

***“Design cannot disengage itself from natural and human factors.
Its function rather is to bring nature ever closer to us”***
Alvar Aalto.

Two important stakeholders of urban farming are recognised in the theoretical investigation of the dissertation. Their systems and principles will be adapted for the design of the interior. They are:

1. Farm This City initiative (FTC), a Maboneng based initiative which sees food as the future. They strive to make everyone a farmer with urban community integration (Calitz & Drakes, 2016).
2. Infarm, a Berlin-based business with the same notion to grow where you are, which in the case is in-store. They specialize in indoor growing innovations, expressing the beauty of growth (Infarm, 2016).

Hydroponic and aquaponics systems have been identified as ideal solutions for the implementation of urban farming in retail environments, townhouses or apartments. These systems are more sustainable and applicable than conventional soil based gardening (Infarm, 2016), with the following qualities:

- Small scale models available.
- Easy to assemble, maintain or adjust in structure.
- Supply nutrient dense organic produce
- The fresh produce has a faster growing rate.
- Requires less water as it is a closed-looped system.
- Seedlings can be rotated to yield more.
- Innovative, as the structure and frames of the systems can be either modular, made of recycle material or bespoke.

In conclusion, innovative urban farming strategies for within the interior environment will be investigated. The implementation of systems will support the concept and purpose of the proposed programme. Urban farming holistically embodies the process orientated view (*referred to in 3.2.1*). It will engage the target user with the processes linked to the eating experience. They create the opportunity to establish the farm-to-table principle, not only in an urban context but also in an interior environment.

The indoor farming systems will become an aesthetic feature which also adds a sensory experience. It promotes interaction through touching the plants and natural sound with the dripping of water. It furthermore enhances the indoor environmental quality, by adding oxygen and forms of green space. It has an opportunity to be a multifunctional space defining element, by placing seating areas around the produce growing element.

(figure 3.2.2)



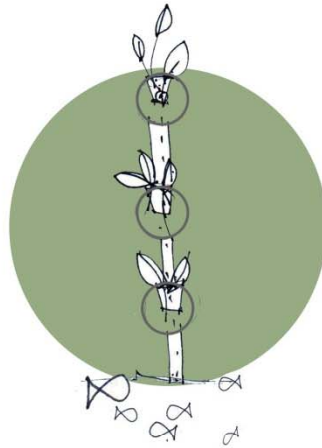
URBAN FARMING

FARM THIS CITY INITIATIVE



the future is food;
everyone a farmer
urban community integration

AQUAPONICS



flood&drain system
closed-looped

INDOOR INNOVATION



grow where you are;
IN-store

FARM - TO - TABLE



modular growbed system



recycled material system



bespoke vertical system

Figure 3.2.2: An interpretation of urban farming within an interior environment

3.3

HUMAN CENTRED DESIGN

Since the end of the industrial era, design has become more responsive to the culture, social and personal needs of the users. This emerging post-industrial task focusses more on the dynamic process of user experience and adaption, than on physical form and mass markets. This shift highlights the change from universal product-based design to flexible process-based experiences, tailored for user needs (Mitchell, 1993: 1). The Japanese industry also developed a trend, referred to as; “The Human age”, focussed primarily on user conscious design decisions (Mitchell, 1993: 2). This creates emotional connections which make the user feel important (Garrett, 2006: 36).

This term can be defined as a deep user understanding when considering design intentions. The term user-oriented can be based on the concept of the head-heart-gut model, developed by Marc Gobè. This model considers the holistic effect on the intellect, emotion and inherent values of the user in a space or situation (Clark & Smith, 2009: 47-56). The head refers to the knowledge gained, the heart to the interaction and stimuli and lastly the gut to the experience and its responses (*diagram 3.3*).

An example of a human centred design is the brand, Nike. Nike products are beyond the mere utility of the running shoe. They have an understanding of the runner, their personality and desired experience. The users portray qualities of a winning mind-set, driven personal goals and a need for the sharing of passion. Their products and retail interiors portray this user understanding (Fraser, 2009: 37). A product example is the Nike+ chip app. It communicates with your iPod, measures, motivates personal performance and connects online to a runners-community. With reference to the interior, it is informed by the user and brand simplicity. With relation to the users’ goals, the interior intent is also clear and focussed. The act of training and the raw materiality of the interiors correspond. The interior portrays a specific directionality and emphasis on products, encouraging the end goal of purchasing.

Human centred design therefore revolves around the intent for the user, seeming to create an emotive message and desired value. This can be achieved by intentionally designing the spatial story, which is the experience.

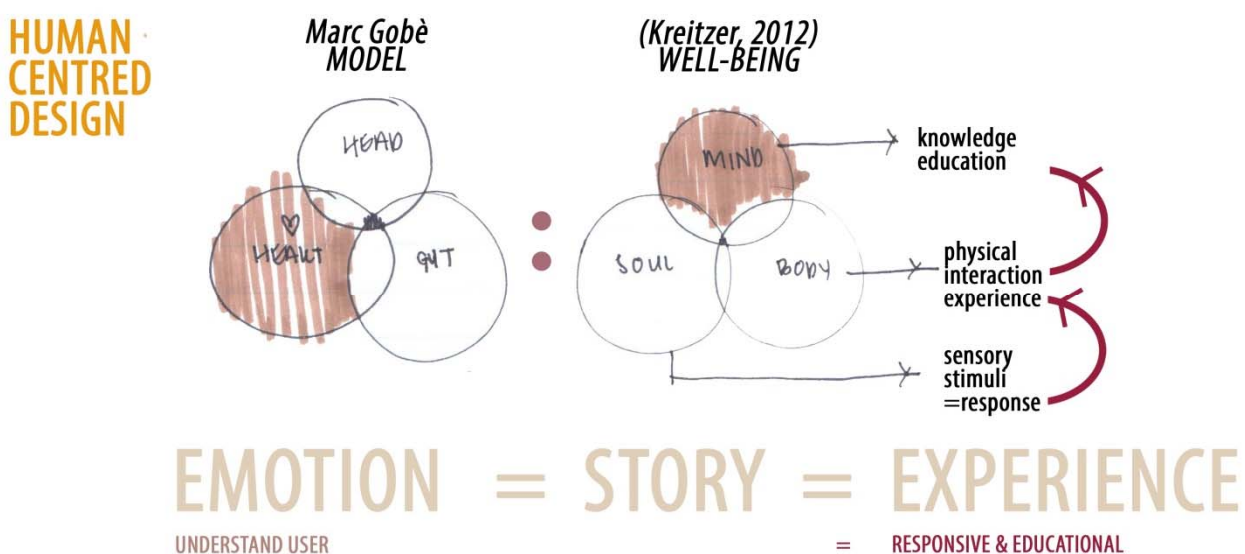


Diagram 3.3: Human centred design model and future exploration of experience design (Interpreted by author from (Clark & Smith, 2009) and (Kreitzer, 2012))

3.4

EXPERIENTIAL DESIGN

For the purpose of this dissertation (*refer to section 1.5*), specific focus will be placed on aspects of experiential design as a sub-category of the human-centred design theory. The exploration will contribute spatial strategies for creating experiences within the discipline of the interior designer.

3.4.1

NEW THEORY: EXPERIENCE-CENTRED DESIGN IN THE INTERIOR ENVIRONMENT

In the preface of Gerhard Schulze's book, *The Experience Society* (2005: ix), he states a new millennium of what experiences require and is seen as. There is a move beyond the product and consumerism toward a post-materialistic urge. This requires consideration of psychological consumption, as noted by Ariely and Norton (2009: 477). Signifiers of this current stance are intangible meanings instead of material products. It shifts towards deceleration (slow) instead of acceleration (fast), less instead of more, uniqueness instead of standardization, concentration instead of diversion, and making instead of consuming (Hassenzahl, Diefenbach & Göritz, 2010: 353-362).

The term, user experience, causes confusion and often portrays a shallow meaning. The word "user" is rooted in an action, where "experience" is much more than usability, as it is centred on psychology. Marc Hassenzahl, a specialized experiential designer, differentiates user experience as merely a sub-category of experiential design. User experience is a tangible aspect seen as the interaction between the user and the product, where experience design is to deliberately create and shape a story. It is an intangible, immaterial, unpredictable and emotional interaction in a passing of time (Hassenzahl, 2010: 4-6). It is achieved through the interior environment, which is a mere threshold for the story to take place in.

Also stated by Marc Hassenzahl, an experience is not about technology, industrial design, or interfaces. It transcends materiality. It is about creating a meaning through a device. In this statement, a device does not necessarily refer to a material object but to a broader scheme. In commentary towards this statement, an information architect Eric L. Reiss, defines it as the perception left in someone's mind following a series of interactions between people, devices, and events (Hassenzahl, 2014: chapter 3).

It goes further to define two forms of experiences; 1. moment-by-moment and 2. memorized. This first form refers to immediate user interaction, the momentary enjoyment and feeling in a specific time. The second form refers to experience as a story. It initiates out of memories (before) and creates a memory to be communicated (after) (Hassenzahl, 2014). The second form, memorized experience, emerges from a dialogue between the user and a series of actions. It creates multiple emotional and physical responses across a period of time (Hassenzahl, 2010: 8). This form is what experiential design must aim at. The designer becomes the "author", creating rather than representing experiences. The application of experience design will be explored within *chapter 4*.

As stated, the intangibility in experience design takes pride. The digital camera can be used as an example. Rather than the physical form, type or use of the product, it is significant for the memories captured and the stories told through the photos. Another example is the music industry, as people aren't willing to purchase CD's anymore. This showcases the shift from materialism, as events and concerts are desirable for the experiential story thereof (Hassenzahl, 2014).

(*diagram 3.4.1*)

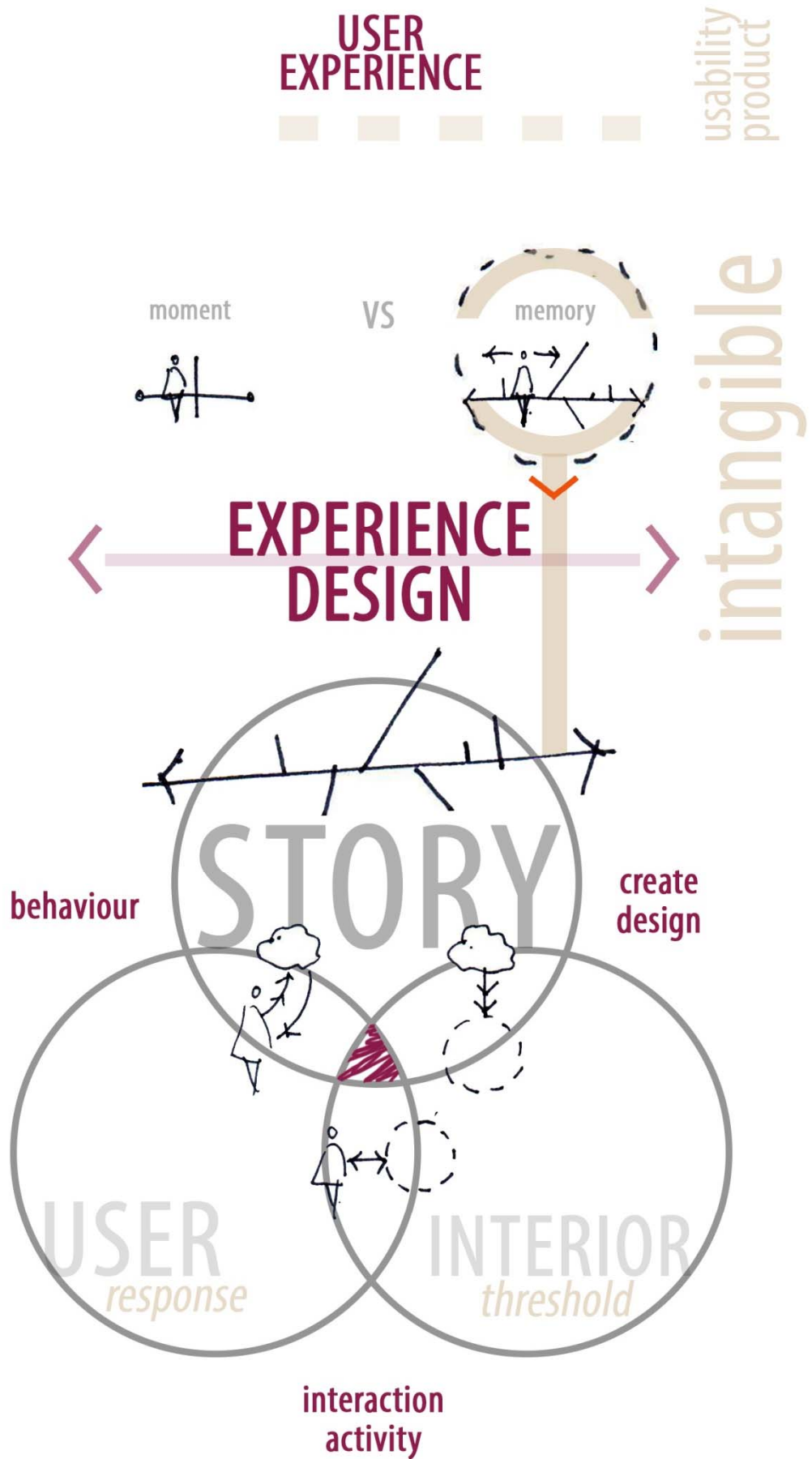


Diagram 3.4.1: Interpretation of the theory of experience centred design
 (Interpreted by author from (Hassenzahl, 2014), (Hassenzahl, 2010: 8) and (Hassenzahl, et al., 2010))



3.4.2

THE USER

3.4.2.1

PSYCHOLOGICAL NEEDS OF THE USER

The challenge with experience design is that it is subjective to the user. Experiences are created to address the psychological needs of the user. These needs are based on personal perceptions, emotions, motivations and cognitive actions (Sheldon & Kasser, 2001: 491-501). Six needs (*diagram 3.4.2*) are identified suitable to address through experience design (Hassenzahl, Eckoldt, Diefenbach, Laschke, Lenz & Kim., 2013: 22), namely:

- Autonomy
Taking responsibility for actions. It is not based on pressure of external forces.
- Competence
Feeling capable and effective in actions rather than incompetent.
- Relatedness
A feeling of intimate contact with others, rather than feeling lonely and uncared for.
- Popularity
A sense of respect and influential value from others.
- Stimulation
A sense of enjoyment and satisfaction opposed to under-stimulated.
- Security
Feeling safe and in control without dangers of circumstances.

The relevant needs to consider in a design project are project specific. In order for an experience to be attained it must fulfil the psychological needs of the user together with an emotional response.

3.4.2.2

USER STRATEGY TO CREATE AN EXPERIENCE

Marketing expert, Professor Bernd Schmitt (1999: 69-71), looks at consumer experiences through five different SEM's (Strategic Experiential Models). More than one or all of the models need to be used to create a holistic experience. The spatial environment is recognised as an experience provider. These models therefore translate into applicable interior design principles. Such models include:

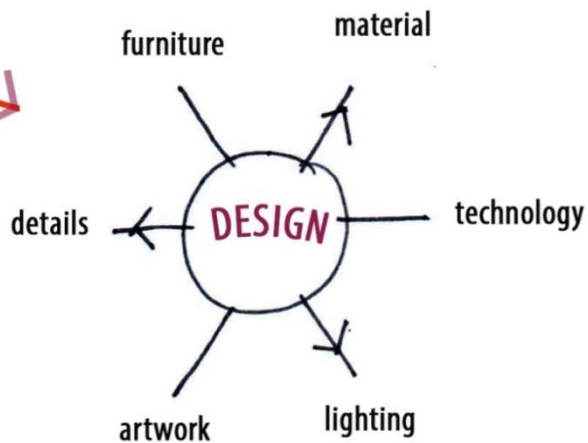
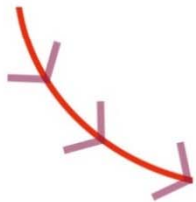
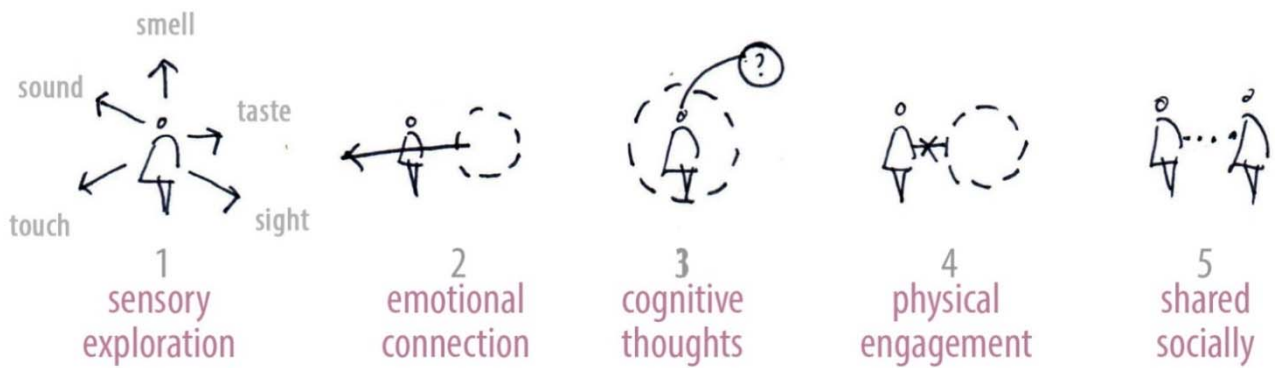
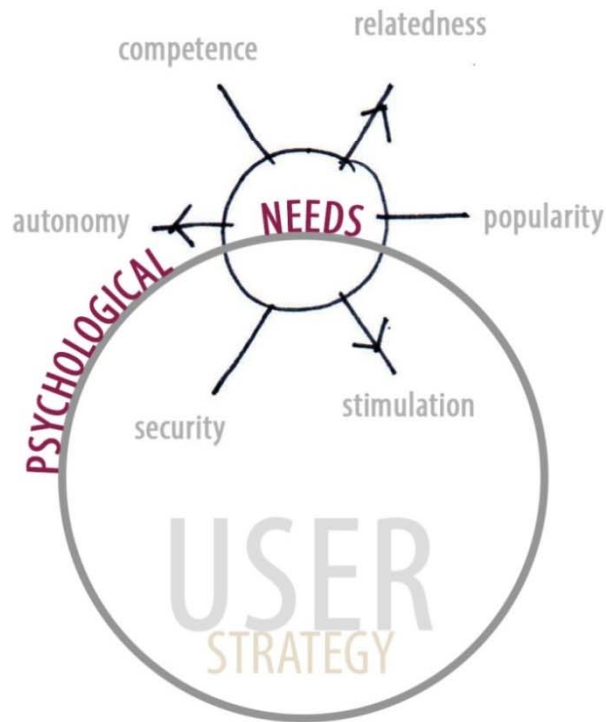
1. Sensory experiences (sense).
2. An emotional experience (feel).
3. Creative cognitive experiences (think).
4. Physical experiences and entire lifestyles (act).
5. Social experiences that result from relating to a reference group or culture (relate).

The interpretation and application of the user strategies will be explored within *chapter 4*.

(*diagram 3.4.2*)

EXPERIENCE DESIGN

=



3.4.2.3

USER BEHAVIOURAL ASPECTS

A. INTERACTION PATTERN

To develop sustainable living, increased engagements in pro-environmental behaviors need to be developed on an individual and collective level (*as referred to in section 3.1.1.2*), (WU, et al., 2013). Changing behaviour, specifically in the interior environment, is a multi-faceted complex task as it can require a one-time action or number of actions to be altered (Jackson, 2005: xii). Different influential factors or the design of products can be implemented to foster this change (Lockton, Harrison & Stanton, 2010: 382-392).

User behaviour is determined by the pattern of interaction with interior artefacts. This user-artefact relation is central to designers, for the interactions are resource-consuming actions which must be addressed in term of its sustainability (Strömberg, Selvefors & Renström, 2015:2-3).

In order to actively reduce the environmental impact of interactions, the type thereof must be addressed. Three identified aspects which assist this design task are discussed below. The strategy for change is also highlighted.

1. User pathway

In the study; *Mapping out the design opportunities: pathways of sustainable behaviour*, 5 pathways of artefact use were identified (Strömberg, et al., 2015: 4-5). Within the proposed programme, 3 have been documented as appropriate strategies for behavioural change:

- Choice of artefact
In order to fulfill the main purpose, the mere choice of the primary artefact can influence the pattern of interaction.
- Changed use
A decrease in the frequency and the style in which the artefact is used, influence the interaction. This necessitates a different use of the artefact, without a change in artefact.
- Mediated use
A secondary artefact can be introduced to substitute as a variation or in support of the primary artefact interaction.

2. Frequency

Behavioural change can be induced by how often the changed action is practiced. It can be through either increased efficiency or curtailment (Gardner & Stern, 2002). Efficiency is a one-time choice or adaption, where in curtailment the altered action is repeated until it becomes a habit.

3. Time or duration

The interaction time can be defined as either dot, span or in a path. Dot is a once-off action, span is actions performed for a fixed period and path refers to several actions which are performed indefinitely.

(*diagram 3.4.3*)

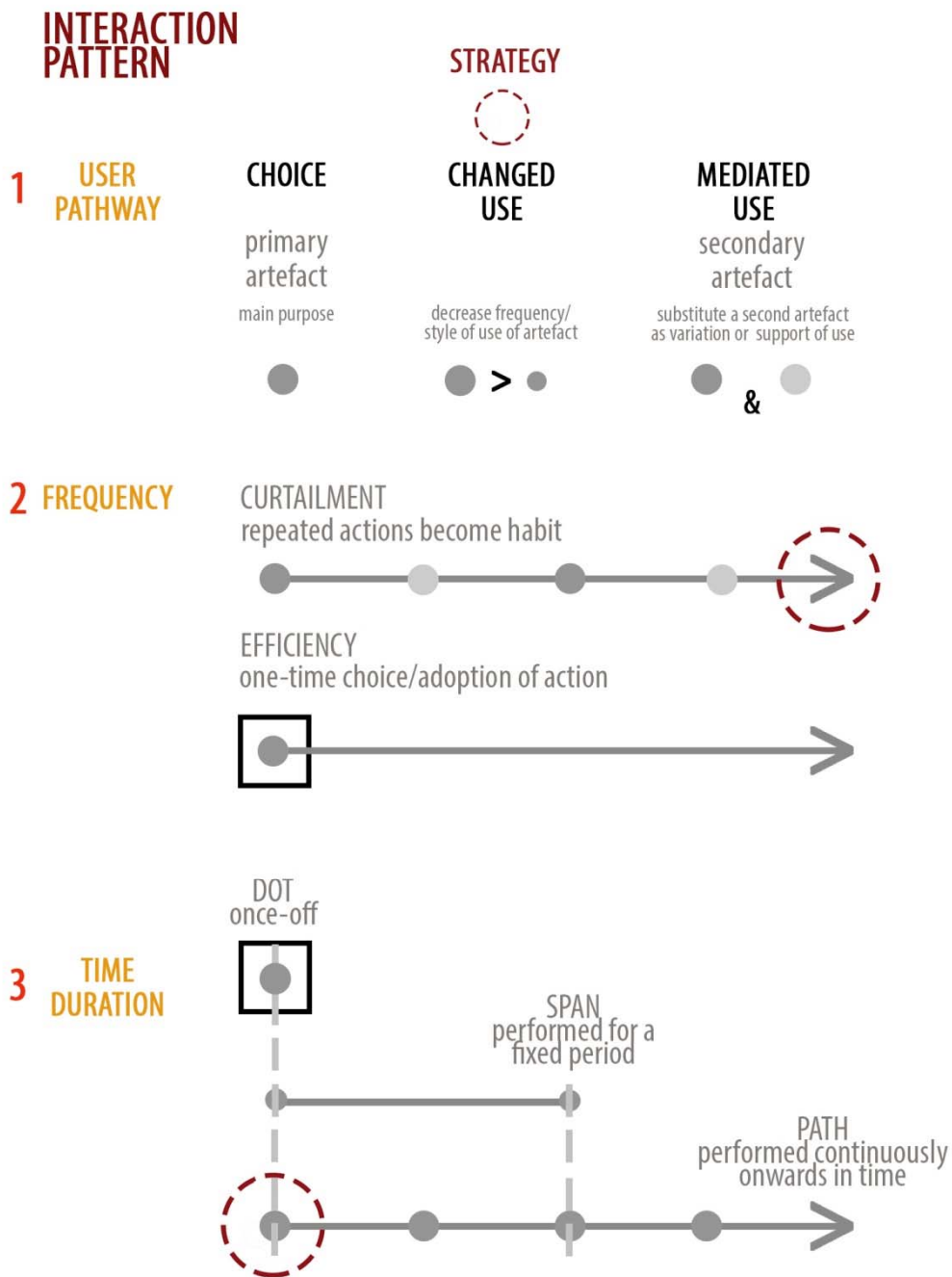


Diagram 3.4.3: Indication of user interaction patterns and the desired strategy for implementation (Interpreted by author from (Jackson, 2005) and (Strömberg, et al., 2015))

The following conclusions can be drawn towards this investigation into user interaction patterns. It is related to informant for the design discourse within the proposed programme:

The second pathway strategy, changed use, seems most influential for behavioural change within the urban context of for an eating experience. The aspect of curtailment and action to be performed in a continuous path will also be practiced to induce sustainable interaction patterns.

B. PRO-ENVIRONMENTAL AND SUSTAINABLE CONSUMER BEHAVIOUR

“Users are attempting to address their consumption patterns to take control of their health. In a survey, consumers suggested desirable attributes to firstly be for foods to be natural and minimally processed without artificial colourants and flavours. In addition they also seek functional foods which both promote good health and reduce risks for diseases” (Nielsen, 2015).

In the report; *Motivating Sustainable Consumption*, it is stated that user behaviour, specifically when consuming, have an indirect and direct impact on the environment and personal well-being. The impact is based on their actions and choices towards living (Jackson, 2005: v).

People consume for either functional or symbolic purposes. This is to satisfy a need or for social distinction and expression of identity. Consumption choices are predominantly emotional responses and occasionally conscious. They are also influenced by either personal interests such as preference, attitude and morals or by social practices of norms, context and structures (Jackson, 2005: vi). The problems arise with society conforming to unsustainable consumption patterns. It is influenced by restricted choices, institutional barriers, social expectations, uninformed decisions and bad habits (Jackson, 2005: v-vi).

There are many theories attempting to understand consumer behaviours with its multi-dimensionality. As stated by Stern (2000), “Behaviour is a function of the organism and its environment.” It is therefore an integration of the users’ attitude, behaviour and context (setting). Two valuable theories are considered to address user behaviour and motivate consumption concerning a sustainable character:

- THEORY 1: “Norm-Activation Theory” by Schwartz’s (1977: 221-279)

The theory suggests that personal norms influence users to behave in a particular way. It can be defined as users performing specific actions and taking account for the actions’ consequences. They then have the moral obligation to take responsibility linked to the action.

- THEORY 2: “Structuration Theory” by Giddens (1984: 15-16)

This theory considers consumption as a set of social practices, based and influenced by social structures. It questions whether users are free of choice or bound by choices out of their control. It specifically highlights the difference between practical and discursive consciousness. Practical consciousness is the everyday routine actions, where discursive consciousness is intentional or goal-oriented behaviours.

As conclusion, the interior design must co-create and alter the culture of consumption. Pro-active consumption patterns can be aided by the design of the interior environment. It can also be on a smaller scale through packaging being more transparent, informative, quickly accessible and understandable. With the aim towards the change in habitual behaviours, principles of both abovementioned theories will be encouraged. The strategy of discursive consciousness needs to be implemented within the design, as it will urge users to make intentional and responsible decisions. These decisions will support all aspects of sustainability (*as referred to in diagram 1.5*).

C. HABIT AND CHANGE

“Habit is one of the key challenges for behavioural change since much environmentally significant behaviour has this routine character”

(Jackson, 2005: ix).

Building and maintaining good habits towards food and aspects of sustainability, supports overall health and well-being. Habits are cognitive deliberate routine actions (Jackson, 2005: ix). In essence, behavioural change is the aim needed for sustainable living, with habit elimination, change or formation as the contest.

It is suggested by the “elaboration likelihood model” of Petty and Cacioppo (1981), that long-term behavioural change depend on the users’ conscious and constant engagement with the habit at hand. To attain a changed behaviour, habits need to become goal-oriented, considering factors such as motivation, will-power, and rewards (Nemec, Swarbrick & Merlo, 2015: 24-30).

As conclusion, behaviours with regards to eating and sustainability are complex. It should be seen as an experience packed with psychological needs, norms, emotions and meanings. This enables the designer to become the author of the behaviours, through the interior environment. In designing for the proposed programme, interaction within the interior will encourage behavioural change. Effective strategies are for users to engagement in acts or with physical elements, observe behaviours of others and witness desired behaviours (Jackson, 2005: xi). People learn best through hands-on experience, or by learning from example or counter-example of what it must and can be. The designer must also be the author of the interior story, created with the movements, intangible meanings and sensory interactions of the interior thresholds.

3.4.3

THE INTERIOR

3.4.3.1

SPATIAL JOURNEY

“The ‘elements’ of architecture are not visual units or gestalt; they are encounters, confrontations that interact with memory”
(Pallasmaa, 2005: 63)

It might seem as if experiences can't really be designed for as they are personal, emotional and based on a perception. Even so, an experience is the result of a conscious intent, a specific strategy rooted in a series of considerations (Garrett, 2006: 36). Experiences are constant in motion, based on various touchpoints, activities and events, formulating as a result of the users' needs (Coles & House, 2007: 8-9). This statement relates to a process-oriented view (*refer to section 3.2.1*) and the psychological needs of a user (*refer to section 3.4.2.1*).

When creating a spatial journey various layers are addressed. It is a duality of considerations, focussed to be both functional yet have the main objective of being educational (Garrett, 2006: 36-37). These considerations are rooted in a set of abstract concepts, articulated within various interior movements and interactions. It can be defined as spatial design methods (*refer to section 3.4.3.2 and diagram 3.4.4*).

3.4.3.2

SHARED EXPERIENCE PATTERN

As stated in the process-orientated view and philosophy of Alfred North Whitehead, being and becoming are interlinked (*refer to section 3.2.1*). People can therefore only define themselves, by referring to someone or something in relation to them (Meisner-Jensen, 2011: 20). This statement is further defined by suggesting that people engage more in shared consumption.

Shared consumption is the act of users engaging with others to feel related. If the interaction during the event are however limited, users still perceive the experience more meaningful by sharing it (Hassenzahl, et al., 2013: 24). In essence, an experience is perceived and internalized differently, however it is crucial that everybody consumes the same amount. Relatedness is thus the desired outcome of any experience. To create a shared experience a general structure occurs, consisting of three stages:

- Stage 1: Anticipation
This is the commencement of the experience, the “before” stage. It transforms individual needs into a shared platform. It creates a context for relatedness between users.
- Stage 2: Interaction and communication
This stage refers to the event. The prescribed needs and particular context is received through gestures, eye contact or other sensory contact, laughter or words.
- Stage 3: Cool-off
The “after” stage. In this last stage the knowledge and meaning of the event is fulfilled and translated into a memory. The pattern is completed.

(diagram 3.4.4 showcasing both spatial design methods and a summary of the shared experience pattern)

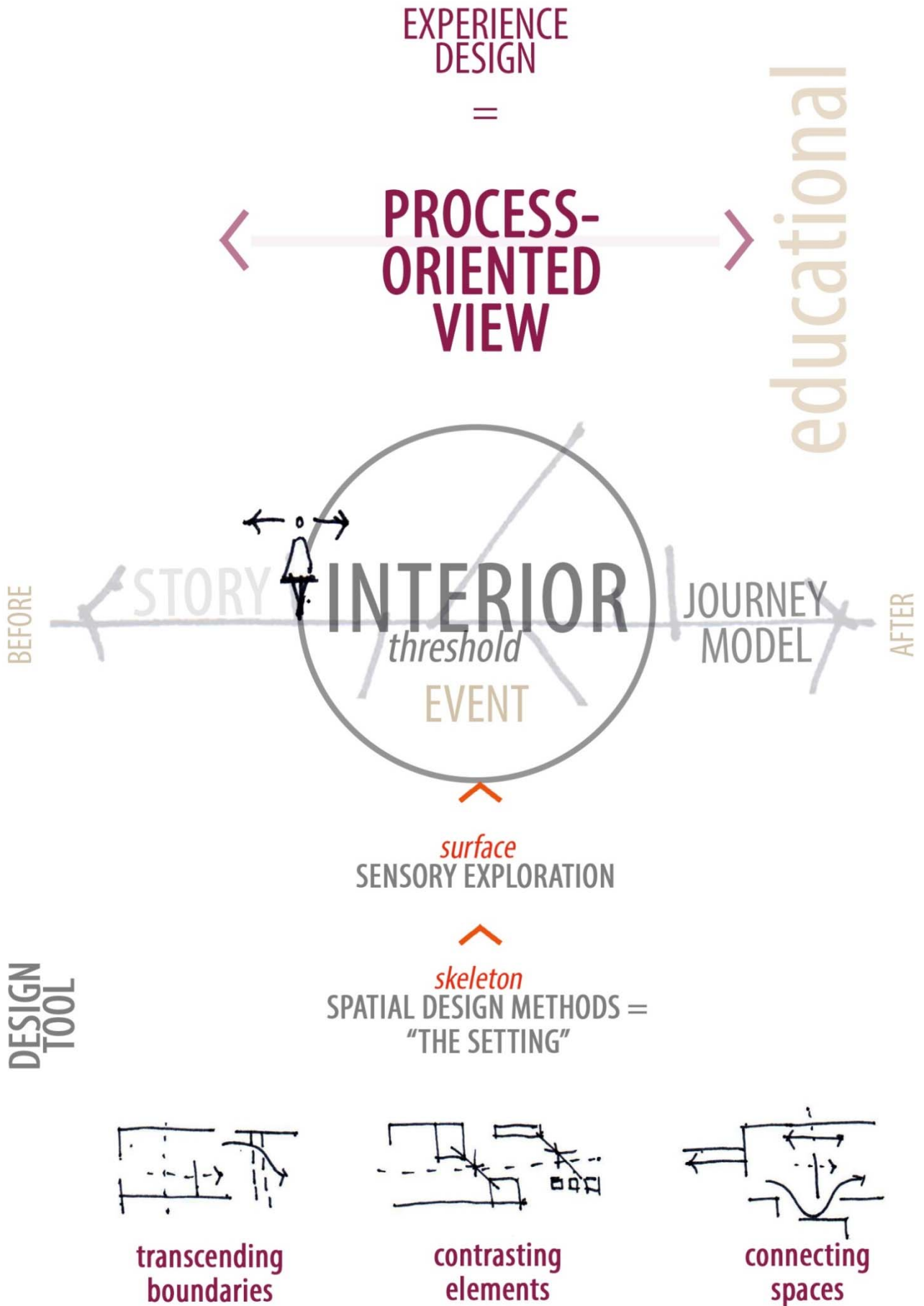


Diagram 3.4.4: Defining the interior threshold as design tool for experience design
(Interpreted by author from (Garrett, 2006), (Lockton, 2011) & (Hassenzahl, et al., 2013))

3.4.3.3

CONTEXT: THE CHANING KITCHEN

“But even more the kitchen is a space for different types of social gatherings. The kitchen is the scene of family get-togethers, friends socializing, work-related activities, day-to-day dining, formal entertaining, late-night snacks, Sunday brunches, hurried breakfasts and so on”

UNStudio, architects.

The kitchen can be used as a space defining element and its principles can be used as an interior design tool (Mills, 2010). It has evolved with four changed concepts:

A. Kitchen as “the revolve”

The kitchen was usually merely a room for cooking and food preparation, situated at the back of the house. It is now moving to become the central part, the revolve and heart of a space. It is described as a hybrid space around and in which all activity takes place (Mills, 2010). This merging of different rooms and spaces into the kitchen, demands the physical parameters and boundaries to expand. In essence a sense of transparency is urged to showcase the kitchens as a “stage” for various uses.

B. Arrangements influence behaviour

There is a need for both eating as informal leisure activity and alternatively for the on-the-run lifestyle. This duality of both slow and fast food seeks dynamic movement within the interior space. This notion can be addressed by creating interior interventions with different heights, rhythms and means of privacy, while still promoting the essence of an eating experience.

These arrangements can also be used to address the interaction between the inhabitants. In the social context of the restaurant industry, an approach to either individual or communal eating creates different behaviours. The concept of the sharing kitchen is mostly encouraged, as communal pleasure address designs’ humanistic attitude (*refer to section 3.4.3.3*), (Mills, 2010). Not only the interaction between users, but also the use of the table interface can create a “performance”. The use of the table and other objects in multi-functional ways will showcase more of the eating process.

C. The “growing kitchen”

Users are ever more concerned with the origin of their food. It developed into a movement where the community grows and farms their own sources, in their context (*refer to section 3.2.3*). Local sourcing has now moved from rural farms into the urban context. It also moves farming from the outside into the interior environment and the kitchen (Mills, 2010). This movement of living in close proximity to plants and animals in the interior has immense psychological and physical benefits for the users. It merges the outside and interior, where the space itself is seen as the source.

D. Less structured

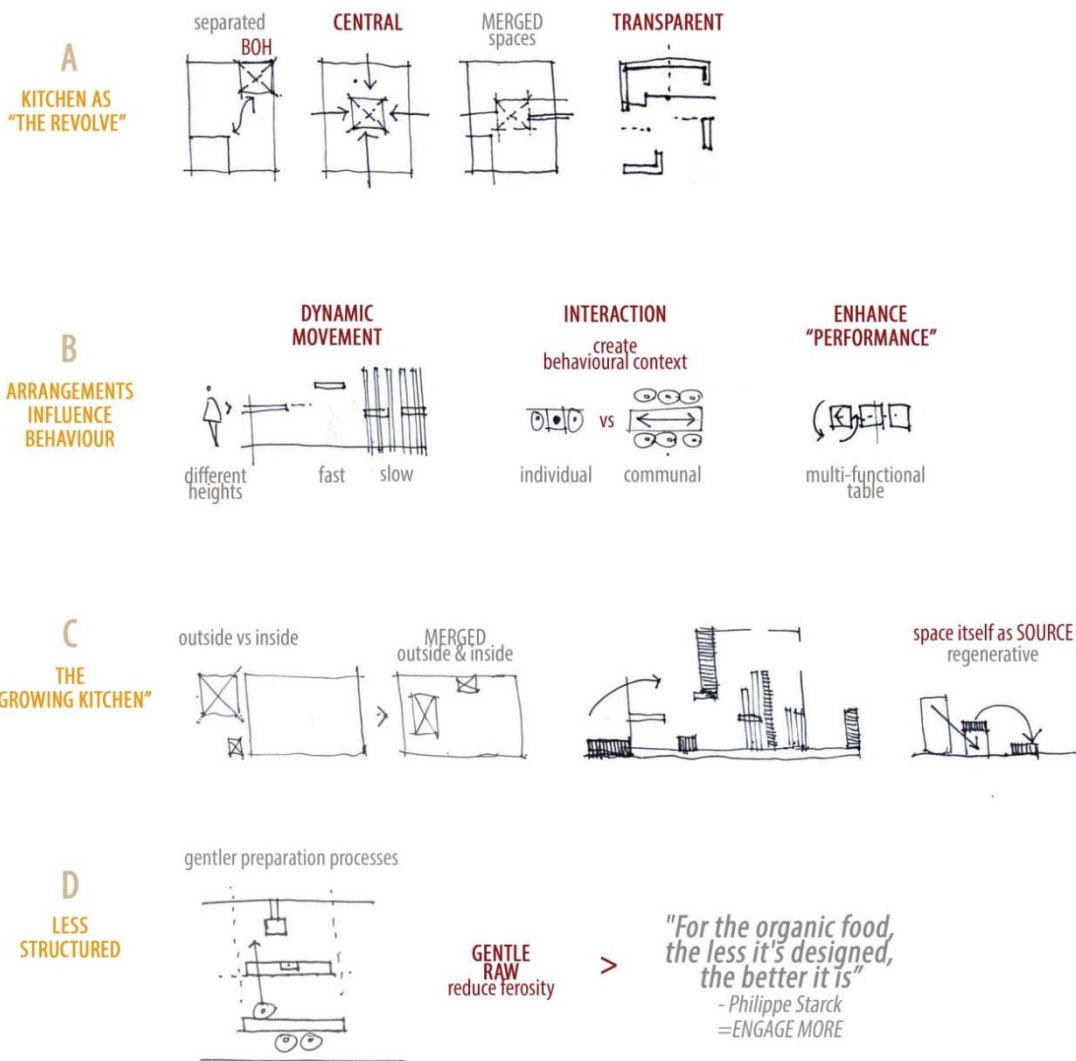
There’s a return to basics, which creates a platform to engage with the space and the raw ingredients. It showcases a reduction in ferocity, resembling the same sense as the organic movement (*refer to section 3.2.2*), (Mills, 2010). The kitchen threshold are thus becoming less structured yet designed for intended experiences and behaviours to take place in.

(*diagram 3.4.5*)

"The dining room comes into the kitchen; the kitchen becomes a dining room. We can stay a long time in the kitchen. That means the living room disappears, so there is only one room, which is the kitchen"

Philippe Starck.

THE CHANGING KITCHEN



TRANSPARENCY of methods

Diagram 3.4.5: Showcasing the 4 concepts of the changing kitchen (Interpreted by the author from (Mills, 2010))

3.4.3.4

SPATIAL DESIGN METHOD: THE SETTING

“If eating out were only about food then the setting would not matter”

(Fox, n.d.).

Spatial design methods refer to interior strategies as design tool. The interior will be used as threshold for the story or the event to take place in. Dr. Dan Lockton, a professor which specializes in behaviour change for social and environmental benefit, defines two interior strategies to form sustainable behaviours (Lockton, 2011). The strategies focus on the principle of designing intentional spatial layouts or arrangements. The designer is in control of the contact points and lanes of access where social activity and interaction take place. These arrangements suggest one of the following strategies:

1. Designing encounters which direct, encourage, hinder or prevent communication between the users, with themselves or with the interior. These encounters can be manifested by either transcending spatial boundaries or by creating contrasting elements. Both encounters will inform a change in perception.
2. Creating nodes of activity. By creating different concentrated areas or groupings for interaction to take place, connects spaces. It places individual emphasis on specific interactions while creating a holistic spatial rhythm.

At the surface plane of the spatial journey, sensory explorations such as; visual (colour and typography), auditory (background sounds) and tactile stimuli (textures and interfaces) are delivered. These stimulants are used to evoke emotions which persuade the user of the value of the space (Skomal, 2011: 28). The five senses and their spatial manifestation are defined for the interior discipline:

- Sight: visual design elements of a space such as the selection of colours, materials, furnishings, artwork, lighting, unique elements and the use of technology.
- Sound: auditory elements considering the ambient noise, type of music and voices.
- Touch: the tactile qualities of surfaces due to the selected materials and furnishings, small scale details or even technology respondent to touch.
- Smell: the aroma of the spaces due to the scent of food or materials.
- Taste: a curiosity in the mouth when something is eaten or smelled.

The design of the sensory exploration will manifest by considering contributing elements of interior design such as the materiality, technology, lighting, furniture, artwork and details (*diagram 3.4.2*).

3.5

CONCLUSION

Three theoretical topics with sub-categories were investigated. Diagrams are generated to interpret and summarize most of the theories. The investigations were concluded with relations or applications to the proposed programme. The main informants for this design discourse are; a process-oriented-view, urban farming, strategies for experiential design and principles of the changing kitchen.

Design development will follow in the next chapter.

It will commence with a design approach and the implementation of the theories in a spatial manner.