surfacing a guide for approaching landscape

by Andrea C. Kennedy

a practicum submitted to
the Faculty of Graduate Studies of the University of Manitoba
in partial fulfillment of the requirement of the degree of

MASTER OF LANDSCAPE ARCHITECTURE

Department of Landscape Architecture
Faculty of Architecture
University of Manitoba

January 2008

SURFACING (surface – verb)

to come to the surface
to become apparent
to wake up or get out of bed
to give a surface to (something)
to apply the surface layer to
to bring to the surface

The Penguin Dictionary 2004

to my committee

Dr. Marcella Eaton
Professor Alan Tate
Doug Clark

to my family and my friends

to the faculty and students
of the department of landscape architecture

thank you.

abstract

This work is a compilation of ideas intended as a framework for an alternative approach to engaging 'site' in the design process, an approach that maintains and explores the complexities and subtleties of a landscape, of a place.

Through two parallel explorations - one that considers an expanded and inclusive interpretation of landscape as the frame through which we engage with, and design, our surroundings, and one that examines the specific nature of this engagement as exchange between the self and the milieu - such an approach has been developed.

This approach is called RECONNAISSANCE. Through encouragement of explicit, conscious consideration of how we perceive and experience a landscape, how this contributes to an understanding of a particular place and how this relates to and informs the practice of landscape architecture (both the process and the outcome), RECONNAISSANCE contributes to a strengthening of our abilities and actions as landscape architects.

abstract
extended

This work is a compilation of ideas intended as a framework for an alternative approach to engaging 'site' in the design process. As an Iternative to the conventional 'site analysis', this will be an approach that maintains and explores the complexities and subtleties of a landscape, of a place.

Through two parallel explorations - one that considers an expanded and inclusive interpretation of landscape as the frame through which we engage with, and design, our surroundings, and one that examines the specific nature of this engagement as exchange between the self and the milieu - such an approach has been developed; RECONNAISSANCE is this approach, a frame of reference for questioning, a dynamic process of knowing, rather that a fixed, static knowledge base to which we refer.

RECONNAISSANCE is presented through a series of intentions that serve to guide an inquisitive and imaginative attitude, open to possibility and potential, while two additional components further describe the means of applying such an approach in practice. The first is FRAMING, designed to sample the complexity of our surroundings, redefining the medium within which we experience and design through an understanding of landscape that reflects its multiplicity of interpretations, and a questioning of the conventional designation of site. The second is TRACE, as a means to encourage an understanding of complexity through an active participation in the dialogues within and of the landscape. Through the facilitation of an ability to shift our frame of engagement, and encouragement of a deeper, richer exchange within each one, trace generates a layered understanding of milieu that recognizes its subtle, ambiguous, and concealed aspects.

Reconnaissance, as presented, is intended to encourage explicit, conscious consideration of how we perceive and experience a landscape, to consider how this contributes to an understanding of a particular place and how this relates to and informs the practice of landscape architecture (both the process and the outcome). Reflecting on these questions is essential to strengthening our abilities and subsequent actions as landscape architects.

table of contents

ACKNOWLEDGEMENTS v
ABSTRACT v
EXTENDED ABSTRACT vii
TABLE OF CONTENTS ix

OPENING 2
premise 4
intention 6
methodology 8
convention 10
reconnaissance 14

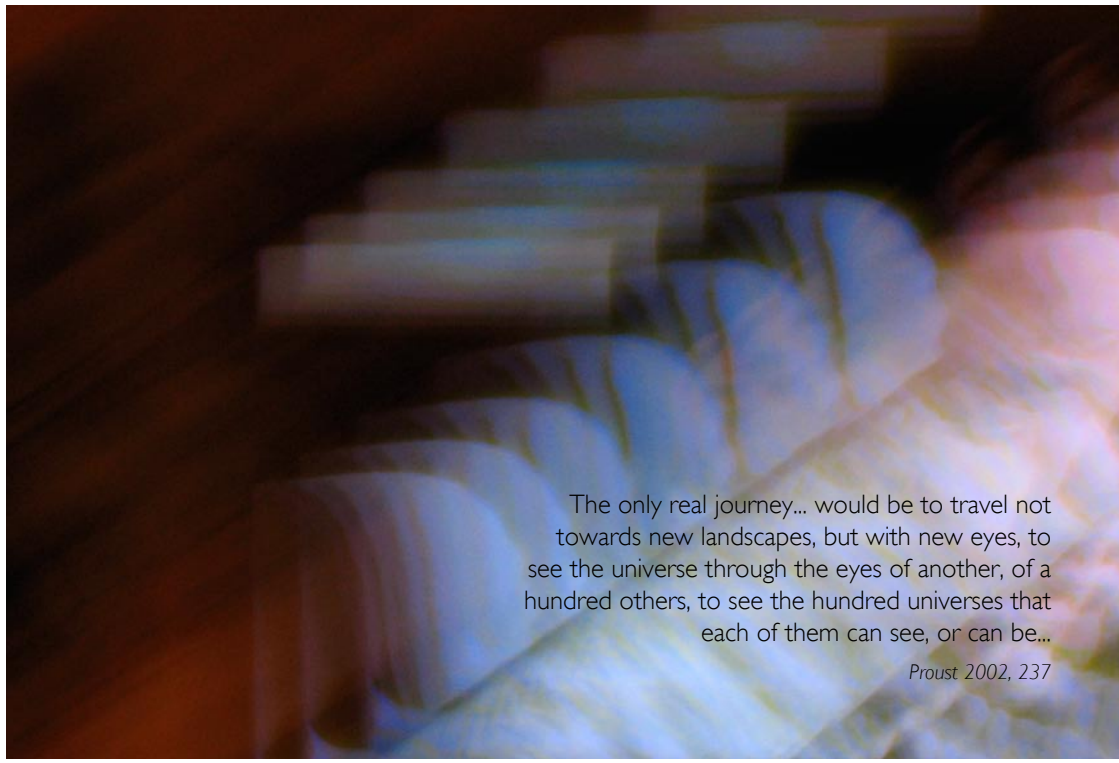
FRAMING 20
defining frame 23
defining landscape 29
'landscape' = self + milieu 33
'landscape' = site + context 49

TRACE 56
exchange 57
conceptual - material 59
experience 61
design 77
trace 81

CLOSING 124
reconnaissance 126
reflections 139
future directions 143
conclusion 145

REFERENCES 149

* all illustrations by author


The only real journey... would be to travel not
towards new landscapes, but with new eyes, to
see the universe through the eyes of another, of a
hundred others, to see the hundred universes that
each of them can see, or can be...
Proust 2002, 237

opening

Beginnings are perhaps most propitious if their ends are neither clearly envisaged nor defined. As with children at play, such indetermination can often precipitate unexpected findings, enabling one to discover new and unforeseen aspects in affairs that may seem ordinary or exhausted.

Corner 1999, xv

PREMISE

The direction of this work is based in part on a frustration with the prevailing attitude towards the city of Winnipeg, as an undervalued Canadian prairie city with, many would say, few examples of 'good' design, and in part on an intuitive assumption that most base assessments such as this on an inadequate and superficial understanding of the landscape, its character and its essence; an understanding that reflects the vagueness of how we perceive and experience our surroundings. The following work is thus motivated by the desire to understand how we might reveal and understand the essence of 'place' in the landscape.

The premise of this work is a belief that an ability to perceive, experience, and to understand the world is essential to design, to landscape architecture, yet often remains underdeveloped. We move through the landscape in a general state of distraction, the experience of which is muted and detached, highly selective and biased, yet vague. The everyday has a tendency to become purely 'background noise'. Conscious awareness is too often limited in scope and depth by virtue of habits and tendencies, values and conventions. True sensitivity to, and awareness of, surroundings is rare and as a result, our understanding of the world remains limited, superficial, and simplified; knowing a 'place' remains elusive.

Yet, is this not the necessary foundation on which landscape architecture is based? Have we become complacent in our unquestioning acceptance of the foundations of design? What are the consequences of such an understanding of the landscapes we inhabit and construct? Are we even aware of the problem? Are we aware of how we perceive and experience the landscape and how this engagement relates to our practice, our approach to landscape architecture?

"Have we become complacent in our unquestioning acceptance of the foundations of design?"

INTENTION

With this work, I hope to challenge accepted thinking with regard to how we approach design, exploring how things could be rather than how we have been taught they should be. The intention is to encourage a reflective and questioning attitude, and to inspire a desire to push beyond the personal and professional boundaries that define how we experience, and design, our surroundings.

> The only real journey... would be to travel not towards new landscapes, but with new eyes, to see the universe through the eyes of another, of a hundred others, to see the hundred universes that each of them can see, or can be...
>
> *Proust 2002, 237*

Ultimately the aim is to 'see' more in order to understand more deeply the world, a greater awareness and understanding of the landscapes we inhabit and construct, moving beyond what is comfortable and largely' unconscious', engaging in conscious acts of 'seeing' in order to practise landscape architecture in sensitive, relevant, and inspirational ways. The work is a compilation of ideas and reflections that are intended to be a contribution in this direction.

The purpose is to develop a framework for an alternative approach to engaging 'site' in the design process, an approach that maintains and explores the complexities and subtleties of a landscape, of a place.

The goal is to understand:

- what an expansive and inclusive interpretation of 'landscape' might be;
- how such an interpretation might influence an approach to understanding and 'knowing' a landscape;
- the nature of how we 'experience' landscape;
- how we might improve our engagement with, and understanding of, the complexities and subtleties of a changing landscape throughout the design process;
- what the implications of such an approach are to the practice of landscape architecture.

METHODOLOGY

The methodology is structured around three parallel explorations. The first considers an expanded and inclusive interpretation of 'LANDSCAPE', as the 'frame' or 'lens' through which we engage with, and design, our surroundings. The second examines the specific nature of this engagement through an investigation of 'EXCHANGE', while the final exploration involves an iterative process of juxtaposition, layering these explorations through thought and reflection that informs the final outcome of this work - 'RECONNAISSANCE' as an alterative approach to understanding 'landscape' and engaging 'site' in the design process.

CONVENTION

> A convention is a given, a rule, an established practice or ritual that is consolidated by majority consent. … However, convention can be shattered. … Thus, new conventions can replace earlier codes of practice. Indeed, the cycle of architectural 'isms' each tend to question the conventions of those it purports to replace. … However, the true test of design conventions lies not in some absolute truth, but rather in their ability to achieve some desirable end. Designers are constantly faced with accepted rules of conduct and unwritten codes of practice informed by a particular culture or convention. However, while convention establishes axioms, some rules, even when golden, can be challenged. To do so holds the potential of putting one's foot in the door of innovation.
>
> *Porter 2004*

There is no single approach to the practice of landscape architecture. Philosophical approach, methodology, technique all vary, depending on where one grew up, went to school, practised, what one read, where one traveled, the list of variables is endless. As we have seen, experience and design are not solely based on what is 'out there', but on what is 'in us' as well.

> What a person experiences depends upon what he [sic] is *looking at* and what he is *looking for*, what is out there and what is in him.
>
> *Zakia 1975, 80*

A problem arises when what is 'in us', the way we approach design and experience, is characterized by a blind acceptance of the parameters, the limits and the 'inputs' (programme and site elements, for example), that guide this practice. Further, this problem is exacerbated by a unidirectional, non-iterative application in the design process. This is the difference between "failure by default - doing nothing or not even recognizing what might be done - and failure in an effort to do something worthwhile" (Potter 2002, 29).

Is our limited knowledge of the world caused by an inadequacy in the devices that we use to acquire this knowledge? Are the 'lists' of site and

contextual elements that we tend to use for engaging site in the design process somehow the cause?

Edward White, in his 1983 publication *Site Analysis,* presents such an approach, based on 'contextual analysis' defined as "a predesign research activity which focuses on the existing, imminent and potential conditions on and around a project site" (White 1983, 6). He outlines a detailed checklist of items that attempt to cover many of these 'conditions': location, neighbourhood context, size and zoning, legal description, natural physical features (contours, drainage, soil type and bearing capacity, trees, rocks, water bodies), human-made features (buildings, walls, infrastructure, paving, scale, setbacks, materials, axes, etc.), circulation, utilities, sensory (views to and from, noise, type, duration, intensity, quality), human and cultural elements (cultural, psychological, behavioral and sociological aspects - demographics, activities), and climate.

"Is our limited knowledge of the world caused by an inadequacy in the devices that we use to acquire this knowledge?"

While it may seem to be the case that such a reductionist approach would cause a limited understanding, upon further scrutiny it would be noted that these are in fact quite valuable, directing our attention to many aspects of the site and context that must be acknowledged and addressed. In addition, Edward White himself recognizes that a site is an "ongoing set of very active networks that are intertwined in complex relationships" (White 1983, 8). The danger is when these lists become the exclusive means of engaging with 'site' and 'context', when we equate checking off the last item with knowing everything there is to know.

The tendency seems to be the use of these devices in a 'convergent' approach, reducing engagement with the site to a checklist of elements that become inputs into the design process, 'site analysis' as an inventory of 'facts' that are directly relevant to the identified 'problem' or issue, the proposed programme and other outside requirements (White 1983). The constraints prematurely reduce the potential of the site, limiting our understanding of it and its conceptualization; it is a unidirectional 'imposition' rather than an iterative and multidirectional process of inquiry and clarification between the site and context and the outside requirements.

> Traditionally, landscape architecture is the art of incorporating functional and aesthetic concerns within the peculiarities of a particular location, inherently marking the character and specificity of the time and place. The task is always the distillation of unique and individual expressions of a place and their subsequent transformation into new forms.
>
> *Hoyer 1999, 72*

There are likely few who would argue that this is the intention behind what landscape architects do, but this intention often becomes compromised as constraints are uncritically imposed and allowed to dominate the design process.

> Always settling for too little, grateful for even the most unimaginative open spaces, we become less and less aware of the gap between space perceived and experienced, on the one hand, and space conceived and imagined on the other; between the way things are (what we actually see) and the way things should be (what they want us to see or what we would like to see) – "they" being the policymakers, planners, bankers and developers who determine what our public spaces will look like.
>
> *Lippard 1997, 243*

An overarching feature of the proposed approach is a questioning, exploratory, and reflective attitude, the prerequisite for recognizing the potential in landscape, and for acting in ways that open possibilities and promote a realization of what landscape can be.

◆ ◆ ◆

The source for many of the ideas presented in the following chapters is a book edited by James Corner, *Recovering Landscape: Essays in Contemporary Landscape Architecture*. This text is a compilation of essays that explore the potential of the discipline, extending, interpreting and 'reformulating' the traditions of landscape architecture through innovation and invention. The essays are organized and presented under three thematic headings: 'Reclaiming Place and Time', 'Constructing and Representing Landscape', and 'Urbanizing Landscape'.

The first section establishes the importance of the specificity and uniqueness of place and time; a "close reading of the site in all its dimensions supplies the material with which the landscape architect sets to work" (Dehaene 2000, 87). Several essays discuss the process of 'reading' a site; such a process may involve both empirical and intuitive aspects, but it is through direct, personal experience with a landscape that a designer, as an outsider, may acquire an understanding of place, of the intangible, invisible qualities that have the potential to shift perception and expectation.

In the second section, the meaning of landscape is explored. Michiel Dehaene, in his review of this text, summarizes, "The double reference implied by the term landscape permits traversing within a single concept the distance between object and representation, between reality and imagination" (Dehaene 2000, 87). Representation is explored as not only as an agent for 'picturing, perceiving, and projecting', but also as a means to 'reclaim place and time' (Berger 2002).

The final section, 'Urbanizing Landscape', reinforces the previous two, emphasizing the need to revisit and expand the meaning of landscape to include urban environments.

Recovering Landscape: Essays in Contemporary Landscape Architecture has been used as the point of departure of this work for two reasons:

1. The authors begin to question and challenge current practice, attempting to move beyond a landscape architecture that has become (or is, at the very least, at risk of becoming) defined by how it has been interpreted and applied | practised, towards what landscape architecture IS, at its core. This resonates with the motivation behind this work.
2. The interpretations of 'landscape' is established as a critical starting point, essential to exploring the potential of landscape architecture. In Alan Berger's review essay of this publication he states, "Corner's landscape recovery is needed for rethinking what landscape architects are making and for what cultural relevance landscape architecture serves" (Berger 2002, 142).

reconnaissance

noun

1 an exploratory military survey of enemy territory or positions

2 any preliminary or EXPLORATORY SURVEY

[French *reconnaissance*, literally 'recognition']

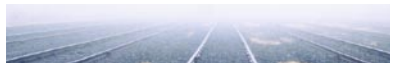
The Penguin Dictionary 2004

Envisioned is an approach to engaging with and understanding site as a form of RECONNAISSANCE. Defined as an exploratory survey, it is a term that is used in connection with military surveillance, an active gathering of information through physical observation. The direct French translation is 'recognition'; to re-cognize is to perceive (a thing or a person) to be something or somebody previously known or encountered, as well as to perceive something clearly and to show appreciation of (something or somebody).

> When we truly pay attention, we see each object or situation for the first time – and it always seems fresh and new, no matter how many times we've encountered it before. We break free of our habitual ways of seeing.
>
> *Loori 2005, 74-75*

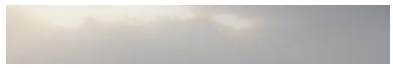
The significance of using this term in lieu of 'site analysis' is the emphasis on EXPLORATION and DISCOVERY, not only of what we have not previous encountered (ie: what we do not already know about a site), but of what we have previously encountered, what we think we do know. RECONNAISSANCE represents an approach to engaging with and understanding site that is rigorous, participatory, indeterminate and open-ended. It is a frame of reference for questioning, a dynamic process of knowing, rather that a fixed, static knowledge base to which we refer.

Such an approach is based on the following PROPERTIES:

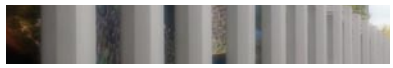


receptivity

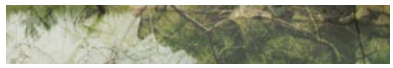
dialogue



iteration + situatedness



direct + indirect



complexity + multiplicity

These properties establish and describe the overall intentions for this approach; each one has guided the following explorations, while each has also been reinforced by their discoveries.

There are two additional components: the first is 'FRAMING', designed to sample the complexity of our surroundings. The second is the use of the notion 'TRACE' as a means to generate complexity of understanding.

> … landscape projects may serve as means to critically intervene in cultural habit and convention. The emphasis shifts from landscape as a product of culture to landscape as an agent producing and enriching culture. Landscape as noun (as object or scene) is quieted in order to emphasize landscape as verb, as process or activity. Here, it is less the formal characteristics of landscape that are described than it is the formative effects of landscape in time.
>
> *Corner 1999, 4*

James Corner reminds us of the two broad meanings of 'landscape': landscape as entity or object, the subject or object of action - landscape as noun, and landscape as action, expressing existence or occurrence - landscape as verb. FRAMING, as the means by which we 'sample' the milieu, establishes a MEDIUM of exchange as 'subject' of landscape construction, both source and result of particular ways of seeing and acting (Corner 1999, 5). Landscape as verb, on the other hand, refers to the 'seeing and acting' that occurs within the medium, the EXCHANGE that takes place, as generated and guided by TRACE.

reconnaissance = framing + trace

receptivity
dialogue
iteration + situatedness
direct + indirect
complexity + multiplicity

reconnaissance = framing + trace

framing

In the settlement of America, each community faced the joint need to balance the freedoms and physical dangers offered by immeasured space against the safety and social constraint offered by measure, rule, and boundary.

Corner and MacLean 1996, 7

DEFINING FRAME

noun

1a something composed of parts fitted together and joined
1b a structure that gives shape or strength
2a an open case or structure made for admitting, enclosing, or supporting something
2b a rigid surrounding structure in which a painting, photograph, etc is placed for display
3 a framework covered with glass or plastic, used for plants growing outside
4a the rigid part of bicycle or other vehicle
4b the outer structure of a pair of glasses that holds the lenses
5 the physical structure of the human body; the physique
6a an enclosing border
6b a box of a strip cartoon
7a a single picture of the series on a length of film
7b a single complete television picture made up of lines
8 a limiting, typical, or *esp* appropriate set of circumstances
9a in snooker or bowling, one round of play
9b in snooker, the triangular piece of wood used to place the balls on the table

verb

1 to place (a picture) in a frame
2a to plan or work (something) out; to formulate (it)
2b to shape or construct (something)
3 to fit or adjust (something) for a purpose; to arrange (it)
4 to make up evidence against; to incriminate falsely

The Penguin Dictionary 2004

To frame is to establish a structure that supports or contains something, or to plan and work something out, to fit or adjust something for a purpose. Framing is an important component in my approach in two distinct ways.

The first sampling method is conceptual and refers to the notion 'landscape', as the frame through which we practise landscape architecture. Our interpretation of this term guides how we approach understanding landscape, it is the means by which we 'fit or adjust' our experiences of sites and it is the structure that 'supports' their design. The following statement made by Ellen Lupton in her book *Thinking with Type: A Critical Guide for Designers, Writers, Editors, & Students* regarding typography as an 'art of framing' could equally be applied to 'landscape'. In this version, 'landscape architecture' has been substituted for 'typography':

> The philosopher Jacques Derrida described the frame in Western art as a form that seems to be separate from the work yet is necessary for marking its difference from everyday life. A frame or pedestal elevates the work, removing it from the realm of the ordinary. The work thus depends on the frame for its status and visibility. Landscape architecture is, by and large, an art of framing, a form designed to melt away as it yields itself to content. Designers focus much of their energy on margins, edges, and empty spaces, elements that oscillate between present and absent, visible and invisible.
>
> *adapted from Lupton 2004, 115*

John Dixon Hunt proposes landscape architecture as placemaking, which he describes as an 'art of milieu':

> I would provisionally define landscape architecture as exterior place-making; at the simplest level, place-making is to landscape architecture what building is to architecture. ... place making is fundamentally an art of milieu...
>
> *Hunt 2000, 12*

Perhaps landscape architecture can be described then as an 'art of framing the milieu', lending the milieu 'status and visibility'.

> Land is an amalgam of history, culture, agriculture, community, and religion, incorporating microcosm and macrocosm - the surroundings further than the eye can see, and the living force of each rock, blade of grass, small animal, or weather change.
>
> *Lippard 1997, 14*

> A landscape, then, is the land transformed, whether through the physical act of inhabitation or enclosure, clearance or cultivation, or the rather more conceptual transfiguration of human perception, regardless of whether this then becomes the basis for a map, a painting, or a written account.
>
> *Dean and Millar 2005, 13*

Landscape emerges from the process of 'framing' the land, physically and/or conceptually assembling the various biophysical and cultural elements of our surroundings. These elements are all present in the world regardless, but it is only through this 'framing' by an observer that they are transformed into, and are collectively perceived as, landscape. Framing is therefore the first step in transforming the complexity of the undifferentiated milieu, defined as 'a person's environment or setting' (including, of course, people), into a comprehensible entity. Framing is the device through which the milieu reveals itself; through differentiation, aspects of the milieu become 'visible'.

> ... humans understand and experience one kind of thing in terms of another, projecting bodies and minds onto the surrounding world: trees and clouds seen as bounded, a river seen as having a mouth, a mountain as having a foot, front, back, and side. One might just as easily see things as continuous and undifferentiated; viewing them as separate is more a function of individual consciousness than an inherent quality of landscape.
>
> *Spim 1998, 20*

Framing is an act of differentiation, including and excluding, here and there, inside and outside. It creates a 'something' from 'everything'. By doing so, framing does not simply render parts of the milieu visible, but imbues this 'something' with value and significance. Framing is an innate human tendency, a necessity, for comfort, belonging, 'safety and constraint'. Establishing 'boundaries' (or thresholds) "sets limits to the things that people can do, and makes possible their doing what they otherwise would not" (Lynch 1962, 3).

> In the settlement of America, each community faced the joint need to balance the freedoms and physical dangers offered by immeasured space against the safety and social constraint offered by measure, rule, and boundary.
>
> *Corner and MacLean 1996, 7*

DEFINING LANDSCAPE

noun

1 an expanse of natural inland scenery.
2a a picture, drawing, etc. of a landscape.
2b the genre of landscape painting.
3 the distinctive features of a situation or area of intellectual activity
4 (*used before a noun*) denoting a printed format in which the object or text is wider than it is high

verb

to improve (a natural landscape)

The Penguin Dictionary 2004

landskip, lantskip
picture representing natural inland scenery or view of such scenery
adoption of Middle Dutch *lantscap,* (modern) *landschap*
landscape, province
compare with Old English *landscipe*
region, tract
Old Saxon *landskipi*
Old High German *lantscaf*
Old Norse *landskapr*
Adopted from Dutch as a painter's term, like *easel*
see LAND, -SHIP

The Oxford English Dictionary of Etymology 1966

At first glance, it appears surprising that the notion 'landscape' has been so concisely defined and narrowly interpreted. However, upon closer inspection, several defining characteristics may be extracted:

- Use of the term 'scenery' implies an observer - observed (subject) relationship, as 'scenery' requires a perceiving body; landscape both exists 'outside' of us, but is also 'created' by us;
- Defining the term with reference to a 'picture' suggests that while 'landscape' is an expanse, it is bounded or 'framed'. Reference to landscape as a picture also highlights 'imaging' as a mediator between the 'expanse' and the observer, necessary in transforming this 'expanse' into a 'landscape';
- The noun form of the term accounts for landscape as artifact or object, as representation or image, as a conceptual 'category' and as having a descriptive capability.

The definition of the verb form of the term 'landscape' is notably brief, but it does suggest the following:

- As a verb, 'to landscape' means 'to act';
- Initiation of change, specifically change for the better. This in turn implies a 'before' and an 'after' condition or state, with time as an essential component. Understanding of the 'before' is the basis for recognition of a 'problem' or the initiation of a desire for change;
- Use of 'improvement' to qualify the nature of change suggests that values and judgements must be made regarding a: the 'before' state, b: the decision for action, c: the nature of the action, d: the desired 'after' condition.

DEFINING LAND

LAND

noun

1 the solid part of the earth's surface, as distinct from seas, lakes, rivers, etc.
2 ground owned as property or attached to a building.
3 a field.
4 a particular country, region, or state.
5 an area of a surface that is left between holes or grooves

verb

1 to bring to a surface from the air
2 to set or put (somebody or something) on shore from a ship.
3 to catch and bring in (a fish).
4 informal to gain or secure (something)
5 informal to put (somebody) in a specified place, position, or condition.
6 informal to cause (a blow) to hit somebody

The Penguin Dictionary 2004

solid portion of the earth's surface; ground, soil; country, territory, realm, domain; country (as opposed to town); ridge in a ploughed field (Old English); strip division of a field; (Scottish) building divided into tenements.

hypothetical etymological forms include: Irish *land, lann* enclosure, Welsh *llan* enclosure, church, Cornish *lan* open space, plain, Breton *lann* heath, French *lande* heath moor

-SHIP

suffix denoting state or condition:

1 added to adjectives and past participles

2 added to substantives to denote the state or condition of being what is expressed by the substantive, the qualities or character associated with, the power implied by, and specifically the position or dignity designated by the substantive, as in friendship, lordship, authorship, craftsmanship, fellowship, headship, horsemanship, kingship, stewardship, etc.

The Oxford English Dictionary of Etymology 1966

'Landscape' is a compound word, and looking more closely at the etymology of the two component words reveals the following:

- 'Land' is clearly defined as an entity that is 'owned' or 'worked', indicating an interdependency of this entity and human 'occupation';
- The reference to 'country', 'region', or 'state' indicates a collective 'ownership' while also indicating that the entity is marked or measured by invisible boundaries;
- "An area of a surface" again confirms a bounded condition, while "to bring to a surface" implies an element of receptivity of this surface;
- '-ship' is particularly revealing, suggesting a descriptive or metaphorical function, as an assemblage of "qualities or character".

'LANDSCAPE' = SELF + MILIEU

> Gombrich (1966) claimed that even the realistic painter can paint only what he [*sic*] sees in the landscape; in other words, what the painter brings to the landscape is just as important as what is there before he arrives.
>
> *Bourassa 1991, 12*

Beyond differentiation, it is important to point out the requirements of 'framing' - the one who is 'framing', and what is being 'framed', or, the observer and the observed. The three essential components can therefore be described as SELF and MILIEU, and the RELATIONSHIP between them. To 'frame' is essentially to place one's self in relationship to the milieu, and it is this relationship that determines how we might understand and 'know' our surroundings. To reiterate, it is both what is 'in us' and what is 'out there' that determines our understanding. What is 'out there'? What is it that we hope to understand? What makes a place that place and not another? How is it unique? How is it special?

This 'something' that marks the specificity of a place has been assigned a variety of labels: aura, essence, atmosphere, identity, signature, *genius loci.* Regardless of what it is called, it is that 'something' that we are looking for, the 'something' that defines a place, and it is the condition of 'otherness' generated through framing that generates the potential for its appearance. "The process of self-definition cannot go on by itself; it calls for the presence of others ... It is a dialog, not a monolog..." (Jackson 1970c, 147). Perhaps these are all questions of identity; does identity exist in absence of others? Is it an inherent quality in what is 'out there' or does it depend equally on what is 'in us'?

> In our context sympathy with things means that we learn to see. We have to be able to "see" the meanings of the things that surround us; be they natural or man-made. Things always tell several stories; they tell about their own making, they tell about the historical circumstances under which they were made, and if they are real things, they also reveal truth.
>
> *Norberg-Schulz 1980, 185*

Christian Norberg-Schulz writes of 'truth' as a quality that exists independently from, or outside of, our perception. He proposes "thing, order, character, light, and time" as the "basic categories of concrete natural understanding" (Norberg-Schulz 1980, 32). Or is truth relative instead of absolute, dependent on our frame of understanding? Is 'truth' synonymous with 'identity'? If there *is* some quality that exists independently from our perception of it, does it have any meaning (not in the sense of value)? In this sense then, perhaps 'identity' is in fact distinct from 'truth', a product of the dialogue between 'truth' of the self and 'truth' of the milieu.

> Just as we say there is no sound unless there is an ear to register it, we also assume that there is no human identity unless there is another person to recognize it.
>
> *Jackson 1970c, 146*

Perhaps it is through the presence of, and relationship between, both self and milieu that the meaning of each is revealed. The notion of identity will be further discussed in some detail in the following section.

SITUATING SELF

> As Raymond Williams remarks, "A working country is hardly ever a landscape." Here, Williams invokes the necessary detachment, contrivance, and focused attention necessary for the formation of landscape. Similarly, in distinguishing between "outsiders" and "insiders," Denis Cosgrove describes how… "For the insider there is no clear separation of self from scene, subject from object."
>
> *Corner 1999, 154-155*

> One is always an "outsider" as far as the beholding of manufactured landscape goes, for to be "inside" entails the evaporation of landscape into everyday place or milieu. It is in this deeper sense that landscape as place and milieu may provide a more substantial image than that of the distanced scenic veil, for the structures of place help a community to establish collective identity and meaning. This is the constructive aspect of landscape, its capacity to enrich the cultural imagination and provide a basis for rootedness and connection, for home and belonging.
>
> *Corner 1999, 12*

"'Landscape' is commonly characterized by the positioning of self outside the milieu."

'Landscape' is commonly characterized by the positioning of self OUTSIDE the milieu. The corresponding distancing that occurs has been criticized as the perpetuation of 'landscape' as image, scene, or object, generating a relationship of "detachment and withdrawal" (Corner 1999, 155). James Corner proposes instead a shift in meaning - 'landscape' as metaphor for 'place', drawing our attention to the two roots of the term landscape, *landskip* and *landschaft*: "I am more interested in drawing a distinction between *landskip* (landscape as contrivance, primarily visual and sometimes also iconic or significant) and *landschaft* (landscape as an occupied milieu, the effects and significance of which accrue through tactility, use, and engagement over time)" (Corner 1999, 158).

This distinction points to the potential for a dual meaning of landscape, not necessarily an exchange of one for the other. The second, based on the root *landschaft*, is synonymous with place. Whereas 'landscape' requires distance, 'place' requires proximity, situating one's self INSIDE the milieu. Both interpretations frame and guide a distinct engagement with the world and it seems logical that the two perspectives together would offer greater insight and a greater understanding of milieu than either would alone.

Corner himself describes a relationship defined through 'proximity' as one that "grounds a project in the social practices and physical conditions of a locality", while 'distance' "brings a new and broader range of ideas to bear upon the site" (Corner 1999, 12). The relative 'position' of one's self in relation to the milieu defines the first of two important characteristics of this relationship and can be described by a continuum between DISTANCE and PROXIMITY.

> Landscape is not the environment. The environment is the factual aspect of a milieu: that is, of the relationship that links a society with space and with nature. Landscape is the sensible aspect of that relationship. It thus relies on a collective form of subjectivity...
>
> *Berque 1993, 33*

> When man [*sic*] dwells, he is simultaneously located in space and exposed to a certain environmental character. The two psychological functions involved, may be called "orientation" and "identification". To gain an existential foothold man has to be able to orientate himself: he has to know where he is. But he also has to identify himself with the environment, that is, he has to know how he is in a certain place.
>
> *Norberg-Schulz 1980, 19*

The definitions that introduce this exploration indicate a second important characteristic: 'landscape' embodies the qualitative nature, or character, of the land. Implied is an 'interpretive' or 'metaphorical' engagement, a subjectivity, as opposed to the more 'factual', objective, relationship that characterizes 'environment'. Very generally, an objective relationship would involve knowing where one is and what something is, whereas a subjective relationship would explore the 'how and why'. Orientation and identification, as introduced by Norberg-Schulz, describe the nature of engagement one has with their surroundings, defining the second continuum that qualifies the relationship of self to milieu: ORIENTATION - IDENTIFICATION.

DISTANCE - PROXIMITY

Following the transformation of undifferentiated milieu to a framed 'landscape', we must locate ourselves relative to this frame. DISTANCE and PROXIMITY describe this relationship. If we locate ourselves outside the frame, 'distancing' ourselves from what is framed, the frame serves to separate and we will experience the milieu as 'territory' or 'environment'. If on the other hand, we situate ourselves within the frame, the frame 'unites' us with the milieu and we create a relationship of proximity between self and milieu - we experience the milieu as 'place', or 'space'.

DISTANCE

> ... because of its bigness – in both scale and scope – landscape serves as a metaphor for inclusive multiplicity and pluralism, as in a kind of synthetic "overview" that enables differences to play themselves out...
>
> *Corner 1999, 2*

The act of distancing enables one to achieve an 'overview' of the milieu, analogous to 'zooming out'. This is an inclusive perspective that is broad in scope and is focused on the properties of horizontal and vertical extension - large scale processes, overall structure and character across an expanse.

> The distinctive quality of any landscape is extension, and its particular character and spatial properties are determined by how it extends.
>
> *Norberg-Schulz 1980, 32*

Extension is the distinctive quality of the milieu when experienced from 'outside', and it is a function of the relationship between the ground and the sky, as expressed by the horizon. It is the contrast, the differentiation, of ground against the sky that articulates this boundary. Distance exposes the overall structure of the ground, the topographical relief standing out as a silhouette against the sky, accentuated or contradicted by its texture, vegetation, and colour. From this perspective, the sky is the ground's equal, the quality of light, colour, texture of the clouds, and the relationship with the ground highly visible. When one is 'inside' , the ground dominates and these qualities of sky remain largely imperceptible.

> The outside-inside relation which is a primary aspect of concrete space, implies that spaces possess a varying degree of extension and enclosure. Whereas landscapes are distinguished by a varied, but basically continuous extension, settlements are enclosed entities. Settlement and landscape therefore have a figure-ground relationship. In general any enclosure becomes manifest as a "figure" in relation to the extended ground of the landscape. ... In a wider context any enclosure becomes a centre, which may function as a "focus" for its surroundings. From the centre space extends with a varying degree of continuity (rhythm) in different directions. Evidently the main directions are horizontal and vertical, that is, the directions of earth and sky. Centralization, direction and rhythm are therefore other important properties of concrete space.
>
> *Norberg-Schulz 1980, 11-12*

The structure of the ground is distinguished by varying degrees of homogeneity and heterogeneity. There are qualities that are continuous throughout the extension and 'unite' the totality, as well as discontinuities that create differentiation within its scope. The resulting spatial structure can be understood as an "assemblage of 'elements' - nodes, paths, and domains" (Norberg-Schulz 1980) that are gathered and collectively understood as a whole. Again, it is the relief and topography, along with texture, colour, and vegetation, that contribute to this structure (Norberg-Schulz 1980), along with the distribution, the rhythm, of these discontinuities.

Whereas 'physical distancing' enables a broad and inclusive 'view', through which we understand the continuities and differentiations within a milieu, 'conceptual distancing' establishes a 'here' and a 'there', and implies an ideological boundary between them. The 'landscape' becomes 'there' and is, as a result, an 'other' to which one is a stranger. This creates a condition, not of "detachment and withdrawal", but of adjacency, where one is both absent and present. John Allen, in his discussion of Georg Simmel's perspective on proximity and distance, writes, "The stranger, therefore, is someone who is involved, yet not involved; close to us, yet part of elsewhere" (2000, 57-58).

As a stranger, there is an element of 'newness' to what we experience, and with this newness tends to be a curiosity that enables a stranger to avoid the tendency of overlooking what is taken for granted by inhabitants. This quality is 'receptivity', approaching new places with openness to what might be 'interesting'. Strangers potentially have the ability, then, to help others 'see' what they would otherwise miss.

> It [a work of art] will foreground elements ordinarily lost in the mass of data, it will stabilize them and, once we are acquainted with them, prompt us imperceptibly to find them in the world about us – or if we have already found them, lend us confidence to give them weight in our lives. We will be like a person around whom a word has been mentioned on many occasions, but who only begins to hear it once he has learnt its meaning.
>
> *de Botton 2002, 187*

A necessary complement is, of course, what the self brings to the adjacency. While not 'of" the milieu, the stranger nevertheless brings itself, all the preconceptions, ideals and values, prior experiences, expectations, judgements and interpretations, that are from 'elsewhere'.

PROXIMITY

> The distinctive quality of any man-made [*sic*] place is enclosure, and its character and spatial properties are determined by how it is enclosed. Enclosure, thus, may be more or less complete, openings and implied directions may be present, and the capacity of the place varies accordingly.
>
> *Norberg-Schulz 1980, 58*

The distinctive quality of a relationship of proximity is enclosure. When one is situated within a milieu, the ground emerges in the foreground to enclose, as the sky recedes. How the ground encloses, the nature of this boundary condition, determines the character and spatial properties of the milieu 'contained' within, as well as the extent to which the horizon (the 'vertical' boundary) remains visible, establishing a connection or link from inside to outside. The nature of the boundary, how it encloses, is a reflection of the degree and extent of differentiation, the transition from

inside to outside. Dean and Millar write, "Both place and art might be said not to contain – and be contained by – boundaries, then, but rather an innumerable series of thresholds, which extend far beyond the physical limits ... and across time also... It is not that these thresholds act as points of permeability in a boundary that clearly demarcates separate elements, however, but rather as things that bring these elements together..." (2005, 20). Boundaries both separate and unite. Boundaries structure centres.

> "Around here," where we live, is a circular notion, embracing and radiating from the specific place where generalizations about land, landscape, and nature come home to roost. "Out there" is a line of sight, the view, a metaphor for linear time. The relationship of the center to the peripheries is crucial, a crossroads, but the center doesn't hold forever, and neither do the margins. Home changes. Illusions change. People change. Time moves on.
>
> *Lippard 1997, 23*

SCALE

> Countries, regions, landscapes, settlements, buildings (and their sub-places) form a series with a gradually diminishing scale. The steps in this series may be called "environmental levels". At the "top" of the series we find the more comprehensive natural places which "contain" the man-made [*sic*] places on the "lower" levels. The latter have the "gathering" and "focusing" function mentioned above. In other words, man "receives" the environment and makes it focus in buildings and things. The things thereby "explain" the environment and make its character manifest. Thereby the things themselves become meaningful. That is the basic function of detail in our surroundings.
>
> *Norberg-Schulz 1980, 16*

This dimension is presented as a continuum very deliberately. Consider moving from 'outside' to 'inside': you are located outside a framed milieu and proceed to step inside, to move closer. You are now 'inside landscape', equivalent to being in a 'place'. The milieu has not changed, nor have the boundaries, simply your relative position. The milieu is therefore simultaneously a landscape and a place, an environment and a space. The distinction is simply a question of relative distance and proximity, of scale.

Moving 'closer' to a framed milieu is moving from a condition of distance to one of proximity, through 'nested' landscapes towards place, while moving from a condition of proximity to one of distance, one is moving through nested places towards the wider landscape.

> There are landscapes within landscapes within landscapes. Every landscape feature is both a whole and part of one or more larger wholes: leaf and twig, twig and tree, tree and forest; garden and house, house and street, street and town, town and region.
>
> *Spirn 1998, 18*

Scale is an essential property of distance and proximity. When we situate ourselves at a distance, 'outside' the milieu, we establish a 'smaller scale' condition, while placing ourselves 'within' establishes a 'larger scale' condition. Levels of scale generate a 'nested' structure of parts to wholes, enclosures to expanses. Landscape is an assemblage of many places, the environment an assemblage of many spaces. A milieu may be simultaneously a place and a landscape, depending on relative scale. This simultaneity suggests that there will be qualities of both difference and similarity - relating to the 'bridging' function of boundary - that implies that a place or space is at once specific and general. It is a 'sample' of the wider landscape or environment.

ORIENTATION - IDENTIFICATION

> Although orientation and identification are aspects of one total relationship, they have a certain independence within the totality. It is evidently possible to orientate oneself without true identification; one gets along without feeling "at home". And it is possible to feel at home without being well acquainted with the spatial structure of the place, that is, the place is only experienced as a gratifying general character. True belonging however presupposes that both psychological functions are fully developed.
>
> *Norberg-Schulz 1980, 20*

Orientation and identification define two ways in which we engage with our surroundings. Orientation has dominated our experience of the world and is largely based on the physical aspects of a milieu, the spatial structure. Identification, on the other hand, involves the qualitative characteristics of a milieu, those aspects to which we develop associations. Identification relates to how an experience is 'meaningful' (Norberg-Schulz 1980).

ORIENTATION

Orientation is based on the formal aspects of a milieu, its spatial structure, in relation to, and as perceived by, the body. It relies on an understanding of space as a relational medium, distinguished by qualitative differences as opposed to a "homogeneous isotropic space" (Norberg-Schulz 1980, 11). This is a space that is not abstract, but instead is directly referenced to the human body and its position in the world: "up" and "down", "over" and "under", "in front" and "behind", "left" or "right", etc. From a distance, space and objects in space are perceived through varying degrees of distance, radiating form the body's central position, and appear to be organized into foreground, middleground, and background.

> Space... as a system of relations, is denoted by prepositions. In our daily life we hardly talk about "space", but about things that are "over" or "under", "before" or "behind" each other, or we use prepositions such as "at", "in", "within", "on", "upon", "to", "from", "along", "next". All of these prepositions denote topological relations of the kind mentioned before. Character, finally, is denoted by adjectives, as was indicated above. A

> character is a complex totality, and a single adjective evidently cannot cover more than one aspect of this totality.
>
> *Norberg-Schulz 1980, 16*

Orientation depends not only on the position of the body relative to its surroundings, but also on the ability to distinguish elements and spaces within it. Differentiation makes this possible. Gestalt theory's distinction of figure and ground, object and field, begins to explain how differentiation or contrast enables orientation. However, space (the 'ground' or 'field') is commonly treated as "an indistinct, residual quality, without material substance or determinable form" (Rhowbotham 1999, 28). As a result, space is understood as the 'leftover' within and between objects, relying on their presence for its articulation. This makes it impossible for space to have either an orientation or an identification function. An alternative interpretation considers space and object (figure and ground) as 'equivalent materialities' with varying densities (Rhowbotham 1999).

"Orientation is based on the formal aspects of a milieu, its spatial structure as perceived by the body."

> Object is defined as a form, or collection of forms which sustains identifiable figuration in contrast to an undifferentiated, formless background. This background, the field, surrounds and delimits distinct objects with a continuous and, most importantly, non perspectival space. The difference between object and field is one of relative quality and extension.
>
> *Rhowbotham 1999, 28*

In this way, it is possible to recognize space as "a fleeting condition that has more to do with action than with form" (Livesey 2004, 8). When one is 'inside' the milieu, figure and ground are 'sensed' through differentiations in density. From a distance, when one is 'outside' the milieu, orientation is based on the overall spatial organization, the 'texture' or pattern of the differentiations, distinguished as elements that form an 'image' of the environment - perceptual schemata.

> Places, paths and domains are the basic schemata of orientation, that is, the constituent elements of existential space. When they are combined space becomes a real dimension of human existence.
>
> *Norberg-Schulz 1971, 24*

> ... the elementary organizational schemata consist in the establishment of centres or places (proximity), directions or paths (continuity) and areas or domains (enclosure)
>
> *Norberg-Schulz 1971, 18*

These are abstract concepts which "translate the Gestalt principles into architectural terms" (Norberg-Schulz, 1980, 61). Field and ground therefore facilitate orientation from an 'outside' perspective, while the 'boundaries' that distinguish them dissolve into gradients and are perceived as relative densities of equivalent materiality when one is 'inside'.

IDENTIFICATION

"Identification relates to how an experience is 'meaningful'."

Orientation, to a large extent, has dominated our experience of the world, perhaps because it is easier to 'measure'. Contrary to orientation, which is largely based on the formal structure of a milieu, identification is a function of the meaning we assign to this structure. Identification thus relies on a closer, more intimate, 'reading' of this structure, its character, its material properties. "... how is the ground on which we walk, how is the sky above our heads, or in general, how are the boundaries which define the place" (Norberg-Schulz 1980, 14).

> We dwell poetically when we are able to "read" the revealing of the things which make up our environment.
>
> *Norberg-Schulz 1980, 169*

Spatial organization 'guides' characterizations, establishing potential limitations, but it is the character itself which is the basis for our experiences and associations. Elements within the milieu 'gather' these associations, strengthening our identification with them.

> The "meaning" of any object consists in its relationship to other objects, that is, it consists in what the object "gathers". A thing is a thing by virtue of its gathering.
>
> *Norberg-Schulz 1980, 166*

TIME AND STRUCTURE

A milieu becomes known and familiar through repeated engagement. Identification in particular is very much dependent on time, becoming stronger and richer with each successive association and layer of meaning. Dean and Millar write, "These are places traversed as much by stories as by footsteps. Sometimes they take their identity from their myths; at other times, the myths emerge from the place itself; at yet others, the place and its history are at odds with each other, although each helps create the other" (2005, 83).

> In a preparatory note to Ulysses, Joyce wrote 'places remember events', and in this we can recognize how deeply time has become embedded within place, and might be said to have become one of its dominant characteristics.
>
> *Dean and Millar 2005, 14*

> The structure of a place is not a fixed, eternal state. As a rule places change, sometimes rapidly. This does not mean, however, that the genius loci necessarily changes or gets lost. …taking place presupposes that the places conserve their identity during a certain stretch of time. Stabilitas loci is a necessary condition for human life.
>
> *Norberg-Schulz 1980, 18*

It takes time, patience, and sensitivity to become aware of qualities that are not immediately apparent. A milieu reveals itself slowly over time. Norberg-Schulz speaks of *stabilitas loci*, the necessity for a degree of constancy and stability, because the "development of individual and social identity is a slow process, which cannot take place in a continuously changing environment" (Norberg-Schulz 1980, 180). Slow time therefore facilitates identification.

As with orientation, identification manifests itself differently depending on whether one is situated 'inside' or 'outside'. Distancing encourages an overall sense of identification, with a distribution that coincides with the distribution of spatial elements. This means that the domains of higher density in our environmental image, experienced as 'shapes' or 'centers',

tend to be better known, because "physically or intellectually we have 'conquered' them by means of more paths" (Norberg-Schulz, 1971, 26-27).

> Most often place applies to our own "local" – entwined with personal memory, known or unknown histories, marks made in the land that provoke and evoke. Place is latitudinal and longitudinal within the map of a person's life. It is temporal and spatial, personal and political. A layered location replete with human histories and memories, place has width as well as depth. It is about connections, what surrounds it, what formed it, what happened there, what will happen there.
>
> *Lippard 1997, 7*

Proximity tends to reinforce this density, through a greater concentration of associations. Could it be said that a relationship of proximity, of being 'inside', tends to be defined by identification, linked through 'vertical time', a layering and densification of associations over time? Are then orientation and distance linked through their characterization by 'horizontal time', movement, direction, rhythm, related to the spatial elements of 'ground' and 'path'?

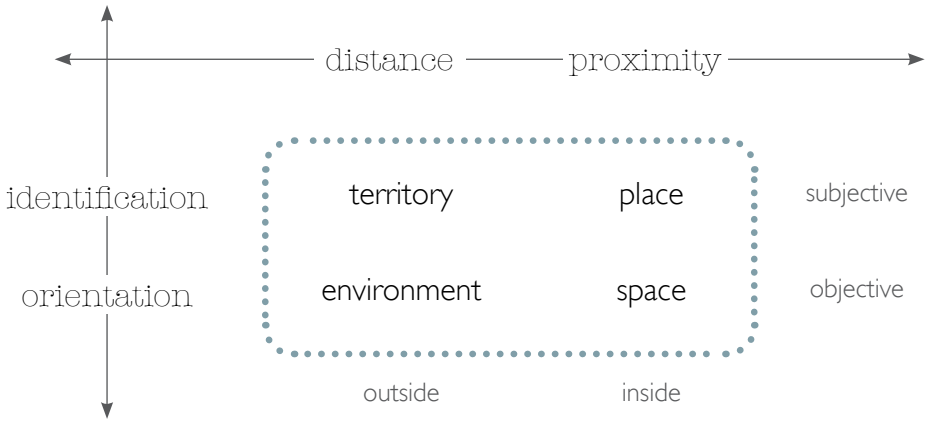
FRAMING

The two dimensions, distance-proximity and orientation-identification, establish a field of possible relationships of self to a milieu. Each intersection establishes a 'frame of engagement', a lens through which we experience the world. Four key intersections, 'TERRITORY', 'ENVIRONMENT', 'PLACE', and 'SPACE', serve as metaphors for a broader, inclusive interpretation of 'landscape', each a different approach to 'framing' the milieu, a 'model' of it. Metaphors guide how we think and how we act.

> Landscape metaphors modify perceptions, prompt ideas and actions, molding landscape, in turn. To see wilderness as chaos provokes fear and prompts flight, perhaps even the urge to destroy; to believe it sacred fosters appeal, reverence, and the desire to cherish. To know nature as a set of ideas not a place, and a landscape as the expression of actions and ideas in place not as an abstraction or as mere scenery promotes an understanding of landscape as a continuum of meaning.
>
> *Spim 1998, 24*

Each 'frame' renders certain aspects visible and potentially comprehensible, establishing the 'limits' that guide the potential impressions and expressions that qualify experience and design, and begins to suggest ways by which we may begin to understand its contents, 'measures' that we may use - "measures of time and measures of space, measures of humanity and measures of nature" (Corner and MacLean 1996, 13). It is a means of 'sampling' the complexity that exists independently from the 'frame', of the milieu, and as a result, there will be aspects that remain invisible and beyond comprehension.

> It is an immense realm which needs many kinds of explorers. Any landscape is so dense with evidence and so complex and cryptic that we can never be assured that we have read it all or read it aright. The landscape lies all around us, ever accessible and inexhaustible. Anyone can look, but we all need help to see that it is at once a panorama, a composition, a palimpsest, a microcosm; that in every prospect there can be more and more that meets the eye.
>
> *Meinig 1979, 6*



The intention behind this field of relationships is to open opportunities for multiple, layered means of engagement, generating a richer, deeper, and more comprehensive understanding of site - where one would attempt to move within the field, shifting the 'frame' or 'lens' used to experience, understand, and design. It is through 'gathering' or layering different meanings and interpretations that we may begin to 'know' a place. "To see a landscape properly, different sets of data must be conjoined through an imaginative effort" (Tuan, 1979, 97).

‘LANDSCAPE’ = SITE + CONTEXT

SITE

noun

1 an area of ground that was, is, or will be occupied by a building, town, etc

2 an area of ground for or scene of some specified activity

3 the place or point of something

verb

to place on a site or in position; to locate

The Penguin Dictionary 2004

> The site is a crucial aspect of the environment. It has an impact that is biological, social and psychological. It sets limits to the things that people can do, and makes possible their doing what they otherwise would not.
>
> *Lynch 1962, 3*

CONTEXT

noun

1. the parts surrounding a written or spoken word or passage that can throw light on its meaning
2. the interrelated conditions in which something exists or occurs

The Penguin Dictionary 2004

> In its widest sense, the term context refers to all the issues and circumstances that surround a design of which the nature of the setting is the most tangible. As the derivation of the word means 'weave together', the spirit of its meaning denotes an interdependence - 'weaving' or 'knitting' designs into existing site conditions and the striving for a sense of fit.

Porter 2004

> Context comes from the Latin word "contexere", to weave, an active root that belies its static common meaning. Context weaves patterns of events, materials, forms, and spaces. ... Context is a place where processes happen, a setting of dynamic relationships, not a collection of static features.

Spirn 1998, 133


context
site

The second way that 'framing' is used in this approach is through the physical (and conceptual) bounding of SITE from CONTEXT.

Tracing the site boundaries limits and focuses our search, and by extension the potential for discovery and understanding. The site, contained within boundaries, tends to be the area of focused study and design, whereas an understanding of the context, the 'issues and circumstances that surround a design', is typically loosely and more vaguely understood.

How big should the site be? How do we define it? Where does the site end and the context begin? How much context is enough?

In one sense, the site can be understood as essentially a sample area of the wider context, and as such will exhibit characteristics that are indicative of this wider landscape, qualities that are similar across its boundaries. Conversely, the boundaries function not only to unite the site with its context but to differentiate, creating a situation of contrast that may highlight the site's uniqueness.

> Every phenomenon, thing, event, and feeling has a context. A valley is not a valley if it has no ridge or plateau, no up and down. Motion is imperceptible without rest, sound without stillness. Without sense of past and future, there can be no present, without threat no refuge. The same material, form, or action may have different meanings in different settings - water in a desert, water in a sea.
>
> *Spim 1998, 18*

The designation of these boundaries must reflect a balance between stability, which enables this focus, and flexibility, allowing for a shifting to occur that reflects what is discovered, as the limits are highly dependent on the degree of extension of the qualities used to define them. Each 'sample' of the milieu may be understood simultaneously as site or as context; levels of scale characterizes this simultaneity, to see a site otherwise is to neglect issues, opportunities, and constraints that may be invisible at one scale, but readily apparent at another. Christopher Alexander in *Notes on the Synthesis of Form* states, "The form is the solution to the problem; the context defines the problem" (1964, 15).

Boundaries are not static, unchanging, or 'given'. In another sense, site IS context. Kevin Lynch also writes, "The words site and locality should convey the same sense that the word person does: a complexity so closely knit as to have a distinct character, a complexity worthy of interest and even affection" (1962, 15). The site is designated as a unique point of expression, an intersection of all the characteristics that extend across the milieu.

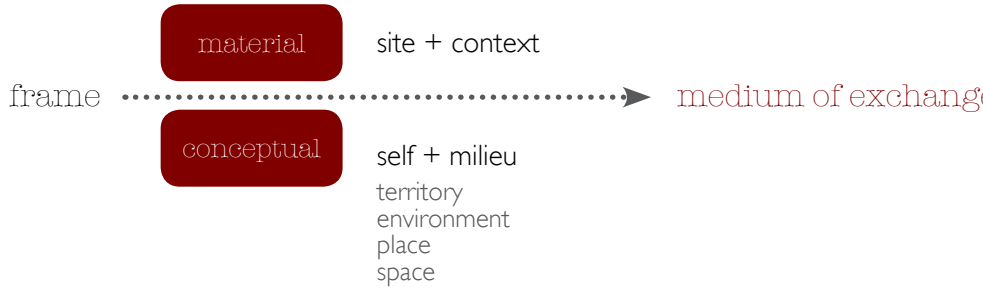
> Also, context may be actual or latent - every landscape has both real and potential form - what is, what has been, what will, what might be.
>
> *Spim 1998, 19*

Site, and its boundaries, are not always physical. It may be, and often is, a culturally-constructed vision for how we would like something to be, or of course, how it was in the past. Context is not simply spatial, but temporal as well. Adrian Forty, in *Words and Buildings: A Vocabulary of Modern Architecture* (2000), discusses Ernesto Rogers' view of 'context':

> For Rogers, the two concepts of preesistenze ambientali and 'history' were indissolubly linked: '*to understand history is essential for the formation of the architect*, since he must be able to insert his own work into the *preesistenze ambientali* and to take it, dialectically, into account'.
>
> *Forty 2000a, 132*

'Le preesistenze ambientali' relates context to the "historical continuity manifested by the city and existing in the minds of its occupants" (Forty 2000a, 132). Situating site within its spatial and temporal context is a prerequisite for understanding how the existing order and circumstance will 'adjust' as the 'relations, proportions, and values' respond to experience and design (Forty 2000a, 132).

Framing defines a medium of exchange, a 'sample' of the wider milieu inside of which we focus our investigative efforts.



As a medium of exchange, landscape is a midway state between two extremes, between past and future, between potential and becoming. It is the 'substance' through which ideas and values, events and materials are held, transmitted and transformed, passed along. This medium is open to interpretation, transformation, and is by no means rigidly defined; it is a 'subject' for communication, for exchange.

reconnaissance = framing + trace

EXCHANGE = EXPERIENCE + DESIGN

Landscape is both the medium and the vehicle for exchange. While FRAMING defines the medium, it is this EXCHANGE that informs TRACE, the second component of the alternative approach, of reconnaissance.

> Reciprocity is the responsive state of give and take in a co-dependent relationship between two different conditions. Therefore, reciprocity is the state in which part and the whole define each other. It is the coexistent state of interchange in which, like the alternation of thought and move in the process of design, the action of one will bring reaction in the other.
>
> *Porter 2004*

What is meant by 'exchange'? Landscape as exchange can be described with reference to three different types of reciprocities:

1. self - milieu: Implicit in the notion 'landscape' as described in the previous section is the reciprocity between self and milieu;
2. experience (perceive) - design (conceive): The means by which the first reciprocity occurs is through experience (predominantly milieu to self) and design (predominantly self to milieu); and
3. conceptual - material: Impression and expression may occur in either the conceptual or material realms, and each influences the other.

While the first was discussed in the previous section, the third will be briefly explored here, followed by a more comprehensive introduction to the second, experience - design, as it is this relationship that characterizes the exchange that occurs between self and milieu.

Landscape architecture is a dialogue between one's self and one's surroundings. The reciprocity that characterizes this responsive state of give and take is the conversation generated through experience and design, two parts of the same whole. Christian Norberg-Schulz writes, "seeing and making constitute the basis of dwelling" (1980, 185). While it is simplistic to consider experience as the means through which the milieu speaks to us, and design as the means by which we reply, for the sake of clarity they can be understood in this way. In reality, both experience and design are so

interdependent, the rate of exchange so great that the two may seem to occur simultaneously. As we perceive and experience, we are generating new ideas, new 'designs' (in our minds), that in turn influence the next moment of perception. Impressions generated through experience merge with expressions generated through design. Donald Norman writes, "First, the object must be rich and complex, one that gives rise to a never-ending interplay among the elements. Second, the viewer must be able to take the time to study, analyze, and consider such rich interplay; otherwise, the scene becomes commonplace. If something is to give lifelong pleasure, two components are required: the skill of the designer in providing a powerful, rich experience, and the skill of the perceiver" (2004, 111).

CONCEPTUAL | MATERIAL

> Never is the power of the landscape idea underestimated or severed from physical space. In complementary ways, each author speaks of landscape as both spatial milieu and cultural image.
>
> *Corner 1999, 5*

Exchange, experience and design, may also be defined through a second reciprocity, that which develops between the conceptual and the material realms. Impression and expression, idea and construction, may occur in either or both, each influencing and conditioning the other. Experience and design are "...as much imaginary (encoded in language, myth, maps, paintings, film, and other representations) as it is physical (made and re-presented as material space)" (Corner 1999, 7).

"Idea conditions material reality, and material reality conditions idea."

This notion reinforces the principle of multiplicity and complexity, for there are potentially "as many landscapes as individual ways of seeing, or at least as many as cultural ways of seeing..." (Lippard 1997, 61). The meaning of landscape, as both noun and verb, is extended along a third continuum, CONCEPTUAL - MATERIAL. Idea conditions material reality, and material reality conditions idea.

> As such, the construction of landscape space is inseparable from particular ways of seeing and acting. In this sense, landscape is an ongoing medium of exchange, a medium that is embedded and evolved within the imaginative and material practices of different societies at different time. Over time, landscapes accrue layers with every new representation, and these inevitably thicken and enrich the range of interpretations and possibilities. Thus, both the idea and artefact of landscape are not at all static or stable.
>
> *Corner 1999, 5*

The implications are many. The landscape 'idea', as a lens or eidetic filter through which we experience the world (Corner 1999) need not be directly translated into the material medium of landscape in order to exercise agency, in order to condition impressions and expressions. Designing how people 'see' and experience landscape is as valid as a physical intervention; "Landscape reshapes the world not only because of its physical and experiential characteristics but also because of its eidetic content, its capacity to contain and express ideas and so engage the mind"

(Corner 1999, 1). Design may therefore involve the 'construction' of ideas, of perceptions, of 'ways of seeing', in addition to constructions of physical reality.

> Since image development is a two-way process between observer and observed, it is possible to strengthen the image either by symbolic devices, by the retraining of the perceiver, or by reshaping one's surroundings.
>
> *Lynch 1960, 11*

EXCHANGE = **EXPERIENCE** + DESIGN

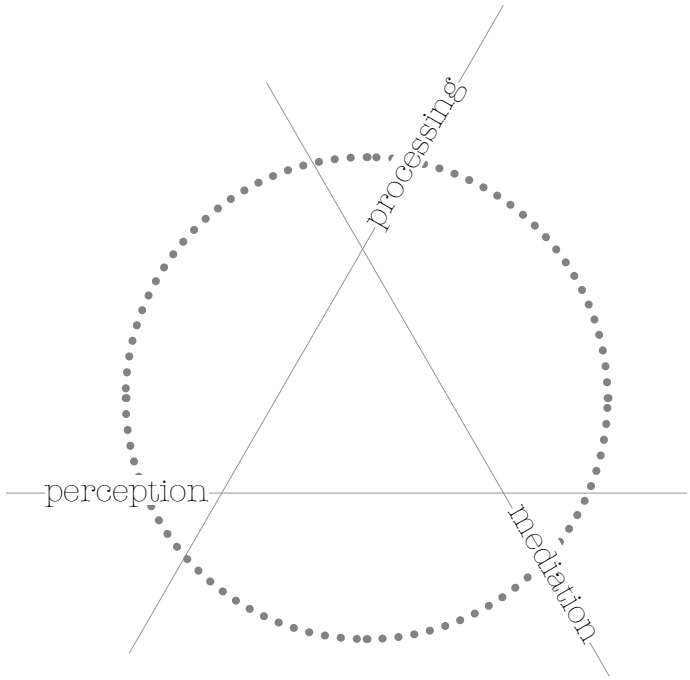
> Experience is a matter of the interaction of organism with its environment, an environment that is human as well as physical, that includes the materials of traditions and institutions as well as local surroundings. The organism brings with it through its own structure, native and acquired, forces that play a part in the interaction.
>
> *Dewey 1959, 246*

EXPERIENCE is one form of exchange between self and milieu and, as this quotations illustrates, can be described as 'mediated perception', the reception of stimuli by the body, mediated by memory, image, and 'outside requirements' - a composite of impressions and expressions, layered through time. Seeing as perception is most accurately a 'thinking activity' and an 'emotional activity', a processing of stimuli through any and all of the senses, combining what is seen, what is perceived, how it is interpreted, and how it motivates us to question. In this context, 'seeing' is a metaphor for sensory engagement. Engaging all of the senses is essential to a multidimensional knowing of the world.

> If, for the sake of temporary clarification, one artificially separates appearances from vision (and we have seen that in fact this is impossible), one might say that in appearances everything that can be read is already there, but undifferentiated. It is the search, with its choices, which differentiates. And the seen, the revealed, is the child of both appearances and the search.
>
> *Berger and Mohr 1995, 118*

Experience, and design, depend on what is 'out there' and what is 'in us', to reiterate from the opening section. "Phenomenology embraces the idea that the objective world is not independent of the perceiving subject, but depends upon the *intentionality* of the subject" (Bourassa 1991, 39). The 'search' is highly influenced by memory, through which we are able to perceive difference, between now and then, between here and there. Through memory, we have familiarity, which conditions the brain to not only 'select' and 'edit' the raw data of perception, but also how this

information is interpreted and processed, how it is altered, rearranged, or rejected entirely. It guides both what we perceive and what we conceive. Three components of experience have been identified and will be explored in some detail in the following section: sensory perception, 'processing' of stimuli, and memory | familiarity, a simplified discussion of what is in reality a complex interplay of all three.



the BODY IN THE WORLD

In the preceding discussion on the interpretation of 'landscape', the nature of the relationship of self and milieu was shown to be the source of its existence. Perception results from the interface of the body with the surroundings, the 'context' for the body.

> I organise the world through time and space categories from my unique place in existence. This organisation of the world through the categories of space and time are unique to me in that no-one else can inhabit the (physical) place that I do: no two bodies can occupy the same space. This is known as the law of placement. However, this unique placement I have in existence is shared, since everyone else also has a unique place in existence. In other words, we are presented with the paradoxical and almost contradictory idea of differences in simultaneity, that is best summed up in Bakhtin's phrase 'the unique and unified event of being'.
>
> *Holloway and Kneale 2000, 74*

The body is the reference point for all experience, and we 'qualify' the world through the ways by which we categorize time and space from our own unique 'position' (Holloway and Kneale 2000, 74). Mikhail Bakhtin's 'law of placement' suggests that while no two bodies can occupy the same physical space, this uniqueness of position is shared among all others. "Difference in simultaneity" begins to articulate the relationship between self and other, in particular the dependence on the other for a sense of self. "Self means nothing without the alterity or outsideness that is provided by the Other" (Holloway and Kneale 2000, 74).

> If I face you there are certain things that I can see that you are unable to see and vice-versa: the wall behind your back, the clouds in the sky, your own forehead. We both possess a 'surplus of seeing'. Thus, I place you as a whole in a certain position in space, as you do to me. However, as I cannot see myself as a whole (I cannot see my own forehead), I am unable to position myself without the assistance of your sight.
>
> *Holloway and Kneale 2000, 74*

While this theory was developed with reference to 'person to person' relationships, it could equally be applied to the relations between self and milieu ('other'). What does this reveal? Bakhtin believed that this co-dependence or 'co-being' contradicted the notion of a fundamental 'essence' of self, or by extension 'other' (Holloway and Kneale 2000). In addition, what he is talking about here is the idea that no two people will perceive the world in the same way, by virtue of their different 'positions' they will 'see' different things.

Holloway summarizes the three elements of the 'Bakhtinian Self' as being a multiple phenomenon of a centre, a not-centre, and the relationship between them. It is a relational approach, similar to what was proposed in the previous section regarding 'landscape' as fundamentally based on the self, the milieu, and the relationship between them.

"The body is a centre, for each of us it is the interface of this centre with its surroundings that is the foundation for our experience of the world, and our design within it."

This notion of centre, and its relationship with its surroundings (not-centre) in turn, through our very human tendency to project this self-other relationship onto our surroundings, defines the world through our personification of it, becoming recognized through centres and not-centres. Consider the references by Norberg-Schulz to 'centre' as a spatial element, as a component of landscape locus for the emergence of 'place'. Or the notion of 'boundary' as related to the division of self from other.

It is clear that 'centre', as a recurring concept, is significant in developing our understanding of the self-milieu relationship. The body is a centre, for each of us it is the interface of this centre with its surroundings that is the foundation for our experience of the world, and our design within it.

on SENSING

> An object is different; it has three dimensions. You can walk around an object and establish a fairly immediate sense of its wholeness. You can pick it up, feel its weight, the texture and temperature of its surface; you can discover parts, contours and edges. You can pick up the fragrance of its materials. You can explore its exterior. Often, but not always, you can open it up or break it apart and look at its insides. Sometimes you can uncover its structure and find out how it works or how the parts connect

> together. All of this is tangible, visceral, tactile experience. We confront the sharp, brittle, soft, shiny, bright coloured, pungent, heavy thing-ness of the object. Similarly you can walk through a space, look up, over, forward and backwards. You can hear the echo of your own presence and footfall; feel the promise of an open light filled space around the next corner. You can breathe the texture of the weather and smell the collective ambience of place. | These are real physical experiences involving the three dimensions of space, a fourth dimension of time and five senses. Operating with this multi-sensory palette is what idea, articulated as form, represents.
>
> *Naylor and Ball 2005, 39-40*

Engaging all of the senses is essential to the multidimensional knowing of the world. Juhani Pallasmaa, in his book *The Eyes of the Skin: Architecture and the Senses* reminds us that the body is the "locus of perception, thought and consciousness" (Pallasmaa 2005, 10) and discusses in great detail the nature of our sensory abilities.

> Every touching experience of architecture is multi-sensory; qualities of space, matter and scale are measured equally by the eye, ear, nose, skin, tongue, skeleton and muscle.
>
> *Pallasmaa 2005, 41*

He espouses an approach to architecture that engages the body with the reality of the world, measures that relate directly to the body in the world - horizontal, vertical, weight, materiality, texture, density of space, light. Understanding sensory perception is understanding how the milieu becomes stimulus for the body, the ways in which the body 'receives' the milieu. In reference to the 'dialogue' between self and milieu, sensory perception establishes the parameters for how we 'listen'.

> Touch is the sensory mode that integrates our experience of the world with that of ourselves. Even visual perceptions are fused and integrated into the haptic continuum of the self; my body remembers who I am and where I am located in the world. My body is truly the navel of the world, not in the sense of the

viewing point of the central perspective, but as the very locus of reference, memory, imagination and integration.

Pallasmaa 2005, 11

Each of the senses contributes to our perception, each is a unique means of 'measuring' the world. Again, Pallasmaa offers an interesting and thorough discussion in *The Eyes of the Skin: Architecture and the Senses:*

Hearing structures and articulates the experience and understanding of space. We are not normally aware of the significance of hearing in spatial experience, although sound often provides the temporal continuum in which visual impressions are embedded.

Pallasmaa 2005, 49

We stroke the boundaries of the space with our ears.

Pallasmaa 2005, 51

A space is understood and appreciated through its echo as much as through its visual shape, but the acoustic percept usually remains as an unconscious background experience.

Pallasmaa 2005, 50

The nose makes the eyes remember.

Pallasmaa 2005, 54

The skin reads the texture, weight, density and temperature of matter.

Pallasmaa 2005, 56

on SEEING

The perception of sight as our most important sense is well grounded in physiological, perceptual and psychological facts. The problems arise from the isolation of the eye outside its natural interaction with other sense modalities, and from the elimination and suppression of other senses, which increasingly reduce and restrict the experience of the world into the sphere of vision. This separation and reduction fragments the innate complexity,

> comprehensiveness and plasticity of the perceptual system, reinforcing a sense of detachment and alienation.
>
> *Pallasmaa 2005, 39*

It is widely understood that the sense of sight has been privileged over the other senses, to the point where we not only neglect the others, but the interdependence among them has been compromised. Understanding and knowledge have become synonymous with 'seeing', but more accurately represent only "partial sight" (Jenks 1995a, 6). Pallasmaa refers to this dominance of sight as the 'ocularcentric paradigm', and describes this means of perception as one of detachment and control, privileging the 'seeable', the tangible elements of our milieu.

> ... a general tendency that coincides with the development of modern perspective. Its main characteristic is the confusion of the distinction between sense and intellect and a naive belief in the ability of sight to see intelligible reality directly, without any mediation with sensible reality.
>
> *Vesely 2002, 32-33*

Pallasmaa offers the proliferation of images, technological extensions of the eye, and the speed at which the world moves as explanations for the "hegemony of vision" that is causing us to "live increasingly in a perpetual present, flattened by speed and simultaneity" (Pallasmaa 2005, 21).

The dominance of vision in our society is likely to be one of the reasons for the reduction of landscape, a reduction that has created a discrepancy in the practice of landscape architecture: we tend to approach understanding landscape from an 'outside' perspective, as 'environment', whereas we typically aim to design 'places' for dwelling. The 'means' are incompatible with the desired 'ends'.

> Seeing, in the finest and broadest sense, means using your senses, your intellect, and you emotions. It means encountering your subject matter with your whole being.
>
> *Patterson 2004, 7*

If sight or vision has become an analogy for understanding, we must then remember that it is not a purely visual activity. Seeing as perception is most accurately a 'thinking activity' and an 'emotional activity', a processing of stimuli as perceived by the body through any of the senses, combined with what is seen, what is perceived, how it is interpreted, and how it motivates us to question. In this context 'seeing' is a metaphor for sensory engagement. Can an understanding of sight, of how we see, offer insight into other forms of sensory perception?

There are three broad approaches to overcoming the limitations of 'partial sight': the first applies what we know about sight to the other senses, the second involves deliberate 'interruption' of our visual capabilities or tendencies in order to reduce its dominance, and the third relies on further developing our sense of sight, attempting to see more and see differently.

1 Visual discrimination

> For visual discrimination to take place the visual world must be heterogeneous. A person sees by making comparisons - by discrimination.
>
> *Zakia 1975, 18*

Discrimination, making comparisons, is the means by which we see, and perceive, and it is the heterogeneity of the world, differentiation, that makes this possible. Gestalt psychology, the laws of visual organization, is based on this differentiation in our surroundings and our abilities of discrimination. The principle behind Gestalt Psychology is the Law of Prägnanz: "We tend to organize our world so that we can cope with it. We search for stability, meaning, balance, security, etc. We feel more comfortable when what we are looking at can be comprehended or experienced. If there is too much information presented at one time we either filter out some of it or simplify it by grouping or "chunking" it. If there is insufficient information we add to it to form a closure and maintain meaning. We strive to reduce tension and stress to obtain stability and equilibrium" (Zakia 1975, 80).

> The Gestalt laws of organization are one attempt to formulate a set of principles that seem to describe the way we segregate and group visual elements into patterns or units.
>
> *Zakia 1975, 79*

Very simply, Gestalt psychology is a contextual system of understanding perception, meaning that we perceive things through their relationships with other things, with their surroundings. An important component of this theory is the notion 'figure-ground', described by the following principles:

- principle of similarity: elements which are similar in appearance (shape, size, colour, texture, value, orientation) are 'grouped' together as a whole, as 'figure', while these elements contrast with other dissimilar elements, as 'ground'. When elements are perceived as a group, we perceive a whole, not the individual elements;
- principle of proximity: elements that are closer together will tend to be seen as belonging together and the closer they are, the more likely they are to be perceived as a group;
- principle of continuity: elements with fewer interruptions tend to be perceived as a group;
- principle of closure: we tend to see figures as complete, even when there are gaps in the visual information.

In addition the following principles elaborate:

1. the figure often appears nearer to the observer;
2. figure and ground cannot be seen simultaneously, but can be seen sequentially;
3. figure usually occupies an area smaller than does ground;
4. figure is seen as having contour; ground is not;
5. figure is seen as having shape or form quality; ground is not.

While the Gestalt principles generally refer to visual perception, the fundamental concept of differentiation, as a relational or contextual system

of perception can be applied equally to all forms of sensory perception, of 'elements' or stimuli in space, as well as in time.

> Vision reveals what the touch already knows. We could think of the sense of touch as the unconscious of vision. Our eyes stroke distant surfaces, contours and edges, and the unconscious tactile sensation determines the agreeableness or unpleasantness of the experience. The distant and the near are experienced with the same intensity, and they merge into one coherent experience.
>
> *Pallasmaa 2005, 42*

Pallasmaa considers all senses as extensions of the sense of touch, the haptic system. "All the senses as extensions of the tactile sense, specializations of skin tissue. Even the eye touches; the gaze implies an unconscious touch, bodily mimesis and identification" (Pallasmaa 2005, 42).

If this is the case, then it is logical that our understanding of how we see, our understanding of visual perception, should transfer to perception through the other senses. Whether from a distance or in close proximity, intimacy, it is largely the relative nature of things, expressed through differentiation, that we perceive.

2 Interruption

Reducing the relative influence of sight requires an interruption or overriding of visual capabilities and tendencies. If we experience the world through a largely 'ocularcentric paradigm' how might we begin to re-engage and re-integrate our senses? Pallasmaa offers a possibility as he distinguishes between 'focused vision' and 'peripheral vision'.

> Unconscious peripheral perception transforms retinal gestalt into spatial and bodily experiences. Peripheral vision integrates us with space, while focused vision pushes us out of the space, making us mere spectators.
>
> *Pallasmaa 2005, 13*

By shifting the dominance from 'focused vision' to 'peripheral vision', we become more aware and engaged with the world, surrounded by it as

opposed to separate or apart from it. In the fringes of our visual field, 'seeing' becomes blurred and unfocused, the other senses engaged to supplement our perception. Pallasmaa continues, "Focused vision confronts us with the world whereas peripheral vision envelops us in the flesh of the world" (2005, 10). "The 'intangible' elements in our surroundings (intangible under an 'ocularcentric paradigm') become in fact 'tangible' through a broadened sensory awareness; they are elusive and invisible through sight only.

3 Developing Sight

> In his thorough and thought-provoking book The Opening of Vision: Nihilism and the Postmodern Situation, David Michael Levin differentiates between two modes of vision: 'the assertoric gaze' and 'the aletheic gaze'. In his view, the assertoric gaze is narrow, dogmatic, intolerant, rigid, fixed, inflexible, exclusionary and unmoved, whereas the aletheic gaze, associated with the hermeneutic theory of truth, tends to see from a multiplicity of standpoints and perspectives, and is multiple, pluralistic, democratic, contextual, inclusionary, horizontal and caring.
>
> *Pallasmaa 2005, 36*

on PROCESSING

> At every instant, there is more than the eye can see, more than the ear can hear, a setting or a view waiting to be explored. Nothing is experienced by itself, but always in relation to its surroundings, the sequences of events leading up to it, the memory of past experiences.
>
> *Lynch 1960, 1*

Trying to understand the nature of perception and experience is an ongoing human pursuit, with various systems of 'classification' or models of perception and experience have been proposed. In *The Aesthetics of Landscape*, Stephen Bourassa provides a comprehensive introduction to many models for understanding the nature of perception and experience, as well as an overview of several theories on preference in the perception of landscapes (the Kaplan's information-processing theory, Jay Appleton's prospect-refuge theory, and Costonis' cultural-stability hypothesis). These

models range from purely 'objective' models to purely 'subjective', yet most fall somewhere in between. Many incorporate various 'levels' of experience, usually from a 'low level' or purely sensory or biological level through to a 'high level', a symbolic or personal/individual level. Bourassa proposes that the nature of experience can be understood in two dimensions: the first being the levels of aesthetic experience (sensory | biological, formal | cultural, and symbolic | personal) and the second being detachment or engagement (subjective and objective).

Don Norman, in his book *Emotional Design*, discusses three levels of processing that relate to Bourassa's three levels: "… the automatic, prewired layer, called the visceral level; the part that contains the brain processes that control everyday behavior, known as the behavioral level; and the contemplative part of the brain, or the reflective level. Each level plays a different role in the total functioning of people" (2004, 21). And of course each level interacts with and reinforces the others.

> The visceral and behavioral levels are about "now," your feelings and experiences while actually seeing or using the product. But the reflective level extends much longer – through reflection you remember the past and contemplate the future.
>
> *Norman 2004, 38*

> It is only at the reflective level that consciousness and the highest levels of feeling, emotions, and cognition reside. It is only here that the full impact of both thought and emotions are experienced. … Interpretation, understanding, and reasoning come from the reflective level.
>
> *Norman 2004, 37-38*

> The design requirements for each level differ widely. The visceral level is pre-consciousness, pre-thought. This is where appearance matters and first impressions are formed. Visceral design is about the initial impact of a product, about its appearance, touch, and feel. | The behavioral level is about use, about experience with a product. But experience itself has many facets: function, performance, and usability. A product's function specifies what

> activities it supports, what it is meant to do – if the functions are inadequate or of no interest, the product is of little value.
>
> *Norman 2004, 37*

These three 'levels' of processing sensory 'inputs' to the body engage the two 'perceptual systems' that we use to process these different levels of inputs. Bourassa summarizes by stating: "... the research findings I have outlined in the preceding paragraphs suggest that: (1) there are dual perceptual systems involving both the uniquely human and the more primitive parts of the brain; (2) the more primitive parts of the brain function on the basis of emotion rather than cognition; (3) the primitive brain can respond to stimuli in the absence of cognitive awareness of those stimuli; and (4), consequently, affective response to stimuli may under some circumstances occur separately from cognitive knowledge" (Bourassa 1991, 63).

The two systems that we use to process stimuli that Stephen Bourassa refers to are the affective and the cognitive systems (subconscious and conscious levels of awareness). "The affective system makes judgments and quickly helps you determine which things in the environment are dangerous or safe, good or bad. The cognitive system interprets and makes sense of the world" (Norman 2004, 11). Generally, perception-driven experience initially engages the affective system, resulting in emotional response and quick judgement. The reflective level is associated more with thought processes, and initiated primarily by the cognitive system, conscious thought-driven experience.

What does this mean? 'Seeing' truly is a 'thinking' activity and an 'emotional' activity. A response to stimuli can be emotional or cognitive (typically a combination of the two), and each has value in knowing the world we live in. Understanding our tendencies and preferences, regardless of their origin, is essential to understanding and moving beyond the limits of our perception, for further developing our perceptual abilities.

on EDITING

Editing refers to the process, conscious or unconscious, of 'filtering' or 'selecting' from amongst the complexity of the milieu. Making judgements

and decisions is dependent on an ability to edit. It is the means of finding a balance between knowing too much or too little, and of course of knowing the 'right' things.

> I think we get in trouble when this process of editing is disrupted – when we can't edit, or we don't know what to edit, or our environment doesn't let us edit.
>
> *Gladwell 2005, 142*

Editing may originate in either or both of the processing systems, affective (emotional) and cognitive. It is biologically, culturally, and individually driven, and is the product of mediation by prior experience, cultural values and beliefs, and images, among many other factors. Perception is mediated in large measure by familiarity, the composite of these many factors. Familiarity conditions the brain to not only 'select' and 'edit' the 'raw data' of perception, but also how this information is interpreted and processed, how it is altered, rearranged, or rejected entirely. Familiarity guides both what we perceive and what we conceive; it is the basis for perceiving difference, between now and then, between here and there. Familiarity is the basis for perceiving, and conceiving, change.

on FAMILIARITY

The mass of stimuli surrounding us and the resulting necessity to 'edit' and 'select' a subset of stimuli, which, while enabling us to cope, also establishes a particular interpretation of reality that we rarely question and move away from. With respect to how we 'process' our perceptions, familiarity is an adaptive response, a behaviour that has been said to be biologically 'useful', "because it is the novel, unexpected things in life that require the most attention" (Norman 2004, 107-108). Familiarity may be biological, cultural, or individual, but irrespective of its source, what is familiar becomes 'background experience', to free up perceptual abilities for new experiences. There are three consequences of familiarity:

1

The result is that while we see what we 'need' to see to 'survive', much of the world becomes invisible, insensible. We become insensible to

our surroundings. We soon forget that the familiar, that which becomes 'background experience' soon becomes unfamiliar. "We choose knowing over direct experience. Yet, in knowing, we kill reality, or, at least, we make it inaccessible. We live and create out of our ideas, out of the apparent comfort of certainty that they offer" (Loori 2005, 71).

> Once we've identified the cup, the process of perception stops, and all other aspects of the cup are lost to us. We tacitly believe that when we've got a name for something, we know it. And once we know it, we stop noticing its qualities. We stop noticing the fact that it is perpetually changing and how it changes; we disregard what else it is.
>
> *Loori 2005, 73*

2

A second downside to familiarity is a sense of expectation that predetermines perception, limiting our experiences. It is in a sense, an effect of exposure, where we have a 'preference' for elements that are 'familiar' - Michael Brawne calls this the 'expectant eye' (2003); we tend to see what we want to see or what we decide we have seen. Expectation destroys opportunity for discovery; we become focused on what we expect that we miss what really is.

> The reason they weren't looking was that they had never done so before. They had fallen into the habit of considering their universe to be boring – and it had duly fallen into line with their expectations.
>
> *de Botton 2002, 247*

3

The third consequence of familiarity is not as barrier to perception but as facilitator. Familiarity offers a sense of comfort and security, which may encourage a confidence to explore what is new, a shift in focus to what is 'unfamiliar' in our surroundings. The familiar can 'frame' the experience of what is unfamiliar, helping us to orient ourselves and serving as a reference point for comparison. It is when familiarity meets complacency that it becomes a barrier to perception.

Familiarity as facilitator is also important when considering 'expertise'. In this sense familiarity enables (although it may also constrain), providing a foundation of knowledge and understanding that can serve as the basis for discovery and innovation. Again, it is when we become complacent, or when we do not recognize that we may not be familiar with the 'right' things, that this 'expertise' is transformed into a constraint. For example, there is a tendency to engage with the world through the lens of 'landscape' when practising landscape architecture. Though we might live in this same milieu and experience it as 'place', familiarity tends to render it invisible and we resort to an understanding based on an 'outside' perspective. If we are to engage in 'place making', how might we engage with, and know, a familiar place?

EXCHANGE = EXPERIENCE + **DESIGN**

> Given a programme or a brief and the description of a site, the student must first set a design problem and then go on to solve it. Setting the problem means framing the problematic situation presented by site and programme in such a way as to create a springboard for design inquiry. The student must impose his [*sic*] preferences onto the situation in the form of choices whose consequences and implications he must subsequently work out - all within an emerging field of constraints'.
>
> *Schon 1985, 18*

Descriptions of the 'design process' vary, but in most cases are based on the sequence of:

- design brief: goals, programme, site definition
- inventory and analysis
- research
- intentions and requirements
- conceptualization
- design development
- implementation
- evaluation

Design refers both to the process of conceiving and developing a plan for something as well as the final 'solution'. As process, design has been described in a number of ways, but ultimately is a process of selection from a variety of alternatives, choice and judgement, much like experience is based on a process of 'editing' or selecting from complexity.

> Designing is a creative process, it involves a reaction to circumstances and conditions, and brings together sensory impressions and meanings.
>
> *Motloch, 1991*

In the context of this work, design is seen as the complement of experience; each is necessary and dependent upon the other. It is the process through which we express our understanding of the world,

test assumptions, interpret or intervene, and respond to changes in the material or cultural context; "It is the art of merging an idea and feeling with concrete materials, so that the essential concept is inseparable from its material embodiment" (Hannah 2002, 27). To design is to participate in the processes and dialogues of the milieu.

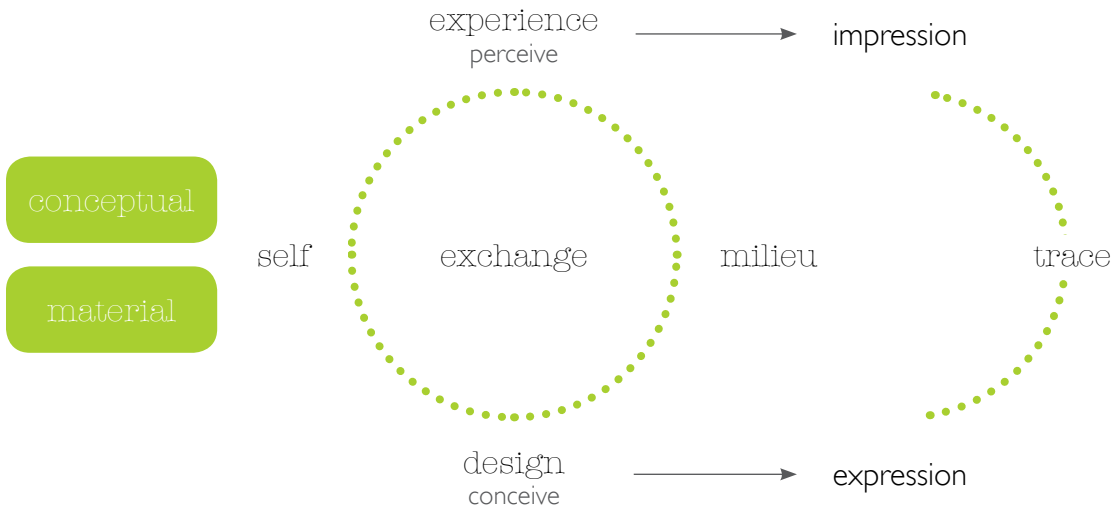
> Landscapes are not finished when they have been constructed. It may take years to implement a design, for it to evolve; the way a landscape is managed can change it fundamentally over time. Shaping the context in which landscape is shaped is an act of design.
>
> *Spirn 1998, 208*

There has been a great deal of theoretical discussion about design, and yet rarely has the dialectical nature of design as exchange been explored in detail. Design is often considered in relative 'isolation', as the process that generates 'expressions', or as the 'expressions' themselves; from the self to the milieu. However, as the complement of experience, it is essential not only to recognize the reciprocal relationship between them, but to understand HOW each is dependent upon the other.

> A design capability proceeds from a fusion of skills, knowledge, understanding, and imagination; consolidated by experience. These are heavy words, and they refer to the foundations.
>
> *Potter 2002, 21*

Understanding the nature of perception, of experience, offers an entirely different approach to understanding how and why we design, a new perspective through which we may become more aware of how and what we do. As a result, the emphasis in this work, with regards to exchange, has prioritized experience over design.

Exchange, experience and design, describes the nature of engagement between self and milieu. It is through these practices that impressions and expressions are generated; impressions and expressions are traces of exchange.


experience
perceive
impression
conceptual
material
self
exchange
milieu
trace
design
conceive
expression

trace

Trace is a filtering process traditionally employed in design that uses transparent film or translucent paper through which parts of an underdrawing are selectively tracked and duplicated in order to advance a design idea. The trace procedure is repeated until the process is exhausted and the idea is fully developed – leaving behind and 'archaeological' paper trail of evolving design drawings.

However, there is a much more romantic use of the term which refers to the sign of something having previously existed and, having moved on, leaving its mark. Subtle indications, such as the ripples in sand that register the currents of water or wind, are perceived by architects as deeply poetic. Furthermore, like footprints in the snow, historical traces of human activity in the landscape can provide a memory, a potential 'archaeological' anchoring system to inform a future architecture. Fascination with this kind of ghosted inscription also translates into a predilection for certain materials.

… Traces are worn steps; they are clues to what went before; they communicate an interplay between absence and presence.

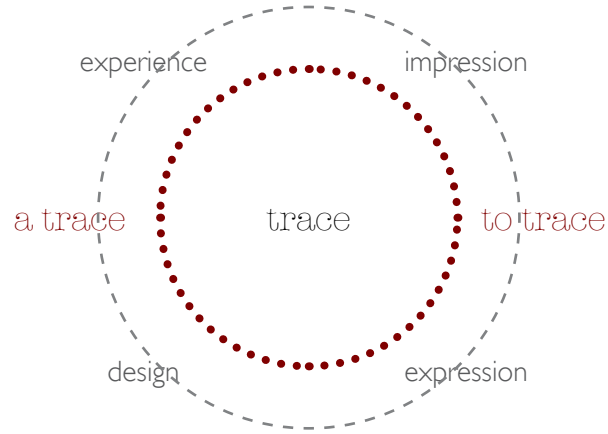
Porter 2004

To live is to leave traces.

Walter Benjamin 1986, 155

As an approach, the many meanings of the term 'trace' offer a multitude of possibilities for engaging with the landscape, physically, conceptually, and emotionally. Where FRAMING 'samples' the complexity of the milieu, it is TRACE that generates complexity within its scope.

From the perspective of the self, experience was seen to generate impressions of the milieu, while design was the means of expression - trace as a verb, 'to trace', promotes an alternative approach to experience and design, while trace as a noun, 'a trace', offers an alternative interpretation of impression and expression. It is the nature of the relationship between self and milieu, the EXCHANGE between them, that informs 'TRACE'.



> Both vision (that is to say the individual projection of a site) and action (the individual or collective use of an environment) contribute to our understanding of a place. Add to these the forces of nature and topography, and we have landscape. Landscape in general, and urban landscape in particular, is simply the sum total of successive dwelling periods on the land.
>
> *Girot 2006, 95*

The notion of 'trace' impels us to reflect on and become more aware of the ways in which we might think about, and act within, landscape. 'Trace' can act as a means to search for, and begin to understand, the intangible, ambiguous, concealed aspects of landscape. The aim is twofold: to facilitate an ability to shift among the frames of engagement so that we are able to engage with a site in a variety of ways, generating a layered understanding, and to encourage a deeper, richer exchange within each one. This notion presents an alternative way of interacting with and thinking about the landscape, and of landscape architecture.

STORIES

> Landscape is loud with dialogues, with story lines that connect a place and its dwellers. The shape and structure of a tree record an evolutionary dialogue between species and environment: eucalypt leaves that turn their edge to bright sun, deciduous leaves that fall off during seasonal heat or cold. And they record dialogues between a tree and its habitat. Tree rings thick and thin tell the water and food of each growing season of the tree's life. Size, shape, and structure - low-branched or high, densely branched or spare - reflect dialogues between a tree and a group of trees in open field or dense forest. ... Dialogues make up the context of individual, group, and place. The context of life is a woven fabric of dialogues, enduring and ephemeral.
>
> *Spirn 1998, 17*

Dialogues with the milieu leave traces, they are recorded or inscribed in the landscape, they "articulate relationships between the teller and told, here and there, past and present" (Lippard 1997, 50). Traces of inhabitation of a landscape are sometimes deliberate, but are often without knowing - everyday human practices that leave an impression on the land, or of

the land. Traces are receptacles for narratives that "articulate relationships between teller and told, here and there, past and present" (Lippard 1997, 50).

ANOMALIES

The most obvious or visible traces are often anomalies, highly differentiated from their surroundings. All traces are 'clues to the wider context', yet anomalies in particular, because of their 'difference' relative to the immediate context, inspire a curiosity to understand, if not from here, from where? What is its story? They "sharpen the perception of a larger context that might otherwise be taken for granted" (Spirn 1998, 159).

> Anomalies are clues to what the wider context is. A "wolf" tree is a tree within a woods, its size and form, large trunk and horizontal branches, anomalous to the environs of slim-trunked trees with upright branches. It is a clue to the open field in which it once grew alone, branches reaching laterally to the light and up.
>
> *Spirn 1998, 19*

MARKS AND MARKING

> And so we mark the site. Designation serves both to locate the antiquity on our mental map and to dissociate it from its own surroundings. … The marker emphasizes its special antiqueness by contrast with the unsignposted present-day environs, and diminishes the antique artifact's continuity with its milieu. The antiquity becomes an exhibit; we stand before it like a painting. The signpost tells us that it is in some measure contrived for our attention.
>
> *Lowenthal 1979, 109*

Marks are traces that have been 'identified' or 'designated' as somehow significant, and once marked, these traces become more visible. Marking reveals traces. Marks made in the landscape break the continuity with its surroundings, creating difference. Through differentiation these marks become foci for layering of associations, for the accumulation of stories;

marks as traces 'contain' narratives. Marking is a way of identifying with, relating to, the landscapes. They becomes a means of connecting self to milieu, of developing a personal bond with a landscape. To read the markings is to read how a landscape has been 'lived', the layering of markings informs how each personal story has been woven into a collective one.

> Objects themselves change. Pots and pans get banged and burned. Things are chipped and broken. But much as we may complain about marks, dents, and stains, they also make the objects personal – ours. Each item is special. Each mark, each burn, each dent, and each repair all contain a story, and it is stories that make things special.
>
> *Norman 2004, 221*

Marks may be created both in the landscape and of the landscape. It is these external markings that serve to mediate, to guide, our experience of the landscape itself.

> … one finds a number of marks and traces that are testimony to a particular schedule, sequence, or timing of human activity. These are the traces of social life and rhythm upon the land. Lines, elements, patterns, debris, and ruins register the passages of occupancy and labor over time. Weather, season, fallow, rotation, instrument, body, and contingency: all determine the processes by which a people inhabit and measure their ground.
>
> *Corner and MacLean 1996, 97*

Measuring is such a form of marking. James Corner and Alex MacLean, in their book *Taking Measures Across the American Landscape* illustrate the influence of measures as 'guides, outcomes, and gauges of cultural activity and meaning', traces in and of the landscape that bind landscape to a culture and a culture to the landscape.

> Consequently, the way a particular landscape looks is considered inseparable from, and integral to, the day-to-day activities and values of its occupants. In this way, quality and value cannot be detached from quantity, just as spacings, tolerances, and limits cannot be considered separately from ideology, ethics, and social responsibility. Thus, the measures of the land have a threefold

> nature: they are at once the guide, the outcome, and the gauge of cultural activity and meaning.
>
> *Corner and MacLean 1996, xviii-xix*

Difference, whether inherent or product of association and meaning, is an important quality of a trace. It is this difference that initiates a search, speculation, that extends beyond what and where it is to why and how, to the natural, cultural, or personal context. Traces are thus points of access, and have the ability to pull us in to the stories of a place, to add a depth and richness to experience.

IMAGE AND IMAGING

Images are traces that have been created through human action; images are a type of trace, imaging a form of tracing.

> Words, drawings, paintings, photographs, or video cannot replace the experience of the place itself, though they may enhance and intensify that experience and may even inspire construction of actual landscapes.
>
> *Spirn 1998, 81*

DIRECT AND INDIRECT

> We caught sight of it under the obvious divisions of river and settlement, soil and labor, silt and cargo, Atchafalaya and Mississippi, wealth and poverty; beyond the infrastructural acts of settlement - surveying land, building levees, draining swamps - that, given accounts of this once forbidding terrain, are truly magnificent feats of habitation; embedded in the everyday human practices that mark the rhythms of this emergent land, such as cultivating, dredging, towing, and crossing; and, finally, behind the images that capture this dynamic landscape for use by designers, including maps, paintings, diagrams, data sheets, construction drawings, photographs, texts, and conversations.
>
> *Mathur and da Cunha 2001, 152*

TRIGGER MECHANISMS

Trace, both 'a trace' and 'to trace' can act as a triggering mechanism. As receptacles of stories, associations, and meanings, and as activities that draw them out, encounters with trace can precipitate their release.

> ... Benjamin was also preoccupied by how the personal could play a part in the recovery of lost meanings. This is where he found Proust's idea of 'involuntary memory' attractive. Proust (1978) argued that 'voluntary memory', where people consciously make an effort to remember a past event, does not have the same quality as those memories which are triggered off by a particular inadvertent stimulus and which seem to envelop the person from their place in the past, so breaking the apparent boundary between past and present and bringing lost hopes and dreams to mind. | For Proust, these sorts of memories are lodged in specific places where people have been. These places continue to bear the traces of past experiences. It is therefore possible that revisiting them may at some time evoke the past and in the same moment unlock past hopes and desires which previously seemed to have been overtaken – and defeated – by the passage of time (Szondi, 1988).
>
> *Savage 2000, 42*

The following selection of perceptual strategies (perceptual strategies are also design strategies) that will be discussed is not a comprehensive or exhaustive set of possibilities. It is intended that they will illustrate the importance of an ability to shift beyond our habitual 'ways of seeing' and provide an introduction to the devices we may use to develop this ability.


a trace

> ... every human artefact - whether painting, poem, chair, or rubbish bin - evokes and invokes the inescapable totality of a culture, and the hidden assumptions which condition cultural priorities.
>
> *Potter 2002, 15*

Trace as a noun is not merely a replication. It is what remains when an event has passed, natural or human, like a memory or an impression. It is a clue, a hint, a 'trigger' to questioning – Why is that there? Who or what put it there? How was it made? When will it disappear? What does it mean? Searching for traces is searching for questions to answer, not for the answers themselves. A trace may be an object, an artifact, an image or representation, a name or a story. It may be a memory, as trace of past experience or vision, a trace of a potential future. Traces may be defined by many layers, interwoven 'sub-traces'.

MEMORY

> By contrast, if there is a narrative form intrinsic to still photography, it will search for what happened, as memories or reflections do. Memory itself is not made up of flashbacks, each one forever moving inexorably forward. Memory is a field where different times coexist. The field is continuous in terms of the subjectivity which creates and extends it, but temporarily it is discontinuous.
>
> *Berger and Mohr 1995, 280*

> The images seen in the mind's eye are based on pictures and patterns from previous experience, and so depend to a great extent on your memory. The more sensory experiences you have, the more material your imagination has to work with.
>
> *Patterson 2004b, 56*

"A memory trace "contains less but also more than the original event" (Livesey 2004, 120). Traces may express a memory, while the memory itself is a trace, as an 'expression' of cumulative past experience. Memory mediates and collides with immediate perception, generating new, composite images.

> Memory is no more than a trace of our experiences, a little-understood pulse across the synapses of the brain, upon which rests the whole constructed edifice of human social life. In this special function of being able to remember, to note consistencies and to recall them, lies the core of our survival, our humanity and our individual identity.
>
> *Whincup 2004, 79*

A memory is a trace, an image, a palimpsest of traces of past experiences, of receptions and responses. A memory is our access to the past, to moments of time, to places beyond the immediate and present. Memory fuels the imagination, linking the here and now with the there and then.

> Every moment of perception contains a whole personal and collective past, our body is the incarnation of that past; and with every moment of perception this past is reordered and revalued.
>
> *Rykwert 1982, 16*

> Memory truly comes alive when it is acted upon. Through imagination we are led to invention; our cultural memory guides our actions in an informed way. Our past lives in the actions of the present; our actions and artefacts are, to a large extent, informed by our past.
>
> *Livesey 2004, 129*

As such, it mediates our perception, is an integral part of experience and design, and it is through these that memory is added to, subtracted from, rearranged and reordered, transformed. In this way "... the present and the absent, the near and the distant, the sensed and the imagined fuse together. The body is not a mere physical entity; it is enriched by both memory and dream, past and future" (Pallasmaa 2005, 45).

Traces may be enduring or ephemeral. Their formation and erosion is through numerous processes, all of which have a certain order in time, a rhythm based on their relative speed, duration, and intensity. The ephemerality or endurance of traces is relative to both the processes that shape them and the one who experiences them. It is through traces, and

their evolution, the way they shift and change, a flux of layering, obscuring, disappearing, revealing, that we are able to sense time, especially time that is at a vastly different scale than that of human biological time.

> Traces from many periods of life and of history endure both in our minds and on the ground. But what we can remember potentially includes everything that has happened, whereas what we can see of the past in physical relics is highly selective, because materials decay and because later structures on a site necessarily displace earlier ones.
>
> *Lowenthal 1979, 106*

Like text, traces may be found within its original context, or as in a quotation, it may be transported and transformed into a new context. In the former, it may in fact be more difficult to perceive, in a sense camouflaged by its surroundings. In the latter, however, it may be characterized by a greater degree of differentiation, standing out as an anomaly. In this case, the trace has a relationship with both its immediate surroundings, and with the extended context of its origin.

> In academia, a found text is used in quotation marks to serve an argument. The text is then transformed and commented upon to help convey the thesis in question.
>
> *Richter 1996, 117*

Strategies of this nature are intended to proceed from 'what' exists, extrapolating to understand 'why' and 'how'.

> The deep context of a city is invisible to most, buried under layers of human constructions; and yet it exerts a powerful influence upon the urban landscape. Skyscrapers in Manhattan, built where bedrock is within reach of foundations, hide the rock, but the skyline reveals it.
>
> *Spirn 1998, 158*

Trace itself suggests an approach based on discovery, questioning, moving beyond mere identification to understanding the generative and erosive forces within the site, and beyond. They 'extend' the site in time and in

space, linking to events and spaces beyond its boundaries, to its context. Traces are clues to the 'deep context' of the milieu.

Searching for traces implies moving beyond obvious traces, and relates to what Naylor and Ball (2005) have called the "archaeology of the invisible", the results of which (the traces) they call the "poetics of the everyday". This process involves searching for what is invisible or ambiguous, in large measure because it has been camouflaged by familiarity.

> Archaeologists do this by choosing a site, physically digging material out of the ground and trying to figure out what that material might be or might have been part of, responding to the ambiguous detritus by carefully cleaning and separating an apparent uniformity of mud and colour, trying to decide where the edges are. Retracing where entropy has smudged the borders and started shuffling atoms across the line, weaving its conformist propaganda; dissembling content to its earth container. Piecing it all back together like a mysterious jigsaw puzzle with randomly shaped pieces and no image on the box.
>
> *Naylor and Ball 2005, 80*

Devices that guide our search for traces are 'models', they abstract the world, rendering it comprehensible. They present us with an alternative way of understanding that enables us to shift out of our normative way of thinking, opening up possibilities. I have identified several groups of devices that may guide our search:

1. Ordering Systems
2. Metaphors
3. Images

1 ORDERING SYSTEMS

Many, in an attempt to manage the complexity of the world, have reduced this complexity to a set of 'important' characteristics, qualities, or elements. Based on what is known or assumed to exist, they are classification or 'ordering' systems that use prior understanding to suggest what we might 'look' for, suggesting the 'ends' but not the means. These devices look at parts, or components, of the milieu; we see the whole through its 'parts'. These systems act as devices that can 'guide' our search for traces in the landscape, so that we might notice what we might otherwise have overlooked. Devices of this nature include:

Kevin Lynch's five elements of environmental image: NODE, LANDMARK, DISTRICT, EDGE, AND PATH

> Environmental images are the result of a two-way process between the observer and his [*sic*] environment. The environment suggests distinctions and relations, and the observer - with great adaptability and in the light of his own purposes - selects, organizes, and endows with meaning what he sees. The image so developed now limits and emphasizes what is seen, while the image itself is being tested against the filtered perceptual input in a constant interacting process.
>
> *Lynch 1960, 6*

Lynch proceeds to introduce node, landmark, district, edge and path as the five elements of our image of the environment. These elements contribute to a sense of orientation, providing the sense of stability and security that is necessary for a deeper and richer human experience. The image generated from these five elements shifts according to scale of observation, point of view, time of day, etc.

Francis Ching's form, space, and order: POINT, LINE, PLANE, AND VOLUME

> As conceptual elements, the point, line, plane, and volume are not visible except to the mind's eye. While they do not actually exist, we nevertheless feel their presence.
>
> *Ching 1996, 2*

The primary elements of point, line, plane, and volume define the structure of a space. Ching discusses in detail how these elements are present in our surroundings, how they relate to each other, and how these relationships generate form, space, organization, and order.

Gordon Cullen's SERIAL VISION, CATEGORIES OF PLACE, AND INTRINSIC QUALITIES

> The human mind reacts to a contrast, to the difference between things, and when two pictures are in the mind at the same time, a vivid contrast is felt and the town becomes visible in a deeper sense. It comes alive through the drama of juxtaposition.
>
> *Cullen 1971, 9*

Cullen introduces an approach to understanding our milieu through consideration of the ways by which our interaction with, or experience of, our surroundings produces an emotional reaction. The components of experience that he focuses on are:

Motion: Movement through spaces generates contrast of the existing and the emerging views, the city revealed in "jerks or revelations" (1971, 9). Cullen calls this "serial vision".

Position: Experience of a place is mediated by the relationship of the body to its surroundings, largely an experience of variations in enclosure and exposure. Awareness of the position of body in space generates the creation of a 'here' and a 'there'.

Content: The nature or 'character' of the city fabric establishes a sense of identity, the specificity of 'this' and 'that', and is determined by its colour, texture, scale, style, character, personality and uniqueness.

Christopher Alexander's FIFTEEN PROPERTIES that describe the structure and order of CENTRES

Christopher Alexander is an architect, scientist, and builder who has dedicated a great deal of his life to developing a new way of understanding the world, In the four volumes of *The Nature of Order*, he describes, in great detail, a system based on the inherent order in all things and our

shared reaction or response to this order. It is a system that "... unites the objective and subjective, it shows us that order as the foundation of all things is both rooted in substance and rooted in feeling, is at once objective in a scientific sense, yet also substantial in the sense of poetry, in the sense of the feelings which make us human..." (Alexander 2002a, 298). A shift in thinking is fundamental, a shift away from thinking of the elements as bounded wholes, separate from their surroundings, to thinking of these same entities as 'centers' related to other 'centers' in a larger whole.

> The intellectual foundation of this vision is the idea that space itself, matter itself, has life in varying degrees. There is a convergence of function, geometry, and feeling in space; this space is conceived as a living fabric that – through its structure – encompasses these things. Space does not merely contain living structure. Space has life, to a greater or lesser degree. It is the space itself which resembles self, which functions, which works, which has living structure in it, and which has life. The life which appears is an attribute of space itself.
>
> *Alexander 2002a, 444*

Alexander postulates that order is inherent in everything and therefore is objective, yet we are the 'instruments' used to 'measure' this order, implying a subjective process. In order to do this, we must ask ourselves 'to what degree does the thing resemble our own self?', an assessment that requires one to acknowledge and supersede preferences, opinions, and images, reaching to the "part of human experience and feeling where our feeling is all the same" (Alexander 2002a, 4). This is done through comparison, assessing the relative degree of life - which has more life? Which is a better picture of the self?

Anne Whiston Spirn's 'PERFORMANCE SPACES'

Spirn discusses a series of types of spaces as traces of generative processes, cultural and/or natural. Spirn's 'performance spaces' are roughly equivalent to Appleton's prospect and refuge, Norberg-Schulz's domain, path, and node, Lynch's district, path, node, edge, and landmark., though these approaches are based on 'form' and response to form, rather than process. Christopher Alexander "sees specific spaces for behavior as patterns that

combine to create a "pattern language"... the character of a place comes from patterns of events interlocked with geometric patterns in space..." (Spirn 1998, 122-123).

> Territory, boundary, path, gateway, meeting place, prospect, refuge, source, and sign are types of spaces basic to human habits. I call them performance spaces to emphasize that they are generated by active processes and are not simply formal and fixed, as commonly seen. ... Each kind of performance space is derived from archetypal needs and activities and the means invented to meet or accommodate them.
>
> *Spirn 1998, 121*

2 METAPHOR

Metaphor, as a conceptual framing device, is another type of guide to understanding the complexity of our surroundings. The metaphors that represent intersections within the field of relationships previously discussed are of this nature. However, while these, together, extend the meaning of landscape, working to set a broad frame of engagement, other, more specific metaphors serve instead to focus our interpretation of milieu, targeting specific kinds of traces we might seek within it. Where 'ordering systems' focus on components within the milieu, metaphors focus on the whole, we see components in relation to the entirety. Examples include:

LANDSCAPE as NARRATIVE or LANGUAGE

Anne Whiston Spirn discusses at great length the notion of landscape as language. She believes in a 'poetics of landscape' finding figures of speech and rhetoric that figuratively extend the meaning beyond what was originally intended or foreseen, and expressive context that "attributes the ability to evoke or amplify human feeling to landscape feelings and phenomena" (Spirn 1998, 235).

> Landscape has all the features of language. It contains the equivalent of words and parts of speech - patterns of shape, structure, material, formation, and function. All landscapes are combinations of these. Like the meanings of words, the meanings of landscape elements ... are only potential until context shapes them. Rules of grammar govern and guide how landscapes are formed, some specific to places and their local dialects, others universal. Landscape is pragmatic, poetic, rhetorical, polemical. Landscape is scene of life, cultivated construction, carrier of meaning. It is language.
>
> *Spirn 1998, 15*

LANDSCAPE as FIELD

Landscape as field is a metaphor that is often used to combat the tendency to oversimplify the landscape, embracing instead the complexity and richness of (particularly urban) life, the relational nature of each part to the whole. As field, landscape is a complex network of processes of design

and appropriation, of negotiation and of change, of "material physicality, of intimacy and difference" (Corner 2006, 33). It is a "… tactical work of choreography, a choreography of elements and materials in time that extends new networks, new linkages, and new opportunities" (Corner 2006, 31).

> … traces of people provisionally stage a site in different ways at different times for various programmatic events, while connecting a variety of such events temporally around the larger territory. This attempts to create an environment that is not so much an object that has been "designed" as it is an ecology of various systems and elements that set in motion a diverse network of interactions.
>
> *Corner 2006, 31*

At the same time, landscape can be abstracted, a field of objects and spaces that differ only in their varying densities. Space is not seen as a leftover, an in between.

> Space and object are considered to be made of the same stuff, distinguishable by their relative densities alone. Within the Suprematist scheme the distribution of formal values, the relationship between figure and ground, resembles this description, rather like a weather map with colour fields denoting zones of relative pressure. Space and plane, object and field can now be interpreted as equivalent materialities. Usefully this analogy provides a means by which the object/field opposition can be related as a continuum.
>
> *Rhowbotham 1999, 31-32*

LANDSCAPE as INFRASTRUCTURE

Infrastructure is considered to be a set of elements that provide a structural framework that supports an organization or a system. Landscape, viewed in this way, is seen as what supports the complexity of societal functions and activities. It is viewed as the foundation.

> …urban infrastructure sows the seeds of future possibility, staging the ground for both uncertainty and promise. This

> preparation of surfaces for future appropriation differs from merely formal interest in single surface construction. It is more strategic, emphasizing means over ends and operational logic over compositional design.
>
> *Corner 2006, 31*

LANDSCAPE as TOPOGRAPHY

> Concern for terrain means more than an interest in geometry (the profile, compass, or configuration of a given plot of land), it means care for the materiality, color, thickness, temperature, luminosity, and texture of physical things. Further, land is not only soil, it is all that can be discovered beneath it and emerges from it, as well as the several agencies that sustain that emergence. Attention to the qualities of these elements naturally leads to an interest in their associations, and thus to their expressive power - even their potential for representation. But concern for the physical aspects of land can also lead to an awareness of its functional potentials, what the materials of a site can do, how they can act or perform in service of some purpose other than expression and representation. Attention to the performative aspects of landscape also invites recognition of its expected and unexpected events, the latter revealing the limits of both foresight and design intelligence, which can be disastrous in some cases, wonderful in others.
>
> *Leatherbarrow 2004, 9*

David Leatherbarrow introduces the notion of 'topography' as an interpretation of landscape, and of architecture. "My sense is that this last term [topography] is wider than conventional usage which equates topography with the land. Topography incorporates terrain, built and unbuilt, but more than that, for it also includes practical affairs, or their traces, ranging from those that are typical to those that are extraordinary" (Leatherbarrow 2004, 12).

> Topography so conceived is certainly physical, but is legible as such by virtue of the ways that footprints on its shores invite, sustain, and represent the many and varied performances of everyday life. One offer it continually makes is of traces of past performances that have sedimented themselves into its fabric.

Marks of this kind are not exactly vestiges, for that would suggest they indicate only something that occurred in the past. Were this all that topography made available, both the present and the future would be foreclosed. Topographical inscriptions do, indeed, give evidence of previous enactments, but they also indicate those that are still occurring and may unfold in future. A trace is an outline, a proposal, that is taken up in an act (of making or inhabiting) that has no obligation to its past other than the preservation of a tension between its forms and those projected out of the present. Movement along a single path, from here to there and now to then, is a very simple but vivid indication of this tension, of a spatial situation that allows the opposites that define it to continually oppose each other. Understood in this way, topography is not only expressive or indicative but also relational, a mosaic integration of the contrasting settings that give life its texture, richness, and spontaneity.

Leatherbarrow 2004, 12-13

3 IMAGES

In addition to searching for traces within the site, we might also look to traces 'of' the site. This involves searching for images, the kind we imagine (as expressed in perceptions, memory, visual ideas, and dreams) and the kind we create (paintings and sketches, models, photographs, landscapes, narratives, and maps, to name a few examples). Not merely visual, James Corner uses the term 'eidetic image' as a "mental conception that may be picturable but may equally be acoustic, tactile, cognitive, or intuitive... eidetic images contain a broad range of ideas that lie at the core of human creativity" (Corner 1999, 153).

> Images of one sensory realm feed further imagery in another modality. Images of presence give rise to images of memory, imagination and dream.
>
> *Pallasmaa 2005, 44*

These eidetic images are traces of site as experienced and expressed; images are others' interpretations, clues to the social, cultural, and individual 'context' through which the milieu has been transformed, and translated. They are composite traces that reveal elements of milieu, the circumstances of their reception, and the unique interpretation of the individual or collective that created them.

> Images may differ not only by the scale of area involved, but by viewpoint, time of day, or season.
>
> *Lynch 1960, 86*

The work of C. S. Peirce regarding the types of 'representational sign' corroborates this notion of image as trace; images are signs that, based on how the sign is connected to what it signifies, may function as symbols, indices, or icons (Friday 2002).

> Symbols signify solely in virtue of conventional practices, habits and customs.
>
> *Friday 2002, 47*

> Indices, by contrast, are signs that signify in terms of some contiguity between sign and signified. … The more important instances of indices, however, are what are sometimes called

> 'natural signs' – objects or states of affairs that signify by pointing to their cases or effects.
>
> *Friday 2002, 47*

> These (icons) are signs that signify pictorially, and therefore the notion of an 'icon' is roughly equivalent to that of a 'picture'. … icons to be signs that signify by virtue of their qualities being similar to the qualities of the signified. …
>
> *Friday 2002, 48*

Through processes of selection and editing, images 'stand apart' from the material milieu, a part of both the original and the new context; through this differentiation they may offer a different 'reading' of the milieu, revealing what may have been invisible or forgotten, inspire reflection that may clarify a moment of experience, or act as a trigger to help recall a moment of past experience.

> To abstract implies a removal, a drawing out from an original location, and an enforced movement of elements from one level to another. Abstraction, then, involves the transposition of worlds; an extracting of essences, or elements, or generalities from one original plane into another. The new world, the created level, the (re)presentation, provides the potential arena for the manipulation and control of images. Images become infinitely malleable once freed from their original context, whilst still retaining significations within that original context…
>
> *Jenks 1995a, 8-9*

The selective nature of images can be both an opportunity and a constraint. As a constraint, they can impede the 'imaging' process, preconditioning what we perceive as significant and valuable, and what is not. These distinctions can become ingrained, and increasingly difficult to challenge and overcome. They act as filters through which we experience the world, and as a result there is much that we may tend to overlook.

As an opportunity, images capture both the specificity of an event or moment, but also extend to capture a generalization.

> As analytical and practical devices, visual data both connect and refract, capturing the specificity of social processes and phenomena, and thereby illustrating the general in the particular, while also offering a particular means of illuminating and exploring the relationship between the two.
>
> *Knowles and Sweetman 2004, 13*

Images can also concentrate and express the essence of something. The selective nature and power of image over our perception also has the potential to encourage us to see what is absent from our immediate perceptual circumstances, and to redirect our experiences by adopting a 'different' image. They may guide us to be more conscious (de Botton 2002, 214).

> The anticipatory and artistic imaginations omit and compress, they cut away the periods of boredom and direct our attention to critical moments and, without either lying or embellishing, thus lend to life a vividness and a coherence that it may lack in the distracting woolliness of the present.
>
> *de Botton 2002, 15*

> There is a purity both in the remembered and in the anticipated visions of a place: it is the place itself that is allowed to stand out.
>
> *de Botton 2002, 23*

Focusing on image as a trace serves to remind us that an image is not an analogy or substitute for reality. To image is to 'trace' reality; through the editing process, reality is transformed and the resulting image becomes an abbreviation of reality. We "forget how much there is in the world besides that which we anticipate" (de Botton 2002, 14). Reminded that images are expressions helps to minimize their potential for generating anticipation and expectation, acting as a barrier to 'seeing' the world as it is.

Understanding images as traces also reminds us that as cultural constructions, with the ability to influence and mediate experience and design, they not only 'reflect' but construct the world, the way we 'see' it and the way we act within it. "This point is evidenced in the fact that different people

at different times see the same world in radically different ways; it is not the world that changes but the ways and means of seeing and acting. Description and projection entail taking a particular point of view – both spatial and rhetorical – that not only reflects a given reality but is also productive of one" (Corner and MacLean 1996, 16-18).

> Proponents of these views, and many others, take their positions with regard to a landscape already constructed, its horizons defined, but meanwhile little attention is paid to the representations that play a significant role in constructing the Mississippi that is the subject of these views. These representations include maps, hydrographs, cross sections, working drawings, and models used by professionals in the process of designing this landscape, but also, in a more popular vein, photographs, media reports, paintings, and folklore that have contributed to the reception and inhabitation of this designed landscape.
>
> *Mathur and da Cunha 2001, 2-3*

MAP AS IMAGE

> For most of us the map is a tantalizing symbol of time and space. Even at their most abstract, maps (especially topographical maps) are catalysts, as much titillating foretastes of future physical experience as they are records of others' (or our own) past experiences. For the map-lover, maps are about visualizing the places you've never been and recalling the ones you have been to. A map can be memory or anticipation in graphic code.
>
> *Lippard 1997, 77*

Maps are images of "potential itineraries and lived trajectories" (Bruno 2002, 67). They are products of selection, of marking, as well as projections of anticipated or future tracing. Vague or detailed, maps may reveal what is invisible, what has been forgotten, or what is imagined. As traces, they, like all images, promote an iterative experience of the milieu, moving back and forth between image and reality, questioning each one in turn.

PHOTOGRAPH AS IMAGE

> Are the appearances which a camera transports a construction, a man-made cultural artefact, or are they, like a footprint in the sand, a trace naturally left by something that has passed? The answer is, both. | The photographer chooses the event he [*sic*] photographs. This choice can be thought of as a cultural construction.
>
> *Berger and Mohr 1995, 92*

A photograph is a trace of an instant in time. It is a fragment of an event, of a continuous experience, preserving a moment of time and preventing it from being 'erased' by subsequent moments. Such a moment becomes isolated, and thus differentiated.

> The expressive photograph – whose expressiveness can contain its ambiguity of meaning and "give reason" to it – is a long quotation from appearances: the length here to be measured not by time but by a greater extension of meaning. Such an extension is achieved by turning the photograph's discontinuity to advantage. The narration is broken… Yet the very same discontinuity, by preserving an instantaneous set of appearances, allows us to read across them and to find a synchronic coherence. A coherence which, instead of narrating, instigates ideas.
>
> *Berger and Mohr 1995, 128*

A photograph becomes significant as a trace, for what is captured becomes highly visible, and because it connects - to other moments, to other places, to memories, to stories. "An instant photographed can only acquire meaning insofar as the viewer can read into it a duration extending beyond itself. When we find a photograph meaningful, we are lending it a past and a future" (Berger and Mohr 1995, 89). A photograph both expresses and encourages a gathering of associations, in part because it not only captures a specific event, but a general idea.

> A photograph which achieves expressiveness thus works dialectically: it preserves the particularity of the event recorded, and it chooses an instant when the correspondences of those particular appearances articulate a general idea.
>
> *Berger and Mohr 1995, 122*

The ability of the photograph to extend beyond itself is in part based on its capacity to express both a specific moment and a general idea.

A photograph however, like all images, is an expression not just of a moment, of an event, but of its social and cultural context. It is after all a cultural construction.

> Likewise, the photographed image of the event, when shown as a photograph, is also part of a cultural construction. It belongs to a specific social situation, the life of the photographer, an argument, an experiment, a way of explaining the world, a book, a newspaper, an exhibition. | Yet at the same time, the material relation between the image and what it represents… is an immediate and unconstructed one. And is indeed like a trace.
>
> *Berger and Mohr 1995, 93*


to trace

Trace as a verb is not simply to re-create. To trace is to search, to follow, to connect, to represent, and to record. It is a means of interacting with the world in body and in mind. How does 'trace' relate to 'design'? Strategies of this kind suggest a means of active engagement, suggesting operations or methods, without specifying precisely what one is 'looking' for. Operations based on tracing include those that engage with, and act on, the site directly, and those that are indirect, using a medium other than the landscape itself.

Above all, to trace requires a high level of thought, reflection, a consciousness and deliberateness. A defining characteristic of 'to trace' is iteration. The operations encourage a rereading, 'seeing' more carefully through an interplay of impression and expression, each guiding and transforming the other. The aim is to enlarge and shift the site, transforming 'what ifs' into 'if onlys' (Richter 1996, 100).

> We can see beauty well enough just by opening our eyes, but how long this beauty survives in memory depends on how intentionally we have apprehended it.
>
> *de Botton 2002, 225*

I have organized these operations in three categories:

1. Site as Medium
2. Perceptual Strategies
3. Representational Strategies

1 SITE AS MEDIUM

Operations that directly engage the site, as medium, use 'making', design itself, as a means to reveal aspects of the milieu. Operations of this type tend to involve a highly intimate, multi-sensory form of engagement, a direct, physical presence largely based on movement within and of the site - they may utilize 'displacement' or 'disruption' to initiate a reaction within the site. Such operations often have the benefit of immediate 'feedback' through action and reaction. They also often rely on reflection to deepen understanding, transforming the milieu into not simply the site of making, but of critical inquiry and invention.

> In the process of re-creating with our own hand what lies before our eyes, we seem naturally to move from a position of observing beauty in a loose way to one where we acquire a deep understanding of its constituent parts and hence more secure memories of it.
>
> *de botton 2002, 222*

Direct operations include sampling, walking, making, and site construction.

SAMPLING

Sampling is an operation that further focuses or 'frames' our investigative efforts beyond the designation of site from context. A variety of techniques is used, but all share a common purpose - to see, and to understand, the environment in which we live through a comprehensive and focused inquiry into a part of it. Sampling establishes a point (or many points) of entry into understanding distribution, occurrence, dominance, gradients, patterns, and it directs insight into the underlying forces and phenomena.

Sampling methods include simple random sampling, stratified sampling, cluster sampling, and systematic sampling, while techniques for their application include the quadrat sampling method and the transect sampling method; each reflects a desire to gain greater knowledge of the world, and their repeated use reflects a cultural view that this is an acceptable and appropriate way to do so. Irrespective of the particular method used, sampling typically incorporates an element of randomness, a quality that merits mention because of its ability to promote an openness to

chance, to the unexpected, by overcoming (at least partially) bias and preconceptions. Many sampling methods are generally considered to be approaches to objectively measure the world, processes of data collection that allow us to 'see' it. The narrow view of many sampling methods as tools to measure the environment objectively is not only false, but ignores their potential in establishing an intense and intimate engagement between self and milieu, not only of counts, but of colours and scents, textures and sounds. Sampling the milieu allows us to see, to discover, to understand, to connect, to pay attention. The environment is not simply being 'studied' and 'recorded', but is being experienced through these methods.

WALKING

> Walking, though it is not the physical construction of a space, implies a transformation of the place and its meanings. The mere physical presence of man [*sic*] in an unmapped space and the variations of perceptions he receives crossing it constitute a form of transformation of the landscape that, without leaving visible signs, culturally modifies the meaning of space and therefore the space itself. Before the Neolithic era, and thus before the menhirs, the only symbolic architecture capable of modifying the environment was walking, an action that is simultaneously an act of perception and creativity, of reading and writing of the territory.
>
> *Careri 2002, 50*

Walking as an operation or strategy places one's self in proximity to the milieu. Moving through, around, or past the milieu establishes a physical intimacy through which one traces a path, leaving a trace of direct experience. Walking, in a sense, images the landscape as narrative through the sequence of movements of the walker (Bruno 2002), transforming it into a 'map', "a construction lived by users" (Bruno 2002, 64).

> The term "path" simultaneously indicates the act of crossing (the path as the action of walking), the line that crosses the space (the path as architectural object) and the tale of the space crossed (the path as narrative structure).
>
> *Careri 2002, 24-5*

MAKING

Making is a form of direct engagement in which landscape is both the venue and the material. In this way, the landscape itself is a representation, an image.

> The light, the climate, the style, the materials, the flora and fauna (or lack thereof), the spaces and proportions, not to mention the demography and population, make cities and their neighborhoods unique. Cultural geographers have argued about whether the city is a series of reflections of "reality" held as images in the minds of its observers, or whether it is in itself a concrete representation, a collective work of art, a symbolic creation of those who inhabit it or those who control it.
>
> *Lippard 1997, 197*

This type of approach is often exhibited by land artists:

> This [land art] continues to draw attention to landscape, this time as visceral and elemental art form. Here, landscape is both the venue (site) and material (medium) of artistic expression. Bound into the passage of time and natural process, the uniqueness of site and material circumstances makes landscape a more engaging and ephemeral phenomenon than that of distant scenery or pictures.
>
> *Corner 1999, 15*

Andy Goldsworthy is a land artist who uses making as a means to understand a place through its traces.

> The energy and space around a material are as important as the energy and space within. The weather - rain, sun, snow, hail, mist, calm - is that external space made visible. When I touch a rock, I am touching and working the space around it. It is not independent of its surroundings and the way it sits tells how it came to be there. In an effort to understand why that rock is there and where it is going, I must work with it in the area in which I found it.
>
> *Goldsworthy 1990*

His approach to his work is motivated by the same aim as the approach presented here through reconnaissance, and embodies many of the same principles. He writes, "What is important to me is that at the heart of whatever I do are a growing understanding and a sharpening of perception of the land" (Goldsworthy 1990). He exhibits a rare receptivity and openness, a finely-tuned intuition and he truly believes that the "potential is fantastic" (Goldsworthy 2001) in the world, there to be discovered, learned. It is through making, through observing and adapting, that unknowns are gradually transformed into knowns. Through making "you feel as if you've touched the heart of the place" (Goldsworthy 2001).

> I stop at a place to pick up a material because I feel that there is something to be discovered. Here is where I can learn. I might have walked past or worked there many times. Some places I return to over and over again, going deeper - a relationship made in layers over a long time. Staying in one place makes me more aware of change. I might give up after a while. My perception of a place is often so frustratingly limited. The best of my work, sometimes the result of much struggle when made, appears so obvious that it is incredible I didn't see it before. It was there all the time.
>
> *Goldsworthy 1990*

SITE CONSTRUCTION

The mainstream understanding of landscape architecture, as site design and construction potentially fits in this category. While construction is not typically performed by the designer, there is still potential for a designer to be highly involved in the process, for the construction to be seen as an expression that responds to site conditions and from which the site reacts and responds.

> In this way all good landscape architecture also manages to project a sense both of reality and virtuality. There is the palpable, haptic place, smelling, sounding, catching the eye; then there is also the sense of an invented or special place, this invention resulting from the creation of richer and fuller experiences than would be possible, at least in such completeness or intensity, if they were not designed. Like cyberspace, a designed landscape

> is always at bottom a fiction, a contrivance – yet its hold on our imagination will derive, paradoxically, from the actual materiality of its invented sceneries.
>
> *Hunt 2004a, 37*

Not all landscape architects approach site construction is this way, however, Georges Descombes is a designer who does. He writes that he considers his work "in provisional terms, as speculative constructions that are produced and transformed through continual reshaping processes: weather, seasons. light, growth, erosion, deposition" (Descombes 1999, 79). He considers his design expressions as devices for the "revealing of forces that are (or have become) imperceptible, for generating a feeling of oddness, creating a source of different attention, a different vision, a different emotion" (Descombes 1999, 79). He uses both in situ material site construction and 'construction' of perceptions as design strategies, disrupting or disturbing the physical site or the perceptions of it in order to affect change, and observe, learn from, the response.

> ... to partially disturb its organization so as to both discover and appreciate its essence. We also wanted to use this strategy to renew the emotions of the people who were going to walk on it - to draw their attention to the magic of the everyday
>
> *Descombes 1999, 82-83*

> Through inscribing a project on the memory of a terrain, one gives to a site the opportunity to project into the future, to find a renewed place and value in the cultural imagination. To design for sites with this principle in mind is to perform an action that allows for reflection on totally ordinary matters - a shift in sensibility. Perhaps the matters that are not noticed are those that are essential.
>
> *Descombes 1999, 85*

Christophe Girot is another landscape architect who approaches site construction as one part of an iterative process of landscape investigation and design. He presents an approach that focuses on "what already exists in situ" (Girot 1999, 61). He designs in response to what he discovers, participating in the forces present by adding a layer to those that already exist.

> These [operating concepts] I call trace concepts because they cluster around issues of memory: marking, impressing, and founding. They also underlie the fact that a designer seldom belongs to the place in which he or she is asked to intervene. How can outsider designers acquire the understanding of a place that will enable them to act wisely and knowledgeably? This is the question my four trace concepts address; landing, grounding, finding, and founding each focus on particular gradients of discovery, inquiry, and resolution. Each concept also designates a specific attitude and action that in turn nurtures a process of design and landscape transformation.
>
> *Girot 1999, 60*

In brief, the trace concepts "enable designers to come to grips with their intuitions and experiences of place, allowing these impressions to direct the unfolding of a project" (Girot 1999, 65). Specifically related to 'site construction' is the fourth, founding:

> It [founding] comes at the moment when the prior three acts are synthesized into a new and transformed construction of the site... the act of founding is always a reaction to something that was already there.
>
> *Girot 1999, 64*

Discovery of the milieu is both necessary to the design process, integrated within it, and the aim of the design itself. Through recovery of, and response to, inherent site qualities, site construction is embedded within what was and what will be.

2 PERCEPTUAL STRATEGIES

Perceptual strategies are primarily conceptual, operations that aim to develop our perceptual abilities, and to encourage shifts in our 'point of view', our thinking. They may accomplish this through promoting the use of all the senses, using unfocused or peripheral vision, through differentiation and discrimination, intuitive as well as cognitive processing systems, and overcoming the barrier of familiarity. Operations of this type include role-playing, synectics or analogical thinking, and 'thin-slicing'.

To elaborate briefly, the source of the operation 'role-playing' is John Dixon Hunt's 'virtual visitor', as introduced in *The Afterlife of Gardens*, while Tom Kelley' and Johnathan Littman's 'ten faces of innovation' provide additional insight into how role-shifting can foster innovation and new ideas. Both historical accounts of visitor response, as implied through various expressions, and projected or invented visitor response, offer opportunities to shift out of one's own perspective. Hunt writes,

> ... evidence from the virtual visitor argues for the creation of a palimpsest where all stages or eras of a site can be appreciated; and each such 'moment' will bring its own cultural context and assumptions that need interpretation. For the elaboration of some implied visitor, either for a specific site or more generally for a given period, makes abundantly clear that any visitation depends on its own fabric of assumptions and beliefs, its own mentality, and that we ourselves cannot respond wholly objectively to a historical moment, since like any virtual visitation our own presuppositions and ideas have also gone into describing the historical moment.
>
> *Hunt 2004a, 210*

In *The Ten Faces of Innovation: IDEO's Strategies for Beating the Devil's Advocate and Driving Creativity Throughout your Organization*, a strategy for driving creativity is presented, based on ten different 'personas' or 'roles' that can be adopted to facilitate innovation.

> And like a Method actor immersing himself [*sic*] in a new role, you may find that walking in the shoes of a new persona changes your attitude and outlook, even your behavior. If it opens you up to new thought patterns, the new role may help you achieve personal and professional growth. And thinking of the ten

> innovation elements as personas rather than tools reminds us that innovation is a full-time endeavor for all modern organizations, not just a task to be checked off periodically. The personas are about "being innovation" rather than merely "doing innovation."
>
> *Kelley and Littman 2005, 14*

Synectics is generally considered an approach to problem-solving, an approach that relies on analogical thinking (the process of making connections between unlike or dissimilar things) to disrupt typical thought processes, generating new thoughts and ideas. It is an active and participatory process, where one takes in information and ideas, and transforms them into something new, reaching beyond what 'is', to what could be. Nicholas Roukes in his *Design Synectics* introduces a series of twenty-three 'trigger mechanisms' intended to transform thinking and lead to new discoveries.

Finally, 'thin-slicing' is a term coined by Malcolm Gladwell, the author of *Blink: The Power of Thinking Without Thinking*. It refers to instinctive thinking, the means by which first impressions are generated.

> Our first impressions are generated by our experiences and our environment, which means that we can change our first impressions – we can alter the way we thin-slice' – by changing the experiences that comprise those impressions.
>
> *Gladwell 2005, 97*

By thin-slicing, we 'edit' the complexity of our surroundings, reducing it to its most important elements, those that make up its 'signature'.

> ... there can be as much value in the blink of an eye as in months of rational analysis.
>
> *Gladwell 2005, 17*

He believes that this ability can be developed, through deliberate and continuous practice, in part through engaging in 'deliberate thinking', "a wonderful tool when we have the luxury of time, the help of a computer, and a clearly defined task, and the fruits of that type of analysis can set the stage for rapid cognition" (Gladwell 2005, 141). Using a combination of the two systems of perceptual processing, it is possible to enhance

and develop these abilities. Gladwell states, "How good people's decisions are under the fast-moving, high-stress conditions of rapid cognition is a function of training and rules and rehearsal" (2005, 114). Our ability to make these rapid judgements, decision-making, is directly influenced by prior experience, by an ability to account for our reactions, a theory that begins to explain the difference between the perceptual 'abilities' of 'experts' and those of 'non-experts'. Have we adequately 'trained' our ability to perceive?

3 REPRESENTATIONAL STRATEGIES

The strategies of this category are operations that are primarily representational, using a medium other than the site itself.

> Drawing is a way of knowing and thinking, not just a diversion or even a medium of artistic expression; it is as natural for some people as speaking and writing is for others. Making notes in the form of maps and sketches leads the author to see significant details and relationships. Even those who shape landscape directly use drawing to advance thinking and communicate ideas...
>
> *Spirn 1998, 205*

For these operations to reveal hidden potential, they must be performed with intention to reveal and disclose previously unknown or concealed aspects and relationships in the world. We must map, photograph, write, name, or otherwise 'make' in ways that may defy conventional rules, using the process of making as a means to gain greater insight, and to foster an exploratory practice. Representational strategies must involve changes in the height, size, angle, and scale of the view, as well as the speed, a montage of different perspectives that each tell a unique story of the milieu (Bruno 2002, 62).

> So whereas the dominant visual cultural mode 'looks' for the 'essential' and the 'typical', an interpretive vision pulls, extracts or abstracts its phenomenon into a new setting. The metaphor for (re)presentation shifts, consequently, from one of 'correspondence' to one of transformation, the latter embodying intention. Trans-formation is not a gathering of the world through vision, it is a re-ordering of the world within a vision.
>
> *Jenks 1995a, 13*

Examples include naming, drawing, mapping, and photographing. Such strategies are operations that function as inventive tools that provoke alternative ways of 'seeing' when "used critically to change both habits and mentalities". They have the potential to transform the "common gaze" into an "active, critical viewpoint" (Girot 2006, 97). Such strategies are not about "attaching representational meaning to the object but rather allowing recognition, meaning, identity, to gather. It is the idea of letting something be what it is, while at the same time exploring it through specific and subjective conditions of artifice" (Neri 2000, 35).

> The maps of real knowledge, designed for real life, did not show anything except things that allegedly could be proved to exist. The first principle of the … map-makers seemed to be 'If in doubt, leave it out,' or put it into a museum. It occurred to me, however, that the question of what constitutes proof was a very subtle and difficult one. Would it not be wiser to turn the principle into its opposite and say 'If in doubt, show it prominently'? After all, matters that are beyond doubt are, in a sense, dead; the do not constitute a challenge to the living.
>
> *Schumacher 1977, 3*

MAPPING

> As systems of information and communication 'shrink the world', so, too, the definition and subjects aligned to mapping expand. Formerly, mapmaking was viewed as an act of recording and translating the three-dimensional landscape into a two-dimensional system of codified representations to aid instruction and orientation. While these surface topographical readings of the terrain had many cultural variations, which reflected and expressed the common interests of their time and place, their purpose tended towards objective readings based on necessity and survival. However, maps are never benign, they are tools of highly edited and focused information that frame a set of prescriptive criteria. It is equally rare that maps are purely synoptic and the history of representational drawing and mapmaking reveals an intrinsic relationship to its maker's cultural and political predilections.
>
> *Porter 2004*

Mapping is an operation that aims to select, transform, and project. It is an interpretive practice that aims to discover and disclose relationships that may not be readily apparent. Because mapping as imaging, generally occurs at a 'distance' from the milieu, a conceptual distancing achieved through the use of a "representation scheme or code" (Richter 1996, 104) that enables a re-reading of the landscape, a means of "grasping" it, or "enhancing" it (Girot 2004, 20). 'Plotting' is a strategy similar to mapping, used by James Corner, in his own work and in his teaching as a means to "critically cultivate our relationship to landscape" (Corner 1991, 161).

> In my own work and studio teaching, I have employed a critical strategy called "plotting." This is a curious idea because of its fourfold meaning and suggestiveness. First, plotting refers to the marking and building of a piece of ground – a plot of land. Second, it refers to the graphic representation of that landscape, as in a plotted map or plan. Third, it refers to the construing of a narrative or time series, as in an unfolding or sequential plot. And fourth, it suggests the political, and perhaps subversive, act of devising and hatching a plot. Plotting therefore refers to the critical invention and inscription of new patterns for inhabitation in the landscape. We map and "lay-out" our agendas and strategies, connecting and revealing previously unforeseen relationships. To plot is to critically cultivate our relationship to landscape.
>
> *Corner 1991, 161*

It is an operation that requires a re-thinking, a re-presenting of the ideas that "lie latent in the landscape ... Plotting is thus criticism participated within and through the work of landscape design" (Corner 1991, 161).

PHOTOGRAPHY

Photographs are the products of photographing, yet photography is not exclusively an operation fixated on the final image. Through photography, we become increasingly aware of our process of selecting, and editing developing our ability to relate the specific to the general and vice versa, and an ability to reveal the 'essence'. The photograph that results is simply a means to communicate this understanding.

> The landscape architect's experience helps me see significance; the photographer's disciplined, feeling way of seeing leads me to deeper insights. I try to see things fresh by ranging broadly, then gradually zeroing in, often drawn to a detail without knowing yet what the whole is, then coming to understand the whole through many significant details. Photographs prompt and push my thinking: I let them speak, work on my feelings and mind, and sort them as images first, seeking connections.
>
> *Spirn 1998, 4*

While photography is often seen as a technique to 'capture' the world objectively, it is in fact a highly subjective process that can equally "substantiate a subjective feeling" (Berger and Mohr 1995, 111), capturing what cannot be seen - what has happened to or in the landscape - the intangible (Lippard 1997, 183).

> ... by inter- or intra- sequencing and juxtaposing, relationships can be established that transcend surface facts and visually reproduce both the flow and emotion of lived experience. These relationships can be constructed either to emphasize the coherent and chronological, and work to reduce ambiguity, or to deliberately heighten this ambiguity through the 'surprise' juxtaposition of visual elements.
>
> *Whincup 2004, 87*

Freeman Patterson is a Canadian photographer who, in his book *Photography and the Art of Seeing* (2004) promotes an approach to photography that encourages the principles embodied in 'to trace'. His approach is summarized by the notion 'thinking sideways', a strategy that aims to build up an understanding of a subject matter by "observing it from many points of view", struggling to gain a greater awareness of what is familiar (Patterson 2004b, 26). 'Thinking sideways' involves breaking the rules (behaving as if old, dominant ideas about what is 'right' no longer exist), deliberate, conscious experimentation, using random 'sampling' to promote an openness to chance, and continuous reinforcement of practices that help to "not only to keep out of photographic ruts, but also to see subject matter you may have overlooked or not observed carefully. It enlarges your world" (Patterson 2004b, 34).

> Your ability to see is not increased by the distance you put between yourself and your home. If you do not see what is all around you every day, what will you see when you go to Tangiers? The subject matter may be different, but unless you can get to the essence of the subject matter through keen observation, and express it through your photographs, it doesn't matter how exotic your locale.
>
> *Patterson 2004b, 11-12*

closing

Landscape is never finished or completed, like a can of preserves; it is an accumulation of events and stories, a continuously unfolding inheritance. I wanted to amplify this aspect of landscape, to begin with something that was already there. At the same time, I wanted to avoid pretentious references; I wanted to build a semantic void, allowing walkers to interpret their experiences however they saw fit

Descombes 1999, 82

reconnaissance = framing + trace

= self + milieu = experience + design
= site + context = impression + expression

RECONNAISSANCE

Reconnaissance, as presented, is an exploratory approach to engaging site in the design process that is based on SELF, MILIEU, and the RELATIONSHIP between them, as expressed through FRAMING and TRACE.

FRAMING establishes and redefines the medium of exchange, the medium within which we experience and design our surroundings. This is accomplished through an understanding of landscape that reflects its multiplicity of interpretations, and a questioning of the conventional designation of site that recognizes the contingency and shifting nature of the 'boundary' between site and context.

TRACE redirects the nature of exchange within this medium, encouraging a complexity of understanding through an active participation in the dialogues within and of the landscape. Through the facilitation of an ability to shift our frame of engagement, and encouragement of a deeper, richer exchange within each one, trace generates a layered understanding of milieu that recognizes its subtle, ambiguous, and concealed aspects.

> The distinction between rules and strategies helps ... to clarify the concepts of originality – and its correlative, creativity. For it suggests that two somewhat different sources of originality need to be recognized. The first consists in the invention of new rules. ... The second sort of originality, on the level of strategy, does not involve changing the rules, but discerning new strategies for realizing the rules.
>
> *Bourassa 1991, 118*

In many respects, the two main components of reconnaissance address each of these two 'sources'; framing, by challenging the meaning and interpretation of 'landscape', attempts to redefine this primary 'rule' of landscape architecture, while trace proposes new strategies, elaborating an alternative approach to engaging site and practising within the 'limits' of the frame.

> Visitors to a garden, especially those who bring to their visits imagination, memory and a predisposition to fresh experience, will shift, expand and refocus the site as they find it, and the site will be the larger and more exciting for that reason.
>
> *Hunt 2004a, 222-223*

Reconnaissance is an approach based on questioning and discovery, on reflection and contemplation. It is an approach that encourages us to explore landscapes through an inquisitive and imaginative ATTITUDE, open to possibility and potential.

> Wonder and amazement are expressed through a healthy and inquisitive questioning. Critical thinking also involves reflection, a considered and thoughtful analysis of the issues and values involved. This is followed by speculative contemplation, a formulation of alternatives and possibilities – necessarily fluid and unconstrained. Finally, critical thinking culminates in action: decisions get made, responsibility is taken, and work is done.
>
> *Corner 1991, 160-161*

The properties introduced briefly in the opening section are the fundamental intentions of reconnaissance; they elaborate and further describe the attitude that defines this approach and are summarized in the following pages.

RECEPTIVITY

An attitude of open-mindedness, curiosity and excitement is essential for one to be receptive to the potential of a site, open to possibilities, to the unexpected. Such an attitude is the basis for a desire to explore, for a sense of discovery. An important element of receptivity is a balance of certainty and of doubt, of knowing something, and being confident in this knowledge, and the acknowledgment of not knowing - as a driving force in seeking to know more. Christophe Girot discusses a similar principle in the context of design education, where the pedagogic method is based in part on a system of certainty, whereby one "... teaches landscape fundamentals with analytic and deductive methods that give clear, multi-layered readings of the environment. ... It allows students to distinguish essential points and to accumulate important data about a specific place and situation" (Girot 1996, 23). The pedagogic method is also "... based on a systematic doubt and uncertainty in design education. ... it is most important for young designers to understand themselves and their outlook on life and the world at large... Design is about trial and error, about questioning and receiving. Of course, I think that analysis has its place in design, but only once the design intuition is sufficiently grounded and developed to nurture a dialogue between concept and information" (Girot 1996, 24).

One might question, 'when is one sufficiently grounded and developed'? Implicit in the notion of reconnaissance, or re-cognition, is encountering what we think we already know. By questioning instead of blind acceptance, doubt enables us to understand more deeply, enriching our knowledge of the world. After all, the more we know, the more we know how much we do not know.

> ... people are ignorant of the things that affect their actions, yet they rarely feel ignorant. We need to accept our ignorance and say 'I don't know' more often.
>
> *Gladwell 2005, 71*

DIALOGUE

Engagement with the site should take the form of a dialogue, not a monologue. A dialogue between self and milieu establishes a balance of impression and expression, and an ability to respond and react to what is 'there', the prerequisite of which is a process of finding, or discovery. Such a process embraces and reinterprets the qualities in the existing, "extracting new ideas from old forms and new forms from old ideas" (Naylor and Ball 2005, 26). Dialogue requires an intimate engagement with milieu, a depth of understanding that depends on deliberate, active participation.

> Landscape is the sum of countless dialogues. It has no silence to be filled, no blank page; in landscape, dialogues have already begun before a new author enters the conversation. Some designers do not understand the ongoing dialogues and offer irrelevant responses, even rude interruptions. While one may welcome abrupt interruptions from genius, when every designer presumes genius the result is merely confusing and annoying.
>
> *Spirn 1998, 40*

How does the milieu 'speak' to us? How does it initiate a conversation or respond? Even when engagement is understood as a dialogue, meaning may be easily misunderstood, or missed entirely. We tend to 'frame' our conversations much too narrowly, a serious discrepancy with the scale of dialogue within and with the landscape, through time and space. Without this context, the frame of reference for meaning is lost. "Absent, false, or partial readings lead to inarticulate expression: landscape silence, gibberish, incoherent rambling, dysfunctional, fragmented dialogues, broken story lines" (Spirn 1998, 22).

ITERATION + SITUATEDNESS

Iteration is not simply directed to the design expression for a site. The term applies equally to the evolution of impressions of a site, and relies on a continuous exchange between expression and impression, continuous dialogue, each influencing and transforming the other. Iteration refers to the transforming and evolving nature of the dialogue between self and site, between idea and reality, between impression and expression. "Iteration is a transformation, under conscious control, moving out from familiar formal territory to the unfamiliar ground of dissimilar invention by means of a series of linked steps. The iteration is a non-identical repetition. A kind of slow transformation in small jumps" (Rhowbotham 1999, 18). Both this approach and the landscape itself exhibit:

> ... a cumulative directionality toward further becoming.
>
> *Corner 1997, 81*

A landscape architectural project is also 'situated' within both a highly complex network of interacting phenomena, and within a larger process with greater duration. It is an 'interval' within this larger scope. The constructed 'expression' is just that, an expression, and it will not only continue to change, but will influence future impressions. The boundaries that define the limits of the project are insignificant in this way of understanding the design process. In this context, a design expression is an 'experiment' a 'test' of our impressions, promoting the idea of design as research.


SAJO

DIRECT + INDIRECT

Engagement with a site may be direct, the physical and material site itself as medium of exchange. Direct engagement offers an intimacy and intensity of experience through which the temporal and spatial qualities of the milieu may be revealed.

> Landscape needs to be moved into and across in order to be experienced. A landscape is as much a temporal ordering of objects and events as it is a spatial array.
>
> *Betsky, Levy, and MacCannell 2001, 26*

The engagement may be equally indirect, through images and imaging, or representation. Much can be learned about a site, and the ways that it has been 'received' by others, by exploring expressions in other media: narrative, painting, photographs, maps, policies, management plans. These other media are also significant means of exchange, beyond merely expression; with the capability to generate impressions, they themselves have agency over changing perceptions.

COMPLEXITY + MULTIPLICITY

> ... what different types of beings see is different, and we should reflect on this fact. Is it that there are various ways of seeing one object, or is it that we have mistaken various images for one object? We should concentrate every effort on understanding these questions, and then concentrate even more. Given this multitude of perspectives, it follows that the training on the way of practice and verification must also not be merely of one or two kinds, and the ultimate realm must have a thousand types and ten thousand kinds.
>
> *Loori 2005, 96*

The complexity of a milieu is not to be understood from a single perspective, through a single measure, in a single moment of time. We must 'gather', layer many perspectives over time, using a multiplicity of frames of engagement, a variety of measures, many people. This requires patience, innovation, imagination, and collaboration.

> If only we could consolidate this feast of experience, drawing on the perception and sensitivity of all who have touched on the subject from different backgrounds and varying artistic and technological viewpoints, we might perhaps find new ways of understanding our visible environment, and bring about the cross-fertilization of ideas to stimulate us to further enquiry...
>
> *Appleton 1975, 5*

REFLECTIONS

Initially, when beginning this work, the direction was to develop a set of landscape 'features', a guide much like the checklists of landscape elements presented in the opening section, but with different 'elements', those that would include more of the intangible, invisible aspects of landscape. It soon became apparent that the complexity of the landscape, the natural and cultural contexts, do not lend themselves to such a compilation. An outcome such as this would soon lose its novelty, would soon become normative, and complacency would return. Even a list of questions, open-ended questions, such as that presented by Robert Lee Fleming, in an article entitled, *Questions to Ask a Space* (1990), is limiting if we repeatedly ask the same questions. Not only does this list of questions limit the possible reception of the site to what is asked, but over time, through a growing familiarity, declining enthusiasm, and/or a greater belief in already 'knowing' what is there to 'find', a situation of 'declining returns' may result as the quantity and quality of the 'answers' diminish.

How then to engage with our surroundings in such a way that we might not only recognize, but begin to understand their complexity?

Through the explorations, presented in summary in this work, a shift occurred, from attempting to develop an alternative 'checklist' towards attempting to define and describe an 'attitude' with which we might approach experiencing and designing within the medium of landscape. These properties, or fundamental intentions, of reconnaissance in a sense capture the spirit of the approach. They explain *why* framing and trace are critically important to reconnaissance, and, as guiding principles, they direct *how* we should define our medium of exchange, and *how* we ought to operate within it - *how* we frame, *how* we trace.

Working through the development of the different facets of reconnaissance, - self, milieu, and the relationship between them, the properties or intentions, the two main components 'framing and 'trace' - two questions surfaced.

1 PRACTICES

There appear to be four overriding practices that characterize reconnaissance, practices through which framing and trace realize or fulfill the guiding intentions. These practices are SHIFTING, FOCUSING, SITUATING and GATHERING.

At the core of this approach is the notion of SHIFTING – within the self, a shifting of perspective along with a shifting depth and scope of understanding; within the milieu, shifting through natural or cultural forces, erosion and deposition; and finally a shifting of position qualifies the relationship between them, conceptual or physical.

> Capturing a subject from many viewpoints, on many occasions, and in different conditions meant investigating its specific nature more profoundly, discerning its variable characteristics, and exploring its inner being. This was a scientific process, but it might also be a poetic principle that could help the observer to a deeper understanding of shifting scenes.
>
> *Dubbini 2002, 145*

It is this ability to shift that enables both focusing and situating. Shifting that concentrates or centralizes inquiry, thought, awareness, is FOCUSING. SITUATING is its complement, a divergence or dispersal of focus, seeking to understand the relativity of a 'centre of interest', its relationship to its surroundings. Focusing our thinking is achieved through asking the questions, while situating allows us to know what questions to ask. It is through shifting back and forth, zooming in and zooming out, that we are able to 'gather' awareness and understanding. GATHERING, the final practice, is the accumulation and layering of perspectives and viewpoints, knowledge and understanding, acquired through shifting.

The question is, are these four practices the 'keys' to the successful application of reconnaissance in practice?

2 BOUNDARIES

The second question concerns the widespread discussion of 'centres' in my explorations. The notion of a 'centre' appears as an element of Kevin Lynch's theory of environmental image, is the foundation for Christopher Alexander's theories of 'life', and is frequently a key component in discussions of perception in general, and perception of landscape specifically (Christian Norberg-Schulz, for example). Implicitly or explicitly, 'centres' seem to be fundamental to our understanding of both self and milieu, and most certainly of their relationship to one another.

However, centres are products of differentiation. They are centres because they are different from, and contrast with, their surroundings in some way - in colour, form, texture, density, temperature, intensity, symbolism or value, for example. If differentiation is the critical foundation for perception, and therefore experience and design, is the emphasis on 'centres' appropriate or adequate? It would seem that understanding the world through centres creates an imbalance of 'focusing' and 'situating'; by 'focusing' on centres, our attention is directed away from the site or zone of differentiation, the boundary, and understanding acquired through 'situating', the centre to its surroundings, becomes limited. The boundary, on the other hand, is the threshold between a centre and it surroundings; it is the zone that unites and differentiates the two. Invisible or visible, tangible or intangible, a boundary is a trace of natural and cultural forces. As traces, they are both generators of action and reaction (Jackson 1970b) and subject to natural and cultural 'design' as they become blurred and erodes, or reinforced.

By shifting our attention from centres to boundaries, as the key to perception, experience and design, both focusing and situating are emphasized equally, and as importantly, the gathering of the two.

> ... boundary is what binds us all together in a group, that which excludes the outsider or stranger. The boundary creates neighbors; it is the symbol of law and order and permanence. The network of boundaries, private as well as public, transforms an amorphous environment into a human landscape, and nothing more clearly shows some of the cherished values of a group than the manner in which they fix those boundaries, the manner in which they organize space. And because these values change in the course of time, the organization of space also undergoes a change.
>
> *Jackson 1997b, 309*

Would boundaries, as opposed to centres, be a greater source of understanding?

FUTURE DIRECTIONS

The major challenge with this work was finding a balance between scope and depth. What has been accomplished with this work, as an approach with many dimensions, is the establishment of a framework for investigation, both theoretical and practical. A number of areas of inquiry have been identified, important areas of contribution to such an approach, and within each one is enormous potential for further exploration. In addition, it is through application that what has been proposed may be 'tested'; layering the various facets of the approach will catalyze a gathering, of knowledge and understanding of a particular place, but also of the method itself - points of intersection and overlap, contradiction, clarification, gaps and opportunities. The 'essence' of place will begin to emerge, as the critical elements of the methodology become more apparent. Applied in an iterative fashion, each will inform the other, moving closer to a 'true' understanding of place, and the approach needed to get there.

I would suggest the following areas of future exploration in order to develop RECONNAISSANCE further, continuing to stimulate thought and reflection:

- Exploration of the two reflections or 'questions' presented in the previous section: the 'keys' to the success of reconnaissance in practice, and boundary as the source of understanding, the 'target' for engagement with milieu.
- Continue to explore and reveal facets of reconnaissance, through critical reinterpretation and reflection, connections that may become visible through either theory or practice.
- Further exploration into the identified areas of inquiry, and expansion of the 'collection' of devices and operations that have been used by others, including an understanding of their origin, their philosophical underpinnings, their assumptions, and how they have been applied.
- The application of this approach, its general principles, as well as the specific devices. Variables could include tools, techniques, sites of application, duration, etc.

- An investigation of the spectrum of approaches to the practice of landscape architecture, across both space and time, in particular the connection between process or methodology and physical construction.
- Exploration of the influence of representation in changing landscape, representation as an important element of the medium of landscape. How might the landscape be different if we perceive and experience them differently?
- Exchange was discussed from the viewpoint of the 'self'; impression as the milieu impressing upon us, expression as our 'intervention' in milieu. It would be interesting to explore the reverse. How does the landscape receive and respond? How do we impress upon it, and how and what does it express?

CONCLUSION

To conclude, this work marks the closing of a Masters of Landscape Architecture degree, and as such it a medium in which to explore unanswered questions, express values, and pursue interests. All of which is personal in nature, extending our education, in a focused way, beyond the standard curriculum. I sought to explore a lingering reluctance to reconcile all that I believed landscape architecture to be with what it currently is in the world of practice, and hoping to gain a clearer understanding of where I might fit within its scope. In essence, what is it that landscape architects do, and how can we do it better?

> ... the landscape expert should have some understanding or insight that would not be expected on the part of the general public. The expert should, for example, be able to explain how a landscape was in the past, how it came to be the way it is, how it functions today and what it is likely to become in the future. The expert should also be able to read and interpret the layers of cultural meaning in the landscape and assess their significance vis-a-vis other cultural values, social, political and economic issues, and so forth. All of this is to suggest that the expert may be able to enlighten the public and thereby change landscape perceptions and attitudes.
>
> *Bourassa 1991, 122*

> The designer's training equips him [*sic*] to act for the community, as (in limited respects) the trained eyes and hands and consciousness of that community - not in some superior human capacity, but in virtue of the perceptions which he inherits from the past, embodies in the present, and carries forward into the future.
>
> *Potter 2002, 35*

Landscape architects experience and design landscape, we 'see' landscapes. It is through 'having new eyes' that we will gain a greater awareness and understanding of the landscapes we inhabit and construct. I do not believe the value of this work is strictly personal. Explicit, conscious consideration of how we perceive and experience a landscape, how this contributes to an understanding of a particular place, and how this relates to and informs the practice of landscape architecture, (both the process and the outcome) are essential to strengthening our abilities and subsequent actions as landscape architects.

The only real journey... would be to travel not towards new landscapes, but with new eyes, to see the universe through the eyes of another, of a hundred others, to see the hundred universes that each of them can see, or can be...

Proust 2002, 237

I encourage everyone to maintain a questioning attitude, to look closer, observe more carefully, reflect and wonder more thoughtfully – to know the place, wherever you are, for the first time.


We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.
Eliot 1967, 145

references

In academia, a found text is used in quotation marks to serve an argument. The text is then transformed and commented upon to help convey the thesis in question.

Richter 1996, 117

Alexander, Christopher. 1964. *Notes on the synthesis of form*. Cambridge: Harvard University Press.

Alexander, Christopher. 2002a. *The nature of order: An essay on the art of building and the nature of the universe*. Book 1, *The phenomenon of life*. Berkeley: The Center for Environmental Structure.

Alexander, Christopher. 2002b. *The nature of order: An essay on the art of building and the nature of the universe*. Book 2, *The process of creating life*. Berkeley: The Center for Environmental Structure.

Alexander, Christopher. 2004. *The nature of order: An essay on the art of building and the nature of the universe*. Book 4, *The luminous ground*. Berkeley: The Center for Environmental Structure.

Alexander, Christopher. 2005. *The nature of order: An essay on the art of building and the nature of the universe*. Book 3, *A vision of a living world*. Berkeley: The Center for Environmental Structure.

Allen, John. 2000. On Georg Simmel: Proximity, distance and movement. In *Thinking space*. New York: Routledge.

Allen, Stan. 1999. *Point + lines: Diagrams and projects for the city*. New York: Princeton Architectural Press.

Appleton, Jay. 1975. *The experience of landscape*. London ; New York: Wiley.

Arnheim, Rudolf. 2004. *Art and visual perception: A psychology of the creative eye*. Berkeley: University of California Press.

Back, Les. 2004. Listening with our eyes: Portraiture as urban encounter. In *Picturing the social landscape: Visual methods and the sociological imagination*, eds. Caroline Knowles and Paul Sweetman. New York: Routledge.

Barthes, Roland. 1981. *Camera lucida: Reflections on photography*. New York: Hill and Wang.

Benjamin, Walter. 1986. Paris, capital of the Nineteenth Century. In *Reflections*, trans. Edmund Jephcott. New York: Schocken Books.

Bennigen, Lise. 2006. Fashion + landscape: A bricolage navigation. MLA Pract., University of Manitoba.

Berger, Alan. 2002. Recovering landscape: Essays in contemporary landscape architecture [review essay]. *Studies in the History of Gardens and Designed Landscapes* 22, no. 2: 142-146.

Berger, John, and Jean Mohr. 1995. *Another way of telling*. New York: Vintage Books.

Berger, John. 1991. *About looking*. New York: Vintage Books.

Berque, Augustin. 1993. Beyond the modern landscape. *AA Files* 25: 33-37.

Berrizbeitia, Anita, and Linda Pollak. 1999. *Inside outside: Between architecture and landscape*. Gloucester, Mass.: Rockport Publishers.

Betsky, Aaron, Leah Levy, and Dean MacCannell. 2001. *Revelatory Landscapes*. San Francisco: San Francisco Museum of Modern Art.

Betsky, Aaron. 1998. Nothing but flowers: Against public space. In *Slow space*, eds. Michael Bell and Sze Tsung Leong. New York: The Monacelli Press.

Bodnarchuk, Lindsay. 2004. If only for a moment… MLA Pract., University of Manitoba.

Bourassa, Steven. 1991. *The aesthetics of landscape*. London; New York: Belhaven Press.

Boyce, Michael. *Mapping*. On-line. Available from internet, http://www.locative.net/tcmreader/index.php?cspaces;michael, accessed 22 June 2006.

Brawne, Michael. 2003. *Architectural thought: The design process and the expectant eye*. Oxford: Architectural Press.

Bruno, Giuliana. 2002. A geography of the moving image. In *Atlas of emotion: Journeys in art, architecture, and film*. London; New York: Verso.

Burns, Colin, Hilary Cottam, Chris Vanstone, and Jennie Winhall. 2006. *RED paper 02: Transformation design*. PDF. Available from internet, http://www.designcouncil.org.uk/mt/red/publications/, accessed 30 March 2006.

Careri, Francesco. 2002. *Walkscapes: el andar como práctica estética = Walking as an aesthetic practice*. Land & scape series 1. Barcelona: Gustavo Gili.

Chaplin, Elizabeth. 2004. My visual diary. In *Picturing the social landscape: Visual methods and the sociological imagination*, eds. Caroline Knowles and Paul Sweetman. New York: Routledge.

Ching, Francis. 1996. *Architecture: Form, space and order*. New York: Van Nostrand Reinhold.

Chora, and Raoul Bunschoten, ed. 2001. *Urban flotsam: Stirring the city*. Rotterdam: 010 Publishers.

Chora, and Raoul Bunschoten. 2005. *Consequence book series on fresh architecture*. Vol. 4, *From matter to metaspace: Cave, ground, horizon, wind*, ed. Institute for Cultural Policy. New York: SpringerWien.

Clark, Thomas A. 2000. *Distance and proximity*. Edinburgh: Morning Star Publications.

Collier, Jr., John, and Malcolm Collier. 1992. *Visual anthropology: Photography as a research method*. Albuquerque: University of New Mexico Press.

Connolly, Peter. 2004a. Embracing openness: Making landscape urbanism landscape architectural: Part 1. In *The Mesh book: Landscape/ Infrastructure*, eds. Julian Raxworthy and Jessica Blood. Melbourne: RMIT University Press.

Connolly, Peter. 2004b. Embracing openness: Making landscape urbanism landscape architectural: Part II. In *The Mesh book: Landscape/ Infrastructure*, eds. Julian Raxworthy and Jessica Blood. Melbourne: RMIT University Press.

Cooper, David. 1988. Continuous present. In *Georges Descombes: il territorio transitivo = Georges Descombes: shifting sites*, ed. Giordano Tironi. Rome: Gangemi.

Corboz, André. 1988. Memory, method, network, opening. In *Georges Descombes: il territorio transitivo = Georges Descombes: shifting sites*, ed. Giordano Tironi. Rome: Gangemi.

Corner, James, and Alex MacLean. 1996. *Taking measures across the American landscape*. New Haven: Yale University Press.

Corner, James. 1990. A discourse on theory I: "Sounding the Depths" – Origins, theory, and representation. *Landscape Journal* 9, no. 2: 61-77.

Corner, James. 1991a. A discourse on theory II: Three tyrannies of contemporary theory and the alternative of Hermeneutics. *Landscape Journal* 10, no. 2: 115-133.

Corner, James. 1991b. Critical thinking and landscape architecture. In Landscape architecture and critical inquiry, eds. Margaret McAvin, Elizabeth Meyer, James Corner, Hamid Shirvani, Kenneth Helphand, Robert Riley, and Bob Scarfo. *Landscape Journal* 10, no. 2: 155-172.

Corner, James. 1997. Ecology and landscape as agents of creativity. In *Ecological design and planning,* eds. George Thompson and Frederick Steiner. New York: John Wiley.

Corner, James. 1999. Eidetic operations and new landscapes. In *Recovering landscape: Essays in contemporary landscape architecture*, ed. James Corner. New York: Princeton Architectural Press.

Corner, James. 2003. Landscape urbanism. In *Landscape urbanism: A manual for the machinic landscape*, eds. Mohsen Mostafavi and Ciro Najle. London: Architectural Association.

Corner, James. 2004. Not unlike life itself: landscape strategy now. *Harvard Design Magazine* 21: 32-34.

Corner, James. 2006. Terra fluxus. In *The landscape urbanism reader*, ed. Charles Waldheim. New York: Princeton Architectural Press.

Crang, Mike, and Nigel Thrift. 2000. Introduction. In *Thinking space*. New York: Routledge.

Crang, Mike. 2000. Relics, places and unwritten geographies in the work of Michel de Certeau (1925-86). In *Thinking space*. New York: Routledge.

Cullen, Gordon. 1971. *The concise townscape*. London: Architectural Press.

Czerniak, Julia. 2006. Looking back at landscape urbanism: Speculations on site. In *The landscape urbanism reader*, ed. Charles Waldheim. New York: Princeton Architectural Press.

de Bono, Edward. 2006. *Why so stupid?* London: Management-Issues. On-line. Available from internet, http://www.management-issues.com/display_page.asp?section=opinion&id=3231, accessed 17 May 2006.

de Botton, Alain. 1998. *How Proust can change your life*. London: Vintage Books.

de Botton, Alain. 2002. *The art of travel*. London: Hamish Hamilton.

de Botton, Alain. 2006. *The architecture of happiness*. Toronto: McClelland & Stewart Ltd.

de Certeau, Michel. 1997. *The practice of everyday life*. Berkely and Los Angeles: University of California Press.

Dehaene, Michiel. 2000. Recovering landscape: essays in contemporary landscape architecture [book review]. *Archis,* no. 8: 87-88.

de Zegher, Catherine, and Mark Wigley. 2001. *The activist drawing: Retracing Situationist architectures from Constant's New Babylon to beyond*. Cambridge: The MIT Press.

de Zegher, Catherine. 2005. Abstract. In *3 × Abstraction: New methods of drawing by Hilma Af Klint, Emma Kunz, and Agnes Martin*, eds. Catherine de Zegher and Hendel Teicher. New Haven: Yale University Press.

Dean, Tacita, and Jeremy Millar. 2005. *Place*. New York: Thames & Hudson Inc.

Descombes, Georges. 1988a. Notes for David Cooper. In *Georges Descombes: il territorio transitivo = Georges Descombes: shifting sites*, ed. Giordano Tironi. Rome: Gangemi.

Descombes, Georges. 1988b. Redefinition of a site. In *Georges Descombes: il territorio transitivo = Georges Descombes: shifting sites*, ed. Giordano Tironi. Rome: Gangemi.

Descombes, Georges. 1999. Shifting sites: The Swiss Way, Geneva. In *Recovering landscape: Essays in contemporary landscape architecture*, ed. James Corner. New York: Princeton Architectural Press.

Dewey, John. 1959. *Art as experience*. New York: Capricorn Books.

Doel, Marcus. 2000. Un-glunking geography: Spatial science after Dr Seuss and Gilles Deleuze. In *Thinking space*. New York: Routledge.

Donald, James. 1995. The city, the cinema: Modern spaces. In *Visual culture*, ed. Chris Jenks. New York: Routledge.

Dorrian, Mark, and Adrian Hawker. 2002. *Metis: Urban cartographies*. London: Black Dog Publishing.

Dubbini, Renzo. 2002. *Geography of the gaze: Urban and rural vision in early modern Europe*. Chicago: The University of Chicago Press.

Edwards, Betty. 1999. *The new drawing on the right side of the brain*. New York: Penguin Putnam Inc.

Eliot, T.S. 1967. *The complete poems and plays 1909 - 1950.* Orlando, Florida: Harcourt Brace & Company.

Ellin, Nan. 2004. *Authenti-City*. In Shade Magazine, Peridot. On-line. Available from internet, http://www.shademag.com/issues.php?type=past&issue=3&category=10, accessed 4 October 2006.

Fer, Briony. 2005. Drawing drawing: Agnes Martin's Infinity. In *3 × Abstraction: New methods of drawing by Hilma Af Klint, Emma Kunz, and Agnes Martin*, eds. Catherine de Zegher and Hendel Teicher. New Haven: Yale University Press.

Fleming, Ronald Lee. 1990. Questions to ask a place. *Places: A Forum of Environmental Design* 6, no. 4: 12-13.

Forty, Adrian. 2000a. *Words and buildings: a vocabulary of modern architecture*. New York: Thames & Hudson.

Forty, Adrian. 2000b. 'Dead or alive' – Describing 'the Social'. In *Words and buildings: A vocabulary of modern architecture*. New York: Thames & Hudson.

Franck, Karen A. 1994. Types are us. In *Ordering space: Types in architecture and design*. New York: Van Nostrand Reinhold.

Friday, Jonathan. 2002. *Aesthetics and photography*. Aldershot: Ashgate Publishing Ltd.

Frye, Northrop. 1997. *The educated imagination.* Toronto: House of Anansi Press.

Fulton, Hamish. 2002. *Hamish Fulton: walking journey*. London: Tate Publishing.

Galofaro, Luca. 2003. *Artscapes: Art as an approach to contemporary landscape*. Barcelona: Gustavo Gili.

Girot, Christophe. 1996. Some thoughts about landscape: Education at Versailles. In *Schools of architecture*, ed. Bart Goldhoorn. Rotterdam: NAi Publishers.

Girot, Christophe. 1999. Four trace concepts in landscape architecture. In *Recovering landscape: Essays in contemporary landscape architecture*, ed. James Corner. New York: Princeton Architectural Press.

Girot, Christophe. 2005. Vers une nouvelle nature. In *Landscape architecture in mutation: Essays on urban landscape*, ed. Institute for Landscape Architecture. Zürich: gta Verlag.

Girot, Christophe. 2006. Vision in motion: Representing landscape in time. In *The landscape urbanism reader*, ed. Charles Waldheim. New York: Princeton Architectural Press.

Gladwell, Malcolm. 2005. *Blink: The power of thinking without thinking*. New York: Little, Brown and Co.

Goldsworthy, Andy. 1990. *Andy Goldsworthy*. London: Viking.

Goldsworthy, Andy. 1996. *Wood*. New York: Harry N. Abrams.

Goldsworthy, Andy. 2001. *Rivers and tides: Andy Goldsworthy working with time*. Directed by Thomas Riedelsheimer. 90 min. Docurama. DVD.

Goldsworthy, Andy. 2004. *Passage*. New York: Harry N. Abrams.

Grady, John. 2004. Working with visible evidence: An invitation and some practical advice. In *Picturing the social landscape: Visual methods and the sociological imagination*, eds. Caroline Knowles and Paul Sweetman. New York: Routledge.

Greet Hannah, Gail. 2002. *Elements of design: Rowena Reed Kostellow and the structure of visual relationships*. New York: Princeton Architectural Press.

Harmon, Katharine. 2004. *You are here: Personal geographies and other maps of the imagination*. New York: Princeton Architectural Press.

Hawley, Christine. 1996. Invisible lines. In *The architect: Reconstructing her practice*, ed. Francesca Hughes. Cambridge, Mass.: MIT Press.

Hertzberger, Herman. 1988. Between things. In *Georges Descombes: il territorio transitivo = Georges Descombes: shifting sites*, ed. Giordano Tironi. Rome: Gangemi.

Hogbin, Stephen. 2000. *Appearance and reality: A visual handbook for artists, designers, and makers*. Bethel, CT: Cambium Press.

Holloway, Julian, and James Kneale. 2000. Mikhail Bakhtin: Dialogics of space. In *Thinking space*. New York: Routledge.

Høyer, Steen A. B. 1999. Things take time and time takes things: The Danish landscape. In *Recovering landscape: Essays in contemporary landscape architecture*, ed. James Corner. New York: Princeton Architectural Press.

Hunt, John Dixon. 2000. *Greater perfections: the practice of garden theory*. Philadelphia : University of Pennsylvania Press.

Hunt, John Dixon. 2004a. *The afterlife of gardens*. Philadelphia: University of Pennsylvania Press.

Hunt, John Dixon. 2004b. On the perception of the term landscape. *Topos* 47: 38-43.

Ingersoll, Richard. 2004a. A natural education: Dialogue between Richard Ingersoll and Christophe Girot. In *Small urban natures: Christophe Girot*, ed. Heinz Wirz. Lucerne: Quart Publishers.

Ingersoll, Richard. 2004b. Toward a patient landscape: Five gardens for the terrain vague. In *Small urban natures: Christophe Girot*, ed. Heinz Wirz. Lucerne: Quart Publishers.

Jackson, J. B. 1970a. Images of the city. In *Landscapes: Selected writings of J. B. Jackson*, ed. Ervin H. Zube. Boston: The University of Massachusetts Press.

Jackson, J. B. 1970b. The public landscape. In *Landscapes: Selected writings of J. B. Jackson*, ed. Ervin H. Zube. Boston: The University of Massachusetts Press.

Jackson, J. B. 1970c. The social landscape. In *Landscapes: Selected writings of J. B. Jackson*, ed. Ervin H. Zube. Boston: The University of Massachusetts Press.

Jackson, J. B. 1970d. The stranger's path. In *Landscapes: Selected writings of J. B. Jackson*, ed. Ervin H. Zube. Boston: The University of Massachusetts Press.

Jackson, John Brinckerhoff. 1980. *The necessity for ruins and other topics*. Amherst: University of Massachusetts Press.

Jackson, John Brinckerhoff. 1997. *Landscape in sight: Looking at America*. New Haven: Yale University Press.

Jenks, Chris. 1995a. The centrality of the eye in Western culture: An introduction. In *Visual culture*, ed. Chris Jenks. New York: Routledge.

Jenks, Chris. 1995b. Watching your step: The history and practice of the flâneur. In *Visual culture*, ed. Chris Jenks. New York: Routledge.

Jones, John Chris. 1991. *Designing designing*. London: Architecture Design and Technology Press.

Jussim, Estelle. 1985. *Landscape as photograph*. New Haven: Yale University Press.

Kelley, Tom, and Jonathan Littman. 2005. *The ten faces of innovation: IDEO's strategies for beating the devil's advocate and driving creativity throughout your organization*. New York: Currency/Doubleday.

Kienast, Dieter, and Christian Vogt. 2002. *Parks and cemeteries*. Basel: Birkhäuser.

Kipfer, Barbara Ann. 2000. *Flip dictionary*. Cincinnati: Writers Digest Books.

Knowles, Caroline, and Paul Sweetman. 2004. Introduction. In *Picturing the social landscape: Visual methods and the sociological imagination*, eds. Caroline Knowles and Paul Sweetman. New York: Routledge.

Koberg, Don, and Jim Bagnall. 1976. *The universal traveler*. Los Altos: William Kaufmann.

Kost, Julieanne. 2006. *Window seat: The art of digital photography and creative thinking*. Sebastopol: O'Reilly Media, Inc.

Krog, Steven R. 1991. Whither the garden? In *Denatured visions: Landscape and culture in the Twentieth Century*. New York: Museum of Modern Art.

Latham, Alan. 2004. Researching and writing everyday accounts of the city: An introduction to the diary-photo diary-interview method. In *Picturing the social landscape: Visual methods and the sociological imagination*, eds. Caroline Knowles and Paul Sweetman. New York: Routledge.

Latour, Bruno, and Emilie Hermant. 2006. *Paris: Invisible city*. PDF. Available from internet, http://www.ensmp.fr/~latour/virtual/#, accessed 5 April 2006.

Leatherbarrow, David, and Mohsen Mostafavi. 2002. Window/Wall. In *Surface architecture*. Cambridge: The MIT Press.

Leatherbarrow, David. 1993. *The roots of architectural invention: Site, enclosure, materials*. Cambridge: Cambridge University Press.

Leatherbarrow, David. 2000a. In and outside of architecture. In *Uncommon ground: Architecture, technology, and topography*. Cambridge: The MIT Press.

Leatherbarrow, David. 2000b. Introduction: Architecture and its horizons. In *Uncommon ground: Architecture, technology, and topography*. Cambridge: The MIT Press.

Leatherbarrow, David. 2002a. Sitting in the city, or the body in the world. In *Body and building: Essays on the changing relation of body and architecture*, eds. George Dodds and Robert Tavernor. Cambridge: The MIT Press.

Leatherbarrow, David. 2004. *Topographical Stories: Studies in Landscape and Architecture*. Philadelphia: University of Pennsylvania Press.

Lenclos, Jean-Philippe, and Dominique Lenclos. 2004. *Colors of the world: The geography of color*. New York: W.W. Norton & Co.

Lewis, Peirce F. 1979. Axioms for reading the landscape: Some guides to the American scene. In *The interpretation of ordinary landscapes: Geographical essays*, ed. D. W. Meinig. New York: Oxford University Press.

Lippard, Lucy R. 1997. *The lure of the local: Senses of place in a multicentered society*. New York: The New Press.

Livesey, Graham. 2004. *Passages: Explorations of the contemporary city*. Calgary: University of Calgary Press.

Loidl, Hans-Wolfgang. 2003. *Opening spaces: Design as landscape architecture*. Basel ; Boston: Birkhäuser.

Loori, John Daido. 2005. *The zen of creativity: Cultivating your artistic life*. New York: Ballentine Books.

Lowenthal, David. 1979. Age and artifact: Dilemmas of Appreciation. In *The interpretation of ordinary landscapes: Geographical essays*, ed. D. W. Meinig. New York: Oxford University Press.

Lupton, Ellen. 2004. *Thinking with type*. New York: Princeton Architectural Press.

Lynch, Kevin. 1960. *The image of the city*. Cambridge: The MIT Press.

Lynch, Kevin. 1962. *Site planning*. Cambridge: The MIT Press.

Marot, Sebastien. 2003. *Sub-urbanism and the art of memory*. London: Architectural Association Publications.

Mathur, Anuradha, and Dilip da Cunha. 2001. *Mississippi floods: Designing a shifting landscape*. New Haven: Yale University Press.

Mathur, Anuradha. Winnipeg: Faculty of Architecture, University of Manitoba. March 3, 2006

McHarg, Ian. 1992. *Design with nature*. New York: J. Wiley.

McKee, Patricia. 2000. The big ha-ha: A chaotic exploration into finding lost water. MLA Pract., University of Manitoba.

Meinig, D. W. 1979. The beholding eye: Ten versions of the same scene. In *The interpretation of ordinary landscapes: Geographical essays*, ed. D. W. Meinig. New York: Oxford University Press.

Merrifield, Andy. 2000. Henri Lefebvre: A socialist in space. In *Thinking space*. New York: Routledge.

Mitchell, William J. 2005. *Placing words: Symbols, space, and the city*. Cambridge: MIT Press.

Moore, Kathryn. 1991. Towards creative landscape design. *Landscape Design* 201: 11-14.

Moore, Kathryn. 1993. The art of design. *Landscape Design* 217: 28-31.

Moore, Kathryn. 1999. Better by design. *Landscape Design* 280: 41-45.

Moore, Kathryn. 2000. Drawing and the mechanics of design. *Landscape Design* 289: 30-34.

Moore, Kathryn. 2001. Artistic possibilities in design. *Landscape Design* 304: 13-16.

Moore, Kathryn. 2003. Genius loci: Hidden truths or hidden agenda? *Landscape Design* 321: 44-49.

Mossop, Elizabeth. 2006. Landscapes of infrastructure. In *The landscape urbanism reader*, ed. Charles Waldheim. New York: Princeton Architectural Press.

Motloch, J.L. 1991. Design as creative problem solving. In *Introduction to landscape design*. London: Van Nostrand Reinhold. Quoted in Meto J. Vroom. 2006. *Lexicon of garden and landscape architecture*. Boston: Birkhauser.

Naylor, Maxine and Ralph Ball. 2005. *Form follows idea: An introduction to design poetics*. London: Black Dog Publishing.

Nelson, George. 2003. *How to see: A guide to reading our man-made environment*. Oakland: Design Within Reach.

Neri, Louise, Lynne Cooke, and Thierry de Duve. 2000. *Roni Horn*. London: Phaidon Press Limited.

Norberg-Schulz, Christian. 1971. *Existence, space and architecture*. New York: Praeger.

Norberg-Schulz, Christian. 1980. *Genius loci: Towards a phenomenology of architecture*. New York: Rizzoli.

Norman, Donald A. 2004. *Emotional design: Why we love (or hate) everyday things*. New York: Basic Books.

Padon, Thomas, Robert Harrison, Ronald Jones, and Shirin Neshat. 2004. *Contemporary photography and the garden: deceits & fantasies*. New York: Harry N. Abrams.

Painter, Joe. 2000. Pierre Bourdieu. In *Thinking space*. New York: Routledge.

Pallasmaa, Juhani. 2005. *The eyes of the skin: Architecture and the senses*. Chichester: Wiley-Academy.

Patterson, Freeman, and André Gallant. 2001. *Photo impressionism and the subjective image: An imagination workshop for photographers*. Toronto: Key Porter Books.

Patterson, Freeman. 2004a. *Photographing the world around you: A visual design workshop for film and digital photography,* 2nd ed. Toronto: Key Porter Books.

Patterson, Freeman. 2004b. *Photography and the art of seeing: A visual perception workshop for film and digital photography*, 3rd ed. Toronto: Key Porter Books.

Patterson, Freeman. 2004c. *Photography of natural things: A nature & environment workshop for film and digital photography,* 3rd ed. Toronto: Key Porter Books.

Paulston, Rolland. 1996. *Mapping multiple perspectives: Research reports of the University of Pittsburgh Social Cartography Project, 1993-1996*. Pittsburgh: Department of Administrative and Policy Studies, University of Pittsburgh.

Pearson, Jane L., and Nicholas S. Ialongo. 1986. The relationship between spatial ability and environmental knowledge. *Journal of Environmental Psychology* 6: 299-304.

Pelzer, Birgit. 2005. Idealities. In *3 × Abstraction: New methods of drawing by Hilma Af Klint, Emma Kunz, and Agnes Martin*, eds. Catherine de Zegher and Hendel Teicher. New Haven: Yale University Press.

Philo, Chris. 2000. Foucault's geography. In *Thinking space*. New York: Routledge.

Pollock, Griselda. 2005. Agnes dreaming: Dreaming Agnes. In *3 × Abstraction: New methods of drawing by Hilma Af Klint, Emma Kunz, and Agnes Martin*, eds. Catherine de Zegher and Hendel Teicher. New Haven: Yale University Press.

Porter, Tom. 2004. *Archispeak: An illustrated guide to architectural terms*. London: Spon Press.

Potteiger, Matthew, and Jamie Purinton. 1998. *Landscape narratives: Design practices for telling stories*. New York: John Wiley & Sons, Inc.

Potter, Norman. 2002. *What is a designer: Things, places, messages*. London: Hyphen Press.

Proust, Marcel. 2002. *The prisoner*, trans. Carol Clark. In *In search of lost time*. Vol. 5, *The prisoner and the fugitive*. London: Allen Lane, Penguin Books Ltd.

RED. 2006. *RED Manifesto*. PDF. Available from internet, http://www.designcouncil.org.uk/mt/red/publications/, accessed 30 March 2006.

Rhowbotham, Kevin. 1999. *Field event / Field Space*. Serial books. Architecture & urbanism 2. London: Black Dog Pub.

Richter, Dagmar. 1996. A practice of one's own: The critical copy and translation of space. In *The architect: Reconstructing her practice*, ed. Francesca Hughes. Cambridge, Mass.: MIT Press.

Robic, Marie-Claire. 2004. *Section, transect*. Hypergéo. On-line. Available from internet, http://hypergeo.free.fr/article.php3?id_article=345, accessed 16 June 2006.

Roukes, Nicholas. 1988. *Design synectics: Stimulating creativity in design*. Worcester, Massachusetts: Davis Publications.

Rykwert, Joseph. 1982. *The necessity of artifice*. New York: Rizzoli.

Samuels, Marwyn S. 1979. The biography of landscape: Cause and culpability. In *The interpretation of ordinary landscapes: Geographical essays*, ed. D. W. Meinig. New York: Oxford University Press.

Sant, Alison, Ryan Shaw, Ram Subramanian, Rick Johnson, and Michael Swaine. 2006. *Trace*. On-line. Available from internet, http://www.tracemap.net/, accessed 22 June 2006.

Sant, Alison. *Redefining the basemap*. On-line. Available from internet, http://www.locative.net/tcmreader/index.php?mapping;sant, accessed 22 June 2006.

Savage, Mike. 2000. Walter Benjamin's urban thought: A critical analysis. In *Thinking space*. New York: Routledge.

Schneekloth, Lynda H., and Karen A. Franck. 1994. Type: Prison or promise? In *Ordering space: Types in architecture and design*, eds. Lynda H. Schneekloth and Karen A. Franck. New York: Van Nostrand Reinhold.

Schon, D. 1985. The design studio: An exploration of its tradition and its potentials. London: RIBA Publishing Ltd. Quoted in Meto J. Vroom. 2006. *Lexicon of garden and landscape architecture*. Boston: Birkhauser.

Schumacher, E. F. 1977. *A guide for the perplexed*. New York: Harper & Row.

Sime, Jonathan. 1986. Creating places or designing spaces? *Journal of Environmental Psychology* 6: 49-63.

Simonson, Wendeth Ann. 2000. Seeing the landscape: A search for hidden narratives. MLA Pract., University of Manitoba.

Simpson, Cadre. 2003. [Downs view national]: take it as park. MLA Pract., University of Manitoba.

Slater, Don. 1995. Photography and modern vision: The spectacle of 'natural magic'. In *Visual culture*, ed. Chris Jenks. New York: Routledge.

Smith, Bill. 2001. *Designing a photograph*. New York: Amphoto Books.

Sopher, David E. 1979. The landscape of home: Myth, experience, social meaning. In *The interpretation of ordinary landscapes: Geographical essays*, ed. D. W. Meinig. New York: Oxford University Press.

Speller, Gerda. 2006. A place of my own. In *Green Places* 23: 18-20.

Sudjic, Deyan. 1992a. The image of the city. In *100 mile city*. London: André Deutsch.

Sudjic, Deyan. 1992v. The myth of community. In *100 mile city*. London: André Deutsch.

Tate, Alan. 2005. Making places different. In *The cultured landscape: Designing the environment in the 21st century*, ed. Sheila Harvey and Ken Fieldhouse. New York: Routledge.

The New Penguin English Dictionary. 2004. Toronto: Penguin Books.

Thompson, Jerry L. 2003. *Truth and photography: Notes on looking and photographing*. Chicago: Ivan R. Dee.

Tironi, Giordano. 1988. From tension to meaning of possibility. In *Georges Descombes: il territorio transitivo = Georges Descombes: shifting sites*, ed. Giordano Tironi. Rome: Gangemi.

Townsend, Anthony. *Envisioning the ubiquitous city*. On-line. Available from internet, http://www.locative.net/tcmreader/index.php?cspaces;townsend, accessed 22 June 2006.

Treib, Marc. 1995. Must landscapes mean?: Approaches to significance in recent landscape architecture. *Landscape Journal* 14: 47-62.

Tuan, Yi-Fu. 1979. Thought and landscape: The eye and the mind's eye. In *The interpretation of ordinary landscapes: Geographical essays*, ed. D. W. Meinig. New York: Oxford University Press.

Tuan, Yi-Fu. 1990. *Topophilia: A study of environmental perception, attitudes, and values*. New York: Columbia University Press.

Tuan, Yi-Fu. 2005. *Space and place: The perspective of experience*. Minneapolis: University of Minnesota Press.1.25

Tufte, Edward. 2006. *Beautiful evidence*. Cheshire, Connecticut: Graphics Press LLC.

Tuma, Kathryn A. 2005. Enhancing stillness: The art of Agnes Martin. In *3 × Abstraction: New methods of drawing by Hilma Af Klint, Emma Kunz, and Agnes Martin*, eds. Catherine de Zegher and Hendel Teicher. New Haven: Yale University Press.

Vernez Moudon, Anne. 1994. Getting to know the built landscape: Typomorphology. In *Ordering space: Types in architecture and design*, eds. Lynda H. Schneekloth and Karen A. Franck. New York: Van Nostrand Reinhold.

Vroom, M. J. 2006. *Lexicon for garden and landscape architecture*. Boston: Birkhauser.

Whincup, Tony. 2004. Imaging the intangible. In *Picturing the social landscape: Visual methods and the sociological imagination*, eds. Caroline Knowles and Paul Sweetman. New York: Routledge.

Whiston Spirn, Anne. 1998. *The language of landscape*. New Haven: Yale University Press.

White, Edward T. 1983. *Site analysis: Diagramming information for architectural design*. Architectural Media.

Wirz, Heinz. 2004. Arcadia 2 – Notat. In *Small urban natures: Christophe Girot*, ed. Heinz Wirz. Lucerne: Quart Publishers.

Zakia, Richard D. 1975. *Perception and photography*. New Jersey: Prentice-Hall.