

**INQUIRY AND THE SOCIAL :  
AN EMPIRICAL STUDY OF THE CONSTRUCTION OF  
KNOWLEDGE IN ARCHITECTURAL DESIGNING**

**Henning Alexander Berthold**

**A Thesis Submitted for the Degree of PhD  
at the  
University of St Andrews**



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# Inquiry and the Social

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An Empirical Study of the Construction of Knowledge  
in Architectural Designing

Henning Alexander Berthold

Submitted for the degree of  
Doctor of Philosophy (Management)  
at the  
University of St Andrews

4 March 2013

# Declaration

## Candidate's declarations

I, Henning Alexander Berthold, hereby certify that this thesis, which is approximately 85,000 words in length, has been written by me, that it is the record of work carried out by me and that it has not been submitted in any previous application for a higher degree.

I was admitted as a research student in October 2007 and as a candidate for the degree of Doctor of Philosophy in December 2008; the higher study for which this is a record was carried out in the University of St Andrews between 2007 and 2013.

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# Abstract

This thesis is a study of inquiry. Drawing upon the work of American pragmatist John Dewey, this work seeks to contribute to our understanding of the construction of knowledge within the social system of communities of inquiry. The process of inquiry that is traced in this work is one effected in the course of architectural designing. An ethnographically informed study of an architectural masterplan project is used to illustrate Dewey's ideas and how they're played out in design practice. This thesis is understood to correspond with the growing interest of the students of organisational learning and knowledge management in knowledge creation and the underlying social processes. It is further seen as a response to the claim that the key processes of knowledge creation remain largely an enigma. Illuminating such processes is considered important for that they inform vital organisational practices such as innovation and change.

Agreement has been established with Dewey that knowledge is not just an end in itself but a form of action, a medium of change and social transformation. The formation of knowledge, however, within the operation of inquiry is not a matter that "naturally" runs its course. The process of inquiry as studied both in theory and practice has shown just how much its results, which by definition constitute knowledge, are shaped by the institution and control of a problem. A problem is a social construct and the product of the purposeful selection and arrangement of pieces of information. Inquiry is therefore considered a process of controlled knowledge formation. That which counts as knowledge in the realm of social phenomena has been shown to be a matter not so much of agreement between actions and their consequences but agreement in terms of intellectual acceptance. What "satisfies" as a solution (such as the final masterplan) has therefore been shown to be not necessarily a question of its logical status.

Keywords: John Dewey, inquiry, knowledge, pragmatism, architecture

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*To my brother*

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# Glossary

CEC	City of Edinburgh Council
ETF	Edinburgh Tenants Federation
NHS	National Health Service
NPF	National Planning Framework
NS	North Sighthill
NSDG	North Sighthill Development Group
NSRA	North Sighthill Residents Association
PAN	Planning Advice Note
SPP	Scottish Planning Policy
RIBA	Royal Institute of British Architects
RIAS	Royal Incorporation of Architects in Scotland
RTO	Registered Tenants Organisation
SHQS	Scottish Housing Quality Standard
SIMD	Scottish Index of Multiple Deprivation

# Chapter 1

## Introduction

“Not invisible but unnoticed, Watson. You did not know where to look, and so you missed all that was important.”

*Sir Arthur Conan Doyle, 1891, The Adventures of Sherlock Holmes, A Case of Identity*

“Never mind,” said Holmes, laughing; “it is my business to know things. Perhaps I have trained myself to see what others overlook. If not, why should you come to consult me?”

*Sir Arthur Conan Doyle, 1891, The Adventures of Sherlock Holmes, A Case of Identity*

Conan Doyle’s description of his protagonist’s business seems surprising if we consider the hidden, obscure and inherently doubtful material that lies at its core. The material which is to be discovered is by means of investigation, “round the centre of deduction[, ...] inference and observation” as Doyle put it in a letter to his former medicine teacher Joseph Bell. It is to him and his exceptional ability to develop knowledge and understanding about his patients simply by means of observation that Conan Doyle owes the character of detective Sherlock Holmes. Equipped with the methods of inquiry and capacity to put them to good use, Holmes takes up his investigations by carefully observing the circumstances of each case and piecing together the clues left behind. The following short extract from *A Case of Identity* gives insight into Holmes’ routine of observation and inference.

“My first glance is always at a woman's sleeve. In a man it is perhaps better first to take the knee of the trouser. As you observe, this woman had plush upon her sleeves, which is a most useful material for showing traces. The double line a little above the wrist, where the typewritist presses against the table, was beautifully defined. The sewing-machine, of the hand

type, leaves a similar mark, but only on the left arm, and on the side of it farthest from the thumb, instead of being right across the broadest part, as this was. I then glanced at her face, and, observing the dint of a pince-nez at either side of her nose, I ventured a remark upon short sight and typewriting, which seemed to surprise her.”

The adventures of Sherlock Holmes are presented as tales of deduction. In so far Conan Doyle suggests a method of detection that is based on a priori reasoning which, according to the American semiotician Charles S. Peirce, implies the inference of an effect from its cause according to the sequence: all *Ms* are *Ps*, all *Ss* are *Ms*, and therefore all *Ss* are *Ps* (necessary inference). As a result Holmes would usually find himself in a process of determining the consequences of a “major premise” (Peirce 1992), proceeding from rule (all the people showing double line marks upon their sleeves are typists) to the particular case (all the people in this case are showing double line marks upon their sleeves) to the result (all the people in this case are typists). Obviously, the phrase ‘all the people in this case,’ entertained in the example for the sake of argument, would have to be replaced in the context of the above extract by ‘the woman in this case.’ Notwithstanding this, what becomes clear is the flow of the argument that goes from population to random sample. If we are to look again at the Holmesian sequence of reasoning, as extracted above, his routine, in fact, seems to suggest something different, provoking questions about the notion of deduction as used by Conan Doyle.

The sequence according to which he embarks on his investigational journeys appears to be of the following nature: all the people in this case are showing double line marks upon their sleeves (observed evidence from the case), all the people showing double line marks upon their sleeves are typists (rather than sewers for that people of the latter category would be left with a similar mark yet only on the left arm, and on the side of it farthest from the thumb) (reference to major premises or rules) and therefore all the people in this case are typists (arrival at conclusion). So what is he doing? He is gathering the facts of the case, searching his “brain attic” (Conan Doyle, *A Case of Identity*) for possible rules that allow him to understand the case, accepting one hypothesis while rejecting others, and drawing conclusions.

Holmes moves from perception (seeing “the double line a little above the [woman’s] wrist”

and “the dint of a pince-nez at either side of her nose”) to hypothesis formation (drawing upon a particular frame of reference which allows him to make judgements, accepting some hypotheses while rejecting others). He studies the effects (by means of observation) and infers the cause (by means of logical reasoning). Holmes is on a continuous path of reconstructing the past. His focus is backwards. The knowledge he produces lies hidden in the traces left behind by those involved in the case, and thus may indeed be argued to be distant to some, yet not unattainable.

Table 1: The three phases of the methodology of science according to Peirce

<b>Abduction (also Retroduction)</b>	<b>Induction</b>	<b>Deduction</b>	<b>Holmesian Deduction</b>
Abductive/retroductive inference	Probable inference	Necessary inference	Necessary inference
Hypothetical argument	Argument from sample to population	Argument from population to sample	Deductive argument with interchanged premises
Rule → Result → Case	Case → Result → Rule	Rule → Case → Result	Case → Rule → Result
<b>Rule:</b> All the people showing double line marks upon their sleeves are typewritists <b>Result:</b> All the people in this case are typewritists <b>Case:</b> All the people in focus are showing double line marks upon their sleeves	<b>Case:</b> All the people in focus are showing double line marks upon their sleeves <b>Result:</b> All the people in this case are typewritists <b>Rule:</b> All the people showing double line marks upon their sleeves are typewritists	<b>Rule:</b> All the people showing double line marks upon their sleeves are typewritists <b>Case:</b> All the people in focus are showing double line marks upon their sleeves <b>Result:</b> All the people in this case are typewritists	<b>Case:</b> All the people in focus are showing double line marks upon their sleeves <b>Rule:</b> All the people showing double line marks upon their sleeves are typewritists <b>Result:</b> All the people in this case are typewritists

Source: Adapted from Peirce (1992)

Holmes embarks on his investigational journeys in reliance on his sensitive faculties of perception, well trained diagnostic skills and rich funds of knowledge that help him in his work. The above extract is testament to his unusual ability to retrieve information from the hidden traces left behind. Yet it is his ability to know where to look and what rules to draw upon that sets him apart. Seeing what others overlook, Holmes argues, implies knowing where to look, which in turn allows to recognise “all that [is] important.” It is his conviction that “what man can invent, another can discover” (*The Adventure of the Dancing Man*, Conan Doyle). For Holmes the truth is ‘out there’, perhaps unnoticeable to the untrained eye but not invisible. In discovering what is out there, Holmes follows the traces that man left behind,

moving backwards in time to reconstruct the sequence of events. In the end, we are left with the questions how does he know where to look and what to look for?

This question invokes the well-known paradox of inquiry that has first been articulated in Plato's *Meno* (80d-e). Puzzled about the question how one could inquire after something such that is not known and therefore indeterminable as an object of search, Socrates stresses the contentious nature of Meno's argument in that it would render inquiry either impossible or unnecessary; impossible if the object of search is not known, unnecessary if it is. Plato tries to resolve this paradox by introducing his theory of recollection. Reduced to its simplest terms the theory suggests that what is commonly understood as learning something new is in fact a matter of recollecting something already known. Polanyi (2009, p. 4) attempts to tackle the paradox by drawing upon his idea of tacit knowledge, whose fundamental premise is that "we can know more than we can tell", suggesting that "if tacit knowledge is a central part of knowledge in general, then we can both (1) know what to look for, and (2) have some idea about what else we may want to know" (Amartya Sen in: Polanyi 2009, p. xi).

Another possible way out of this paradox is indicated by Dewey's theory of inquiry. Dewey's point of departure lies with the problematic situation. The problem it presents to be inquired into is in itself determined within the process of controlled and progressive inquiry that begins with an indeterminate, inherently doubtful situation. It is within the process of inquiry that the indeterminate situation is transformed into a problematic one. Importantly, for the statement of the problematic situation to be meaningful the problem has to have reference to a possible solution. Finding out what the genuine problem is, prevents the "blind groping in the dark" while offering reference to a possible solution.

Acquiring and applying knowledge has become a central issue both in theory and in practice. It is Holmes' view of the "brain attic" that has dominated our thinking about knowledge and possessing knowledge, according to which "man's brain originally is like a little empty attic" (*A Study in Scarlet*, Conan Doyle) that is to be stocked "with all the furniture he is likely to use" (*The Five Orange Pips*, Conan Doyle). The rest, "all the lumber," is to be "put away in the lumber-room of his library where he can get it if he wants it" (*The Five Orange Pips*, Conan Doyle) so that the knowledge most important to him is not "crowded out, or at best jumbled up with a lot of other things" (*A Study in Scarlet*, Conan Doyle). "The skilled

workman,” he distinguishes, “is very careful indeed as to what he takes into his brain attic” (*A Study in Scarlet*, A. Conan Doyle). The space will be filled with “nothing but tools which may help him in his work, but of these he has a large assortment, and all in the most perfect order” (*A Study in Scarlet*, A. Conan Doyle). Underlying is the belief that once a person’s memory capacity is exhausted, for every addition of knowledge something else is forgotten. A belief that physiological studies have shown to be somewhat inaccurate. Although the human memory remains “one of nature’s most jealously guarded secrets” (Tulving 1995), there is substantial agreement on the enormous capacity of what is called the *long-term or permanent memory*, implying that information may be forgotten but not on the grounds of limited capacities; rather it seems as though forgetting is the consequence of a more or less conscious process of information evaluation that effectively saves us from too much knowledge. In fact, with a similar sense of awareness, Holmes argues that we ought to be selective in the acquisition of knowledge for only “[a] fool takes in all number of every sort that he comes across” (*A Study in Scarlet*, Conan Doyle).

The claim to extraordinary knowledge that is presented here in the words of Conan Doyle’s fictional character Sherlock Holmes, has gained momentum throughout the twentieth century with the gradual expansion of the professions. Ever since modernity and scientific revolutions have nurtured our quest for certainty and inspired confidence in established knowledge, we have developed a mentality of acquiring and applying knowledge at the expense, perhaps, certainly of investigating, inquiring into the unknown and developing new ideas. In the studies of adaptive processes the relationship between exploration and exploitation has been a central concern for a long time (see Schumpeter 1934; Holland 1975; Kuran 1988). While it is recognised by authors like James March that “long-run intelligence depends on sustaining a *reasonable* level of exploration” (March 1991, p. 73), he observes a tendency within organisations to emphasize the exploitation and refinement of existing solutions at the expense of exploring new ones.” He concludes that “these tendencies to increase exploitation and reduce exploration make adaptive processes potentially self-destructive.”

Today, more than ever before, it is people’s business to know things. The radical, though vastly unpolitical, transformations in the developed free-market countries in the second half of the twentieth century have led to new social and economic orders (Drucker 1994).

Although the term “knowledge worker” might have been unknown until it was coined by Drucker in his 1959 book *Landmarks of Tomorrow*, progressive entrepreneurs like Carl Benscheidt (1858-1947) can be found to have demonstrated an early and prescient recognition of the importance of knowledge and skills. Benscheidt, founder of the shoe last factory Fagus in Alfeld, Germany, proclaimed already in the year of the company’s establishment in 1911 that its wealth is not determined by its machines and buildings but the knowledge, skills and dedication of its employees<sup>1</sup>. The Fagus Factory, designed by young Walter Gropius and Alfred Meyer, has recently been inscribed to the list of UNESCO World Heritage sites for its architectural significance “in the development of modern architecture and industrial design” and equally the pioneering work by Gropius and Meyer. In commissioning the young and avant-garde Gropius to design his new factory, Benscheidt has shown unusual courage and innovative spirit.

New orders have become organised around the accessibility of knowledge as a determining factor of social and economic prosperity. Along with the fall of the blue-collar worker, who has filled the factories of the industrial nations from the 1900s until the beginnings of his ever increasing retreat in the 1980s, and the decline of material resources being the principal force of production (see Drucker 1994; Drucker 2001; Lyotard 1984), went the gradual expansion of the professionals. The highly qualified individuals employed to define and address the problems of “great social importance”, trusted upon their “claim to extraordinary knowledge” (Everett Hughes in: Schön 1983, p. 4). Knowledge workers, as characterised by Drucker (1994, p. 58) in his 1994 article *The Age of Social Transformation*, “require a good deal of formal education and the ability to acquire and apply theoretical and analytical knowledge. They require a different approach to work and a different mind-set. Above all, they require a habit of continuous learning.” The changing economic conditions, manifest in an increasingly competitive global economy, have led to a growing appreciation of knowledge and knowledge work as an important, distinguishing feature in the design, production and distribution of products and services:

The highest and most important form of knowledge and skill in the new capitalism is socio-

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<sup>1</sup><http://www.fagus-gropius.com/historisch.php>, retrieved on 8 July 2011

technical designing, that is, designing products and services so that they create or “speak to” specific consumer identities and values (niches); designing better ways to organize the production and delivery of products and services; designing ways to shape consumer identities and values through advertising and marketing; and designing ways to transform products and markets based on those consumer identities and values (Gee et al., 1996).

Along with the arrival of what Peter Drucker (1993) called the “knowledge society,” emphasising the changing role knowledge plays within society, went a shift in the way knowledge became organised. Was the old capitalist system in the tradition of Taylor and Ford focused on the “efficient organisation of individuals *as individuals*” and the decontextualising systematisation of work, workers and knowledge (work was broken down into small fragments and not designed for the individual, front line worker to have knowledge of the larger picture and even less an appreciation of the social, political and cultural context), the circumstances of new capitalism now demanded immersion in collaborative practice, a contextual understanding of whole work processes and the cultivation of knowledge produced in the ongoing practice of everyday work (Gee, 1999) .

The growing support lent to the "learning imperative" and in more general terms the idea of learning as a sustainable source of competitive advantage can be attributed largely to the view that “the world [has] moved 'beyond the stable state'” (Argyris and Schön, 1996, p. xviii). Influenced by the dynamics and complexities of a globalised world, societies and their economies are confronted with the challenges of a new social and economic reality (see e.g. Drucker 2001). In order to address these and to ensure growth and sustainable success in a business environment, in which "change and turbulence [have] become salient features", organisations are called on to develop their capabilities for learning and adaptation and respond to the “demand for transformation” (Argyris and Schön, 1996; see also Lawrence and Lorsch, 1986; Thompson 1967). A key premise of strategic management hence is that an organisation is aligned with its environment in a way that allows the company to maintain its innovativeness, competitiveness and long term survival (cf. Fiol and Lyles, 1985). According to Fiol and Lyles (1985) “alignment” thereby implies that an organisation is able to learn, unlearn and relearn on the basis of experience.

Notwithstanding this sequentiality, organisation scholars have devoted much thought to the attainment and application of knowledge rather than the beginning of search. These

tendencies may be conceived as the legacy of the early individual-centred studies of the subjects of learning and knowing (see e.g. March and Simon, 1958; Cyert and March, 1963; Argyris and Schön, 1978; March and Olsen, 1975). An approach which has gradually been replaced by a more collectivist or organic view, where learning takes place "through participation in communities of practice and with a point of departure in concrete organisational practices" (Elkjaer 2004, p. 419). More recently, with the 'practice turn' under way (Schatzki et al. 2001), attempts have been undertaken to overcome such dualisms between individualism and societism (Whittington 2006) altogether and develop a more integrated account (see Elkjaer 2004). Beyond the differences between acquiring and inquiring, a third notion occupying the conceptual landscape of the knowledge literature requires delineation, namely that of participation. In recognition of the limitations of the individual-centred theories of learning that dominated the early years of organisational learning research and have their point of departure in the individual's acquisition of skills and knowledge (Elkjaer 2004, p. 419), participation has later been introduced to describe a relational view of learning that found representation in the collaborative work practice of the everyday. Together the concepts of acquisition and participation make up the two core metaphors of (organisational) learning, as identified by Sfard (1998), or as Paavola and Hakkarainen put it: they are the "the two basic ways of understanding the area of learning" (2005a, p. 537).

This thesis examines a process of inquiry as manifest in a formal enquiry process conducted as part of a re-development process initiated by Edinburgh City Council and undertaken by an architectural practice within the city, anonymised as BM. In doing so it addresses a professional practice identified by Drucker as part of the 'knowledge work' characterizing the 'post-industrial' age. It also addresses the growing interest in organisational knowledge creation and the social processes underlying organisational learning and knowledge (Easterby-Smith and Lyles, 2011, p. 7). The lack of research on actual learning processes and knowledge encourages Easterby-Smith and Lyles (2011, p. 16) to suggest that we treat learning and knowledge as the dependent variables. Consequently, "we might look at how social networks, communities of practice, and power structures influence knowledge and learning."

## The Problematic

Acquiring, American pragmatist John Dewey purports, is always secondary and instrumental to inquiring. The act of searching for something therefore precedes the stage of knowing. The analytical focus on acquiring and applying rather inquiring, however, prevails and calls for reconsideration. On the importance of inquiry Dewey remarks:

"The existence of inquiries is not a matter of doubt. They enter into every area of life and into every aspect of every area. In everyday living, men examine; they turn things over intellectually; they infer and judge as "naturally" as they reap and sow, produce and exchange commodities. As a mode of conduct, inquiry is as accessible to objective study as are these other modes of behavior. Because of the intimate and decisive way in which inquiry and its conclusions enter into the management of all affairs of life, no study of the latter is adequate save as it is noted how they are affected by the methods and instruments of inquiry that currently obtain." (Dewey 1938, p. 102).

Inquiry from Latin *quaerere* 'seek' is defined by the New Oxford American Dictionary as "an act of asking for information". Used as intransitive verb its meaning is further specified by the prepositions 'of', 'about', 'after', 'for' and 'into', clarifying either the relationship between the verb and the indirect object affected by its action (something was 'inquired of' someone) or else indicating the object of search (someone inquires about, after, for or into something). It is the notion of 'inquiring into' that is of particular interest here in as far as its meaning shifts from "[asking] for information from someone" (inquire about/after/for) to 'investigating or looking into something' (New Oxford American Dictionary). It is important to note that in British English there is a "traditional distinction" between *inquire* and *enquire* according to which the latter is used "for general senses of 'ask'" while the former is "reserved for uses meaning 'make a formal investigation'" (New Oxford American Dictionary). Today, however, there is "little discernible distinction in the way the two words are used," one exception being the noun inquiry which remains "commoner than enquiry in the sense 'a formal investigation'" (New Oxford American Dictionary). In all senses and grammatical forms, however, the spelling with 'i' is understood to be "the more usual form" in US English, whereas the spelling with 'e' is "chiefly restricted" to British English. In the context of this thesis 'in-quire' and 'in-quiry' are used although not as a form of distinction between British and American English but a reference to the word's Latin roots. In particular,

an understanding of the word is employed that takes account of its etymological meaning of 'seeking', denoting an 'attempt to find' rather than 'ask for' something. The later can thereby be understood as part of the former, acknowledging that the act of seeking may indeed require the act of asking and thus the involvement of others.

The priorities set for this thesis arise from the sequentiality of the knowledge acquisition process. Dewey points out that "[a]cquiring is always secondary, and instrumental to the act of inquiring. It is seeking, a quest, for something that is not at hand" (Dewey 2008a, p. 155). While the sequentiality argument ensures plausibility in the sense that a comprehensive understanding of acquiring is not accomplishable without a deeper insight into the activities of inquiring, i.e. the beginnings of search through which knowledge acquisition is realised, it is not sufficient in itself to explain the relevancy of this research.

Inquiry is a relatively unexplored field in the realm of organisation research and more specifically in the areas of knowledge and learning. In making such claim one needs to highlight the distinct terminological difference between acquiring and inquiring for that it has to be acknowledged that "a substantial body of work [within and out with the management literature] has examined the process by which people *acquire* and manipulate information to generate new ideas" (Mumford 2000, pp. 315, italics are author's). While in contrast this can hardly be said about the process of inquiry, one needs to be mindful of the multiplicity of terms occupying the semantic field of inquiry, such as exploration, search, variation, risk taking, experimentation, play, flexibility, discovery and innovation (March 1991). Peirce's pragmatist maxim as a criterion of meaning identity, however, illustrates that if there are no practical differences between these terms that go beyond the denotational and connotational to substantiate a purported difference, such distinctions are "spurious" for that they express the same content (Misak 1991, p. 13). That is to say, if 'inquiring' has the same set of "subjunctive conditional consequences" (Misak 1991) as 'exploring' or 'searching' or any other of the above terms, the distinction would be purely terminological. Differences between those terms are therefore to be carefully dissected not just in terms of their linguistic differences but also their practical implications. To further clarify this point, a closer look at Peirce's account of linguistic competence seems helpful. In his view meaning, and ultimately understanding of an expression, is established on the basis of three aspects: i. the object or

concept a term refers to (adapted from Mill's 'denotation' and Hamilton's 'extension' or 'breadth'), ii. the definition of a term (adopted from Mill's 'connotation', Hamilton's 'intention' or 'depth' and Arnauld's 'comprehension') and iii. the consequences that can be derived from the term (Misak 1991). Knowing the meaning of an expression therefore implies knowing all three aspects of understanding. In presenting Peirce's criteria of understanding as threefold, one must not ignore the fact that, drawn to the notion of practice and seeking a "pragmaticistic grade of clearness" (Peirce 1910, in Misak 1991, p. 15), his early writings reveal an unnecessarily simplistic reduction of the whole meaning of an expression to its practical consequences, action and sensory experience. Something which he later came to regret. William James (2000, p. 25) recites his early conception of meaning as follows: "...to develop a thought's meaning, we need only to determine what conduct it is fitted to produce: that conduct is for us its sole significance." I do not intend to further elaborate on Peirce's account of meaning at this point but look more closely into the meaning of the notions of acquiring and inquiring. Given their seemingly synonymous character, in order to prevent accusations of terminological scholasticism, their use in the context of this thesis shall briefly be explained. Both are indicative of information gathering acts that are aimed towards developing understanding of a subject. And they both are etymologically derived from Old French and based on the unifying stem 'querre', from Latin quaerere 'seek'. The difference in meaning obviously comes from the prefixes in-'in, into, toward, within' and a variant of the Latin 'ad-'to', respectively. While the Latin 'inquirere' translates as examine, investigate, scrutinise, search and seek, 'acquirere' has the meaning of 'get in addition.' It is argued that those differences in meaning play an important role in our understanding and handling of knowledge and its development. How the two mindsets of 'getting in addition' and 'seeking for something not at hand' affect our conception of knowledge and the shaping of new (material) forms will form part of this thesis.

The concern of this thesis is therefore with inquiry into to the (relative) unknown, the unfamiliar, and how in the course of its operation knowledge about the object of search is formed and translated into material forms. In this respect, inquiry is not understood merely as prerequisite of knowledge acquisition but as operation of reality construction. This goes along with a shifting focus from the technicalities of knowledge acquisition and knowing, to

a more comprehensive view that takes into account the content dimension. If one is to view inquiry in accordance with Dewey as an inherently social process, taking place within ‘communities of inquiry’, then the study of inquiry becomes a study of the social that is encapsulated in the question how the evolution of form is influenced by the various actors participating in the process of inquiry. In accordance with a pragmatist philosophy this research is not interested in any sort of truth claims but judgements about the warrantability of an assertion on the grounds of its practical consequences. It will later be shown how that presents a whole set of issues in itself.

What this research aims to achieve is threefold: i. develop an understanding of the process of inquiry as a conjoint, inherently social activity, i.e. an activity that brings people together on the grounds of a shared object of search; ii. examine how knowledge is being acquired about such object of search, and iii. examine the construction of artefactual forms within the operation of inquiry. Artefactual forms are thereby understood as the observable transformations of knowledge. At the centre of this dissertation is American Pragmatist John Dewey and his theory of inquiry. The argument is put forward that Dewey and his elaborations on the notion of inquiry, juxtaposing common sense and scientific inquiry, provide a sound theoretical grounding for understanding/explaining the formation of knowledge and material forms that is being effected through collaborative inquiry. The process of collaborative inquiry that is traced is one effected in the course of architectural designing. An ethnographically informed study of an architectural masterplan project is used to illustrate Dewey’s ideas and how they’re played out in design practice.

Going back to Plato, Meno's paradox raises questions of both theoretical and practical interest. Theoretically, in that it provokes a more skeptical view of knowledge and a backwards shift in research focus from the processes of *acquiring* to the processes of *inquiring*. The topic of inquiry raises important ontological and epistemological questions about the nature of knowledge and how we come to know. In particular, it elicits thinking about originality, the newness of knowledge and the scope of creativity. With reference to Plato's theory of recollection, contested as it is in its capacity to solve the paradox, the question is indeed how much of what we come to believe as being new knowledge are in fact

deep engrained memories, past experiences, things already seen. Practically, the concern is with the "business of knowing", yet not from an 'acquiring' but 'inquiring' perspective. The dialogue between Holmes and Watson suggests that knowing where to look, i.e. how to begin your search and inquire into something, is determinant to the success of such endeavour. Findings will not only cast light on the process of inquiry, the construction of knowledge and its translation into practical forms, but beyond that inform aspects of originality, innovation and the productive value of recollections. By placing this research in the empirical setting of architecture, an attempt is made not just to respond to calls for closer interaction between practice and the academy (Marrewijk et al., 2010) but to seek benefits from the connection of design and organisation studies.

### **Thesis structure**

This thesis is arranged in seven chapters. Following this introduction is a review of the literature on the subject areas of inquiry and knowledge in the broader context of the organisational learning and knowledge debate. The review begins with a general introduction to the theory of knowledge as the philosophical subtext of this thesis. It documents the progression of the debate from its ancient origins to modernity and further to the beginnings of anti-foundationalism. The review then seeks to explore the evolution of the learning and knowledge debate in the management and organisation studies realm, tracing the shift in attention from knowledge acquisition to creation. Departing from the management literature the review then turns to American pragmatist John Dewey, who has had a significant influence on the field of organisational learning and yet been active before the first mentioning of the term. Specifically, the focus is on his theory of inquiry which forms the theoretical basis of this thesis. For a better appreciation of his work, the chapter continues with a review of Dewey's conception of philosophy as articulated through the pragmatist vocabulary and his understanding of knowledge. The review then provides a detailed account of his pattern of inquiry and ends with an appraisal of the social as an important factor in Dewey's work. Chapter 3 then details the methodological approach, laying out the empirical concept that has been applied to this thesis. It details the research design and point of query, grounds the case of architectural designing, considers the strategy for inquiry and eventually

specifies the methods of data collection. In its second part a comprehensive description of the empirical setting is provided, detailing the socio-spatial context, the political context and the organisational context of the project. Three chapters are then dedicated to the empirics of this thesis. With the intention of giving primacy to the data, large amounts of empirical material (both written and visual) are provided through which the narrative of this thesis is being developed. The structure of the three chapters follows the logic of the Deweyan process of inquiry, as introduced in the literature review. The process has been broken down into three phases, which in their entirety describe the transformation of an indeterminate, troubling situation (the redevelopment of residential estate on the western outskirts of Edinburgh) into a determinate one (the submission of a masterplan). Accordingly, the empirical explorations begin with the identification of the indeterminate situation and the institution of a problem. Chapter 5 investigates the determination of problem solutions and their examination in the course of an ongoing process of consultation. This eventually leads to the testing of ideas and settlement of the problematic situation as documented in chapter 6. The thesis is concluded with a thorough analysis of the case material and discussion of the relevance of Dewey's approach to inquiry. It begins with general reflections on the process of inquiry and problems encountered with Dewey's theory. It then discusses the design process as a process of inquiry, the learning that resulted, and the neglect of materiality identified. It confronts the bid to forget as a way to overcome the troubled past of the project and in broad terms discusses the links to the field of organisational learning. The chapter ends with reflections on the impact of buildings and the importance of understanding the social consequences of architectural operations.

# Chapter 2

## Literature Review

*Meno*: And how will you inquire, Socrates, into that of which you are totally ignorant?

What sort of thing, among those things which you know not, will you put forth as the object of your seeking? And even if you should chance upon it, how will you ever know that it is the thing which you did not know?

*Socrates*: I know, Meno, what you are trying to say. Just see what a specious argument you are introducing, that a man cannot inquire either about that which he knows or about that which he does not know. For he cannot inquire about what he knows, inasmuch as he already knows it and he has no need to inquire, nor can he inquire concerning that which he knows not, since then he does not know about what he is to inquire.

Plato's *Meno*, 80d-e

What this chapter seeks to accomplish is a delineation of the academic terrain in which this thesis is situated. Reviewed are the literatures in the overlapping areas of inquiry, knowledge and learning, published in the realm of management and organisation studies, that are to inform the empirical explorations subject to this thesis and the subsequent development of existing knowledge-building theory. The review draws particular attention to the changing assumptions and conceptualisation of the social underlying the three bodies of literature and their translations into different forms of collaborative arrangements. Against the background of a broad introduction to the main strands and developments in the knowledge and learning literature, tapping on aspects of knowledge creation and inquiry, the latter is explored in greater depth drawing upon the writings of early American pragmatists, in particular John Dewey, whose seminal work *Logic: A theory of inquiry* builds the cornerstone of this work.

Given the significance of his conception of philosophy to the principle of inquiry he aspired, to the logic of experience, the discussion of Dewey will incorporate a tentative introduction to his metaphysics and logic, encapsulated in the notion of pragmatism. The chapter will continue with a problematisation of *the social* in the current knowledge literature and concluded with an elaboration of the concept of communities of inquiry.

## 2.1 Introduction to the knowledge debate

Human's natural desire, Aristotle (2006) asserts, is to know. What it means to know, however has been a subject of philosophical inquiry and controversy ever since the times of ancient Greek philosophy. Dissension revolves around the nature of knowledge, its foundations, and our human capacity to know. Common ground across the canonical philosophies is small and so one might appreciate that some agreement exists on the definition of knowledge as “justified true belief”<sup>2</sup>, a view which originates in Plato’s *Theaetetus* and distinguishes belief from opinion. On the nature of belief Dewey remarks:

A belief refers to something beyond itself by which its value is tested; it makes an assertion about some matter of fact or some principle or law. It means that a specified state of fact or law is accepted or rejected, that it is something proper to be affirmed or at least acquiesce in. [...] It covers all the matters of which we have no sure knowledge and yet which we are sufficiently confident of to act upon and also the matters that we accept as certainly true, as knowledge, but which nevertheless may be questioned in the future” (Dewey 2008b, p. 116).

The fact that our beliefs might be mistaken points to a logical insufficiency in the above definition, namely that believing something is true does not constitute true knowledge of it (Nonaka and Takeuchi, 1995, p. 21). The more immediate question therefore has come to be what legitimises our claims to knowledge with regards to its conditions (Gettier 1963) and

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<sup>2</sup>According to the traditional, tripartite definition of knowledge, an individual’s claim to knowledge is to be based on justified, true belief as the necessary and sufficient conditions for knowledge. That is, for any person S to say that he/she knows proposition *p* necessitates that: i. *p* is true (the truth condition); ii. S believes that *p* is true (the belief condition); and S is justified in believing that P is true (the justification condition).

constitutive concepts, such as the nature of justification or the state of implicitness of deontological notions (Becker 2004, p. 32). It is the philosophical discourse of modernity, which emerged as a secular response to the churches' quest for certainty (Toulmin 1992), that has given rise to the idea of a theory of knowledge; a term that has been coined by seventeenth century philosopher and founder of British empiricism John Locke. Pursued was a method for establishing "the ultimate truth of knowledge beyond all doubt" (Nonaka and Takeuchi, 1995, p. 21); finding and occupying a position from which to ground the claims to knowledge made by art, religion and science hence became philosophy's preserve. Based on the assumption of man-as-the-knower, the foundations of knowledge were sought to be understood reciprocally by the study of mind. As a consequence, the notion of knowledge as an accurate representation of some externally existing reality, made possible by our mental faculties and intelligible through the theory of knowledge, emerged. To know came to mean an accurate representation of what is outside one's mind and led to an understanding of "mind as the mirror of nature" (Rorty 2009).

The idea of philosophy as a foundational discipline as thought by Descartes, Locke and Kant was met with scepticism by a group of academics, including Charles S. Peirce (1839-1914), William James (1842-1910) and John Dewey (1859-1952), that later came to be associated with the philosophical movement known as pragmatism. Taking account of the tenuous ground upon which existing theories of knowledge were built, Peirce offers a radical critique of what he calls "the spirit of Cartesianism" (Peirce 1955, p. 228). The subject of controversy is the *problem of knowledge* which, in the words of Skagestad (1981, p. 17), Descartes conceives of as the "finding [of] 'secure foundations' on which to build the entire structure of human knowledge." Implied is a static understanding of knowledge as a more or less fixed building of propositions whose fate rests on the strength of its foundation. Berkeley and Hume, however, show that the Cartesian edifice of knowledge is built on shaky ground. In the absence of some vantage point from which to evaluate objectively the reliability of knowledge in the pursuit of some absolute certainty, the Cartesian problem of knowledge is deemed "insoluble" (Skagestad 1981, p. 17). Peirce shares the criticism of Berkeley and Hume, though, importantly, disagrees on both their premises and sceptical conclusions.

Rather than rejecting knowledge on the whole and adopting a stance of total scepticism which, Skagestad remarks, is equally impossible for that we remain confined to our current knowledge and have no possibility to claim some Archemedian position from which to safely accept or reject any knowledge proposition, Peirce develops a more flexible, experimental theory of knowledge which he refers to as *fallibilism*. At its core lie the assumptions that i. we do have knowledge and ii. that it does not require some secure foundations to be erected from as both Hume and Descartes seem to suggest. Peirce departs from the construction trade rhetoric to shape a new idiom. In broad terms he no longer regards knowledge as a static composite of propositions but an ongoing process of inquiry, by which he means the “struggle” to move from the uneasiness of doubt to the state of “belief” (Peirce 1982a, p. 67). The nature of men's ability to discover and come to know, however, remains paradoxical. Contemplating Plato's *Meno*, Polanyi (2009) states:

“...we are faced with the fact that, for two thousand years and more, humanity has progressed through the efforts of people solving difficult problems, while all the time it could be shown that to do this was either meaningless or impossible.”

Plato's attempt to resolve the paradox on the premise that all discovery is a recollection of the past (anamnesis), i.e. knowledge lying dormant within the precognitive structures of the mind until activated by given truths, “has hardly ever been accepted but neither has any other solution been offered for avoiding the contradiction” (Polanyi 2009, p. 22). What tempts us to begin thinking, in Rorty's view (2009), is that “openness to strangeness,” a curiosity about the perplexing and unsettling conditions that challenge our mind and shake our established beliefs. In a similar vein Dewey suggests that thinking begins with what he calls a “forked-road situation,” a situation that is indeterminate and ambiguous and apart from dilemma carries with it the foundations of possible solutions (Dewey 2008b, p. 122). It is a state which Peirce, by contrast, refers to as “doubt”, the removal of which and transference into a state of belief he understands as “the sole function of thought.”

We have there found that the action of thought is excited by the irritation of doubt, and ceases when belief is attained; so that all the production of belief is the sole function of thought (Peirce, 1978, *How to Make Our Ideas Clear*).

Thought, as understood by Peirce and Dewey, is a “primarily practical, biologically generated aptitude” (Margolis 2003, p. 48) that is naturally addressed to the resolution of doubt. It is the

product of interaction between organism and environment out of which knowledge grows and, in turn, is being used to regulate that interaction. The naturalistic approach to the theory of knowledge and its instrumental capacity has given rise to the Dewey notion of “instrumentalism.”

Now, the revisiting of (the paradox of) inquiry from an organisational studies perspective is an attempt to shift the focus from the acquisition and participation metaphors of learning, specifically in the management literature as will later be shown, to the preceding events that constitute the practice of inquiry. To say that men acquire knowledge is a truism and not of concern here, and neither is the premise of the participation metaphor which holds that learning happens quite naturally in the midst of practice and social interaction; yet it is argued that such concentration on the accumulative aspects of knowledge is too restrictive of a focus in both ontological and epistemological terms to account for the deliberate work involved in becoming knowledgeable. As it is pointed out by Cook and Brown (1999, p. 382) “there is a tendency in the literature not only to treat all knowledge [summarised by the authors along the dimensions of explicit/tacit and individual/group knowledge] as being essentially the same”, but also something possessable. These four forms of knowledge, of “what is known”, are considered by Cook and Brown to be captured in what they call an *epistemology of possession*. Other authors such as Elkjaer (2004) and Paavola & Hakkarainen (2005a) use the metaphor of “acquisition” to summarise the body of literature that conceives knowledge as entitative material. Arguing further that there is more epistemic work being done in what we know than is reflected in the epistemology of possession, the authors contrast *knowledge* with *knowing*, claiming that action, both individual and collective, does not only consist of knowledge being possessed and applied in action but also knowing as something being worked out and part of the action. The latter is what they refer to as an *epistemology of practice*.

The regular use of both the acquisition and participation metaphor is problematic in so far as neither of them suffices in explaining the continuous transformations in knowledge and knowing and their articulation in the evolution of forms. An attempt to integrate and build upon them can be found, for instance, in the work of Bente Elkjaer (2004) and Paavola &

Hakkarainen (2005a). They both take a point of departure in the pragmatist school of thought and draw upon Dewey's theory of inquiry to develop existing theories of (organisational) learning.

In drawing upon the early twentieth century American pragmatists, and more explicitly on educational theorist John Dewey to approach the subject of inquiry and extract his writings from its original philosophical context to engage with it in the realm of organisation research, one hastens to offer an explanation, not least why devoting time to study Dewey rather than contemporary management literature. An explanation seems all the more important in light of the relatively scarce use of Dewey and his works in the business literature (Miettinen 2006). Searching the ISI Web of Knowledge in the subject area of "business & economics" for 'John Dewey' and 'inquiry' as well as the topics 'John Dewey' and 'pragmatism' generates, respectively, a mere three and twelve articles. His theoretical contributions to the subject areas of social philosophy, experience, knowledge, thinking, logic and inquiry, however, are of such magnitude that it raises fundamental questions about his relative absence in the management literature. Certainly, if one is to restrict the review of the management literature to the subject and vocabulary of inquiry as it has been done thus far, such immediate observation may simply be explained by a lack of congruency in terminology, more implicit forms of reference and discussion, or indeed a different contextualisation of his work. It may, however, also point to a more significant inattentiveness or ignorance towards the stream of activities preceding the acquisition of knowledge, a general inaccessibility of Dewey's writings, or indeed some combination of all those factors. In what follows an attempt is made to document his 'absent presence' in the management literature, arguing that Dewey, and certainly the pragmatist school, has imprinted itself on the evolution of the management discipline more noticeably than, by all appearances, it is being acknowledged, and that it is even growing in importance. To go back to earlier works, "to devolve from what we understand now", as pointed out by Karl Weick in his foreword to the 2003 edition of Easterby-Smith and Lyles' *Blackwell Handbook of Organizational Learning and Knowledge Management*, "is not just an exercise in nostalgia that revisits earlier simplicities [for the argument is that although our current theories tend to be more complex and refined, in the process of investigation we inherit gradually simplified versions of the original issue]. Going

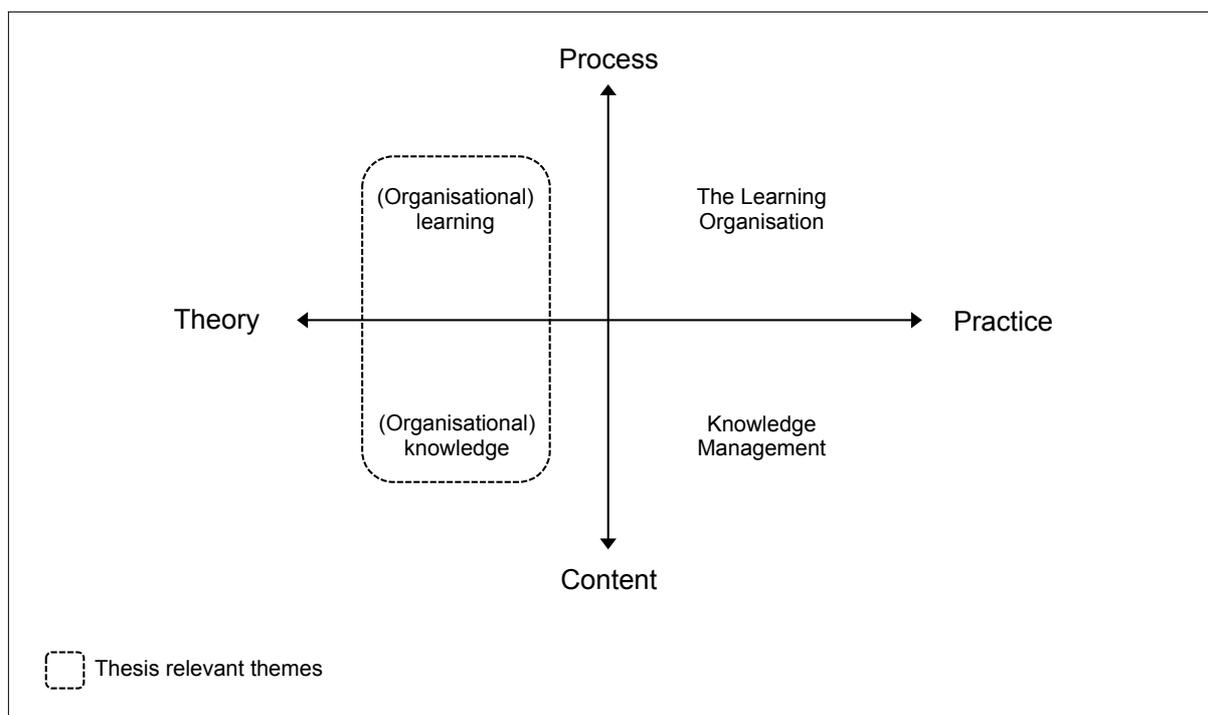
back is also a chance to see in more detail a complex basic issue, a turning point, a choice that turned out to result in the simplifications we now work with. The beauty of devolution is that we have a chance to remake the earlier choice” (2003:xviii).

## 2.2 From acquisition to the creation of knowledge

The knowledge and learning debate in the realm of management and organisation studies has come a long way, from the first articulation of the concept of organisational learning by Cyert and March (1963) to the encompassing field it is today. The body of literature that has been accumulated over the years is broad and fragmented. A suitable point of departure therefore seems to be the simple classification scheme suggested by Easterby-Smith and Lyles (Easterby-Smith and Lyles, 2011, p. 9) in their introductory chapter to the second edition of their *Handbook of Organizational Learning and Knowledge Management*. Highlighting the progression of the field, they define three groups of literature: the *classic works*, i.e. those that have had a significant impact on the field yet were published before the earliest mentioning of its constituting concepts, the *foundational works*, which shaped the initial research agenda and, finally, the *popularising works*, which created a particular momentum in the development of a particular subject area. Across those three groups, demarcation lines are drawn between four dominant topics: organisational learning (OL), the learning organisation (LO), organisational knowledge (OK) and knowledge management (KM) (see Fig. 1). Those demarcation lines reflect tendencies along the theory/practice and process/content divide as is being illustrated in Fig. 1. Contrasted with each other are typically, and simplistically, the concepts of organisational learning and the learning organisation, on one hand, and organisational knowledge and knowledge management on the other. Those dichotomies reflect different streams of theorising and opposing orientations towards impact (theory vs. practice). Generally, the concepts of organisational learning and knowledge are associated with an academic agenda, whereas the other two tend to have greater practical resonance. If we are to take a closer look at the first pair of terms, organisational learning and the learning organisation, as similar as they may seem, there are some important conceptual,

methodological and analytical differences. Tsang (1997) locates the origin of those differences in the underlying question being dealt with. While students of “the learning organisation” tend to ask “How *should* an organisation learn?”, research into organisational learning is largely concerned with the question “How *does* an organisation learn?” (Tsang 1997). Consequently, Tsang differentiates between two types of studies: prescriptive and descriptive. One may add that earlier inquiries into organisational learning were often accompanied by the question “What is an organisation that it may learn at all”, reflecting the scepticism of authors such as Hedberg (1981) and Murray and Moses (2005) regarding the idea of organisational learning and their concern with the anthropomorphisation of the firm (Kim 1993). The main thrust of their argument is that “organisations *per se* do not learn” (Murray and Moses, 2005, p. 1193).

Figure 1: Introductory mapping of the field of organisational learning and knowledge



Source: (Easterby-Smith and Lyles, 2011)

Easterby-Smith and Lyles show in a systematic citation analysis, covering the most cited references in both editions of their *Handbook of Organizational Learning and Knowledge Management*, that while “the classics of the learning literature are still important, [their]

relative influence has diminished somewhat.” The term “classic” is used somewhat misleadingly here for that reference is not made to the body of works pre-dating the inception of the organisational learning debate but to a group of authors whose work they otherwise rank as foundational. This includes the writings of Nonaka and Takeuchi, Brown and Duguid, Guber, Kogut and Zander, as well as Nelson and Winter. Importantly, Easterby-Smith and Lyles demonstrate with a renewed citation analysis for the period 2000-2010 in the second edition of their book that there is a “growing interest in organisational knowledge creation and the social processes underlying organisational learning and knowledge” (2011, p. 7). In the context of this, established scholars like Nonaka (2009), Brown and Duguid are still relevant, yet new scholars have come to the fore shaping the debate, including Argote and Ingram (2000), Gherardi (2006; 2002; 2000; 2001), von Krogh (2000), Carlile (2004; 2002), and Orlikowski (2002). It is this growing interest in a social perspective on knowledge and knowledge creation that provides the subtext of this thesis. The thematic focus of this work, as contoured in the previous chapter and depicted in Fig. 1, cuts across the fields of learning and knowledge. For that the unit of analysis is not the organisation but a process of inquiry through which action is provoked and organised and relationships between people, activities and material artefacts are forged into an operational field, or “action-net” (Czarniawska 2004) beyond the physical confines of an organisation, the organisational bracket that contains and stabilises the concepts of learning and knowledge is being dropped.

### **A review of the learning and knowledge debate**

The economic value of systematically gaining experience and acquiring knowledge respectively has been known to organisations for a long time as it is revealed by the learning curve discussion initiated by Wright (1936) and his first strict definition of the term applied to the business case. In the early phases, however, learning was reduced to the area of production and the idea of rationalisation according to the “concept of functional excellence” (Staehle 1999). It was not before in the mid 1960s the Boston Consulting Group combined the learning curve with the lifecycle concept and popularised it as a strategic planning method that the discussion about (organisational) learning departed from the narrow interpretative framework of the post-industrial society and began moving toward the theme of

adaptability as means of strategic control. Accompanied by “fundamental shifts in the logic of business itself and in the assets with which [it] deals” (Pawlowsky 2001, p. 61), the focus in the academic and practical debate shifted from production to learning and knowledge. Since the mid 1980s, embedded in the thinking of core competences, a growing number of management authors has heralded the ability of an organisation to learn and thus to accumulate knowledge as an “important source of a firm's sustainable competitive advantage” (Nonaka et al., 2001, p. 491; see also Senge 1991; Burgelman 1990). Quinn (1992) argues that the development and deployment of intellectual resources has, in fact, become increasingly more relevant to the organisation of businesses and formulation of strategies than the management of physical assets (see also Drucker 2001; Edvinsson and Malone, 1997; Krebsbach-Grath 1996).

The evolution of the organisational learning debate can be found to be located in the greater context of the study of organisational change. The search for concepts which address the challenges of an increasingly turbulent and complex business environment is an ongoing theme in the management literature. Central to the idea of organisational learning is the assumption that organisations can, in fact, create knowledge about past and present circumstances and adapt to as well as develop within a changing environment. Reflecting on the three basic models of organisational change classified by Türk (1989), it can be found that learning models, as contrasted with the rather naturalistic selection and development models are significantly more optimistic in that organisations are conceived of as being able to systematically create change rather than being confronted with it as a quasi naturally grown adaptation process. The growing support lent to organisational learning and in more general terms the idea of learning as a sustainable source of competitive advantage can be attributed largely to the common awareness that “the world [has] moved ‘beyond the stable state’” (Argyris and Schön, 1996, p. xviii). Influenced by the dynamics and complexities of a globalised world, societies and their economies are confronted with the challenges of a new social and economic reality (see e.g. Drucker 2001). In order to address these and to ensure growth and sustainable success in a business environment, in which “change and turbulence [have] become salient features”, organisations are called on to develop their capabilities for

learning and adaptation and respond to the “demand for transformation” (Argyris and Schön, 1996; see also Lawrence and Lorsch, 1986; Thompson 1967). A key premise of strategic management hence is that an organisation is aligned with its environment in a way that allows the company to maintain its innovativeness, competitiveness and long term survival (cf. Fiol and Lyles, 1985). According to Fiol and Lyles (1985) “alignment” thereby implies that an organisation is able to learn, unlearn and relearn on the basis of past behaviour. In the absence of agreement between and even within disciplines as to the meaning organisational learning and its derivatives, a closer examination of the concept of organisational learning shall follow.

Since March and Simon’s (1958) first reference to the compound of organisational learning, the debate has matured into an established field of studies (Easterby-Smith et al., 2000, p. 783). The scholarly literature is voluminous and fragmented comprising contributions from various disciplines (psychology, sociology, cultural anthropology and management studies especially) and consequently different philosophical and methodological traditions. Departing from the classical models of organisational learning as a hermeneutic process of behavioural change, the debate has yielded numerous interpretations of the meaning and significance of the term (Fiol and Lyles, 1985; Easterby-Smith et al., 2000; Shipton 2006). Equally an increasing number of writings has surfaced which seek to systematise the corpus of literature and/or develop a basis for a comprehensive theory of organisational learning (see e.g. Shrivastava 1983; Easterby-Smith 1997; Edmondson and Moingeon, 1998; Pawlowsky 2001; Shipton 2006; see also Miner and Mezias, 1996; Crossan et al., 1999; Örténblad 2002; Vera and Crossan, 2004; Friedman et al., 2005; Lawrence et al., 2005). Authors like Easterby-Smith (1997:1085), however, argue against such “unrealistic aspirations”, suggesting that organisational learning might be best understood from a limited number of disciplinary perspectives producing complementary contributions and research agendas. Throughout the evolution of this research field the notion of organisational learning has frequently caused irritation and disturbance. Discontent revolves around the metaphorical operation of the concept of organisational learning, which is encapsulated in the seemingly simple questions: Can organisations learn anyway, and if yes, what constitutes their ability to do so? Analysing

the metaphor of organisational learning, Gherardi (2000, p. 1059) argues, “enables exploration of the organisation as if it were a subject which learns, which processes information, which reflects on experiences, and which is endowed with a stock of knowledge, skills and expertise”. Close adherence to the nebulous metaphorical language, however, has resulted in an often criticised anthropomorphisation of the firm (Cook and Yanow, 1993; Fiol and Lyles, 1985; Argyris 1990). This conceptual practice is often explained to arise from the uncritical application of learning theories drawn from psychological studies to the case of business organisations as pointed out by Weick (1991). A brief digression shall provide greater insight into the inherent features of individual learning. According to Fincham and Rhodes learning is defined as “the cognitive and physical activity giving rise to a relatively permanent change in knowledge, skill, or attitude” (2005, p. 22). It captures the individual's ability to recognise environmental changes, making appropriate adaptations and building up stocks of experience and various skills (Fincham and Rhodes, 2005). Informed by psychological concepts of learning, interpretations of organisational learning often resonate with a human capacity to learn, adapt and develop and presume the existence of various factors upon which individual learning is based, including cognitive capacity, learning styles, interpretative ability and individual schema (cf. Murray and Moses, 2005). Objection towards this view is explained by the assumption that human beings are the only subjects competent to learn. In this vein, Murray and Moses (2005:2) argue that even though there exist many similarities between the human brain and an organisation's information processing system, in the end “organisations are mere constructs and cannot learn”. In fact, it is widely accepted that individual and organisational learning are to be differentiated (cf. Fiol and Lyles, 1985). Many authors take the stance that organisational learning, if it means anything, it means learning through individuals who happen to function in an organisational setting (Hedberg and Wolff, 2001, p. 537; see also Kim 1993; Hedberg 1981; Argyris and Schön, 1978). Accordingly, Miles and Randolph (1981:50, cited in: Cook and Yanow, 1993, p. 5) interpret organisational learning as “individuals’ insights reflected in the structural elements and outcomes of the organisation itself”. It is important to note, however, that organisational learning is typically taken to be more than simply the sum of each members’ learning (Fiol and Lyles, 1985; Hedberg 1981). The meaning of the term “learning” remains essentially the same, yet its processes are “fundamentally different” (Argyris 1999, p. 8). The underlying

paradox, described by Argyris and Schön (1978), is that even though organisational learning is not just the sum of individuals' learning within the organisation, it would not take place without their experience and actions. Organisations are not merely but necessarily composed of collections of individuals. A central problem identified by Kim (1993, p. 40) therefore lies in “imparting intelligence and learning capabilities to a non-human entity without anthropomorphizing it.” In opposition to human beings organisations do not have brains, yet as noted by Hedberg (1981) they are equipped with cognitive capacities and memories, which allow them to construct and maintain learning systems (see also Cyert and March, 1963). These enable organisations to develop certain norms and standards of values, behaviours and beliefs, mental maps and ideologies which are preserved in an organisation's memory and secured over time just like individuals develop personalities, patterns of thinking, personal habits, values and philosophies (cf. Hedberg 1981).

Organisational learning, however, differs from individual learning in that its content is not bound to the immediate context but can be transmitted to new generations of organisation members through organisation histories and norms (Martin 1982; Mitroff and Kilmann, 1976). Consistent with this line of thinking, scholars in the tradition of the social-system approach assume that organisations have their own knowledge bases which contain information about organisational actions independent of the people who inhabit it. Duncan and Weiss (1979, p. 84), for example, define organisational learning as “the process within the organisation by which knowledge [...] is developed.” Triggered by the detection of mismatches between expected and actual results, organisations learn by abstracting from these observations and integrating the new bits of information into the company's knowledge bases. Learning comes about as a gradual improvement of paradigmatic frameworks that generate a set of beliefs which help to build “an organisational understanding and interpretation of the environment” (Fiol and Lyles, 1985, p. 804). Despite consensus on the limitations of individual learning theories for explaining organisational phenomena, however, Duncan and Weiss like many other authors do not readily accomplish departure from the individual view. Cook and Yanow (1993, p. 6) maintain that “in their accounts and illustrations, these authors typically describe episodes of individual learning occurring within organisational contexts” rather than learning by organisations. Instead they propose a cultural

perspective on organisational learning, which they see as complementary to the cognitive perspective, and which promises to capture learning at a collective level (see also Sackmann 1991; Schein 1984). Hence, organisational learning is seen as a process “when a group acquires the know-how which enables it to carry out its collective activities [...]. What it learns is possessed not by individual members of the organisation but by the aggregate itself” (Cook and Yanow 1993:13). Their perspective is closely linked to the phenomenological approach to human action and social reality associated with Mead (1934), Berger and Luckmann (1966) and Taylor (1979) as they make clear by defining culture as “a set of values, beliefs, and meanings, together with the artefacts of their expression and transmission (such as myths, symbols, metaphors, rituals), that are created, inherited, shared, and transmitted within one group of people [and] that, in part, distinguish that group from others.” Culture and joint construction of reality thus constitute the common core (see also Schein 1991, Sackmann 1991, Argyris 1990).

The cultural perspective, however, is not without objection. Elkjaer (2004:420), for example, points out that “from the standpoint of a learning theoretical perspective, the ‘how’ and the ‘what’ of learning seem to disappear.” She therefore develops a “third way” of organisational learning, encompassing what she refers to as the acquisition and the participation metaphor. The former resembles the cognitive perspective and is defined as “individuals’ acquisition of information and knowledge, analytical and communicative skills” (Elkjaer 2004, p. 419), based on the ability of system thinking. The latter is described as “learning [that] takes place through participation in communities of practice and with a point of departure in concrete organisational practices” (Elkjaer 2004, p. 419). The “third way” builds upon Dewey's understanding of experience according to which “experience is the transaction between individual(s) and environment; it is the continuous and mutual formation of the two, and as such experience is both a process and a product” (Elkjaer 2004:420). It accentuates the relation between the cognitive (learning as acquisition) and the cultural perspective (learning as participation) and acknowledges that “thinking is instrumental in learning as participation and that learning takes place as a social process” (Elkjaer 2004:420). In line with the pragmatists tradition, organisations are conceived of as “social worlds” rendering the individual and the organisation as mutually forming and being formed by each other. The

systemic order of organisational actions and interactions is kept together by the individuals' and groups' commitment to organisational life and work. The implications identified by Elkjaer (2004) are that one should shift the unit of analysis from individuals and organisations to events and situations, and to follow these in time and space to allow for the study of organisational learning as a reciprocal development of individuals and organisations. The argument is paralleled by Czarniawska's (2004) call for the study of action nets rather than organisations. Being concerned with the methodological approaches to the study of organisations, she argues that actors and organisations are "the products rather than the sources of the organising – taking place within, enabled by and constitutive of an action net" (Czarniawska 2004, p. 780).

### 2.3 Dewey's theory of inquiry revisited

As shown above the study of knowledge, its acquisition and exploitation has gained enormous gravity in the realm of management research and specifically in organisation studies over the last decade (Easterby-Smith and Lyles, 2011). Despite the growing diversity in the knowledge and (organisational) learning literature, Easterby-Smith and Lyles (Easterby-Smith and Lyles, 2011, p. 2) observe that "there still remains considerable commonality in the field" and draw attention to common points of departure. Four authors are identified to have had a particular influence on the evolution of this field: Michel Polanyi, Edith Penrose, Frederick Hayek and indeed John Dewey. While not amongst the most frequently cited in the second edition of Easterby-Smith and Lyles' *Handbook of Organizational Learning and Knowledge Management* published in July 2011, the editors point out that, nevertheless, each of them has a "substantial rating in the ISI Web of Science (WOB)" with citation rates "running to several thousand for Dewey, Polanyi, and Hayek" (Easterby-Smith and Lyles, 2011, p. 9) A more nuanced look at those WOB results for Dewey, however, unveils important differences in the reception of Dewey's work across disciplines, and specifically in the business and management literature. As pointed out by Miettinen (2006, p. 392) Dewey's philosophy is "complex and diverse" and hence "an object

of constant reinterpretation.” In the social sciences his oeuvre has been of varying import. Not surprisingly, his reception is most noticeable in the fields particularly dear to him: education and philosophy (see Table 2). His theory of inquiry, however, provides different access points and therefore finds recognition in the discussion of various concepts, from reflective thinking and knowledge creation, to experience and learning. One may appreciate that the exact search terms and combinations used by Easterby-Smith and Lyles are unclear. For the purpose of this thesis two separate citation analyses were conducted, one centred around John Dewey and one around pragmatism. Both terms have been searched individually and in combination with the keywords of this thesis: inquiry, knowledge and learning. In order to ensure accurate results for John Dewey, double quotation marks were used. The reason for distinguishing between the concept and its advocate is to illumine the context in which Dewey is being cited. The purpose of this section is to carefully sleuth for Deweyan thinking in the discussions of (organisational) learning and knowledge (management) and cast light on how his ideas of pragmatism are being played out.

Table 2: ISI Web of Science (WOB) Citation Analysis: John Dewey

<b>Database</b>	Topic=( <b>Inquiry</b> ) AND Topic=("John Dewey")	Topic=( <b>Learning</b> ) AND Topic=("John Dewey")	Topic=( <b>Knowledge</b> ) AND Topic=("John Dewey")	Topic=("John Dewey")
<b>WOB Citation Index*</b>	<b>90</b>	<b>95</b>	<b>66</b>	<b>746</b>
<b>WOB Category Rank</b>	<b>Top Ten Results</b>			
1	Education Educational Research (28)	Education Educational Research (60)	Education Educational Research (27)	Philosophy (234)
2	Philosophy (25)	Philosophy (11)	Philosophy (8)	Education Educational Research (210)
3	Ethics (8)	Management (5)	History of Social Sciences (4)	Ethics (39)
4	Public Administration (6)	Sport Sciences (4)	History Philosophy of Science (4)	Political Science (30)
5	Environmental Studies (5)	Art (3)	Art (3)	History of Social Sciences (29)

6	Political Science (4)	Business (3)	History (3)	Humanities Multidisciplinary (27)
7	Economics (3)	Environmental Studies (3)	Management (3)	Religion (22)
8	History of Social Sciences (3)	Ethics (3)	Psychology Multidisciplinary (3)	Sociology (21)
9	Religion (3)	Hospitality Leisure Sport Tourism (3)	Ethics (2)	History Philosophy of Science (20)
10	Sociology (3)	Information Science Library Science (3)	Nursing (2)	Environmental Studies (16)
...	<b>Additional Results</b>			
13...				Economics (14)
16...	Business (1)			
18			Business (1)	Management (12)
19...			Economics (1)	
21...				Business (8)
22...	Management (1)			

Note: Timespan [for all search inquiries]=All Years. \*Citation Databases=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH.

Key:

SCI-EXPANDED: Science Citation Index Expanded (1970-present)

SSCI: Social Sciences Citation Index (1970-present)

A&HCI: Arts & Humanities Citation Index (1975-present)

CPCI-S: Conference Proceedings Citation Index- Science (1990-present)

CPCI-SSH: Conference Proceedings Citation Index- Social Science & Humanities (1990-present)

The themes and thinking of Dewey are not entirely new in the organisation studies literature. In her own discussion of pragmatism as an insightful perspective on the ‘practice turn’ debate, Barbara Simpson (2009), for instance, cites the works of Cohen (2007), Miettinen (2006) and Elkjaer (2004). In fact, the latter two can be found to form part of a small group of Northern European scholars that has dedicated a noticeable amount of attention to Dewey. Reijo Miettinen (2000; 2005; 2006) in particular has published a number of articles exploring different lines of Deweyan thinking, from his concept of experience and theory of reflective thought and action (discussed in a valuable critique of Kolb’s theory of experiential learning, in which he accuses him, Kolb, for having distinctly misread Dewey when he talks about experiential learning where Dewey talks about experimental thought), to the role of language and other artefactual means in mediating the organism/environment relationship (discussed in a study of organisational change and how this can be accomplished by turning established

practices or routines into an object of inquiry, i.e. an epistemic object), to the concept of transformative practical activity (discussed in a comparison between Deweyan pragmatism and cultural-historical activity theory as epistemologies and theories of transformative material activity). To be mentioned in this context are also Paavola and Hakkarainen (2005a), whose work on knowledge and knowledge creation, while drawing heavily on Engeström's activity theory, shows an interesting affinity towards the pragmatist idea of a non-representationalist conception of knowledge. Dewey can further be found, as indicated above, in the work of David Kolb (1984), who develops his four-stage model of experiential learning with the help of Dewey's concept of reflective thinking; in Donald Schön's (1991; 1992) elaboration of the idea of reflective practice; as well as in Argyris and Schön's (1996; 1978) conceptualisation of organisational learning. Schön draws heavily on the works of Dewey and his theory of inquiry (see Schön 1992), in particular for his intertwining of thought (mental reasoning) and action in revolt against the established dualisms of mind and body, theory and practice, science and common sense. A centrepiece of Schön's work is the Deweyan concept of reflective thought, discussed in detail further below, which he, Schön, further developed into his popular concept of reflective practice. He has applied the concept to different contexts from education to organisation studies, propagating the idea of practice-based learning and discovery. That is, learning on the basis of reflection that allows us to make explicit some of the knowledge implicit in competent practice. While his concept comprises different elements of increasing complexity - knowing-in-action, reflection-in-action, and reflective conversation with the situation - it is the latter that resembles Deweyan inquiry. An advanced version of reflection that deals with the confrontation of some puzzling phenomenon by means of reflection on both the situation itself and on our thinking and acting on it. Applied to the context of organisational learning, it is the kind of reflection that has become widely known as double-loop learning where organisational actors not only reflect upon their theories-in-use but equally their taken-for-granted assumptions, values and beliefs. Argyris and Schön's (1991) further make use of Dewey in their development of the idea of *organisational inquiry*. Here, reference is made to the Deweyan notion of inquiry as a social process, as taking place within a community of inquirers. It is through participation in such social systems that the taken-for-granted assumptions are established which, in turn, condition the form of inquiry which allows individual members of the organisation to act as agents of

an organisation. That is, “within a community of inquiry, governed, formally or informally, by the roles and rules of the organisation” (Argyris and Schön, 1996, p. 33).

Table 3: ISI Web of Science (WOB) Citation Analysis: Pragmatism

<b>Database</b>	Topic=( <b>Inquiry</b> ) AND Topic=( <b>Pragmatism</b> )	Topic=( <b>Learning</b> ) AND Topic=( <b>Pragmatism</b> )	Topic=( <b>Knowledge</b> ) AND Topic=( <b>Pragmatism</b> )	Topic=( <b>Pragmatism</b> )
<b>WOB Citation Index*</b>	<b>186</b>	155	<b>323</b>	<b>4,044</b>
<b>WOB Category Rank</b>	<b>Top Ten Results</b>			
1	Philosophy (44)	Education Educational Research (46)	Philosophy (45)	Philosophy (953)
2	Education Educational Research (21)	Management ( <b>16</b> )	Education Educational Research (26)	Political Science (253)
3	Ethics (17)	Philosophy (9)	Management ( <b>25</b> )	Law (207)
4	Public Administration (13)	Business (7)	Information Science Library Science (24)	Ethics (200)
5	Political Science (12)	Ethics (7)	Sociology (22)	Education Educational Research (198)
6	Management ( <b>11</b> )	Social Sciences Interdisciplinary (7)	Computer Science Information Systems (19)	Sociology (192)
7	History Philosophy of Science (9)	Environmental Studies (6)	Ethics (17)	History (189)
8	Sociology (9)	Education Scientific Disciplines (5)	History Philosophy of Science (17)	International Relations (151)
9	International Relations (8)	Psychiatry (4)	Social Sciences Interdisciplinary (16)	Religion (140)
10	Geography (6)	Computer Science Information Systems (4)	Religion (14)	Humanities Multidisciplinary (138)
...	<b>Additional Results</b>			
12...				Management ( <b>118</b> )
15	Economics (4)			Economics (97)
16			Business ( <b>8</b> )	
17...			Economics (8)	
21...				Business ( <b>65</b> )
28	Business (2)			

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Note: Timespan [for all search inquiries]=All Years. \*Citation Databases=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH.

Key:

SCI-EXPANDED: Science Citation Index Expanded (1970-present)

SSCI: Social Sciences Citation Index (1970-present)

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CPCI-S: Conference Proceedings Citation Index- Science (1990-present)

CPCI-SSH: Conference Proceedings Citation Index- Social Science & Humanities (1990-present)

In the broader organisational learning and knowledge literature, pragmatism and Dewey, one may argue, have their place in what Gherardi and Nicolini (2001) called the *micro-interactionist tradition*. In their article 'The Sociological Foundations of Organizational Learning' they discuss the influences of Peircian pragmatism on the micro-interactionist tradition of organisational learning, giving credit to Peirce for introducing "a social element into theories on the mind of the individual" (Gherardi and Nicolini, 2001, p. 41). Peirce emphasises that thinking occurs within a community and that truth and objectivity grow from social practices that become sedimented over time. Dewey, on the other hand, is acknowledged for his "critique of the doctrine of 'rational man'" and its influences on Blumer's symbolic interactionist approach; a trajectory is drawn from Peirce's social theory of the mind, to Mead's sociology of thought, to Blumer's symbolic interactionist approach (influenced by Dewey). Dewey's work finds important recognition also in Cook and Brown's (1999) article 'Bridging epistemologies: The generative dance between organizational knowledge and organizational knowing', in which they discuss Dewey's concept of *productive inquiry* as "an essential element" of an epistemology of practice. In carving out the distinction between knowledge and knowing, they emphasise the pragmatists' contribution in shifting our theoretical focus from merely abstract concepts to concrete action. Arguing that pragmatism has often been reduced by organisation scholars in its application to educational settings, they suggest that "a new look at the Pragmatist perspective can yield very important and timely implications for organizations of all sort" (1999, p. 387).

Revealing interesting common ground (even though unintendedly as it seems) between pragmatism and activity theory, are Paavola and Hakkarainen (2005a). Elaborating on 'The Knowledge Creation Metaphor', they develop what they call a "triological approach." This approach is introduced as a complementary view on learning as a process of knowledge

creation that integrates the monological (knowledge acquisition by individual learner) as well as the dialogical approach (learning through participation in communal practices). The triological approach is seen a mediated process within which “common objects of activity are developed collaboratively” (2005a, p. 535). In dwelling on the acquisition and participation metaphor of learning and identifying a need to go beyond those two, their work echos Elkjaer’s argument for a “third way” of organisational learning. Although it is important to note that Paavola and Hakkarainen do not share an organisational focus but are concerned more broadly with a theory of learning that addresses the changing needs of our knowledge society. Both Elkjaer and Paavola/Hakkarainen refer to Sfard’s (1998) article ‘On Two Metaphors for Learning and the Dangers of Choosing Just One’, published in *Educational Researcher*, as a point of departure. As opposed to Elkjaer, however, Paavola and Haakerainen do not draw upon pragmatism and the Deweyan concepts of experience and inquiry but relate their triological approach to the following three sets of theory: Carl Bereiter’s (2002) theory of knowledge building, Engeström’s (1987) theory of expansive learning and Nonaka and Takeuchi’s (1995) model of knowledge creation. In using Engeström’s work, Paavola and Hakkarainen reveal a common interest with Elkjaer in addressing the limitations of a representationalist conception of knowledge and the realist epistemology while emphasizing the role of material artefacts and co-creational processes in the study of knowledge. As Miettinen (2006, p. 390) claims: “Pragmatism and activity theory supply the most valuable intellectual resources for solving these problems.” Therefore, it is a paradox that both of them have largely been excluded from recent discussions on social practices (e.g. Baert 2003:89)” (Miettinen 2006, p. 390). Paavola and Haakarainen propose a third metaphor, the “knowledge-creation metaphor”, to indicate “a kind of individual and collective learning that goes beyond information given and advances knowledge and understanding.” Their concern is with a type of learning that places emphasis on the advancement rather than transmission of existing knowledge, be it through individual or participatory learning. This is proposed to be accomplished by the collaborative development of mediating artefacts.

Dewey has shaped the organisational learning debate with his focus on action as generating meaning; his transactional understanding of the relation between organism (read: individual)

and environment; his concept of experience as providing the means and methods of learning (interpreted by authors such as Kolb and Elkjaer); his theory of inquiry as absorbed in the works of Schön, Elkjaer, Cook and Brown; his philosophical pragmatism as “an alternative to the Cartesian perspective” (Cook and Brown, 1999); his idea of language as a tool that does not describe reality but is equally shaping and being shaped by it (as acknowledged by Czarniawska-Joerges (1991)); and a view that rejects the conception of mind and language as the “mirror of nature” (cf. Rorty).

Dewey was a prolific writer and the broad body of work he has developed over a time span of fifty years engages with subjects as diverse as philosophy, education, aesthetics, psychology, politics and public affairs and is documented on 153 pages of Milton H. Thomas's dedicated *Centennial Bibliography* (Thomas 1962). His published writings from 1882 to 1953 are pulled together in a set of 37 volumes entitled *The Collected Works of John Dewey 1882-1953*, edited by Jo Ann Boydston at the Center of Dewey Studies, Southern Illinois University Carbondale, and provide chronological access to the critical print editions of his books, articles, reviews, speeches, correspondence, and other material. The collection was published in three parts between 1969 and 1991 as *The Early Works (EW) 1882-1898*, *The Middle Works (MW) 1899-1924* and *The Later Works (LW) 1925-1953*, and since then has been established as the principle source of reference in the studies of John Dewey (Dewey Center, University of Cologne). For the purposes of this thesis, the review of Dewey's work concentrates on his later writings, in which he engages more thoroughly with the central themes of this thesis, including inquiry (Volume 8: 1933, *Essays and How We Think*, Revised Edition; Volume 12: 1938, *Logic: The Theory of Inquiry*), reflective thinking (Volume 8: 1933, *Essays and How We Think*, Revised Edition) knowledge and knowing (Volume 16: 1949-1952, *Essays, Typescripts, and Knowing and the Known*; Volume 4: 1929, *The Quest for Certainty*). To the extent that his theorising of these topics is in an important way influenced by his understanding of experience as a mental space in which the organism/environment relationship takes shape, attention is also given to his concept of experience as discussed in Volume 1: 1925, *Experience and Nature*, Volume 10: 1934, *Art as Experience* and Volume 13: 1938-1939, *Experience and Education, Freedom and Culture, Theory of*

*Valuation*, and Essays. As pointed out by Thayer (1952, p. 22) “[t]he significance of Dewey’s conception of experience as providing both the materials and methods of inquiry (especially as exhibited in the natural sciences) cannot be overemphasised.” Dewey writes:

Experience presents itself as the method and only method, for getting at nature, penetrating its secret, and wherein nature empirically disclosed (by the use of empirical method in natural science) deepens, enriches, and directs the further development of experience.

For Dewey, thus, experience is “the natural prerequisite” (Thayer 1952, p. 18) for knowing anything. Experience offers the material and means through which we are able to exercise intelligence and adjust ourselves to a world “constantly threatened with disorder” (2008a, pp. 14-15). The intellectualisation of practice may thus be understood as a way of reducing uncertainty and coping with the permanence of change. In the field of management and organisation studies Dewey’s thoughts on experience resonate with the critical, practice-theoretical approaches to the modernist conception of knowledge in which practice is conceived of as “the generative source of knowledge” (Gherardi 2009, p. 115). Further it is the Deweyan notion of experience, engrained in his philosophy of pragmatism, that would later become an important point of reference in the theorisation of learning such as in the works of Kolb (1984), Schön (1992), Elkjaer (2004; 2001), Heron (1992), Nonaka (1994), Reason (1994), and Torbert (1972).

### 2.3.1 Dewey, pragmatism and knowledge

With the explicit focus on Dewey and pragmatism as *mediating philosophy* between the Greek contrast of contemplation and action, mind and body, and their contemporary elaborations, found in the mentalism of Locke, Descartes and Kant on one hand and the relativism of Wittgenstein and Heidegger on the other, the question is how pragmatism falls on the central themes this research is concerned with, namely knowledge and knowing. It is important to note that “the character of pragmatism as a philosophy” continues to be little understood and a subject of active debate (Sleeper 2001, p. 8). From the very beginning pragmatism has provoked different views not only on some of the major issues (such as reality, truth, knowledge, etc.) but also what those major issues are. The philosophical movement, also known as *instrumentalism* or *experimentalism*, is widely seen as originating

in the work of the American philosopher and logician Charles Saunders Peirce, and “a thoroughgoing critique of the Cartesianism that dominated so much of modern philosophy” (Bernstein 2010). In a paper published in 1878 (*Popular Science Monthly*) entitled *How to Make Ideas Clear* (Houser and Kloesel, 1992, pp. 124-141) Peirce developed what later came to be known as the “principle of pragmatism” or else “the pragmatic method/maxim” (even though he did not use any of those terms in this work). The pragmatic method was understood as way of clarifying concepts (used synonymously with ideas) and hypotheses by identifying their practical consequences. Peirce (Peirce 1982b, p. 88) articulates his ideas as follows:

“Consider what effects, which might conceivably have practical bearings, we conceive the object of our conception to have. Then our conception of these effects is the whole of our conception of the object.”

The meaning of an idea was to be established by asking what difference it would make to the solution of a problem if we were to follow one idea rather than another. A clear idea, in Peirce’s view, is one that is “so apprehended that it will be recognised wherever it is met with, and so that no other will be mistaken for it.” “If it fails of this clearness,” he concludes, “it is said to be obscure.” The pragmatic method as developed by Peirce marked the departure from a view of knowledge as an impersonal fact that had dominated modern philosophy. Knowledge came to be sought “not for its own sake, but for the sake of action” (Sleeper 2001, p. 3).

Distancing themselves from a “mentality drawn to rigid absolutes” (Bernstein 2010, p. 30), Peirce and his fellow pragmatists emphasised the role of context (see also Gavin 1988), the idea of practical activity and the changing nature of reality. They tried to overcome the established dualisms between mind and body, thought and action, challenged modernity’s quest for certainty and rejected the prominent spectator theory of knowledge. Aspired was a shift in philosophy that would highlight the social character of human experience and knowledge, the self-correcting nature of all inquiry and the reciprocal relation between theory and practice. And in particular John Dewey sought to establish a philosophy that based on criticism and continuous inquiry had the power to effect change and social transformation. In his preface to the *Classic Writings of Pragmatism* Thayer (1982:vii) writes about the nature

of pragmatism:

“Pragmatism was a new essaying of Human Nature and Understanding, to use old captions for it; it was a theory of the reflective and experimental operations of intelligence in conduct responsive to needs and directed to rendering future experience increasingly malleable to human growth and satisfactions. The concentration of analysis was on the possibilities of human action in a contingent and changeful world and on the functions of thought and language as ways of discovering the world and more clearly discerning the goods attainable in it, as well as making any enjoyment of these more luminous and complete. So it is that the pragmatists achieved an authenticity of aim and expression in the practice of a venerable vocation the pursuit of which is knowledge but of a kind whose existence is its own justification.”

A first glimpse of Dewey’s philosophy is offered in his response to Lewis Mumford, who in *The Golden Day: A Study of American Experience and Culture (1926)*, portrayed pragmatism as a way of “coping with the social changes going on around us,” a philosophy that is taking on the role of “promoting acquiescence to the decline of values consequent on the Civil War and the rise of industrial and entrepreneurial capitalism” (Sleeper 2001, p. 8). Dewey, who felt his views and those of fellow pragmatist William James were utterly misrepresented in Mumford’s work, responded:

“[t]he implied idealisation of science and technology is not by way of acquiescence. It is by way of appreciation that the ideal values which dignify and give meaning to human life have themselves in the past been precarious in possession, arbitrary, accidental and monopolised in distribution, because of lack of means of control; by lack, in order words, of those agencies and instrumentalities with which natural science through technologies equips mankind. Not all who say *Ideals, Ideals*, shall enter the kingdom of the ideal, but only those shall enter who know and respects the rods that conduct to the kingdom”.

Dewey’s understanding of ontology and epistemology has taken some turns throughout his academic life, exhibiting a gradual transition “from Hegelian and neo-Kantian idealism to a philosophic naturalism” (Thayer, 1982:254). His conception of pragmatism may be seen as an attempt to transform our thinking about the nature of being and knowledge – although it is only when Dewey left Chicago for Columbia in 1904 that he started to contemplate the ontological implications of his philosophy of logic and inquiry. The works of John Dewey have been greatly influenced by the writings of William James and Charles S. Peirce.

Different from James and Peirce, however, Dewey denies any foundational function of epistemology, rejecting both James' account of "necessary truths" presented in the final chapter of his *Principles* and Peirce's conception of the foundational character of formal logic (Sleeper 2001, p. 7). The study of Peirce and in particular his essays *The Fixation of Belief* and *How We Make Our Ideas Clear* has led Dewey to appreciate the achievements of science.

### **From pragmatism to social constructivism**

Pragmatism is generally seen as a uniquely American phenomenon; a phenomenon that, people like Louis Menand argue, filled an intellectual vacuum in the aftermath of the Civil War (1861-1865), when the ethos of slave economy of the South and the advanced political and philosophical thinking of the North were dismissed or rendered irrelevant (Margolis 2003). While indeed solidly grounded in American philosophy of the early twentieth century, pragmatism is not an exclusively American conception but, as pointed out Dewey (Dewey 1931, p. 23), draws inspiration from Kant's *The Metaphysics of Moral* and his distinction between "pragmatic" and "practical." The suggestion that pragmatism is "a peculiarly American turn of thought, a glorification of *action* and the *useful*" (Thayer 1982), is rejected by Dewey:

"It is true that the theory according to Peirce's conception implies essentially a certain relation to action, to human conduct. But the role of action is that of an intermediary. In order to be able to attribute a meaning to concepts, one must be able to apply them to existence. Now it is by means of action that this application is made possible. And the modification of existence which results from this application constitutes the true meaning of concepts. Pragmatism is, therefore, far from being that glorification of action for its own sake which is regarded as peculiar characteristic of American life."

Despite such efforts of relativising the American subtext of pragmatism, the philosophical approach was met with much scepticism in Europe. Amongst its most vocal critics was Bertrand Russell, who prominently dismissed both James's attempt to clarify the pragmatist

conception of truth<sup>3</sup> and Dewey's account of experimental logic<sup>4</sup>. Against this background Richard Bernstein, in his book *The Pragmatic Turn* (2010), offers the striking suggestion that many of philosophy's most important themes of the past 150 years are, in fact, variations and developments of ideas that were prominent in the classical American pragmatists, yet obscured by the so-called analytic-continental split. Throughout its history pragmatism enjoyed changing popularity and during the 1950s drifted towards what Bernstein describes as an "all-time low." Attention started to grow again in the 1960s with the emergence of a new analytic school of philosophy defined by Quine and Sellars who put forth a revised pragmatism criticising the logical positivism dominant in the United States and Britain since the 1930. Richard Rorty further developed and widely publicised the concept of naturalised epistemology; his later work grew closer to continental philosophy and is considered relativistic by its critics. Rorty combined pragmatism about truth and other matters with a later Wittgensteinian philosophy of language which declares that meaning is a social-linguistic product, and sentences do not "link up" with the world in a correspondence relation. Rorty writes in his *Contingency, Irony and Solidarity* (1989):

Truth cannot be out there – cannot exist independently of the human mind – because sentences cannot so exist, or be out there. The world is out there, but descriptions of the world are not. Only descriptions of the world can be true or false. The world on its own – unaided by the describing activities of humans – cannot.

Pragmatism in its current form is divided into three strands: a strict analytic tradition, a more relativistic strand (in the wake of Rorty) and a form that adheres to the classic works of Peirce, James and Dewey known as "neo-classical" pragmatism (such as to be found in the works of Susan Haack). Beyond those three lines of reception, pragmatist thinking extends to the conception of knowledge underlying the philosophy of constructivism as Rorty suggests:

Constructivism is a form of pragmatism and shares with it the attitude towards knowledge and truth; and no less than pragmatism does it go against "the common urge to escape the vocabulary and practices of one's own time and find something ahistorical and necessary to

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<sup>3</sup>B. Russell, "William James' Concept of Truth," in *Philosophical Essays* (London: Longmans, Green, 1910).

<sup>4</sup>B. Russell, "Dewey's New Logic," in P.A. Schilpp, ed., *The Philosophy of Bertrand Russell* (New York: Tudor, 1939; 2nd edn. 1951).

cling to" (Rorty 1982, p. 165).

### 2.3.2 The pattern of inquiry

The notion of inquiry has been introduced in this thesis as a means of knowledge acquisition, a method of dealing with the unknown, the uncomfortable, irritative (in as far as new experiences interfere with our established systems of belief) and problematic which fuels our quest for certainty, comprehension and relief. While it is not uncertainty per se which causes unrest, it is its ambiguous nature which carries with it "the perils of evil" (Dewey 2008g). From the beginning, escape from peril has been sought in two ways: changing the self in emotion and idea by virtue of religion and philosophy, on the one hand, and changing the world through action and appropriation of the powers of nature by means of the arts on the other. Ever since the birth of Greek philosophy uncertainty and doubt have been confronted through the office of knowledge (change in personal ideas) and discovery of the "the antecedently real" (Dewey 2008g, p. 14). Inherent is a glorification of the stable and permanent at the expense of change, associated with action, that attended the formulation of an ideal of science and reason embedded in the philosophies of Plato and Aristotle. The "depreciation of action" (Dewey 2008g, p. 4) has been cultivated throughout the history of philosophy and is engrained in the continental rationalism of Descartes, the British empiricism of Locke as well in the integrative works of Kant. Inherited has been a view that human activity and the search for knowledge (inquiry) takes place within a framework and according to a logic imposed from without, or, as Rorty puts it, "a framework which can be isolated prior to the conclusion of inquiry" (Rorty 2009, p. 8). Now, Dewey does not reject the idea that inquiry, in order to reach valid conclusion, must satisfy logical requirements, but he calls attention to the state of controversy revolving around logic's ultimate subject matter and thus the question what it is all about: the necessary laws of thought, ordered relations, the processes of inference by which we attain knowledge, the formal structure of language. Given the dissension, Dewey challenges what he describes as the "autonomy of logical theory" (Dewey 1938, p. 10), which suggests independency from established systems of thought. According to him, logic, as regards to its ultimate subject-matter, is a "branch of philosophic theory" and as such subject to different views that are "determined" by a

particular philosophic doctrine. It is for this reason that Dewey tries to develop an alternative view which holds that logical forms originate in the very process of inquiry to which the form's requirements are applied. He proposes the idea of a self-corrective process of inquiry by which both its logical requirements and methods are continuously and reciprocally reassessed. Dewey articulated his ideas on logic and thought in a series of works, including *Studies in Logical Theory* (Dewey 2008c[1903]), *How We Think* (Dewey 2008d[1910]), and *Essays in Experimental Logic* (Dewey 2008e[1916]). His most elaborate work in this context is *Logic: The Theory of Inquiry* (1938). The comprehensive volume, widely considered as "one of his most difficult works" (Hickman 2003, p. 167), is dedicated to the refinement and advancement of his instrumentalist logic presented in the 1903 *Studies in Logical Theory* and the 1916 *Essays in Experimental Logic*. The position he tries to develop in this treatise is summarised as follows:

The theory, in summary form, is that all logical forms (with their characteristic properties) arise within the operation of inquiry and are concerned with control of inquiry so that it may yield warranted assertions. This conception implies much more than that logical forms are disclosed or come to light when we reflect upon processes of inquiry that are in use. Of course it means that; but it also means that the forms *originate* in operations of inquiry (Dewey 2008f, p. 13).

The method of inquiry he elaborates on was first articulated in Chapter 7 of *How We Think* (1910) in terms of "five logically distinct steps" (Dewey 2008d, p. 236), which, taken together, constitute an act of reflective thought: (i) a felt difficulty; (ii) its location and definition; (iii) suggestion of possible solution; (iv) development by reasoning of the bearings of the suggestion; (v) further observation and experiment leading to its acceptance or rejection; that is, the conclusion of belief or disbelief. By reflective thought, a term Dewey is often somewhat inaccurately said to use synonymously with inquiry, he means a (better) way of thinking that "impels to inquiry" (Dewey 2008b, p. 116) and consists in "turning a subject over in the mind and giving it serious and consecutive consideration" (Dewey 2008b, p. 113). The book was addressed to educators and as such dealt with an exposition of his ideas on instrumental logic in a way useful and applicable to classroom situations. It is worth noting that Dewey did not understand his work as a "popular" exposition or applied, easy-digestible version of his logical theory, nor did he assume any relation of precedence between the

problems people in different domains - academia, education or any other - are dealing with. For him, Rorty writes, “to write up old ideas for a new audience was to produce new ideas, new instruments for advancing the projects he was promoting” (Rorty 2008, p. ix). Dewey’s interest in education was an element of continuity in his academic life. In particular, his conception of education as “the condition of growth, the means of renewal and transmission of social experience” (Thayer, 1982:255) was determinant to his research agenda. The book was held in high esteem amongst those that came to be called “progressive” educators. In *How We Think*, as in his earlier *Essays in Experimental Logic* and his later *Logic: The Theory of Inquiry*, Dewey tries to put forward a compromising view of logic that goes beyond “a collection of rules for judging the validity of inferences” (Rorty 2008, p. xiii), allowing for undogmatic, experimental thinking, and yet is contoured by a method which improves people’s thinking and prevents logic from drifting towards an accumulation of “platitudinous maxims” (Rorty 2008, p. xiii). Put differently, Dewey tries to challenge the formalism that characterised the modern philosophic discourse on logical theory (from Descartes to Kant) by praising a particular attitude of mind (scientific, experimental) and a certain way of thinking (reflective) that occupies the middle ground between a rigid method and mere set of recommendations. It must be said that Dewey had struggled with this tension and according to Margolis “never quite reconciled his own intuition that logic must follow the actual process of human inquiry (the actual course of practical life) and his willingness to accept the settled formalism of canonical logic” (2003, p. 47). Dewey oscillates between the advancement of a logical method as a better way of thinking (derived from the generalisation of the experimental side of science) and commending an idea of logic that has merely the character of encouraging a certain way of thinking that everybody does quite naturally and which rests upon a scientific, experimental attitude of mind. In the following paragraphs, the process of reflective thinking with regards to its elementary constituents shall be studied more closely.

Broadly, reflective thinking is understood by Dewey as a method for scrutinising our beliefs and all that which builds up to it, i.e. the ground or basis for belief (Dewey 2008d). Reflection comes about as a confrontational response to a state of difficulty or perplexity and

in so far is differentiated in the writing of Dewey (2008b, p. 196) from acts of avoidance and haughtiness, where either the problematic activity is dropped or the individual considers him-/herself to be so favourably equipped with the necessary means to actually cope with the difficulty. Constituting the act of reflective thought are five successive phases, which Dewey reintroduces in his second edition of *How We Think*, published in 1933, as the “essential functions of reflective activity” (2008b, p. 199). Still later, with the publication of *Logic* in 1938, Dewey presents the process of reflective thinking as the “pattern of inquiry.” Dissected in the following are the five phases of reflective thought presented in the 1933 edition of *How We Think*. It is worth noting that Dewey makes clear that there is “nothing especially sacred about the number five” (2008b, p. 207). Rather the successive portions of reflective thought are determined by the nature of its content and may indeed lead to additional steps (such as the clarification of a sub-problem), the treatment of which either as sub-phase or distinct phase he considers to be “a matter of indifference” (2008b, p. 208).

Reflective thinking is to be differentiated from the kind of thinking that presents itself as a continuous stream of consciousness, automatic and uncontrolled. The kind of thinking that fills our waking life, the mental meandering through pictures, recollections, hopes and ideas. And, importantly, the kind of thinking that is inevitably obscure in its origin (tradition, instruction, imitation), unfounded in its content, reflective of thoughts that travel into our minds unconsciously and without any further consideration to its form of knowledge. Reflective thinking, by contrast, is centred upon a specific end, it aims at a conclusion and as such describes a path from something to something. The path is controlled by the task derived from the goal to be reached and follows what Dewey calls a “con-sequence of ideas.” That is, the formation of ideas in such a way that, successively, one grows out of and leans back on the other.

### **First phase: suggestion (ed. 1: a felt difficulty)**

Reflection begins with a felt difficulty or perplexity; a disruption of the existing order in the organism-environment relationship that challenges established beliefs and temporarily arrests the flow of action. Without such disturbance there would be no need for reflection. The nature of the situation is such that acting continues yet it assumes the form of ideas. Ideas are

possible plans of action and thus regarded by Dewey as a “vicarious, anticipatory way of acting” (2008b, p. 200). In default of suggestions, one would normally go ahead with the one idea that springs up to mind. If the response repertoire is larger, however, plans of actions require clarification as to their individual suitability to resolve the given problem. It is this inhibition of direct action which Dewey considers necessary to the “condition of hesitation and delay” that evokes thinking (2008b, p. 201).

### **Second phase: intellectualisation (ed. 1: its location and definition)**

Reflection prompts observation of the governing conditions, either by direct use of the senses or by recollection (which might bring to mind previous observations of one’s own or someone else). The observed conditions constitute the “facts of the case,” the thorough collection of which is crucial to the formulation of the problem to be solved. The importance of this phase for the settlement of the problematic situation is evident in the familiar saying that “a problem well put is half solved” (Dewey 2008f, p. 112). For Dewey there is no such thing as a ready-made problem. Otherwise, he points out, we might speak of an “assigned task,” a task similar to an arithmetic problem in math. The problem to be addressed by means of reflective thinking must be located and defined, carved out of the troubled situation in which it is engrained. Our grasp of the problem is reflected in the suitability of possible solutions. Once we have a thorough understanding of the problem at hand, its resolution will become clear: “Problem and solution stand out *completely* at the same time” (Dewey 2008b, p. 201). The problematisation of the situation, the continued reflection upon the conditions of doubt, turns the initial difficulty that disrupted the flow of action, and at first was of an emotional quality, into something intellectual.

### **Third phase: the guiding idea, hypothesis (ed. 1: suggestion of possible solution)**

The intellectualisation of the felt difficulty leads to questions about the initial idea that flashed upon us (or not) and over which we do not have any control. Reflection revolves around the functional fitness of that mental spark to solve the problem, i.e. in what way we are going to use it. Understanding of what is needed to address the problem develops with our

insight into the facts of the case. We may understand the facts of the case as the constituents of the problem, which, as they grow in density, correct, modify, and expand the original suggestion. It is by means of reflection that the suggestion or “wild guess” is turned into a “definite supposition”, a hypothesis (Dewey 2008b, p. 202). Dewey gives the example of the physician, who differentiates himself from his untrained counterpart, in the degree of control over the process of inquiry. Both may be equally puzzled by a person’s state of discomfort. But whilst the untrained character is bound to the random practice of wild guessing, hoping that the remedy that might come to mind will have the anticipated effect, the professional is expected to engage in a trained routine of careful observation, a routine that has shown to be helpful in detecting trouble and that normally demands cautious rather than decisive action on the hypothesis. Uncertainty about its capacity to effectively solve the issue, renders it a guiding idea or *working* hypothesis. Observation continues led by the provisional hypothesis in pursuit of further insight into the problem and the extent to which the new material corresponds with the situation hypothesised. With increasing accuracy in the description of the problem and a growing understanding of its solution, the initial suggestion transforms from “a *mere* possibility” into “a *tested* and, if possible, a *measured* probability” (Dewey 2008b, p. 203).

**Fourth phase: reasoning (in a narrower sense) (ed. 1: development by reasoning of the bearing of the suggestion)**

Reflecting thinking comprises the interplay of facts and ideas. Facts are gathered through observation, constitute the problem, regulate the formation of suggestions, ideas and hypotheses, and are used to test their anticipatory qualities. Ideas, on the other hand, are formed and developed in our minds. Their elaboration is effected through reasoning by which are trying to work out possible consequences of the solution (idea) entertained and discard those deemed unsuitable. Reasoning thus is an examination of a particular idea, a thought experiment, a mental engagement with the original idea, in the course of which it is brought in connection with other ideas that tests have shown to be related to it. Mathematics is taken as a prominent example by Dewey to demonstrate the scope for relating ideas to one another and improving their effectiveness without the use of observation. It is through reasoning that

an idea is transformed in its functional fitness to resolve the problem in scrutiny, and we are able to make an informed judgement. Depending on the complexity of the idea, long trains of reasoning may occur. Dewey points out that our ability to reason is influenced by the funds of knowledge we are able to draw upon; knowledge that has been accumulated through experience and special education and is reflective of the particular state of culture and science at the time of inquiry. As much as reasoning helps us to extend our knowledge, Dewey makes clear, it is dependent on what is already known and the facilities available for sharing it or making it public.

**Fifth phase: testing the hypothesis by action (ed.1: further observation and experiment leading to its acceptance or rejection)**

The act of reflective thought comes to an end with overt action. Action that takes the form of experimentation and is pursued to test a hypothesis or, as Dewey put it, “to give *experimental corroboration*, or *verification*, of the conjectural idea” (2008b, p. 205). While act of reasoning has allowed us to develop understanding of the consequences to be expected when acting upon a particular idea, the conclusions have nevertheless remained hypothetical. In some cases direct observation may suffice to corroborate an idea when conditions are present that, in their entirety, suit the demands of a hypothesis while rendering its alternatives unacceptable. In other cases, however, experiments are to be carried out. Experiments entail the deliberate arrangement of conditions in such a way that they are in accord with the requirements of an idea and make possible statements about its actual results. Depending on the level of congruence between the anticipated and actual results and the extent to which those results can be deemed exclusive, one may either accept or reject the hypothesis. Both results are illuminating; the negative for that it unveils deficiencies. Those deficiencies are instructive in guiding further observations and modifying the hypothesis, which, in turn, will either bring to light new problems or settle the situation. Once doubt has been resolved and order restored, the act of reflective thought is complete until the next feeling of difficulty ensues.

As a final remark on the process of reflective thinking it is important to note that Dewey does not view the functions of thought following one another in a set order. Instead, he emphasises the significance of each phase in driving the formation of a suggestion and their development into a guiding idea. Reflective thinking is thus a continuous process of refining understanding of the problem and its possible solution. Dewey makes clear that the elaboration of a hypothesis “does not wait” until a problem has been adequately grasped and diverted into a well-defined supposition but it may, in fact, begin somewhere in between. Dewey writes:

In conclusion, we point out that the five phases of reflection that have been described represent only in outline the indispensable traits of reflective thinking. [...] Not set rules can be laid down on such matters. The way they are managed depends upon the intellectual tact and sensitiveness of the individual (2008b, p. 207).

The process of reflective thinking has been reintroduced in Dewey’s *Logic* as a (scientific) method of inquiry; an experimental method that evolves in its own ongoing course, and within its operation gives rise to the logical forms by which we ground our claims to knowledge. It is through inquiry that we intervene in our surroundings and gain insight into the agreement between our actions and their consequences, and thus empirical support for our beliefs. The main components of the process described above have remained unchanged yet been developed into a comprehensive theory of inquiry. Inquiry is defined by Dewey as “*the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole*” (2008f, pp. 104-105). Inquiry thus proceeds from a situation of perplexity and trouble to one of clarity and order. It is the emphasis on problem solving which Smith (1978, p. 98) identifies as an important difference between Dewey and Peirce, whose historically grounded work on inquiry has influenced Dewey in his own theorisations: “Peirce aimed at “fixing” belief, whereas Dewey aimed at “fixing” the situation.” Influenced by Darwin’s theory of evolution<sup>5</sup>, Dewey considers inquiry as a means towards regaining the equilibrium in the organism/environment relationship. The pattern of

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<sup>5</sup>Dewey had been exposed to the theory of evolution through the teaching of Thomas Huxley and George Perkins during his time at the University of Vermont.

inquiry as described by Dewey rests on the assumption that irrespective of the different subject matters to which it applies and the diversity of techniques following from this, there is a common structure or pattern which is characteristic to any form of inquiry, be it in the sphere of science or common sense. The continuities he assumes are reflective of his naturalistic thinking and the firm belief that the method of scientific inquiry has application far beyond the narrow confines of science. Dewey remarks on the transferability of the scientific method:

The idea that because social phenomena do not permit the controlled variation of sets of conditions in a one-by-one series of operations, therefore the experimental method has no application at all, stands in the way of taking advantage of the experimental to the extent that it is practicable (2008f, p. 502).

One has to appreciate that for Dewey the theory of inquiry was equally a method of inquiry as a way to challenge the stubborn dualisms that he and his fellow pragmatists saw governing the modern world; the dualisms between theory and practice, science and common sense, the academy and the everyday life. In fact, Dewey believed, Schön writes, that “scientific inquiry grows out of and returns to common sense” (1992, p. 122). Differences revolve around the purpose and subject material, yet not their pattern of inquiry. The pattern is composed of five successive stages which will be outlined in full below to account for important conceptual developments that have taken place since the formulation of the process of reflecting thinking.

### **I. The indeterminate situation**

Inquiry begins with doubt, not a specific problem but a perplexing, indeterminate situation. In using the term ‘situation’ Dewey emphasises the point of contextuality which dismisses an appreciation and examination of objects or events in isolation. “In actual experience,” Dewey elaborates, “there is never any such isolated singular object or event; an object or event is always a special part, phase, or aspect, of an enviroing experienced world - a situation” (2008f, p. 72). It follows from this that an indeterminate situation is one in which “its constituents do not hang together” but require arrangement into a consistent or unified whole as inquiry progresses. To say that the situation is “inherently doubtful” is to say that the

“contextual whole” has these traits. This is an important aspect to acknowledge for that it means that doubt is not a mental or pathological issue that might be addressed by manipulating our state of mind, by changing our beliefs about it. It means that the existential situation in which we are caught up in is doubtful, to be engaged with and transformed during the course of inquiry. The inquirer is within the situation, he or she is in transaction with it.

## II. Institution of a problem

A central activity of inquiry is defining (and redefining) the issue at stake, the problem to be subjected to inquiry and in response to which a solution is to be found for settling the process. What follows the feeling of doubt and the evocation of inquiry, is the problematisation of the situation. “To see that the situation requires inquiry is the initial step in inquiry” (Dewey 2008f, p. 111). For that the problem does not present itself as a fixed task but is engrained in and grows out of the problematic situation, finding out what the problem actually is is of crucial importance to the course of inquiry. “To mis-take the problem involved is to cause subsequent inquiry to be irrelevant or to go astray” (Dewey 2008f, p. 112). Given the undefined nature of the problem in hand, it is subject to construction. The way a problem is conceived is determinative to solutions entertained and data taken into consideration. It is, as Dewey points out, “the criterion for relevancy and irrelevancy of hypotheses and conceptual structures” (2008f, p. 112).

Table 4: The Deweyan process of inquiry

<b>Pattern of inquiry</b>	I. The indeterminate situation	II. Institution of a problem	III. Determination of a problem solution	IV. Reasoning	V. The operational character of fact's meaning	VI. Common sense and scientific inquiry
<b>Description</b>	Pre-reflective situation	Problem is set and marks the general area of inquiry (boundaries of relevance)	Formulation of possible solutions (hypotheses or ideas)	Examination of plans of action as the meaning content of ideas (operational meaning)	Plan of action acted out, hypothesis that works is one that satisfies demands set by problematic situation	Problematic situation becomes settled

### **III. Determination of a problem solution**

A problem solution is the product of progressive inquiry which begins with the formulation of the problem itself. A statement of the problematic situation in terms of a problem has meaning only in so far, Dewey argues, “as the problem instituted has, in the very terms of its statement, reference to a possible solution” (2008f, p. 112). It is this particular quality of the problem definition that gives rise to a process in the course of which a “genuine problem” is then being determined and its solution developed. He remarks: “If we assume a, prematurely, that the problem involved is definite and clear, subsequent inquiry proceeds on the wrong track” (2008f, p. 112). In order to ensure the generation of possible solution, we ought to have, Dewey argues, some form control over the formation of that genuine problem. His point of departure rests in the the assumption that “no situation which is *completely* indeterminate can possibly be converted into a problem having definite constituents” (2008f, p. 112). The task therefore is to identify the constituents of the situation that may be regarded as settled, or if not settled, are observable. These observed conditions taken together constitute “the facts of the case,” which, in turn, define the terms of the problem to be accounted for in the any solution offered. A possible solution presents itself as an idea and grows out of the factual conditions gathered through observation. Ideas are defined as “anticipated consequences (forecasts) of what will happen when certain operations are executed under and with respect to observed conditions” (2008f, p. 113). They further function to direct observation and ascertaining relevant facts (2008f, p. 114). As pointed out by Dewey, ideas originate as a suggestion and only become an idea in the course of examination of their functional fitness to solve the problem. The progressive nature of inquiry implies that ideas become more refined as understanding of the problem develops. A final point to be made is that because ideas are concerned with some future state of affairs, not present in given existence, their meanings are to be embodied in some kind of symbol. “Without some kind of symbol: no idea; a meaning that is completely disembodied can not be entertained or used” (2008f, p. 114). It is through correspondence with existence as the support and vehicle of meaning, which in itself is a symbol instead merely a physical presence, that ideas are investigable and capable of development.

#### **IV. Reasoning**

Ideas, effectively, are plans of action or proposals for the possible solution of a given problem. Reasoning, in turn, is an examination of those plans which allows “to appraise better than we were at the outset, the pertinency and weight of the [idea’s] meaning now entertained with respect to its functional capacity” (Dewey 2008f, p. 114). The meaning of an idea is established in the course of ratiocination and by the use of symbols. Reasoning, Dewey holds, is a necessary step for that the immediate acceptance of ideas would otherwise render the process of inquiry cut short and its conclusions ungrounded; one might well arrive at a workable solution, the finding, however, would provide no evidential material. The meaning of an idea is developed through examination which involves, Dewey writes, “noting what the meaning in question implies in relation to other meanings in the system of which it is a member” (2008f, p. 115). The resultant relation constitutes a proposition of the form that within a particular system of meanings, the acceptance of one relation of meanings commits us to the acceptance of other relations of meanings. Meaning typically evolves through a series of “intermediate meanings” until it reaches a level that it may guide operations to examine its applicability by means of experiment. In simple terms we may understand the meaning of an idea is a plan to act in a certain way.

#### **V. The operational character of fact’s meaning**

An experiment is the plan of action acted out, a final test of an idea’s meaning by means of overt action. It is in the course of experiment that facts and ideas gain operative force. Facts have been discussed thus far as the “observed facts of the case”. For a better understanding of the Deweyan notion of “fact” one has to look at its philosophical underpinnings. The meaning of fact has traditionally been interpreted in two ways, either from an idealist (Aristotelian) or a realist (Platonic) position. While the former holds that reality is dependent on the activity of mind, the latter argues for the contrary that reality is mind-independent, i.e. universals thus have their own reality. Trying to find some middle ground, Dewey took account of both positions. He accepted the idealist notion that facts are constructed, yet

rejected the idea that they entirely mind-dependent; while with the realist he shared the belief that there are aspects of our environment stubborn and unavoidable, yet argued that they only become meaningful within the operation of inquiry (Hickman 2003, p. 159). Facts, for Dewey, are tools employed in the process of re-balancing the interactions of organism and environment, they are “facts of a case.” Elsewhere Dewey writes on the meaning of facts:

Many persons seems to suppose that facts carry their meaning along with themselves on their face. Accumulate enough of them, and their interpretation stares out at you. The development of physical science is thought to confirm the idea. But the power of physical facts to coerce belief does not reside in the bare phenomena. It proceeds from method, from the technique of research and calculation. No one is ever forced by just the collection of facts to accept a particular theory of their meaning, as long as one retains intact some other doctrine by which he can marshal them. Only when the facts are allowed free play for the suggestion of new points of view is any significant conversation of conviction as to the meaning possible. Take away from physical science its laboratory apparatus and its mathematical technique, and the human imagination might run wild in its theories of interpretation even if we suppose the brute facts to remain the same (Dewey 1998, p. 281).

The observed facts of the case are in relation with the ideas entertained for the solution of a given problem. Their relation is of such form that the facts of the case clarify the problem ideas, in turn, are meant to address. Dewey characterises both parts as the “functional divisions in the work of inquiry” (2008f, p. 116). Their relation, however, is not straightforward for that it requires the cooperation of existential matter (observed facts of the case) with the ideational content expressed in ideas. As pointed out by Dewey, the problem is unsolvable unless both observed facts and ideas are treated as operational. On the operational character of ideas Dewey remarks: “Ideas are operational in that they instigate and direct further operations of observations; they are proposal and plans for acting upon existing conditions to bring new facts to light and to organise all the selected facts into a coherent whole” (2008f, p. 116). Facts, on the other hand, are considered operational in so far as they are subject to arrangement. As stressed by Dewey, “they are not self-sufficient and complete in themselves” (2008f, p. 116) but rather gathered, selected and organised for a particular purpose. That purpose is the construction of a problem in such a way that its material both indicates a possible solution and serves to test its worth and validity. The facts of the case are therefore “to serve as evidence and their evidential quality is judged on the basis of their

capacity to form an ordered whole in response to operations prescribed by the ideas they occasion and support” (2008f, p. 117). In the course of inquiry facts are being worked upon. Those initially observed point to a possible solution or idea, the idea prompts further observations, which generates new facts. Some of the new facts will link up with those previously observed, while others, inconsistent, will be dropped. The resulting order of facts suggests a new idea (hypothesis), which, again, provokes new observation and a new order facts. The process continues “until the existing order is both unified and complete” (Dewey, 2008[1938]:112). It is important to note that the new facts generated in the course of inquiry are what Dewey calls “trial facts” or provisional facts. “They are tested or “proved” with respect to their evidential function just as much as ideas (hypotheses) are tested with reference to their power to exercise the function of resolution” (2008f, p. 117). A hypothesis that “works”, to conclude this part, is one that has shown, within the course of overt activity (experiment), that it satisfies the demands set by the troubled situation.

## **VI. Common sense and scientific inquiry**

Different from the five logical steps of reflective thought presented in *How We Think*, the pattern of inquiry as laid out in *Logic* includes a sixth section, entitled “Common Sense and Scientific Inquiry.” In here, Dewey breaks up the “community of pattern” to discuss the distinctly different modes of inquiry captured in the section title. Importantly, for Dewey the difference between them does not reside in the underlying, basic logical forms and relations but in the actual subject-matter being dealt with. Differences in the subject-matter arise from the particular problem to be solved, which, in turn, defines the particular ends inquiry is set up to achieve. While scientific inquiry has as its goal the generation of knowledge, common sense inquiries are undertaken for behavioural adjustments in common sense environment, i.e. an environment in which human beings are “*directly* involved” and confronted with “problems of the use and enjoyment of the objects, activities and products, material and ideological, (or ‘ideal’) of the world in which individuals live.” The product of inquiry, in both case, is knowledge or what Dewey calls a “warranted assertion.” The state of warranted assertibility marks the settlement of a problematic situation and the conclusion of inquiry.

### **Inquiry concluded and warranted assertion**

In his account of Dewey's pattern of inquiry, Thayer offers a variation of Dewey's six phase, bringing structural closure to it. Acknowledging his efforts, allows to finish this section with a more dedicated look at the Deweyan notion of "warranted assertibility". Concerned is the end of inquiry, which, by implication, demands the presence of conditions which will effectively have led to the resolution of doubt. It is a state that one may conventionally refer to as belief (cf. Peirce 1982b) or knowledge. Dewey, however, considered those terms "inadvisable" for that they came along with certain ambiguities. Belief, although appropriate in as far as it denotes the settled condition which ends inquiry, may either be used indeed "*objectively* to name what is believed", to name "the settled condition of objective subject-matter", and thus a state of affairs so settled that one is willing to act upon it (Dewey 2008f, p. 15); or it may be used in a colloquial sense, in which case belief simply denotes a personal matter or a state of mind. The lack of clarity leads Dewey to reject the term. Knowledge, on the other hand, is equally useable as a term to designate the close of inquiry, yet it also has its flaws. As an abstract term, it is simply the name of a product of competent inquiry; a truism in that knowledge, by definition, is the "appropriate close of inquiry" (Dewey 2008f, p. 15). As a specific term, by contrast, knowledge escapes its dedicated purpose for that "knowledge in particular can be instituted apart from its being the consummation of inquiry" (Dewey 2008f, p. 16). While disqualifying the term "knowledge" for denoting that which ends inquiry, Dewey calls attention to the general conception of knowledge (formulated as the outcome of controlled inquiry) for what it says about the meaning of inquiry itself: inquiry is of a continuous nature. As settled as a situation may seem at the end of inquiry, there is no guarantee for the permanence of that settled conclusion. Dewey writes: "The attainment of settled beliefs is a progressive matter; there is no belief so settled as not to be exposed to further inquiry." The general meaning of knowledge eventually evolves through the continued process of inquiry. In rejection of both terms, belief and knowledge, Dewey resorts to the term "warranted assertion." A term that Thayer defines as follows:

A warranted assertion is a statement, or formulation, of that plan and action which have brought inquiry to a close. The statement, belief, assertion, etc., is *warranted* only as it is the

outcome, the product of inquiry. Inquiry is the condition which warrants assertions, beliefs, etc. What is ordinarily called a “true statement,” Dewey calls a *warranted assertion* (Thayer 1952, p. 64).

The Deweyan theory of truth, accordingly, is one that describes the existential conditions and methods that have lead to those warranted assertions. Dewey, however, called his theory of truth a “correspondence theory”. The term is misleading in as far as it resonates with Bertrand Russell’s correspondence theory of truth, which holds that truth is a state of correspondence to a fact, the alleged relation between a “subject” and an “object”. Dewey, by contrast, uses the term in the sense of “answering”, just as, Thayer illustrates, “a key answers to conditions imposed by a lock” (1952, p. 65). According to his theory, a hypothesis may thus be regarded as warranted (true), when the solution contained answers to the requirements set by a problem: “that which is asserted as warranted is that which, by means of inquiry, constitutes a *response* to those conditions of a problematic situation in a way that settles, unifies, and resolves them, and is, thereby, a solution to the original difficulty” (Thayer 1952, p. 65).

## 2.4 Conceptions of the social

In a variety of disciplines, including management and organisation studies, the focus of inquiry has shifted over the last decades from the individual to the collective; a transition that is commonly referred to in the literature as the “social turn” (Latour 2005; Latour 1992). Indicated is a movement away from the behaviourism of the early twentieth century and the mid-twentieth century cognitivism to the social-interactive perspective that gathered momentum in the second half of last century (Gee 1999). Notwithstanding the growing interest in the social of human activity, Latour calls attention to the often cursory use of the adjective “social”. The subject of concern is exhibited in his introductory section of *Reassembling the Social*:

The argument of this book can be stated very simply: when social scientists add the adjective 'social' to some phenomenon, they designate a stabilised state of affairs, a bundle of ties that, later, may be mobilised to account for some other phenomenon. There is nothing wrong with

this use of the word as long as it designates what is already assembled together, without making any superfluous assumption about the nature of what is assembled. Problems arise, however, when 'social' begins to mean a type of material, as if the adjective was roughly comparable to other terms like 'wooden', 'steely', 'biological', 'economical', 'mental', 'organisational', or linguistic'. At that point, the meaning of the word breaks down since it now designates two entirely different things: first, a movement during a process of assembling; and second, a specific type of ingredient that is supposed to differ from other materials (Latour 2005, p. 1).

Dewey dedicated significant passages of his *Logic* to the influence of the social on inquiry and the establishment of logic as a social discipline. The embeddedness of inquiry and knowledge formation in a social context has been accounted for by Dewey, and earlier by Charles Peirce, in terms of the concept of “community”. Peirce used the term, in conjunction with term “inquiry”, to refer to “a group of individuals (most often scientists) employing an interpersonal method for arriving at results” (Pardales and Girod, 2006, p. 301). His idea of a community of inquiry was originally proposed as an alternative view to the Cartesian model of science and thus the conception of ideas and knowledge as products of the independent “thinking self” (Peirce 1955). Peirce, however, believed that we come to know the world through a “communal and pluralistic community of inquirers” (Pardales and Girod, 2006, p. 301). Unified in their acceptance of a scientific method of inquiry, people come together “to serve as a jury to ideas and hypothesis” (Pardales and Girod, 2006, p. 301). Claims to knowledge are no longer grounded in the individual consciousness but within and according to the standards of the community of inquiry. It is in this sense that every individual researcher may be regarded a member of a community of inquiry (a research community) to which he or she is related on the basis of their use of accepted methods of inquiry and their commitment to a particular problem situation (Pardales and Girod, 2006): “All inquiry [whether common sense or scientific] proceeds within a cultural matrix which is ultimately determined by the nature of social relations” (2008f, p. 481).

According to Dewey communities of inquiry are formed by commitment to the results of previous inquiries, i.e. inquiries which were submitted to the same conditions or postulates (such as logical forms) and whose results are therefore binding in a contractual fashion. That

is, a form of agreement whereby different parties are bound to each other on the basis of the consequences of their actions. Communities of inquiry, as opposed to other conceptualisations of community, are formed around a problematic situation; a situation that evokes reflection and the intellectualisation of a problem. Shared by those engaging in inquiry is what Dewey calls a “scientific attitude of mind.” It is an attitude which Dewey does not consider to be reserved exclusively for scientists but finds to be inherent in the “native and unspoiled attitude of childhood, marked by ardent curiosity, fertile imagination, and love of experimental inquiry” (Dewey 2008d, p. 179). The idea of communities of inquiry is a popular concept across different disciplines. It finds recognition, amongst others, in the seminal work by education theorist Matthew Lipman (2003) and his application of the concept to the classroom, the learning literature of Donald Schön (1992, p. 133) and his conceptualisation of “reflective teaching”, or in the field of public administration by Patricia Shield’s (2003) and her elaborations on communities of inquiry as a form of participatory democracy. There is, however, an issue with the somewhat ambiguous use of the term “community” in as far as no difference seems to be made between forms of individual versus forms of collective inquiry. Both obviously proceed within a cultural matrix, which Cornford (2009, p. 45) specifies as “the inalienable and ineradicable framework of conceptions which is not of our own making, but given to us ready-made by society--a whole apparatus of concepts and categories, within which and by which individual thinking, however daring and original, is compelled to move.” However, and as pointed out by Thayer, despite Dewey’s concern with the “inherently social” (Schön 1992, p. 122) of inquiry, his theory is often characterised as “a biological account of how human beings adjust themselves to a changing and precarious world” (Thayer 1952, p. 75). A view that is not wholly unwarranted given Dewey’s naturalistic understanding of the formation of thought and knowledge. Now, communities of inquiry may indeed come in different forms: teachers and their pupils may form one in the classroom while pondering over a specific problem, police officers may form one in the course of an investigation, policy-makers may form one when deliberating new laws and regulations, and indeed architects may form one when developing new designs. The argument here is, however, that one needs to confront what Schön describes as “the ontological differences in our way of seeing situations and construing them as problematic or not” (1992, p. 123); differences that become all the more apparent in the context of collective

or collaborative inquiry, where people not only commit themselves to accepted methods and results but also evaluate and negotiate the actual subject material and their treatment.

## 2.5 Summary

At the heart of this research is the study of inquiry as the collaborative transformation of an "indeterminate situation" into a "determinate" one, the progressive development of a problem and its possible solution, the construction of knowledge through processes of collaborative inquiry, the engagement with a "problematic situation". It corresponds with the growing interest observed by Easterby-Smith in organisational knowledge creation and its underlying social processes, and responds to Simpson's claim that processes of novelty-emergence and knowledge creation largely remain an enigma. It is pointed out by Dewey<sup>6</sup> (1938, p. 24) that the method by which development occurs is something to be determined by the "study of what actually occurs." It is not to be determined by "prior conceptual constructions," even though such constructions, he acknowledges, may be "helpful as hypotheses when they are used to direct observation and experimentation." It is in this vein that the empirical work has been approached. That is, understanding of the process of knowledge creation was sought to be gained by studying what actually occurs, by turning inquiry (as means of knowledge creation) back on itself and explore the process of inquiry through inquiry. The Deweyan theory has been drawn upon as as a helpful working hypothesis to guide the empirical observations.

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<sup>6</sup>The method of development is discussed in Dewey's (1938, p. 23) elaborations on the meaning of continuity as "primary postulate of a naturalistic theory of logic." According to Dewey continuity is expressed in the growth of any living organism from seed to maturity.

# Chapter 3

## Methodology

### 3.1 Philosophical orientation

The dilemma of philosophy manifests in a seemingly irresolvable disagreement in thinking about 'being' and 'knowing'. In his book *Pragmatism: A New Name for an Old Way of Thinking*, published in 1907, the American philosopher and kindred spirit of Dewey, William James writes that “the history of philosophy is to a great extent that of a certain clash of human temperaments”, wherein the stereotypes of tough and tender minded quarrel for the prerogative of interpretation. Notwithstanding this, academic practice demands clarity as to the applied system of thought, the "philosophic prepossessions" as Dewey termed them, that define the researcher's interpretative perspective on the subject-matters of existence (including our own) and how we can know about them. Different views have found expression in the philosophic systems of idealism or realism, rationalism or empiricism, dualism or monism, atomistic or organic metaphysics, or indeed some other conception. The concern of this chapter is therefore with the fundamental assumptions and beliefs underlying this research and how they shape its nature, scope and methodology.

## 3.2 Researching processes of inquiry

In scrutiny here is the process of inquiry as it unfolds in the practice of architectural planning and design. Taking as a point of departure the Deweyan position that “knowledge, as an abstract term, is a name for the product of competent inquiries” (Dewey 2008f, p. 16), the study asks how knowledge is actually produced in virtue of what Dewey calls “competent inquiry.” It is to be emphasised that the position taken by Dewey rests on a particular understanding of the meaning of knowledge. Two different views are opposed: one that holds that every special case of knowledge is indeed the “outcome of some special inquiry,” with the conception of knowledge being “a generalisation of the properties discovered to belong to conclusions which are outcomes of inquiry,” and one that holds, in contrast to Dewey, that knowledge has a meaning of its own, “apart from connection with and reference to inquiry” (Dewey 2008f, p. 15). In the absence of a univocal conception of what knowledge really is, the interpretation of forms arising out of the material of everyday experience inevitably varies with the ontological and epistemological assumptions made. And while forms, as Dewey suggests, are well “capable of ‘independent’ discussion and development”, the state of independence is “intermediate, not final and complete” (Dewey 2008f, p. 107). According to him “[t]he general character of knowledge as an abstract term is determined by the nature of the methods used, not vice-versa” (Dewey 2008f, p. 19).

If we are to assume, in agreement with Dewey, that the way people think as opposed to how they “ought” to think is indeed reflective of the way in which inquiry has been carried out at a certain point in time (rather than the extent to which emphasis has been placed on the psychological over the logical) and yet different ways of thinking emerge within the same process of inquiry, then certainly questions arise about the constituting practices sought to be investigated in this thesis. The study of the process of inquiry has been accomplished by observing the transformation of the materials constituting an indeterminate situation into a residential masterplan, a product of design. Inquiry is thereby understood as the basic operation through which new possibilities are being explored and forms are taking shape. It is

by and with inquiry that experiential matter is assumed to be transformed and the content and character of knowledge is determined. Employed as means in the course of transition, consultation (both statutory and non-statutory) has formed a central component in the masterplanning activities and received primary empirical attention. Consultation is understood as an important mechanism of participatory practice, deliberation and collaborative inquiry that allows to be studied by reference to the discourses and representational artefacts it produces (such as sketches, drawings, presentations, etc.) and employs as means of transition. The materials of investigation are the questions, negotiations and clarification of expectations, designs and built possibilities.

It is worth emphasising that in its singularity this research resembles the characteristics of Heraclitus' river. To the extent that its water is constantly in the flow and never the same, it cannot be stepped in twice (Strati 2000, p. 77). Similarly, the episode of inquiry reported on here cannot be known twice. The uniqueness of the situation both in terms of its constituting elements (time, space, content) and their perception renders its replication impossible. Documented is not some external reality but are interpretations of fragments of human interaction in the course of inquiry as applied in the context of masterplanning.

### 3.3 The empirical concept

Against the background of the ontological and epistemological positioning of this thesis, and thus its fundamental assumptions, the following section is designed to elaborate on the research question introduced in Chapter 1 and the methodological implications that have led to the empirical concept of this study.

#### 3.3.1 Research Design

Through our assumptions and choice of method we create the world we later come to discover

(Cooperrider and Srivastva, 1987).

In its bearing on the nature, conditions and course of inquiry, the design of research is understood to be constitutive. It sets bounds to the research projects, pre-defines – though with varying degrees of flexibility – its path and, eventually, determines the spectrum of potential answers. The determinative character of research is recognised in the philosophies of both pragmatism and scepticism, which assert that “the experimenter is a causal agent of the sequence of events created, and that conjunctions of events are not provided for us but created by us” (Knorr-Cetina 1981). Abstracting from Weick one may argue that researchers study the worlds of their own making which in turn act back on them. Hence decisions along the research process are fateful acts.

The purpose of the following sections is to elucidate the research design of this thesis and connect the theoretical framework with the empirical inquiry subject to this study. It seeks to elaborate on the question motivating this research and how answers are intended to be found. To this end, the chapter will loosely be structured around and address five methodological concerns formulated by Denzin and Lincoln (2011, p. 243): (a) How will the research design connect to the paradigm or perspective being used? (b) How will the empirical material allow the researcher to speak to the problems of praxis and change? (c) Who or what will be studied? (d) What strategies of inquiry will be used? (e) What methods or research tools for collecting and analysing empirical materials will be utilised?

### **Paradigmatic transformations in the social sciences**

In order to be able to appreciate the particular approach to the study and interpretation of inquiry adopted in this thesis, clarity is to be established on the set of core assumptions underlying this work and thus the specific research paradigm upon which this research is based. A *paradigm* is defined by Denzin and Lincoln (2011, p. 91) as “a basic set of beliefs that guide action.” It is to be differentiated from the term *perspectives* with which it may share certain elements such as common methodological assumptions, though contrary to paradigms, perspectives are considered less solidified and unified (Denzin, and Lincoln 2011,

p. 91). A paradigm constitutes the researcher's worldview and as such sets out his or her fundamental assumptions and basic beliefs without making any claims to their ultimate truthfulness. The formulation of paradigms tends to comprise four areas of contemplation: ethics, ontology, epistemology and methodology. In the realm of social science research four paradigms, as identified by Guba and Lincoln (1994), have traditionally been competing for legitimacy and primacy in guiding and informing inquiry. Those four paradigms are: positivism, post-positivism, critical theories and constructivism (see Table 5). A fifth paradigm, as proposed by Heron and Reason (1997), had later been added, referred to as participatory. Given the suggested roots of constructivism in the themes and thinking of classic pragmatism, pragmatism has been placed aside constructivism as a sixth paradigm. As general belief system, pragmatism finds recognition, for instance, in the works of Maxcy (2003) and Morgan (2007), where it is being heralded for its potential capacity to overcome the established dualisms between quantitative and qualitative research (see also Patton 2002). The pragmatic approach centres around abductive reasoning (moving back and forth between induction and deduction in rejection of any claims to exclusivity), a relationship between the researcher and the research process that is based on intersubjectivity (adopting some middle ground between "complete objectivity" and complete subjectivity") and, finally, the idea of transferability which holds, as formulated by Morgan, that "we cannot simply assume that our methods and our approach to research makes our results either context-bound or generalizable; instead, we need to investigate the factors that affect whether the knowledge we gain can be transferred to other settings" (2007, p. 72). It is the pragmatic paradigm that has guided this research. Its appeal lies in the underlying philosophical attempt of "settling metaphysical disputes that otherwise might be interminable," such as "is the world one or many?-fated or free?-material or spiritual?" (James 2000, p. 25). And since either of these notions may or may not be true, with not position of finality to be attainable, "disputes over [them] are unending" (James 2000, p. 25). It is important to stress that pragmatism is not employed in this work as a form of ultimate deliverance from the constraints of a seemingly unsolvable situation, a "deus ex machina philosophy." Yet it is appreciated as an undogmatic, commonsensical, and progress-oriented approach to the (social) sciences that positions itself against the theories of both foundationalism and scepticism and refuses to solve problems such as the nature of truth and accuracy of representation which, authors like Rorty (2009)

argue, have evolved into philosophical disputes that defy solution. Contrary to the theories promoted by modern philosophy, pragmatism no longer seeks to construct some abstract and timeless intellectual schema but instead places emphasis on practice and an “honest” examination of experience arguably more in line with the humanist tradition of Montaigne and Bacon (Toulmin 1992, p. 70). The premise of pragmatism is that meaning evolves through the practical consequences of an action and cannot be determined a priori, in advance of experience.

A contemporary pragmatist paradigm as practiced, though not necessarily claimed, by scholars like Rorty enforces two commitments: the first is to linguistic priority, which means the scrutinising of the role of language in our conceptualisations of the world and the human being within it, and the second is to anti-representationalism, which implies the rejection of the idea of mind as “the mirror of nature” (Rorty 2009) and thus the conception of knowledge as an accurate representation of some external reality. Language, alongside other artefacts (such as technologies, texts and structural arrangements) are viewed as communicative tools and knowledge the result of argument and discussion. Emphasis is placed in this thesis on a linguistic relativism that takes account of localised methods and meanings (Hassard 1999). The methods suggested for this study resonate with an ethnographic approach and are disposed to deploy the linguistic practices (interpretative discourses), behaviours and artefacts produced by individuals and their environments. In order to investigate the processes of labelling, transforming and organising of experiences, the focus is placed on an episode of inquiry as a unit of analysis unfolding in time and space.

Table 5: Basic beliefs of alternative inquiry paradigms

<b>Item</b>	<b>Positivism</b>	<b>Post-positivism</b>	<b>Critical theories</b>	<b>Pragmatism*</b>	<b>Con-structivism</b>	<b>Participatory**</b>
Ontology	Naive realism--“real” reality but apprehensible	Critical realism--“real” reality but only imperfectly and probabilistically apprehensible	Historical realism--virtual reality shaped by social, political, cultural, economic, ethnic, and gender values; crystallised over time	Not committed to one system of philosophy or reality; focus on ‘what’ and ‘how’ of research question	Relativism--local and specific co-constructed realities	Participative reality--subjective-objective reality, co-created by mind and given cosmos

Epistemology	Dualist/ objectivist; findings true	Modified dualist/ objectivist; critical tradition/ community; findings probably true	Transactional/ subjectivist; value- mediated findings	Transactional/ inter- subjectivist; warranted assertions established from consequences of action	Transactional/ subjectivist; co-created findings	Critical subjectivity in participatory transaction with cosmos; extended epistemology of experiential, propositional, and practical knowing; co- created findings
Methodology	Experimental/ manipulative; verification of hypotheses; chiefly quantitative methods	Modified experimental/ manipulative; critical multiplism; falsification of hypotheses; may include qualitative methods	Dialogic/ dialectical	Problem- centred; method(s) determined by question and purpose of research	Hermeneutical /dialectical; contextual factors are described; primarily qualitative	Political participation in collaborative action inquiry; primacy of the practical; use of language grounded in shared experiential context
Ethics	Extrinsic	Extrinsic	Intrinsic	Intrinsic	Intrinsic	Intrinsic
← Paradigm continuum →						

Source: (Lincoln et al., 2011, p. 100)

\* Entries in this column are based on Morgan (2007) as well as Mackenzie and Knipe (2006)

\*\* Entries in this column are based on Heron and Reason (1997)

This research falls into the realm of anti-foundationalist projects and is sympathetic to the micro-interactionist approach to the study of inquiry and knowledge. It is set against a naturalistic agenda, where detailed descriptions of the social worlds rather than their fabrication is of interest (Gubrium and Holstein, 2000). This research is based on an anthropological research mode and seeks to probe into the diverse processes and activities through which inquiry is effected, and in the course of which knowledge is expected to be constructed and sedimented into material forms.

### 3.3.2 The point of query

The question guiding this research reads as follows: How does a process of collaborative

inquiry shape the evolution knowledge and material forms? Its main area of concern: the construction of knowledge as the product of collaborative inquiry. It also has a sub-set of questions: What is the material (or subject-matter) that is subjected to inquiry? What is being transformed? How is a client's brief translated into a masterplan?

Table 6: Development of research of focus and questions

	<b>2008</b>	<b>2009</b>	<b>2010/11</b>
<b>Empirical Work</b>	Scoping research area; searching potential research sites	Negotiating access; starting fieldwork in the second half of 2009	Continuing fieldwork in the first quarter of 2010.
<b>Research question</b>	Original question: How can/do language and behaviour order objects to create truth and knowledge that guide organisational development?	Modification 1: How do the various actors involved in the design process move towards a sharing of appreciations and the formation of collective 'design worlds'?	Modification 2: How do processes of collaborative inquiry shape the evolution knowledge and artefactual forms?
<b>Theoretical focus</b>	Develop an knowledge and understanding of the complex process of labelling, transforming and organising experience which dictates organisational behaviour.	Develop knowledge and understanding of the learning processes that take place across conventional organisational boundaries within a field of co-operation and mutual influence.	Develop knowledge and understanding of the construction of knowledge through processes of collaborative inquiry.
<b>Overarching theme</b>	The construction of knowledge		

The initial fieldwork had given rise to different thematic groups which provided valuable points of departure for further examination. Those groups included: (i) the foundations of knowledge, specifically with an emphasis on the nature of and claims to specialised knowledge constituting the architectural profession; (ii) knowledge processes and relationships, addressing the question what types of knowledge are being transferred along the architectural design process, how and between whom? (iii) the formation and sensemaking of the design process, centring on the question how do project members develop a shared process of meaning-making that helps to construct social meanings and create frameworks of understanding within which to act? (iv) irrational processes, tapping on aspects of covert politics (the social field of hidden alliances, pressure groups and power influences operating in the design process) and the significance of basic assumptions (hidden motives and assumptions projected into words, works and creations; processes which affect

the design task by functioning outside the awareness of the participating actors/groups). Guiding the development of those thematic groups was the question how the inherent themes might relate to each other, and above that inform the process of inquiry.

### 3.3.3 The case of architectural designing

Dewey is a common reference in the design discipline and linkages between his theory of inquiry and the practice of design are rather established. An insightful discussion of Dewey in the context of design is offered by Donald Schön. He justifies his choice of empirical context as follows:

I dwell on designing for two reasons. First of all, designing, in the narrower sense proper to the design professions, offers a vivid way of understanding what Dewey meant by transactional inquiry--inquiry shaping and then shaped by a problematic situation, "institut[ing] new environing conditions that occasion new problems." Second, designing in its broader sense constitutes the core of practice in all professions, occupations, and everyday living. As Herbert Simon (1996) has taught us, practitioners are of necessity designers; the production of artefacts--a manager's policy, a lawyer's brief, a physician's diagnosis--is essential to their business. Hence, an epistemology of practice must be an epistemology of designing (Schön 1992, p. 127).

The case of architecture is of particular interest for several reasons. First, architecture is a profession and as such claims the possession of distinct skills and knowledge. Architecture can be subsumed under the group of knowledge intense firms and its *raison d'être* is dependent on the maintenance and development of specialised knowledge. Over the last twenty years, British architecture has been subject to substantial changes, including changes in the construction industry, in technology, in the role of the profession and the debate over design philosophies (Symes et al. 1996). Hence, the ability to reflect, learn and generate new knowledge is vital to the success of architectural practices and understanding its constitutive process arguably helps to systematically expand the firms intellectual property.

Architecture or the shaping of the built environment is a knowledge- and communication-intensive business. An activity which brings together an eclectic group of people from

different spheres and with different funds of knowledge and experience. Architectural masterplanning is no exception but "a process that involves many disciplines, all of which must work closely together to achieve the best results" (The Scottish Government, 2008). If we are to understand inquiry as the systematic searching, hunting, looking for material that will resolve a doubtful or problematic situation, then the architectural design process may well be conceived as a process of inquiry. It is therefore surprising that despite the significance of knowledge creation and learning for the existence of the architectural profession, profound changes in the architectural practice and competitive field over the last three decades, and a growing concern about the exploitation of intellectual properties, architecture has been left largely unexplored as an empirical site within the management realm. With great effort devoted to the exploration of knowledge intensive industries such as law, accounting and consultancy, architecture has remained comparatively unattended. Three domains of architectural research are differentiated: architectural processes, architectural products and architectural performance (RIBA). This research focuses on the first domain, which, beyond issues of representation, theories of design, and modelling of environments, provides a space for the study of social constructions at play and thus serves as unit of analysis.

As it is emphasised by Jenkins et al. (2007) every building is a collaborative process. Architecture firms are located in a complex network of stakeholders, including clients, (sub-)contractors, consulting services, competitors, professional associations, regulative and governmental bodies. This suggests that the locus of (organisational) learning reaches beyond the boundaries of traditional. Indeed, the declared goal of the Royal Institute of British Architects (RIBA) is "the advancement of architecture and the promotion of the acquirement of the knowledge of the various arts and sciences connected therewith."

### **Searching and selecting a research site**

A systematic, "information-oriented" (Flyvbjerg 2001, p. 79) search approach had been developed to identify suitable research partners. Their suitability was determined by the

expected value (utility) and content of information to be gained. Given that the architectural landscape was a relative unknown, a heuristic approach had been applied following loosely defined rules/search criteria. Taking account of both theoretical and practical necessities, the initial search criteria were defined as follows: degree of organisational complexity (can/do they have the resources to accommodate for a piece of intensive qualitative research), nature of practice (what is their specialism/area of expertise), design philosophy (where do they place their emphases in terms of their design work), work ethos (how important are aspects of knowledge, skills development and learning?) and overall ‘fit’ (weighting of individual factors). Beyond these, a key determinant was the location of the practice along with its resource implications. Decisions on the degree of complexity were informed by the European Commission’s definition of micro, small and medium-sized enterprises (SMEs). Two enterprise categories are being differentiated: SMEs and large businesses - although the latter term is not further specified so that by implication “large” means non-SME. Differentiating on the basis of staff headcount and financial ceilings, the category of SMEs is defined as being made up of “enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million.” Within the SME category micro and small enterprises are differentiated as follows: “[A] small enterprise is defined as an enterprise which employs fewer than 50 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 10 million. [A] micro-enterprise is defined as an enterprise which employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million” (European Commission 2003, p. 39).

Table 7: Search and selection filters

<b>Selection Filter One</b>				
<b>Theoretical determinants</b>	<b>Degree of complexity<sup>7</sup></b>	<b>Micro</b>	<b>Small</b>	<b>Medium</b>
	Staff headcount	< 10	< 50	< 250
	Annual turnover	≤ €2	≤ €10	≤ €50
	Annual balance sheet total	≤ €2	≤ €10	≤ €43
	Nature of business	Architecture, masterplanning, interior, conservation, space planning, space consultancy		

<sup>7</sup> (European Commission 2003)

	Design philosophy	An attitude towards design that emphasises the role of participatory design, deliberative practice, inclusion, and cross-disciplinarity
	Work ethos	An understanding of work that values knowledge and the ideas of knowledge exchange, learning, skills development
	Overall fit	How we do they seem to fit
Practical determinants	Location	City of Edinburgh and proximity
<b>Selection Filter Two</b>		
	Accessibility	On what level does company grant access? Research affinity? Understanding of ethnographically informed research?
	Response behaviour	How responsive is the organisations? What is their level of engagement?
	Projects	What projects are envisaged, planned and/or currently being undertaken?

A list of 47 architecture practices located in the Edinburgh area was compiled. Based on their suitability they were organised into four groups: most suitable (12) - suitable (six) - less suitable (9) - least suitable (20). Thirteen practices from the first two categories were contacted (for the introductory email see Appendix 3), three replied, and initial interviews were arranged with two. Beyond agreement on the scope, relevance and timing of the research project and the availability of suitable design projects, it was the level of interest and enthusiasm for academic research that led the Director of the Edinburgh branch of BM, an award-winning, multi-service architecture practice, to commit himself and his practice to this project. The practice was established in 1958 as an architectural practice and since then has gradually evolved into a multi-disciplinary service provider, whose activities are built around the architectural core. It has recently been ranked one of the top 20 architecture practices practices in the UK (Rank 12, AJ100 Survey, Architectural Journal, 2012) while retaining its position as one of the biggest practices in the world (Rank 57, WA100 Survey, Building Design, 2012). It capitalises on the input of over 500 employees that are dispersed over sixteen offices in the UK, Europe, the Middle East and Asia. The Edinburgh office was established in 1991 and at the time of my involvement employed a workforce of 28 people. In 2010 BM had undergone substantial organisational restructurations in the course of which the Edinburgh office was converted into a smaller scale project office serving the delivery of

local onsite project work.

The case that is being reported on here is one of an architectural design process, specifically a publicly commissioned masterplan project concerning the redevelopment of a residential estate on the western outskirts of Edinburgh.

### 3.3.4 Strategies for inquiry

The notion of research strategy is used somewhat inconsistently in the literature. While some authors like Bryman and Bell (2003, p. 25) interpret it as “a *general orientation* to the conduct of business research” (emphasis added) along the qualitative/quantitative divide that sets out how this distinction falls on aspects of ontology, epistemology and theory-building. Others, like Saunders et al. (2000, p. 92), are found to mean by it “a *general plan* of how you will go about answering the research questions(s) you have set” (emphasis added). To be clarified are the objectives (derived from the research questions), the sources from which data are intended to be collected and the constraints that are envisaged (access to data, time, location, ethical issues, etc.). Emphasis is thus placed on the operational aspects of research. Yet another view is offered by Denzin and Lincoln (2011, p. 246) who suggest that “a strategy of inquiry describes the skills, assumptions, enactments, and material practices that researchers-as-methodological-bricoleurs use when they move from a paradigm and a research design to the collection of empirical materials. Strategies of inquiry connect researchers to specific approaches and methods for collecting and analysing empirical materials [that in turn are located within specific methodological practices].” In the present work the object of study is a case of collaborative inquiry as it unfolds in the process of architectural designing.

### 3.3.5 Methods of inquiry

What follows is a consideration of the selected approaches and methods that have, to varying degrees, informed and shaped this study. The present case study relies on both classic modes of data collection, including interviewing, observing and document analysis, and methods

from the relatively new and ascending field of visual research (Prosser 2011, p. 479), specifically photography and drawing. The use of different methods is generally referred to as methodological triangulation (Denzin 1978; Janesick 2000) although it is recognised that some use the term more broadly to denote the combination of “multiple observers, theoretical perspectives, and methodologies” (Denzin 1970, p. 310).

### **Data Collection**

The different types of data used for the purpose of this study include both primary and secondary data, with both sets of data comprising written and non-written material. At the heart of this thesis is the empirical material that I collected over a period of eight months from 16 September 2009 (first meeting with the project architect and one associate) to April 2010 (last Development Group meeting), primarily by means of observation and note-taking. For reasons not further investigated, the audio-recording of meetings (both public and within the offices of the architecture practice) was generally not permitted. Taking notes therefore become a core practice in my fieldwork, pen and paper the enabling materials. Concerned that large parts of information would escape me if not instantly collected during the event, I centred my attention on listening and writing and producing rich accounts of what I thought was going on. Although aware that note-taking during observations is generally believed to be conducive to the observer effect (see also Lofland & Lofland, 1995; Spradley, 1980; Taylor & Bogdan, 1984), postponing the practice of writing was not considered an option given the exclusivity of the hand-written material. It should also be noted that extended contact with the research participants meant that over time I became a familiar face and research participants arguably less concerned about my presence. Generally, I tried to stay out of direct sight lines, avoid eye contact and appear busy with taking notes. General acceptance was further ensured by those chairing or moderating the events clarifying my role and research intentions. The growing familiarity, one has to acknowledge, implied a risk for becoming particularly sympathetic with certain views and problems. And indeed prolonged engagement with the local residents, for instance, has led to a great sensitivity for their specific concerns. And as much as this thesis is a personal account of what has been experienced and observed, the product of selection and arrangement, the plurality of voices is

hoped to be recognised by the polyphonic approach that had been applied to both the analysis and writing up of the empirical work. Writing continued, although in reflective mode, directly after the events on the train back to St Andrews. The exercise was helpful in terms of contextualising the fieldnotes. Back at my desk, the field notes were transcribed and organised for analysis and guidance in the next observations, conversations, and interviews.

Beyond taking notes, permission was granted to take photos during the course of inquiry and thus to produce a *visual* account of the events. Permission was granted on the condition that I would make the material available for both the client and architects to use. The photo material made its way into various reports in which it was extensively used to support the architects' public consultation narrative. In using visual methods to enrich the empirical material, this work accounts for the inadequacies of existing visual ethnographies discussed by Jon Wagner:

In the first place, there are too few visual studies of people acting in natural settings. We simply have not seen enough of what people do and the physical contexts in which it is done. In the second place, we know too little about how people themselves see the settings and their activities. Even when we have images of the people in the setting, we have little sense of what they make of it all or of the images themselves (1979, p. 286).

Apart from photographs this thesis incorporates a series of drawings that have been produced in the course of the masterplanning activities. Those visuals played a significant role in the development of masterplan ideas in their capacity as “representational artefacts” (Miettinen and Virkkunen, 2005). Drawings formed individual objects of inquiry, generating further ideas, and were supported by additional informational tools, including site-visits, architectural presentations, and displays.

Towards the end of the masterplanning activities two series of semi-structured interviews were conducted, pre and post submission of the masterplan. Those interviews took place in the period from 11 February to 20 April 2010 and had the purpose of engaging participants in a phase of intense reflection on the design process and its results. Those interviews varied in length from 30 minutes to almost 2 hours and were conducted with different members from the large group of architects, planners, project managers, adjacent landowners, local residents as well as tenants representatives (a detailed list of interview participants is provided in

Appendix 4). In particular members of the local community seemed to enjoy the opportunity to reflect and deliver in detail their views and comments on the project. The interviews in their entirety were audio-recorded and transcribed. In the end, the total amount of data collected comprised more than 23 hours of interview material, about 90 hours of direct observation, an accumulated 580 pages of fieldnotes, roughly 360 pages of supporting documents (briefing material, agendas, minutes, etc.) and more than 200 photographs.

The secondary data used range from documentary data, including minutes of public consultation meetings, correspondence between architects and statutory consultees, notices, leaflets and newsletters (used to invite local residents to participate in the consultation events). They also comprised the very insightful and comprehensive commentaries provided by a residential member of the North Sighthill Development Group.

Table 8: Types of data used

Primary data		Secondary data	
Written	Non-written	Written	Non-written
Field notes	Audio-taped interviews	Paperwork*	Drawings
Research diary	Drawings	Minutes	Photographs
Notes of interviews	Photographs	Correspondence	Video-taped interviews
Interview transcripts		Commentaries	
		Press Releases	
		Newsletters/-papers	
		Gov. publications	

\* Includes briefing, planning and application material such as planning statements, reports, surveys, etc.

In order to comply with the ethical guidelines set out in the *Information Sheet* given to the participants, all data have been anonymised. Where it was necessary to give a sense of context to the script or appearing strange to use code numbers, research participants were given a pseudonym.

## Data Analysis

Qualitative data tend to be reflective of the messy situations within which they have been collected. They lack the imposed clarity and structure typically found in quantitative pieces of

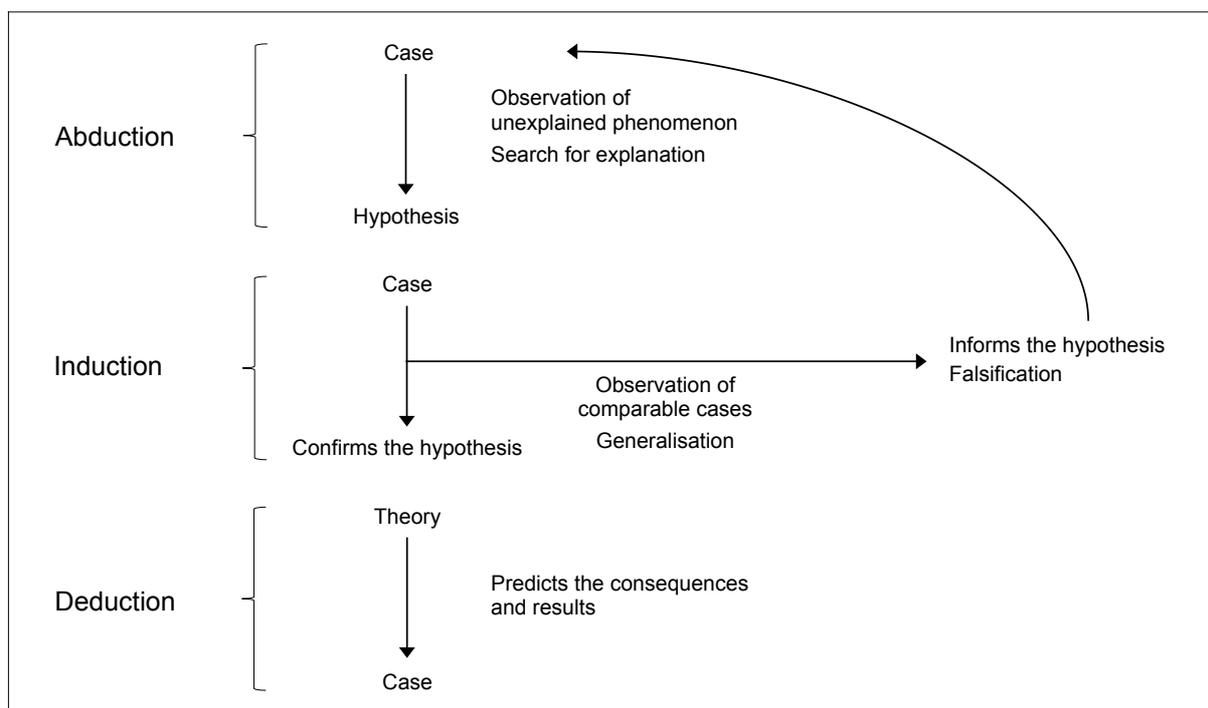
research, and therefore require to be approached by different analytical means and, as suggested by authors like Golden-Biddle and Locke (1993), different standards. The analysis of qualitative data does not follow a singular path but to the extent that qualitative research has been influenced by a variety of disciplines and traditions, there are multiple strategies to deal with the collected data (Saunders et al., 2000). In their attempt to address the question “how ethnographic texts convince” Golden-Biddle & Locke (1993) propose three dimensions which they consider to be “central to the process of convincing,” and emphasise the role of rhetoric, i.e. the art of persuasive writing, in the engagement with the reader. The three dimensions include:

- Authenticity: being genuine to the field experience as a result of having 'been there.'
- Plausibility: suggesting distinct research contribution(s) to the field of organisational learning while establishing connections to reader's personal and disciplinary backgrounds/ experiences.
- Criticality: encouraging the re-examination of taken-for-granted assumptions about knowledge protection, generation and exploitation.

Acknowledging the benefits of computer-assisted qualitative data analysis software (CAQDAS) in organising, systemising and arranging large amounts of data, its weaknesses, nevertheless, encouraged and led to a paper-based approach. Problems well documented include a temptation to quantify data and be overly concerned with the criteria of reliability and validity (Hesse-Biber 1995), the potential fragmentation of the textual materials on which it is worked as a consequence of exaggerated code-and-retrieve processes (Weaver and Atkinson, 1994) as well as the risk of decontextualising data (Fielding and Lee, 1998, p. 98). In opposition to CAQDAS, sensemaking and analysis were facilitated in this work through dialogue, discussion and debate, documented in summaries and self-memos. The summaries included accounts of the key themes that had emerged from the data, relationships as well as points of controversy and served the purpose of taking stock of the progress. The self-memos, on the other hand, included a record of the ideas about any aspect of the research, particularly during the process of data categorisation and analysis. The material was interrogated from the perspective of Dewey's theory of inquiry. The main building blocks of analysis accordingly,

were the indeterminate situation (preceding empirical investigation), the institution of a problem (information gathering through and site analyses), the development of problem solutions or ideas (masterplan options), their examination through reasoning (effected through consultation, meetings and workshops) and eventually the establishment of agreement between activities and consequences through overt action (made visible through drawings and site visits).

Figure 2: The three phases of inquiry



Source: (2005, p. 661)

Following from the above, this section will be concluded with a comment on the connection of theory and data. The relationship is commonly thought as a process where either theory follows research or research follows theory. Reflected in these sequences are the two classic modes of inference known as inductive and deductive approach, respectively. While the former is understood as the *synthetic* inferring of a cause from its effect(s), the later does the opposite and employs a form of analytic inferring. The distinction between induction and deduction features prominently in the existing methods textbooks and is often taken as point

of differentiation between qualitative and quantitative research. On the usefulness of such sharp separation Morgan remarks that “the actual process of moving between theory and data never operates in only one direction. [...] The only time that we pretend that research can be either purely inductive or deductive is when we write up our work for publication. During the actual design, collection, and analysis of data, however, it is impossible to operate in either an exclusively theory- or data-driven fashion” (2007, pp. 71-72). Scientific inquiry in practice usually involves a third mode of inference, which is known as a posteriori reasoning or abduction (see Fig. 2; see also Table 1). Abduction, as argued by Paavola and Hakkarainen, is “a ‘weak’ form of inference [that only gives] tentative suggestions for further inquiry” (2005b, p. 235). It is a form of inference relied upon by the pragmatist approach introduced further above (see Table 5) and which suggests, according to the reading of Morgan (2007), a movement, back and forth, between data and theory, induction and deduction. As discussed at length in Chapter 2, the pattern of inquiry proceeds from observations to ideas (or hypotheses) to observations until facts and ideas form a unified whole. Morgan, however, points out that the traditional use of abductive reasoning within pragmatism is one “where it is often treated solely as using theories to account for observation, and thus as an aspect of inductive reasoning” (2007, p. 71). It is in the sense of the latter, abductive reasoning as the process of interpreting unexplained phenomena and searching for plausible explanations (see also Gomez and Lorino, 2005), that abductive reasoning has been engaged in in this thesis.

### 3.4 Empirical setting

Inquiry is of a continuous nature where the settlement of one problem is understood to shape the problematic material of the next. Knowledge as the product of competent inquiry is therefore constantly in the making. How it is being shaped within the process of inquiry and reflected in the evolution of (material) forms is the subject of this research and, as pointed out by Dewey (1938, p. 30-31), "to be determined by the study of what actually occurs. It is not to be determined by prior conceptual constructions, even though such constructions may be helpful as hypotheses when they are used to direct observation and experimentation."

What actually occurs in the process of moving from an inherently doubtful situation, one that arouses our curiosity and continues until balance in the troubled organism-environment relationship is regained, has been studied on the basis of the case of an architectural design process. More specifically, the empirical involvement has been with a comprehensive masterplan project referred to as North Sighthill. Premised on an understanding of design as an activity of inquiry, the evolution of any building project from appraisal through to its completion epitomises development and is therefore considered to lend itself quite naturally to the study of inquiry.

North Sighthill has formed part of a series of masterplans for the so-called 21<sup>st</sup> Century Council Homes for Edinburgh Programme, initiated and commissioned by the City of Edinburgh Council. 21<sup>st</sup> Century Homes is an initiative that is envisaged to contribute towards Edinburgh delivering 1,300 new affordable homes over the next ten years, of which North Sighthill is suggested to supply approximately 300 new homes for the area. The project objective as presented in the briefing material has been to secure planning permission in principle for a residential masterplan with associated community facilities (BM, NS Interim Report 2009).

The masterplan for North Sighthill is considered to be part of a wider vision for the local area that encompasses: the communities of Sighthill, Broomhouse, Parkhead and the Calders; the education centres of Napier University and Stevenson College; and the industrial area of Bankhead. As part of this wider vision the proposed masterplan is required to be capable of flexing to the area's future needs.

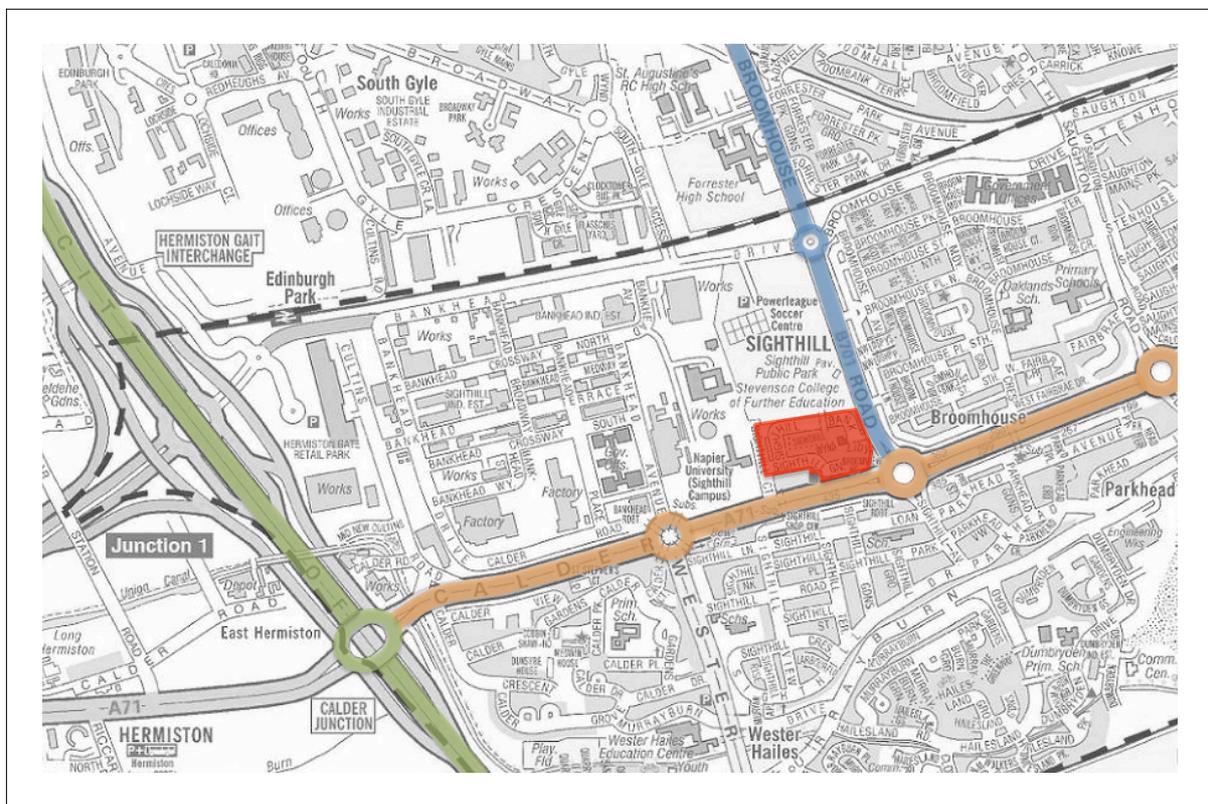
### 3.4.1 The socio-spatial context

Sighthill is a residential area on the western perimeter of Edinburgh developed in the late 1960s. With its ageing shotcrete covered facades and unadorned uniformity, it drastically contrasts the aesthetics of the World Heritage City of Edinburgh with its characteristically juxtaposing medieval and neoclassical townscapes.

Intersected by Calder Road (A71)(see Fig. 3, Calder Road highlighted in orange), one of the main westbound traffic arteries radiating from the inner city, Sighthill is divided into north

and south. The scenery is defined by differing housing structures with primarily terraced houses in the southern Sighthill area and a mix of modular constructed high- and low-rise buildings in the north. On the eastern side Sighthill fronts onto Broomhouse Road (B701)(see Fig. 3, Broomhouse Road highlighted in blue), another key transport route connecting Calder Road with the parallel routes running north, specifically Glasgow Road (A8) and Queensferry Road (A90). Surrounding the area are the communities of Broomhouse, Parkhead, Wester Hailes and Calder, extending from the north-east to the south-west. The north-western edge of Sighthill is bordered by the campuses of Napier University and Stevenson College of Further Education, behind which an industrial park opens up that reaches from Calder Road

Figure 3: The Sighthill Neighbourhood (Source: CEC Business Case, 2009)



Source: CEC Business Case, 2009 (adapted by author)

up to Glasgow Road along the City of Edinburgh Bypass (A720)(see Fig. 3, City of Edinburgh Bypass highlighted in green). At the northern end Sighthill is flanked by a generous level of amenity green space in the form of Sighthill Park. The area earmarked for

regeneration, and in focus of this study, is restricted to the twelve acres North Sighthill estate edged by Broomhouse Road, Calder Road, the educational centres of Napier University and Stevenson College as well Sighthill Park. The compounds of a Fire Station and Health Centre demarcate the south-western corner of the estate (see Fig. 3, regeneration site highlighted in red).

Photograph 1: Low-Rise Properties on North Sighthill Estate



Source: Author / 10-02-10\_IMG\_1107

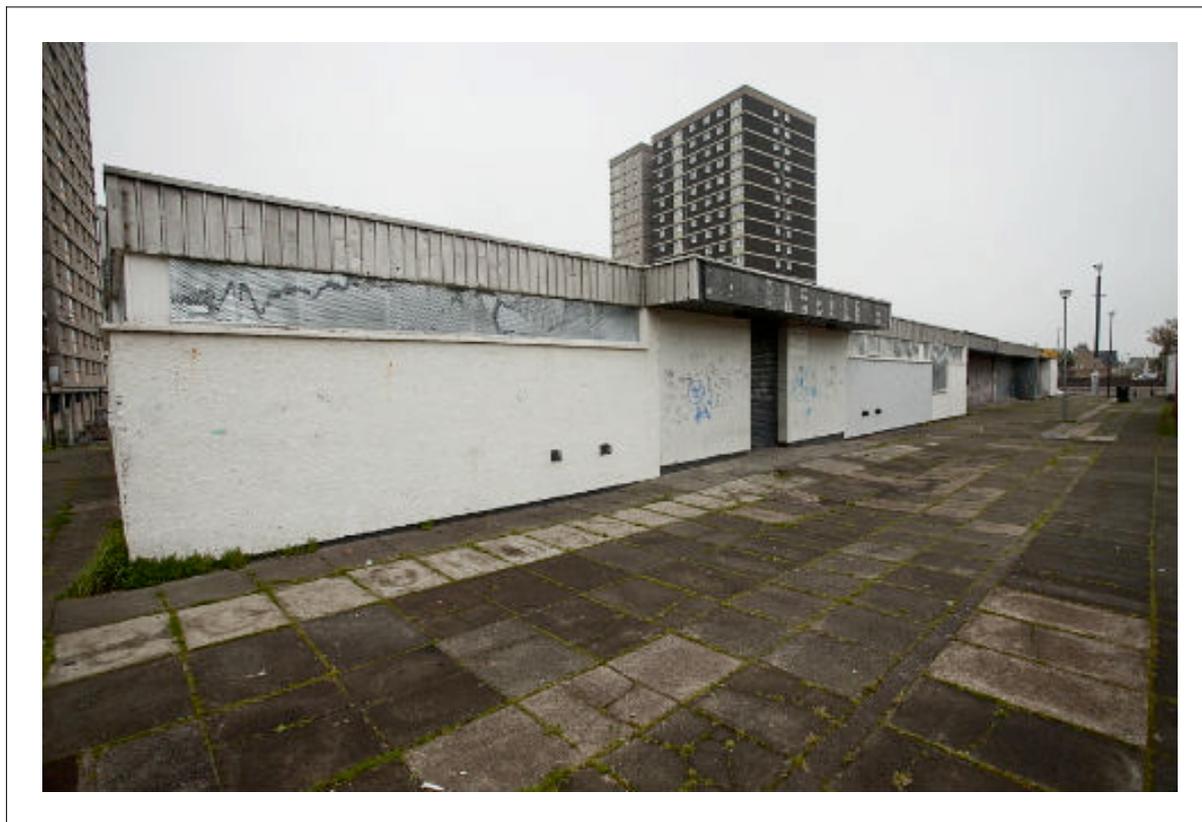
The appearance of North Sighthill is dominated by the three landmarking tower blocks Hermiston Court, Weir Court and Glenalmond Court, monuments of a political belief in concentrated living that prospered in the 1960s and 1970s and a vague architectural allusion

to Le Corbusier's massively constructed Unité d'Habitation (Housing Unit).<sup>8</sup> Praised as a forward thinking development at its completion in 1968 (Scottish Public Services, 661-62), North Sighthill not only resonates with Le Corbusier's chunky, in-excessive béton-brut design vocabulary but also, and perhaps more importantly, the attempt to create an environment for autonomous living (though not in the form of a singular structure as conceptualised by Le Corbusier) with a minimum level of infrastructure on the estate that would include a small retail section, library and community centre. Situated in the centre of the site these amenities act as a focal point for communal activity and are complemented by the sports and leisure facilities laid down in Sighthill Park. Near at hand, in the older established parts of Sighthill, are also schools, churches, further shopping facilities, licensed premises, a comprehensive health centre, fire services, workplaces in the form of the industrial park and other facilities (Scottish Public Services, 1966:662). The remaining buildings on the site occupying the south-western corner are low-rise, three to four storey blocks of flats. Broomview Court, a fourth block of high-rise flats once defining the skyline of the North Sighthill estate was demolished on 21 September 2008 as part of the housing regeneration programme. The existing housing is in a poor state of repair and suffers from some serious security concerns (BM North Sighthill Planning Statement, 2010).

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<sup>8</sup>"The *Unité* [first realised in Marseilles 1949-1952] was conceived as a huge structure for autonomous living, partly inspired by the Utopian theories of Charles Fourier (1772 – 1837), with a shopping-street, hotel, gymnasium, crèche, community services, and running-track...Other *Unités* were built at Nantes-Rezé (1952 – 7), Berlin (1956 – 8), Meaux ( 1957 – 9 ), Briey-en-Fôret (1957 – 60), and Firminy-Vert (1962 – 8): apartments within them were two-storey living-units with double-height living-space. The images of the *Unités* were copied in a ludicrously scaled-down form at Roehampton Park by the London County Council's Department of Architecture (1952 – 5), but the immediate international influence was in the use of raw, unfaced concrete in countless buildings, giving rise to the style known as New Brutalism. Powerful, chunky forms of béton-brut recurred at the Dominican Monastery of Ste-Marie-de-la-Tourette at Eveux-sur-Arbresle, near Lyons (1953 – 9)" (Corbusier, Le." A Dictionary of Architecture and Landscape Architecture. James Stevens Curl. Oxford University Press 2006. Oxford Reference Online. Oxford University Press. University of St. Andrews. 18 January 2011 <<http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t1.e1169>>).

Photograph 2: Sighthill Library with a view on Hermiston Court



Source: City of Edinburgh Council

Sighthill is known today as one of Edinburgh's most notorious wards, with an inglorious presence in the local news. On the Scottish Index of Multiple Deprivation (SIMD) 2009, the official tool used by the Scottish Government to systematically identify, compare and monitor small area concentrations (datazones) of multiple deprivation across the country, Sighthill ranks amongst Scotland's 20% most deprived datazones. While over the three updates of the SIMD (2004, 2006 and 2009) the area has moved out of the 15% most deprived and improved its overall position from rank 1,061 (2004) to 1,360 (2009) out of a total of 6,505 datazones, with '1' indicating the most deprived small area, the picture differs greatly across the seven domains of deprivation employed by the SIMD. Deprivation in the statistical context of the SIMD is understood as multi-dimensional problem that is being affected by low levels of income, employment, education, skills and training, health, geographic access, housing and crime. Crime in Sighthill, specifically though in the North Sighthill area,

remains a pressing issue. In fact, since 2006 the area has even seen a slight drop on the crime domain from rank 156 to 141, which puts Sighthill in Scotland's 2% most deprived datazones on the crime domain. The latest crime statistics reveal that in 2010 Sighthill/Gorgie and the adjacent Wester Hailes area had the city's second highest crime rate overall (Edinburgh Evening News, published on 13 January 2011).

### 3.4.2 The political context

With the ideological criticism of the welfare state and economic difficulties of the 1970s (Carré et al. 2008), Thatcherian housing policies have given rise to the third sector and the privatisation of authority housing stock became symbolic of the 1970s-1980s privatising trend in the UK. Capital investment in Britain's housing stock under the Thatcher-Major-Blair governments declined (Fleming 31) and has led to to a rapid demise of council housing. Edinburgh is no exception. In as far as history unfolding is a long chain of events that extends from the present to an indefinite past, held together by the principle of causation (Schiller 1970), the Thatcherian housing policies and its practical implications are prologue to the North Sighthill masterplan project. In the face of an acute shortage in affordable and social housing with one in 17 of all city residents waiting for accommodation<sup>9</sup>, the City of Edinburgh Council has launched a large-scale building programme for the first time in a decade. Formerly council-owned properties that had been purchased by tenants under the right-to-buy scheme, are currently being bought back by the Council in preparation for eventual demolition.

The availability of affordable housing (or the lack thereof) is as a matter of social importance and the potential of innovative urban planning and design often underestimated or compromised on particularistic interests. Shaping the future of affordable housing is as much a challenge in terms of integrating the individual interests of the associated parties as it is an opportunity to rethink the social, economic and environmental implications. Thoughtful planning and design can ease (arguably to the extent that neglect can worsen) some of the

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<sup>9</sup><http://heritage.scotsman.com/mortgageandpropertynews/Number-of-affordable-homes-built.5431360.jp>

most pressing issues of contemporary societies, from integration and crime prevention to energy saving and environmental protection. It is well understood that the detrimental effects of deprivation cultivated in so many suburbs across the UK, be it in the agglomeration of London, Birmingham, Manchester, Liverpool, Glasgow or indeed Edinburgh, are often intensified by the physical surroundings.

While this is not the place to speculate about the causalities of the rioting that shook cities across England in the summer of 2011, one cannot help thinking that, if we admit social inequalities and the sentiment of exclusion (figures show that about fifty percent of the arrested are under 18 and the vast majority under 23 and unemployed) being amongst the drivers of this hefty eruption of violence, shortcomings in urban planning and design and the usual architectural tristesse of affordable housing might have had a catalysing effect. Research looking into the often unnoticed effects of the built environment on human behaviour as well as our mental and physical well-being seems to support such conjectures. Integrative policy development, from urban planning to social welfare, seems to be pivotal in laying the groundwork for the building of healthy communities and networks beyond. The internationally acclaimed Dutch architect and Professor in Practice of Architecture and Urban Design at Harvard University's Graduate School of Design Rem Koolhaas pointedly remarked in a recent interview with the German weekly newspaper *Die Zeit* on the inattentiveness of contemporary architecture to residential, in particular social housing matters, that "[a] Plattenbau<sup>10</sup> needs a state." He continues: "When the state no longer plays a role, the idea of social housing is lost. [...] Architecture's capacities to give new impulses," he explains, "are limited if there is not societal intent." And while Koolhaas' statement is contextually bound, it seems to have some striking resonance with the post-privatisation

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<sup>10</sup>*Plattenbau* is the German word for a low-cost, prefabricated (and therefore quick to construct) residential building structure made of concrete slabs that was used extensively in the former, communist party ruled, German Democratic Republic. It is a compound of the words *Platte* meaning 'slab' and *Bau* meaning 'building' (Gavin Ambrose, Paul Harris, Sally Stone. *The Visual Dictionary of Architecture*. 2008:204 ). It is worth noting though that while Plattenbau constructions are often considered an epitome of East German communist design, similar concepts of large scale public housing were equally popular in West Germany of the 1960s to address the critical shortage of affordable housing in the post-war years.

effects observable on the British social housing market today.

The Scottish Executive recognises that there is "a growing interest in good design and the value of well designed architecture." A trend which is "sought to be nurtured" (A Policy on Architecture for Scotland: Progress Report 2005, p. 4). One attempt to improve quality is by engaging in deliberative practices, consulting with a diverse group of interest holders. The Scottish Government's planning policies are set out in the National Planning Framework, the Scottish Planning Policy, Designing Places, Designing Streets and Circulars.

### 3.4.3 The professional context

In its display of deterioration, North Sighthill provokes questions about the underlying beliefs and theories that have shaped the original design approved by the Planning Committee in 1965. An article published in *Scottish Public Services*, soon after building work on the scheme had begun in March 1967, offers a rare glimpse of the thinking behind it. Completed in 1968, the North Sighthill development provided 451 new houses in a mixture of four multi-storey blocks (with three of them having sixteen floors and the other one ten) and two- and four-storey structures, covering an area of twelve acres. It further comprised four shops, a library as well as a youth and community centre. The infrastructure was supplemented by nearby sports and playing fields, churches and schools, more shops, licensed premises, fire services, a comprehensive health centre and other facilities. Built as part of the larger Sighthill development that went on during the 1950s and 1970s under the authority of the Edinburgh Corporation, the programme was not only to "give people homes" but offer a "serious" response to the problem of alienation that was characteristic of the new big suburban developments (Scottish Public Services, 1967:661). Echoing the search for 'community' in new housing that defined postwar planning, and gained the interest of planners, designers and sociologists alike, the design centered on the idea of fostering the socialisation amongst groups of dwellers and creating "a sense of belonging" (Scottish Public Services, 1967:661). The scheme, set in an area "already heavily developed," was expected to "enjoy its own particular identity" and "give residents a better chance of blending together more rapidly in a close-knit community group" (Scottish Public Services, 1967:661). This

was to be accomplished, amongst other things, by “establishing a well-balanced community of different age and family,” which in turn was sought to be effected through “wise [variation]” of sizes and types of houses. (Scottish Public Services, 1967:661). The £1 3/4 million contract for translating the design into a physical object was awarded to Crudens Limited of Musselburgh - an ambitious regional firm that exploited the 1960s boom to

Photograph 3: Model of proposed high rise development at Sighthill, September 1963



Source: Capital Collections, The Edinburgh and Scottish Collection, Item No 24068

acquire Britain-wide status. Crudens expanded from the Edinburgh area to Dundee and Glasgow, then to Tyneside and the North of England, and finally on down to London” (Glendinning and Methusius, 1994, 215). The monumental appearance of Sighthill was testament to a building era in which tower blocks were seen ”as one of the greatest triumphs of the postwar Welfare State and of the social functionalism of Modern architecture”

(Glendinning and Muthesius, 1994). The following quote from J. Steel Maitland<sup>11</sup> (1952) exquisitely captures the fundamental belief in high-rising housing patterns:

“Blocks with lifts are throwing their towers into the skies. They will dominate the landscape for miles around. These flats, as far as planning goes, will equal, even surpass anything that has been built in Scotland for private ownership. They will be provided with lifts of a foolproof nature, all heat, light and hot water services from central sources, and in every way will probably be the finest house building achievement ever attempted ... It will be interesting to see how such edifices will fare at the hands of the denizens of great industrial towns. Truly, democracy is still on trial.”

Photograph 4: High rise housing development at Sighthill, 1967



Source: Capital Collections, The Edinburgh and Scottish Collection, Item No 24071

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<sup>11</sup>P. Calvocoressi, *The British Experience, 1945-1975*, 1978, p. 140; into Rogan, 1992;]. Steel Maitland, JRIBA 7-1952, p.320.

Throughout the 1950s and 1960s all urban areas across England, Wales and indeed Scotland experienced a “rapid and massed building of multi-storey buildings - peaking in the mid 1960s” (Glendinning and Muthesius, 1994). This movement, as identified by Glendinning and Muthesius (1994:3), was chiefly driven by “municipal pride - the idealistic daring councilor ‘housing crusaders’ determined to give ‘their people’ new homes, as many and as fast as possible.”

Some thirty years later enthusiasm had muted and high-rises turned into “[a] target of widespread, violent condemnation” (Glendinning and Muthesius, 1994). Those different views are not surprising if we acknowledge that architect’s research and preferences “keep changing, quickly and radically (Glendinning and Muthesius, 1994, 308). And Sighthill does not seem to be an exemption.

Social problems in the shrinking cities of America, the Plattenbau schemes of Eastern Germany, the French banlieues or indeed the tower block architectures of Britain have long been addressed by flattening the post-bellum mass housing schemes. In contrast, the transformation of the Parisian Bois-le-Pretre tower that took place between 2005 and 2011 is testament of a new form of metamorphic, socially responsible architecture that finds close representation in the theme of the German Pavilion at the 2012 Architecture Biennale: reduce, reuse, recycle. The theme takes account of an architectural idea that acknowledges, and disapproves, the most resource intense practice of demolishing and building anew. Bois-le-Petre, in many ways similar to North Sighthill, is a group of high-rise apartment buildings erected in the 1960s along the northern Paris ring road. The 50m tower has 15 stories that rest above an open ground floor on piles. The process of transformation was accompanied by “a rather long dialogue with the inhabitants in the form of group discussion workshop on the general transformations of the building and individually with each family on the specific transformation of its apartment.”<sup>12</sup> In the case of North Sighthill Council officials had

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<sup>12</sup>[http://www.moma.org/interactives/exhibitions/2010/smallscalebigchange/projects/transformation\\_of\\_tour\\_boise\\_le\\_prete](http://www.moma.org/interactives/exhibitions/2010/smallscalebigchange/projects/transformation_of_tour_boise_le_prete)

maintained that economic reason necessitated the conventional route of demolition.

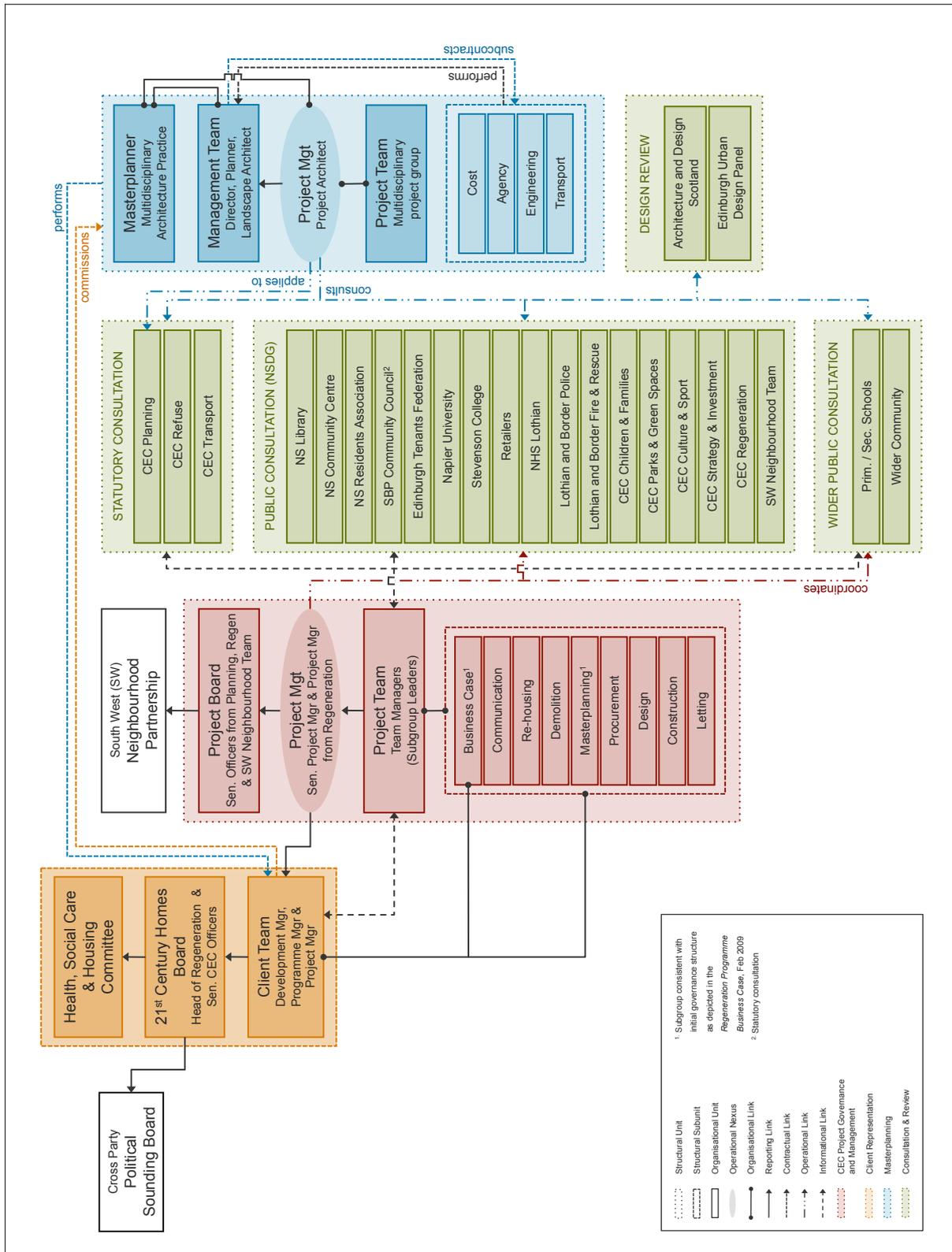
Things are more complex, however, and the withering of the Sighthill estate might at least in part be attributed to social segregation and exclusion, the negative effects of the right to buy scheme introduced in 1980, the lack of investment and the absence of clear maintenance strategy.

#### 3.4.4 Organisational context: the community of inquirers

Masterplanning is a collective effort and requires the contribution of different disciplines and minds. As part of the 21<sup>st</sup> Century Homes for Edinburgh building programme, the North Sighthill masterplan project is embedded in a large organisational structure as depicted in Figure 4. The masterplanning activities, led by the Edinburgh branch of an acclaimed internationally operating, multidisciplinary architecture practice, began in August 2009 with a presentation by the project architect (R07) and the practice's Director of Planning and Urbanism (R15) to the so-called North Sighthill Development Group. The Group (see Fig. 4 and Fig. #) had been established in November 2008 by the City of Edinburgh Council as "the core framework for initial consultation for the development of the business case and masterplanning process" (Regeneration Programme Business Case, Feb. 2009:20). The group comprised representatives from the North Sighthill Residents Association, Sighthill, Broomhouse and Parkhead Community Council, Napier University, Stevenson College, Sighthill Health Centre, Culture and Sport, Parks & Greenspace, Edinburgh Tenants Federation, Lothian & Borders Police, Neighbourhood Team, the local shops, the library & community centre as well as representatives of other council departments.

Consultation on the masterplan ran from October 2009 to March 2010, and took the form of several meetings, workshops, open surgeries and public displays (see Table 9). The process was broken down into three distinct phases and comprised (a) the assessment of opportunities and constraints (early October 2009), (b) the generation of different masterplan options (late November 2009) and eventually (c) the development of the final masterplan (February 2010).

Figure 4: Organisational Structure North Sighthill Masterplan Project



Source: Author

The initial phase (addressed in chapter four) was dedicated to observation and gathering information, asking people what they thought of the area and what they would like to see happen. The phase was crucial in furthering the different teams' understanding of the site and guiding the initial concept. Following the initial engagement were consultation exercises on two masterplans options (addressed in chapter 5), using questionnaires to compare peoples ideas and preferences. The results from those questionnaires were used to compare people's individual opinions and inform an overall consensus for the different questions. The findings were then used to develop the masterplan options into a single vision. The final phase (addressed in chapter 6) was designed primarily to demonstrate how the masterplan had developed and to take on board people's comments on the detailed layout. Comments articulated during the final phase were then taken on board to develop the very plan that was finally submitted.

Table 9: The North Sighthill Consultation Programme

<b>Opportunities and Constraints</b>	
07.10.09	Development Group Meeting
16.10.09	Place Making Workshop
30.10.09	Forrester High School Workshop
<b>Masterplan Options</b>	
17.11.09	Community Council Meeting
18.11.09	Development Group Meeting
19.11.09	Open Surgery
20.11.09	10 day public display of options
27.11.09	Forrester High School Workshop
09.12.09	North Sighthill Residents Association meeting
<b>Development of Final Masterplan</b>	
03.02.10	North Sighthill Residents Association & Development Group meeting
04.02.10	Community Council Meeting
05.02.10	Forrester High School Workshop
09.02.10	Public meeting
10.02.10	Open Surgery
11.02.10	10 day public display of masterplan
24.02.10	Edinburgh Urban Design Panel
06.03.10	South West Neighbourhood Partnership
In addition, a final presentation was made to the Development Group on 14 April 2010.	

The six month consultation period was concluded on 14 April 2010 with a final Development Group meeting dedicated to reflection.

## **The Masterplan**

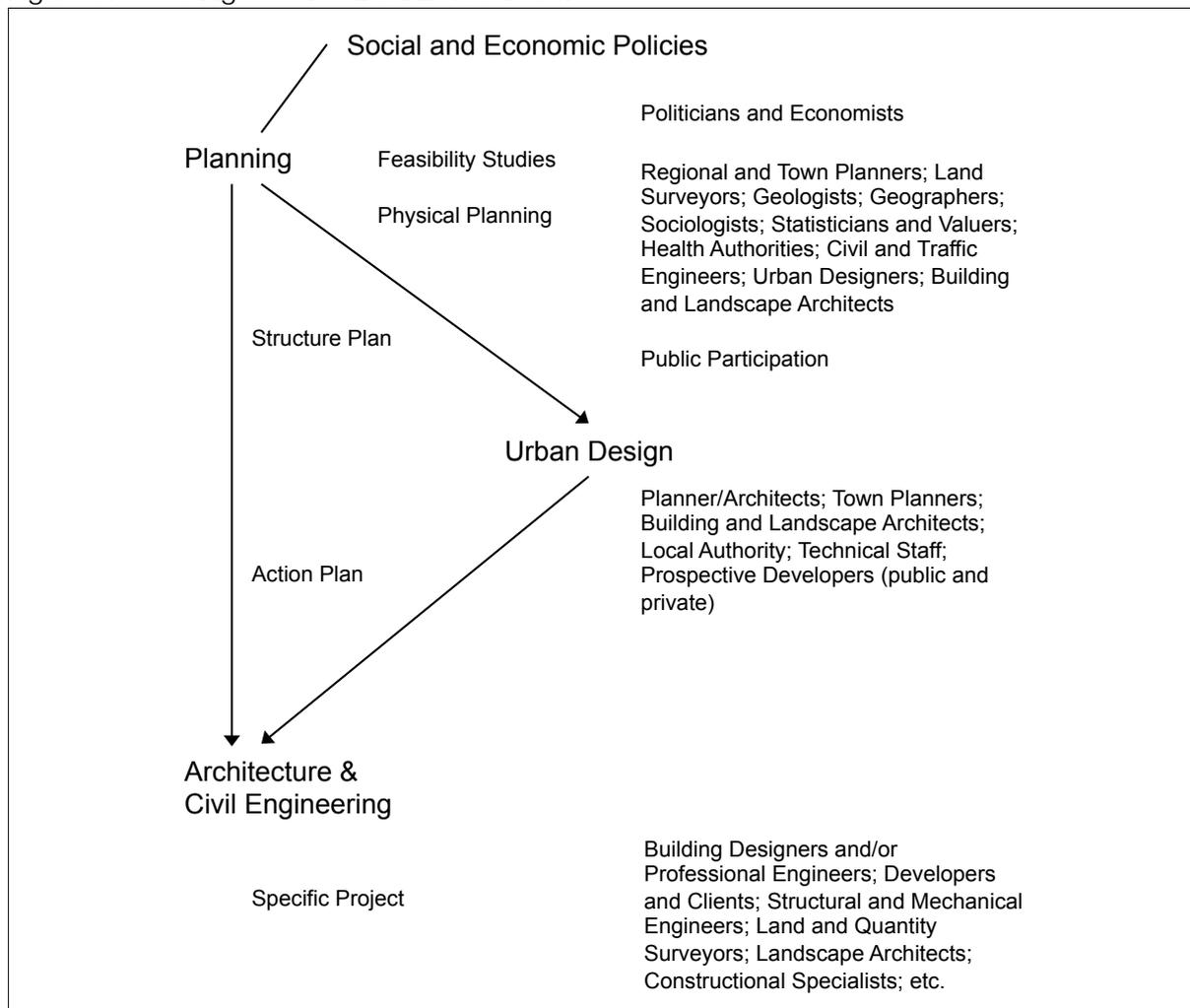
Definitions of what constitutes a masterplan can vary. In the main, Harris (2000:xx) suggests, it is "[a] plan, usually graphic and drawn on a small scale but often supplemented by written material, which depicts all the elements of a project or scheme. Its scope can range from strategic planning at a regional scale to small scale groups of buildings." Most commonly, it is specified in Planning Advice Note (PAN) 83, a masterplan describes and maps an "overall development concept, including present and future land use, urban design and landscaping, built form, infrastructure, circulation and service provision. It is based upon an understanding of place and it is intended to provide a structured approach to creating a clear and consistent framework for development" (The Scottish Government, 2008). Masterplans are to be differentiated from so-called "development plans". While the latter sets out "the scale and type of development, and the key principles of character for a region," the former is generally employed where there is a "greater degree of certainty regarding the development of a specific site," and is "linked to social and economic analysis and a delivery strategy" (The Scottish Government, 2008). Importantly, "although a masterplan may specify more detailed governing principles such as building heights, spaces, movement, landscape type and predominant uses, it does not necessarily preclude a degree of flexibility in designs within the plan" (The Scottish Government, 2008).

A more nuanced definition is provided by Gandelsonas (1995, pp. 19-20):

From the perspective of urban politics, a masterplan is a legal instrument (representing the presence of the public) that regulates the long-term functional and physical processes (and the forces of both government and developers) that determine the configuration of a town or city. From the perspective of the politics of architecture, the masterplan's role is to fill a void, to mask the absence of architecture. The presence, more specifically, of the shapes determined by the masterplan's regulations (which are answers to social, economic, and political questions) in the place of architecture renders the void invisible, obscures the absence of architectural form.

As pointed out in PAN 83, masterplanning is used not only in the transformation of places but also to engage those throughout the processes that are to varying degrees affected by the development (The Scottish Government, 2008). The masterplan to be submitted is for “planning permission in principle” which means that it is “planning permission (granted in accordance with the provisions of regulations or a development order)— (a) in respect of the carrying out of building, engineering, mining or other operations in, on, over or under land, and (b) subject to a condition, imposed under section 37(1)(a), that the development in question will not be begun until certain matters (which may, but need not be, particularised in the application) have been approved by the planning authority or as the case may be the Scottish Ministers” (The Scottish Government, 2006).

Figure 5: The Stages of the Built Environment



Source: (Reekie 1972, p. xii)

As mentioned earlier, the 21<sup>st</sup> Century Homes for Edinburgh programme serves to address the critical shortage of affordable housing in the city. At its core is the redevelopment of three allocated sites: Gracemount, Pennywell and North Sighthill. The redevelopment is accompanied by a number of different tasks that normally would occur in the following order: consultation, masterplanning, rehousing, demolition, construction and redeveloping. As will be discussed in the empirical chapters, this order had not been followed but instead the Council started rehousing people and were engaging in consultation when the site was half empty. The masterplanning activities started when consultation on the redevelopment process was well on its way. With regards to the stage of the built environment, the North Sighthill masterplan project, as part of the larger 21<sup>st</sup> Century Homes building programme, forms part of the Council's urban design activities (see Fig. 5).

## Chapter 4

# Empirical Explorations: Locating and

## Describing the Problem

It's true that frames are nice for showing: gilded, white, carved, baroque, aluminium, etc. But have you ever met a painter who began his masterpiece by first choosing a frame (Latour 2005, p. 143)?

Arguably, the work presented so far suggests a different sequentiality in that the emphasis has been primarily on the framing (theory) rather than the painting (data). It is difficult to see how one is ever going to be able to escape this chronology given the framing character of the problematic itself which motivates and sets off the research in the first place. And yet an attempt will be made here to re-balance this work by granting greater authority to the data itself in shaping the content and form of the following chapters. The theory of inquiry reminds us to allow data speak for itself, to avoid the tendency of the social sciences of pre-structuring an otherwise unstable empirical situation which is formed by the activities of various actors and their associations with each other.

The North Sighthill redevelopment with its history reaching back into the early 1990s may be understood in a Bentleyan sense as "one great moving process" (Bentley, 1908:178) in which "entities, abstractions, divisions, and separations will be dissolved in their apartness and 'interlaced' with other moving parts in ceaseless change" (Lavine, 2008[1989]:xvii). This approach carries with it Bentley's holistic process view, which finds expression in his thesis

that "of this great moving process it is impossible to state any part except as valued in terms of the other parts" (1908:178). In as much as those parts are seen as seemingly contradicting elements within a unity, Bentley's statement echoes the idea of synthesis expressed in Hegel's dialectics (Hegel & Rosenkranz, [1870]). The dualisms along which social phenomena are commonly structured and explained, mind-body, inner-outer, individual-social, etc., thus dissolve into interactional phases of the process of activity. The process itself may thereby be understood as a stream of experience that reflects the continuous interaction of people and environing conditions or, as Dewey put it, "the very process of living" (Dewey, 1980[1934]:36). Dewey, however, differentiates between the general stream of experience and *an* experience, by which he seeks to highlight the non-uniform and interrupted character of life; a thing which in his view is not composed of purely the material of continuous experience but nuanced with episodes of a self-sufficient, individualising quality, which have their own plot, temporality and rhythm. An experience is rounded up and complete in itself, demarcated on one side by the experience qualifying emotions and ideas that move the elements of the self/environment interaction into our awareness and the moment of consummation (rather than cessation) of a particular activity on the other. It is in this sense that the North Sighthill masterplan project may be viewed more narrowly as an episode, i.e. a singular experience with its own beginning and end, embedded within the experience of the larger regeneration programme of 21<sup>st</sup> Century Homes for Edinburgh, which in itself is integrated and demarcated in a ceaseless stream of experience. An episode that runs its course to completion, from appraisal to submission, along the formal stages of the *RIBA Plan of Work* (RIBA, 2007) (see Table 12). Notwithstanding this differentiation, the holistic process view articulated by Bentley is maintained, i.e. dualisms are seen to dissolve in the very process of having an experience. It is to be acknowledged that episodes, in as much as they are defined by the individual's state of awareness, are unique in character. Inevitably, the masterplanning episode reported on here is bound in its scope, content, temporality and rhythm to my very own experiences, reflections and choices. It is temporally framed by the dates of the first and last meeting I attended and reflective of the experiences of interaction with the research environment gathered in between. Understanding of the case history and the material constituting the indeterminate situation that is being subjected to inquiry within the design process (see Table 12) has been developed through the written and spoken accounts of

past events. The North Sighthill masterplanning episode is seen as an integral part of a larger inquiry that arguably began with the problematisation of the effects of the right to buy scheme, introduced in Scotland by the Tenants' Rights, Etc. (Scotland) Act 1980, on the social housing situation in Edinburgh (The Scottish Executive, 2006).

The voluminous body of data collected throughout the planning and design process is organised and presented here along the Deweyan process of inquiry (see Table 12). It seeks to provide detailed descriptions of the deliberative and explorative practices undertaken by the architectural team, under the direction of the client, and the collaborative development of the masterplan as a “common object of activity” (Paavola & Hakkarainen, 2005a). The material presented fuses data from a variety of sources, including field notes, notes from informal interviews and conversations, transcripts of formal interviews, participants’ notes, project documentation and drawings. Reference is made to mainly three affiliations: BM (architecture practice commissioned to masterplan all three 21<sup>st</sup> Century Homes redevelopment sites Gracemount, Pennywell and North Sighthill), the City of Edinburgh Council (representing the client) as well as the North Sighthill Development Group (as the formal representation of various stakeholders). Given the welter of voices that have been articulated throughout the project, a nuanced approach to the presentation and interpretation of data is required. To account for the multivocality of this project and the differences in the stories being told (see Boje et al., 1999), the concept of *polyphony* is drawn upon. The notion of polyphony is borrowed from the cultural fields where it was coined by Russian philosopher Mikhail Bakhtin (1895-1975). In the realm of organisation studies polyphony finds recognition in two ways, namely a) “as a textual strategy in writing research narratives” and b) “as a tool for analysing organizations as discursive spaces where heterogeneous and multiple voices engage in a contest for audibility and power” (Belova et al., 2008). It is in both ways that polyphony is used, with an important difference being that it is not the organisational entity that is viewed as discursive space but the field occupied and configured by the very process of design itself; the process which brings together contributors from different backgrounds, at different stages to inquire into, elucidate and negotiate the designs and built possibilities for the North Sighthill redevelopment. That is, the focus is placed on the space demarcated and organised by actions rather than formal structures. It is a space

opened up by variations of the concept of inclusion (such as participatory planning and community engagement) and the legal requirement of pre-application consultation (both statutory and non-statutory) for national and major developments (Planning etc. (Scotland) Act 2006 (asp 17), 2006; Scottish Planning Policy, 2010). By focusing on the discursive space as shaped by planning and design activity, an attempt is made to shift the focus from what may be seen as the ‘centres of calculation’ (the City of Edinburgh Council and its representative bodies as well as the architectural team and consultants) to the broader and dispersed realm of collaborative design (cf. Czarniawska, 2004). This is not to disregard the political and institutional environments within and under the influence of which participants operate and make decisions; the seemingly solid effects are imprinted on the design process and production of materials (drawings, presentations, reports, etc.), for instance, in terms of planning policies, standards, guidances, advice notes, development plans, work plans, etc. Yet the observational and analytical angle has been adjusted to look beyond such institutional manifestations and capture the explorative, space-defining movements along the design process as well as the social order in which they take place. In scrutiny are the materials and reality-constituting discourses (see Chia, 2000) established through the relational practice of design rather than formal structures. The question therefore becomes what is being done, how does inquiry take shape in the course of designing and what are the implications for our understanding of knowledge, its construction and practice. It seems important to emphasise that actions were not aspired to be ‘chased’. In agreement with John Law (1994) it is assumed that actions are organised into events of relevance and explanatory power not in the present of action but through the narrative accounts of those involved (see also Natanson, 1968). That is, “events must be made important or unimportant” (cf. Czarniawska, 2004), accomplished through the spatial and temporal ordering of experience.

As has been established, the architectural design process in its capacity to evoke ‘reflective practice’ is conceptualised for the purposes of this thesis as a process of collaborative inquiry. In order to ground the empirical material gathered in the course of the masterplanning of the North Sighthill estate it is contrasted with the Deweyan process of inquiry introduced in chapter two and linked to the development stages outlined by the Royal Institute of British

Architect's (RIBA) Plan of Work<sup>13</sup> (2007 [1999])(see Table 12). As will later be shown, the suggested and uncomplicated congruency between and linearity within the interlaced work stages documented in Table 12 is somewhat inaccurate and misleading, not least because their sequence and content tend to vary or overlap in the progression of the plan (see also RIBA Outline Plan of Work, 2007). In fact, the lack of flexibility in the existing RIBA Plan of Work is being recognised by the Institute and is due to be addressed by its revision, although not to reflect developments in design practice but to account for variances in the clients' planning procedures, procurement methods and risk profiles (RIBA Plan of Work 2013: Consultation Document, 2012). The connections established across the table are therefore not understood as analytical framework but reference points or cursors loosely indicating the areas of inquiry and design that are being affected by the empirical material presented.

The outline plan of work offers a way of organising “the process of managing, and designing building projects and administering building contracts into a number of key work stages” (RIBA Outline Plan of Work, 2007). In its entirety the process comprises eleven stages from ‘Appraisal’ (A) to ‘Post Practical Completion’ (L) with those in between being: ‘Design Brief’ (B), ‘Concept’ (C), ‘Design Development’ (D), ‘Technical Design’ (E), ‘Production Information’ (F), ‘Tender Documentation’ (G), ‘Tender Action’ (H), ‘Mobilisation’ (J), and ‘Construction to Practical Completion’ (K). The individual stages, in turn, are subsumed under the following component activities: Preparation (A and B), Design (C-E), Pre-Construction (F-H), Construction (J and K) and Use (L). The North Sighthill case only burrows into the initial stages of the plan, specifically the preparation (A and B) and design phase (C-E). It is important to note that although planning is not (yet) embedded in the RIBA Plan of Work 2007 (something which will be addressed by the revised Work of Plan 2013,

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<sup>13</sup>The RIBA Plan of Work 2007 is currently undergoing a comprehensive review. Since its first development in 1963 the plan has become “the definitive UK model for the building design and construction process, and has also exercised significant influence internationally” (RIBA Outline Plan of Work, 2007). And while the plan has been subject of continuous development “to reflect developments in design team organisation and alternative procurement arrangements,” those developments “have generally been incremental rather than strategically driven” (RIBA Outline Plan of Work, 2007). The Plan of Work 2013 seeks to close that gap by incorporating “best practice from all the specialists within the integrated construction team,” and providing “a renewed framework which will be fit for purpose for the next generation” (RIBA Outline Plan of Work, 2007).

see Footnote 8), it is still being used by practitioners, including the Council, to guide the process and define its outcomes. Planning applications are typically made using the output of the design development stage D (RIBA Outline Plan of Work, 2007). In the case of the North Sighthill project, however, the tender document demands the preparation of RIBA Stage E proposals, which implies the completion of certain parts of the technical design<sup>14</sup> (RIBA Plan

Table 10: The Deweyan process of inquiry in perspective

<b>Description</b> (Thayer, 1952: 49-68)	Pre-reflective, discordant, inherently doubtful situation	Problem is set and marks the general area of inquiry (boundaries of relevance)	Formulation of possible solutions (hypotheses or ideas)	Examination of plans of action as the meaning content of ideas: “A thing is (or means) what it does.”	Plan of action acted out; hypothesis that works is one that satisfies demands set by problematic situation	Problematic situation becomes settled
<b>Pattern of inquiry</b> (Dewey, 1938)	I. The indeterminate situation	II. Institution of a problem	III. Determination of a problem solution	IV. Reasoning	V. The operational character of fact's meaning	VI. Common sense and scientific inquiry
<b>2007 (1999) RIBA Plan of Work</b>	n/a	Stage A and B: Appraisal and design brief (strategic brief)	Stage B and C: Design brief and preparation of concept design (incl. outline proposal)	Stage C and D: Implementation of design brief and development of concept design	Stage D and E: Design development and technical design	Stage E: Technical design and application for planning permission
<b>Timeline</b>	Pre-planning	Aug. - Oct. 2009	Oct./Nov. 2009	Nov./Dec. 2009	Jan./Feb. 2010	Mar./Apr. 2010
<b>North Sighthill Masterplan Project</b>	Scottish Housing Standard 2015, affordable housing shortage, 2005 masterplan, stock transfer, vote for demolition,	Formation of Development Group since Nov. 2008; identification of client's needs and objectives, business case and possible constraints	Studies on user requirements and development of three masterplan options	Statutory and non-statutory consultation on two masterplan options	Revision of plans and development of final masterplan	Submission of masterplan; application for planning permission in principle

<sup>14</sup>Technical designs reflect a level of detail and advancement “sufficient to co-ordinate components and elements of the project and information for statutory standards and construction safety” (RIBA Outline Plan of Work, 2007).

of Work 2013: Consultation Document, 2012:6).

In what follows, I provide a detailed account of the process of collaborative inquiry as it was found unfolding in the context of the masterplanning of the North Sighthill redevelopment. A careful attempt is made to give power to the quieter voices in this process which on many occasions served as an insightful and important counterfactual to the grand and oftentimes harmonious narrative developed by the authoritative. While the account offered here has evolved through conversations with many different people involved in the process and intense engagement with the data gathered, it inevitably remains a personal account and the product of emphasis, selection and arrangement. Drawing together the “bits and pieces” of this project into an “intelligible story” (Boje et al., 1999:341) requires decisions about inclusion and exclusion, presence and absence, the attribution of significance and logical status. It is through self-reflexivity and opening up space for the local micro-stories (Jameson, 1984; Lyotard, 1984; White, 1987; and Iggers, 1997) to be told that an attempt is made to control hegemonic tendencies in the academic write-up (Boje et al., 1999; Lyotard, 1984).

The process of inquiry may be understood to be composed of both perceptual and conceptual materials, brought together by means of synthetic understanding. The materials are instituted “in functional correlativity” (Dewey, 1938:115) with each other in such a form that the perceptual material locates and describes a problem and the conceptual material represents a method of solution. Both materials, according to Kant, are dependent upon each other for that otherwise “perceptions are blind and conceptions empty” (Dewey, 1938:114). They are generated and determined “in and by inquiry of the original problematic situation” (Dewey, 1938:115) and controlled in their content by the peculiar quality of doubt that pervades the situation evoking inquiry. This aspect will be further discussed below. The question eventually is whether or not both materials can work together to transform and settle the problematic situation. The empirical chapters have been designed to take account of the differences in the type of material being dealt with and been structured along the Deweyan model of reflective thought (or inquiry) illustrated in Figure 7. Accordingly, the process is broken down into three phases, the perceptual, conceptual and transcending phase, with each of them being dedicated one chapter. The present one comprises an exposition of the case

history constituting the indeterminate situation and the perceptual material dealt with during its problematisation; the following chapter focuses on the conceptual material as manifest in the development of problem solutions (ideas) and their reasoning, leaving the third chapter to be concerned with the synthesis of materials as expected to be found in the phase of experimentation and judgement.

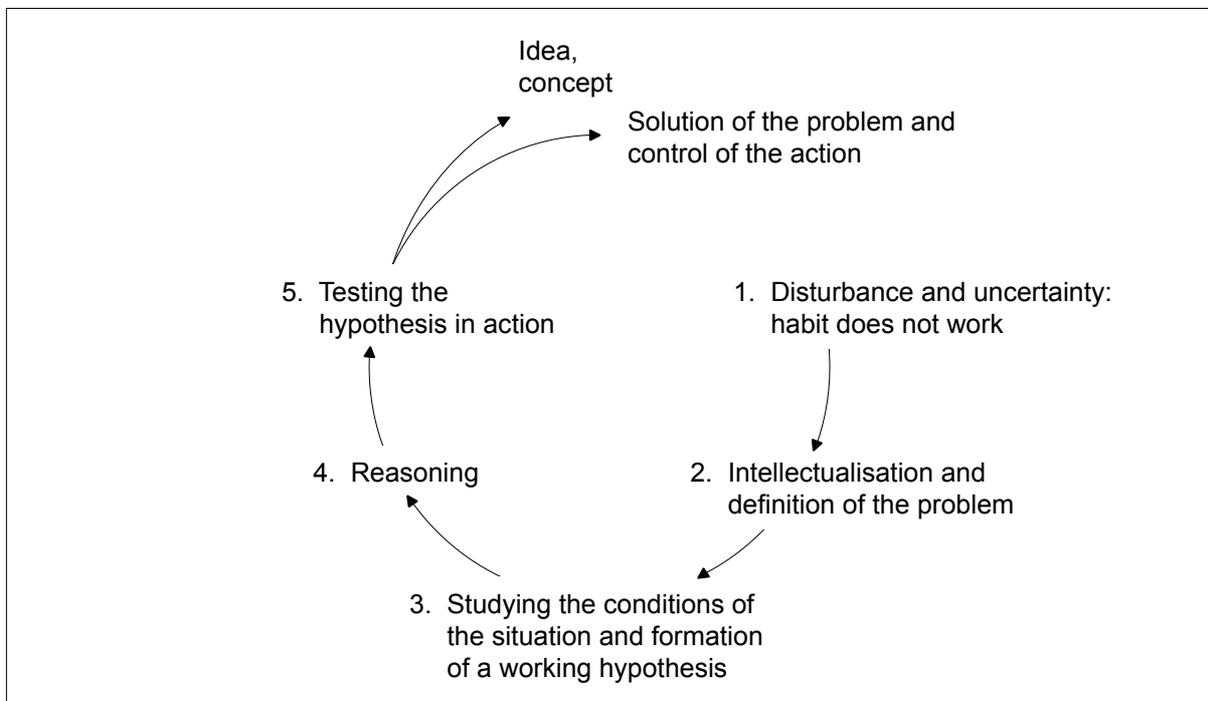
## 4.1 The indeterminate situation

Inquiry, as theorised by Dewey, is the controlled response to a uniquely and existentially doubtful situation. A situation that is doubtful not in the sense of “uncertainty at large” but a “peculiar quality” that pervades the materials constituting the indeterminate situation, making it “just and only the situation it is” (Dewey, 108/09). It is the distinct indeterminacy that shapes the character of inquiry engaged in as well as the specific procedures followed. The pervasive quality of the situation thereby ensures effectiveness of means and prevents wild groping in the dark for an adequate response. The sensation of doubt or uncertainty, Dewey emphasises, is caused by the experience of a perplexing situation of dysfunctional routines. That is, the routine ways of doing things, upon which the organism/environment relationship is organised, no longer work (see Fig. 7). Doubt therefore refers to a state of mind that is evoked by and relative to some existential, obscure, troubled and confusing situation. “We are doubtful because the situation is inherently doubtful” (Dewey, 1938:109). In the absence of such existential cause, doubt, Dewey argues, is pathological and in an extreme form reflective of “the mania of doubting.” It follows from this that resolving doubt is not a mental matter but one that requires engagement with the doubtful situation itself.

Presented in this initial phase of engagement with the perceptual materials of the doubtful situation are what Dewey calls the “antecedent conditions of inquiry.” That is, the conditions constituting the particular case of inquiry. To understand the problematic that is being dealt with in the context of the 21<sup>st</sup> Century Homes for Edinburgh programme and North Sighthill

redevelopment, in particular, one has to appreciate the history of the case that arguably reaches back into the 1980s.

Figure 6: Dewey's model of reflective thought and action



Source: Miettinen, 2000:65

### **Problematizing the indeterminate situation**

In the wake of privatisation of public services pursued by the Thatcher government with the intent of “rolling back the welfare state” (Pulkingham, 1989:387), policies were set across Britain which enabled local authorities selling council houses to tenants. A practice which had previously been controlled by the local authorities’ own policies on selling (The Scottish Executive, 2006), which meant that council house tenants wishing to buy their homes were reliant on the permission of their local authorities. In Scotland the privatisation policy was introduced by the Tenants’ Rights, Etc. (Scotland) Act 1980. The scheme was designed to provide a legal framework for the selling of public housing stock and grant tenants a legal right to buy their homes (The Scottish Executive, 2006). The premise of the scheme was that “any eligible council tenant could have the opportunity to purchase their rented home at a discounted price” (The Scottish Executive, 2006). By 2006 almost half a million sales of

public sector stock had taken place since the introduction of the scheme in 1980 (The Scottish Executive, 2006), in the shadow of which a social housing crisis has taken shape. As pointed out by the Scottish Executive this is not necessarily to be explained by the right to buy scheme for that “in addition to the number of lets available, the requirement for new social house building is affected by a range of factors including changes in the number of households and the number who can afford to buy or rent privately” (The Scottish Executive, 2006). However, it is acknowledged that the “[r]ight to [b]uy constrains the ability to meet housing need in those areas where there are particular pressures on affordable housing” (The Scottish Executive, 2006). Due to the “Right to Buy” and phased demolition of poor quality housing, the Council’s housing stock is diminishing (The City of Edinburgh Council, 2006). The Council is left not only “managing a smaller number of homes” but also and significantly “homes [that] are generally the least desirable” - something which is evidenced by the fact that “virtually all main door homes have now been sold” (21<sup>st</sup> Century Council Homes for Edinburgh: Health, Social Care and Housing Committee, 2008:3). With no new council homes having been built since the introduction of the right to buy scheme, pressure on the social housing sector has become immense. In 2009 “an average of 138 bids were received for every council house advertised through the council’s choice based letting system” (Lorimer, 2010). It is stressed by the City of Edinburgh Council that for both individuals and communities “a reasonable standard of housing is among the most basic of human needs” (The City of Edinburgh Council, 2006); where the “normal operations of the housing market” fail to meet such needs, intervention is required. The Council acknowledges that “[t]he principal providers of social housing are the Council [itself] and housing associations” (The City of Edinburgh Council, 2006). Since the 1990s all new affordable housing, which by definition includes social rented, affordable rented and intermediate housing<sup>15</sup>, has in fact been provided through housing associations (CEC, Item No 6, 12 Aug 2008). Affordable housing is “is available for rent or sale” and designed “to meet locally the identified needs of people who cannot afford to buy or rent housing generally available on the open market” (The City of Edinburgh Council, 2006). The Council remarks that “[a]s the biggest landlord

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<sup>15</sup>(<http://www.communities.gov.uk/housing/housingresearch/housingstatistics/definitiongeneral/>, retrieved on 27 October 2012)

in the city, charged with meeting the needs of some of the most vulnerable people in the city there is no strategic sense in this position [all new build through housing associations]” (21<sup>st</sup> Century Council Homes for Edinburgh: Health, Social Care and Housing Committee, 2008:3). It is elaborated that “[p]eople needing and/or choosing Council housing should face at least the same choices as those in the housing association sector.”

The housing needs assessment for Edinburgh (see Affordable Housing Policy: Practice Notes 4 and 7, June and November 2006, respectively) has revealed that “there is need to develop a range of housing at sub-market prices” with housing for social rent being the primary requirement. In order to create what is called “integrated communities,” however, it is believed that a mix of tenure is to be provided which includes mid-rent and low cost home ownership (LCHO). In June 2006 the City of Edinburgh Council amended its affordable housing policy (AHP) introducing “a city-wide requirement for 25% of units in new housing developments to be affordable” (The City of Edinburgh Council, 2006).

With housing debt impacting on the Council’s capacity to maintain and improve existing stock, houses are deteriorating and stigmatisation is growing. The designated redevelopment sites, Gracemount, Pennywell and North Sighthill, are no exception. The houses are in poor condition, social and infrastructural problems are evident, and substantial renovation work would have been necessary to bring them up to Scottish Housing Quality Standard by 2015. Budgetary constraints drove the Council to try and address the issue by transferring its remaining housing stock - and with it responsibility for bringing them up to standard - to the City of Edinburgh Housing Association (CEHA). In a stock transfer ballot in 2005, however, residents voted against such manoeuvre (47% Yes (6553), 53% No (7301), 60.5% turnout), which meant that 23,000 council homes would remain in the hands of the city. One of the 21<sup>st</sup> Century Homes project managers recollects the situation as follows:

R01: We wanted to transfer all our council stock to different Housing Associations, and they would manage it, and they would have new council housing stock. Using that method it meant that the Housing Association could then attract a grant to improve the housing and to *not* demolish and rebuild. And that was the first stage. That was the plan, that was the original plan. So, the tenants have to vote on what they want. Do they want to be transferred to a Housing Association or do they want to stay with the Council. And we had a *huge* campaign basically telling them that it was in their best interest to go the Housing Association and they

voted to stay with the Council.

HAB: And why is that do you think?

R01: Although they sometimes think the Council isn't the best landlord in the world, they feel comfortable with the Council and they felt we were doing something right [laughs], people wanted to stay with us.

HAB: Do you have any idea what this feeling is about?

R01: No, we never really got to the bottom of that. We just felt, we felt that they must have felt that the Council was doing something right.

Critics of the stock transfer had maintained that a 'Yes' vote would entail a fundamental shift from public to private ownership. The costly campaign designed by the Council to persuade tenants into a 'Yes' vote was particularly ill received by the voters. Mutual accusation of scare-mongering and misinformation had led to tensions between the City of Edinburgh Council and vote 'No' campaigners. An allegedly negative portrayal of council housing throughout the campaign had created further resistance amongst voters, who felt that such condemnation was largely misrepresentative of their own housing and community experiences. This was particularly true for the elderly, whose associations with council housing tend to be more positive and reflective of earlier times when this particular type of housing, according to grass-roots media, was considered "an excellent opportunity for decent, affordable housing for a broad range of working people and professionals" (<http://www.indymediascotland.org/node/1671>, retrieved on 29 May 2012). Former residents of North Sighthill who have witnessed the estate's rise and fall echo those sentiments. Ironically, an association of council housing with "popular, high quality housing" (21<sup>st</sup> Century Council Homes for Edinburgh: Health, Social Care and Housing Committee, 2008:3) is precisely what the Council aspires to achieve (again) with the commencement of the 21<sup>st</sup> Century Homes for Edinburgh programme.

The 'No' vote had important, although foreseeable, financial implications. A representative from the North Sighthill Residents Association (NSRA) comments:

The whole development was supposedly based on the concept that the North Sighthill site, right after demolition, it would be handed over to developers, developers would build houses, they would sell houses and make a profit. Apparently a lot of the debt that Edinburgh Council has on its HRA account, was going to be wiped out, cancelled, forgiven by the government.

Apparently a vote was put to the residents and they voted 'No'. And because they voted 'No' that meant that the deal about the debt cancellation was taken off the table. (R11)

The NSRA representative highlights the negative funding implications of the 'No' vote as an important factor in the rejection of the previous masterplan produced in 2004/5 by SSM. The architecture practice was commissioned in 2004 to prepare a masterplan that would "guide the process of urban renewal of the North Sighthill Housing Estate" (North Sighthill Development Brief (Draft for Consultation), 2007:4).

Stock transfer sounds easy. There's actually quite a lot of complicated stuff involved in that. You can see how it is related to the financial aspects. The cost of that plan was probably quite acceptable but not under conditions that were surrounding the stock transfer question, particularly the debt cancellation question. So that plan just got knocked off the head. (R11)

Since the rejection of the stock transfer the Council, having been "unable to progress its development proposals for the estate" (North Sighthill Development Brief (Draft for Consultation), 2007:6), has wrestled with the question how to bring the remaining homes up to the Scottish Housing Standard (SHQS) by 2015. SHQS had been introduced in February 2004 as "the Scottish Government's principal measure of housing quality in Scotland." The quality standard consists of a set of criteria against which properties are measured to ensure that a minimum housing standard is met below which no property should fall. In the case of the social housing sector, landlords (local authority landlords and Registered Social Landlords (RSL)) are required "to bring their stock up to every element of the standard (where applicable) by April 2015" (Scottish Executive). The project manager recollects:

The regeneration projects that we had planned couldn't go ahead because there was no funding. But by that time we had already committed ourselves to doing something, and we had to do something because the houses don't meet the Scottish Housing Quality Standard, and there came the opportunity to look at starting to build council housing because people obviously wanted the Council as their landlord, they voted that way. One of the things that people wanted to stay with the Council for was the whole implication of rent levels. Housing Association rents are slightly higher than Council rents. *But* the other aspect of it is that something like 80 percent of our tenants are on housing benefit, so the rent levels don't matter to them [laughs]. It's paid for them. So it was a bit of a strange one but one of the things that people were concerned about moving to Housing Association was what would happen to the rent levels because Housing Associations have more flexibility in raising rents than the

Council does. (R01)

Expressed in this statement is a specific awareness amongst CEC officials of the discordant situation that has finally and fundamentally led to the launching of the 21<sup>st</sup> Century Homes for Edinburgh project, the renewed inquiry into the regeneration of the North Sighthill estate, and thus the masterplan project that is being reported on here. In recognising that something had to be done “because houses don’t meet the Scottish Housing Quality Standard,” the situation is being identified as troublesome and requiring investigation. The situation is remembered by the project manager as follows:

We didn’t know what to do with the site, we didn’t know if we would be able to put council housing back on it and if there’d be any funding, so we were still looking at funding models and working with Finance and working with Ernst & Young, the consultants, to create a business case for the project. Initially there was also the thought that we would hand the site over to our Housing Association and they would redevelop it. There were just so many uncertainties around what was gonna happen. We knew there was gonna be housing on it at some point. (R01)

Calculations by the Council had revealed that it was not economic to refurbish existing houses. Notwithstanding this, residents were given the opportunity to vote whether or not they wanted the houses to be demolished. One may view this as an attempt to embrace the local community and ensure continued involvement in the project in recognition of people’s frustration with the Council

People were thoroughly fed up with the whole thing and the Council messing about as they saw it, one minute they were going, one minute it was being refurbished, next minute it was being knocked down. I mean, we started the process by asking what they wanted, did they want the properties refurbished or did they want them to be demolished. And we talked to everybody on the site that we could, we sent out, we handed out questionnaires, we went back to knock on doors to collect them so that we had the opportunity to speak to people. And about half the people on the site responded. (R01)

Their response was in favour for the houses being demolished. It is worth noting though that despite the Council’s efforts to engage the residents and establish clarity on their preferences, the terms were seemingly less clear. As one resident (R11) indicated there was confusion revolving around the so-called ‘right to return’ to new housing built and whether or not this would be granted. Affected by the decision were former tenants and owner occupiers on

North Sighthill due to be rehoused by the Council as part of the clearance programme following the positive vote for demolition. The voting process is recapitulated by the resident as follows:

It is a process that I haven't understood how it was handled in this case and I have a feeling, it's a personal feeling, it's not a conspiracy feeling, but I have a feeling that a question was put to the residents, the residents answered the question in such a way [in favour of demolition], and the result was: you're just getting rehoused and you're not getting the right to return. And we've been fighting the Council, I mean, the Tenants Federation is still challenging the Council whether the right to return does exist for this North Sighthill project or not. (R11)

The right to return is an important issue for those who have spent a great part of their life in North Sighthill and want continue to live there. What it means to them is brought home in the resident's following statement:

There have been people in this project area North Sighthill since the houses were put up, which was during the sixties. So their families have been born and brought up here, they've got a lot of friends here, a lot of them used to work locally here, my kids have got friends here from schools and they want to be able to continue to live in North Sighthill, which is totally reasonable. (R11)

Being given the right to return furthermore for many was a strong incentive to get involved in the masterplanning of the North Sighthill estate in the first place. Refusing the right to return, arguably, would have meant a great loss of confidence and enthusiasm on part of those few who had remained interest in the redevelopment

I've been in my house thirty years but I still keep my connections with North Sighthill for the simple reason is a part of the legal, I think it could be a legal side of things, that when you're in a house that's getting demolished, a council house, right, you're offered the 'right to return' to the new flats that are being build. So I decided to keep that right, ok? So that when you sit down and I'm going through it all ? want to go back but the right to return for me is there. And of course that could be five years, six years from now when I'm gonna be in my seventies. I could be in the situation where I can't manage steps. So therefore that is a bonus point that the Council were giving us. You have the 'right to return.' And that's why I've been in the whole thing all the way through. Because I just don't know what I'll do. (R12)

In fact, what is being "given to the residents," as explained by the project manager responsible for the business case, is not a right to return but a 'priority to return.' In theory

this means that those who have expressed interest in moving back to North Sighthill are kept informed about the development and contacted before any properties are advertised.

One of the things we always try to push through in any of the masterplan processes is that they [the former residents] are offered...it's not a 'right to return' now but a 'priority to return' so that they stay involved in the process of saying we don't want houses up here but we would like [them] up here. (R04)

While the priority to return is clearly seen to have a similar motivational effect (keep them "involved in the process"), it is to be acknowledged that former residents had effectively been deprived of the right to return and, judging by the statement of the former resident, been left largely in the dark about it. As evident in the resident's statement, her continued involvement in the redevelopment of the North Sighthill estate was distinctly based on the assumption that former residents would have the right to return: "that's why I've been in the whole thing all the way through" (R12). It is important to note that both statements (R12 and R04) were captured towards the end of the design process, prior to the submission of the application, with a time lag of about one and a half months; the interview with R04 (Project Manager) was conducted on 26 February 2009, followed by the one with R12 (local resident and member of the North Sighthill Development Group) on 14 April 2010 (see Appendix 3). During this time clarity has neither been established on the character of the return policy nor on the question how such policy would ultimately be implemented by the Council. In fact, the practicalities of the priority to return continue to concern the Edinburgh Tenants Federation (ETF) as it is revealed in their update on the North Sighthill regeneration from February 2012 (Update on Regeneration Areas in Edinburgh: North Sighthill, 2012): "For months ETF representatives and staff at the Investment and Regeneration Working Group have reminded Council officers that they would need to find a way to implement this priority," and yet, they point out, "the Gracemount flats<sup>16</sup> were advertised without a firm process of knowing how previous tenants would be allocated a house." Not hiding their anger and frustration they add: "This infuriated us as Council officers knew that a process was needed." What effect clarity on this issue might have had on people's long-term commitment to the project is a matter of

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<sup>16</sup>The Gracemount redevelopment was completed in December 2011 as the first of the three regeneration projects that are taking place under the 21<sup>st</sup> Century Homes for Edinburgh banner.

conjecturing, however, it seems fair to assume that in the run-up to planning application it would have caused unwelcome disruption, debate, questions being asked and perhaps even the erosion of support given the fragility of the relationship between local residents and the Council. Apart from that, the meandering of the Council raises questions about its intentions or, in the word of one NSRA representative (R11), “what type of redevelopment are [they, the Council,] actually wanting to produce here?” 21<sup>st</sup> Century homes is classified as a regeneration project.

In November 2006 then, following the demolition vote, the City of Edinburgh Council pressed on and identified five areas for demolition affecting a total of 1,746 homes across the city in the areas of Pennywell, North Sighthill, Gracemount High Flats, Leith Fort and Rouston/Wardieburn" (CEC, 20 March 2008, Item No 4). Affected were homes which, according to Edinburgh Council, could not “cost effectively” be brought up to the new housing standard (21<sup>st</sup> Century Council Homes for Edinburgh: Health, Social Care and Housing Committee, 2008). It is important to note that while the three demolition sites Pennywell, Gracemount and North Sighthill were being heralded as “offer[ing] attractive redevelopment opportunities” and all stakeholders were understood to be desperately keen to take forward the redevelopment as soon as possible, all development funding for new affordable housing was fully committed and, for this reason, no plans existed at that point for the redevelopment of these sites.

367 of the properties identified for demolition are in North Sighthill which includes the high-rise structures Broomhouse View, Hermiston Court, Weir Court and Glenalmond Court. About a year later, in October 2007, the Health, Social Care and Housing Committee announces that a further 82 low-rise flats would be included in the North Sighthill demolition programme after consultation with residents in these blocks (CEC, 20 March 2008, Item No 4). The first building to come down in North Sighthill was Broomhouse View. Accordingly, drop-in sessions were held (by the South West Local Office) for residents of Broomhouse View and adjacent Hermiston Court. A decline in attendance towards the end of 2007 led to

the continuation of the dialogue with those still due to be re-housed on a one-on-one basis.

Around the same time, in October 2007, the Council's Planning Committee approved a consultation draft of the North Sighthill Development Brief (North Sighthill Development Brief (Draft for Consultation), 2007); a document that would later become an important reference in the renewed masterplanning of the North Sighthill estate. Serving as a basic guideline for future planning applications, the document takes account of the number of significant developments in prospect at that time on sites in the North Sighthill area, including the major refurbishment of Napier University's campus, developments at Stevenson College Edinburgh, and, of course, the planned renewal of the North Sighthill Housing Estate. It is being recognised that the nature and scale of the projects offer an opportunity to "progress development in a manner that will maximise the potential to achieve integrated and sustainable developments to the benefit of each project and the wider community" (North Sighthill Development Brief (Draft for Consultation), 2007:3). A position that is shared by Napier University's Director of Property and Facilities

We felt that simply taking four hundred something units of social housing and replacing it with four hundred something units of social housing would have been a missed opportunity. And that's not because we had any reluctance at social housing on the doorstep but we felt there was a greater opportunity to do something more visionary with not just that piece of land adjacent to our site but the bigger area. [...] I met with the [Edinburgh City Council's Director of City Development] and others from the Council and presented the vision to them and I'm not gonna use the word with the plea to say "don't just put social housing back here, look at the bigger picture." But in effect we went in with that agenda and said "you cannot miss this opportunity, you have to look at it as a bigger project." (R14)

An openness to a long-term vision is also expressed by the project architect (R07), who, nonetheless, makes clear, specifically to the local residents, that "the focus is on North Sighthill." Without going into greater detail at this point, it is worth noting that despite widely shared enthusiasm amongst Council representatives and some key stakeholders such as Napier University, local residents were understood to be more sceptical about a grand vision approach

Certainly that [the grand vision approach] was well received by [the Director of City Development] and his colleagues. I think some of the people involved on the housing site in

particular were not as keen, for obvious reasons. (R14)

Those reasons were not further specified but apart from concerns about negative implications on the re-provisioning of council housing, one has to appreciate that the residents' relationship with Napier University and Stevenson College was troubled by students as well as other university members frequently occupying the car parking facilities on the North Sighthill, causing inconvenience and disruption. Notwithstanding this, the Council aspired to develop a new library and community facility that would serve not only the residential community but also people from Stevenson College and, in the longer term, Napier University. Envisaged was a new street to be built alongside Sighthill Court, complete with a parade of shops, new (shared) community facilities and a student housing development. It is this vision that would later reappear and become a subject of controversial debate in the development of new design solutions as will be shown. Particularly, the questions *if* and *where* the new community facilities would be provided caused controversy, in recognition of which the Council's position articulated in the brief shall be quoted here in full:

The renewal of the housing estate will require the provision of a new library/community facility. While the development brief identifies a preferred location for this facility, at the north end of Sighthill Court, the Council would welcome comments on this aspect of the development brief (North Sighthill Development Brief (Draft for Consultation), 2007:12)

The community facilities on site serve an important function in strengthening social cohesion, creating a sense of belonging in the larger North Sighthill community and binding the wayward youth. Its re-provision has been a central demand of the local residents. The facilities distinct role is given emphasis in a newspaper article published in April 2007 following the refurbishment of the Sighthill Library. One library assistant is being quoted as follows: "Everyone has a preconceived idea about libraries, but here the library is not just about books – it really serves the community" (Chesshyre, 2007). In 2006 the Sighthill Library received a "face lift" engaging teenagers in the refurbishment work with the attempt of creating "ownership."

The preference articulated above had gathered momentum in the renewed masterplanning and imprinted itself on the proposed design solutions. The way in which this has happened in

the course of inquiry will be explored in the following chapters. The brief further highlights a few key concerns regarding the current state and design of the North Sighthill housing complex, including the “variety of ill-defined open spaces” (again, a design issue that would receive particular attention in the renewed masterplanning) and the open and exposed park. The development principles proposed by the brief have been informed by a working group comprised of Council departments and the principal stakeholders with an interest in the North Sighthill area. In November 2007 then a public consultation event was held to seek views on the development brief as well as the re-provisioning of community facilities and the demolition programme (CEC, 20 March 2008, Item No 4). Given the brief’s constitutive character in framing the problem situation and shaping the future development of design solutions by means of guiding principles, it is important to note, however, that in an article entitled "Goodbye to the high rise as Sighthill ups its game" published in the local *Evening News* in October 2007 residents articulated criticism of the Council’s lack of consultation effort in reaction to the expected approval of the development brief. The consultation period on the draft development brief ended on 11 January 2008. About two months later the Council informed that responses to the proposals of the development brief were being considered by the Head of Planning & Strategy before a finalised version would be presented to the Planning Committee later that year (CEC, Item No. 4).

In October 2008 the Council appointed Ernst & Young to establish the feasibility of building and managing new council homes for both rent and for sale as a new approach to building affordable housing in the city. While the focus was on the key regeneration sites in North Sighthill, Gracemount and Pennywell, the Council aspired to develop a model which would be applicable to other areas too. The commissioning of Ernst & Young followed an earlier study that had been conducted in December 2007 by the housing consultancy DTZ to “advise on the feasibility of building Council homes [...] without use of Development Funding” (CEC, Item No. 6). The DTZ study was to focus primarily on the financial aspects and incorporate other aspects only to the extent that they were considered relevant. DTZ is being described by the Council as “a well-regarded housing consultancy with first hand experience of councils who have already embarked on new build programmes.” Its reputation, however, is not entirely positive as research conducted by Sarah Glynn (2011; 2008) into the

demolition of council housing in Dundee suggests. As shown by Glynn, DTZ provided a crucial, yet seemingly unsound and policy-driven, council housing stock analysis upon which Dundee Council developed its plans to demolish two multi-storey blocks in Derby Street, at the top of the Hilltown in central Dundee, and pursued an idea of regeneration that enjoys political popularity across Europe but might otherwise be classified, Glynn points out, as what Hackworth & Smith (2002) call a “third wave of gentrification.” By this they mean a form of gentrification that expands beyond the inner-city into more remote neighbourhoods, is carried out by larger developers, eased by little resistance from a displaced working class, and greatly encouraged by entrepreneurial local governance (2011:3). Specifically, what Glynn criticises is the consultancy’s unsubstantiated (“no supporting data”) and misleading claim the City of Dundee had surplus council housing. With homeless increasing and housing problems being immense, she argues that “in a city with low wages and an ageing population, council housing was likely to become more needed rather than less,” and adds that “such considerations were not discussed” (2011:3). Already, the housing situation is tense with only half the people applying for a council house being allotted one, and Dundee Council having difficulties to rehouse people from properties scheduled for demolition due to a lack of alternative accommodation.

The commissioning of BM to masterplan all three 21<sup>st</sup> Century Homes redevelopment sites, Gracemount, Pennywell and North Sighthill, followed in January 2009. In response to the scope and complexity of the regeneration programme, a phased development approach was pursued, which meant that the three sites were to be treated separately, functioning as self-standing entities that did not have to be realised as a conglomerate. As explained by one of the architects, if, for instance, Gracemount turned out to be a “failure”, the development of Pennywell and Sighthill would not necessarily be affected by this. It was emphasised that every site is different with the implication being that “one would never use an old scheme for a new site“ (R06). And although learning was something generally encouraged by the phased development of the masterplans (as one of the participants at the client meeting on 22 September 2009 pointed out, this is a “[g]ood chance to put the learning [from Gracemount] into this [the North Sighthill masterplan].”), one architect argued that learning from the other

masterplan projects only takes place in terms of technical specifications (width of road, etc.). A technical system developed for Gracemount, for instance, might allow to be applied to the masterplans of Pennywell and Sighthill, although it is usually not clear at the beginning where to put it in the new scheme.

The masterplanning activities for North Sighthill began in August 2009 under the lead of Project Architect R07. R07 is supported by Architectural Assistant R08 and required to report to the BM Management Team, formed by the practice's Director R09, the Director of Planning and Urbanism R06 as well as the Landscape Architect R06 (who is also more directly involved with the Pennywell masterplanning and consultation activities). Due to financial reasons and much to the regret of the Council's senior project manager, BM had not been involved in any pre-masterplanning activities, which would have entailed meetings with different stakeholders and stakeholder groups to get initial ideas for the project brief. As pointed out by Napier Directory of Property and Facilities "BM came in to the situation that was not entirely straight forward. They had a very specific remit with respect to that part of land [the 4.5 ha brownfield] and the housing.

## 4.2 Institution of a problem

In order for the indeterminate situation described above to become problematic the former is to be subjected to inquiry. Recognising the situation as being problematic marks the beginning of the process of inquiry and the intellectualisation of the indeterminate situation in the course of which the problematic core becomes carved out. It is through inquiry that the situation moves from the precognitive, non-mental sphere into the sphere of reflective thought and action. As pointed out by Dewey "it is of the very nature of the indeterminate situation which evokes inquiry to be questionable" (Dewey, 1938:109). Given the continuous nature of inquiry, we find that the settlement of one problem constitutes the problematic material of next. The material of the indeterminate situation may thus be viewed as being

composed, amongst other things, of the problem solutions of previous inquiries into the social housing problematic and redevelopment of the North Sighthill estate outlined above. The way the problem is conceived decides what data are selected and which are rejected, what specific suggestions are entertained and which are dismissed (Dewey, 2008:112). Dewey makes clear that “[n]o situation which is *completely* indeterminate can possibly be converted into a problem having definite constituents.” The first step therefore is to search out the constituents of a given situation which, as constituents, are “settled” (Dewey, 2008:112). Those constituents not as temporally and spatially fixed, such as behaviours and movements, are then settled in observation. All of these factors taken together eventually constitute the “facts of the case” (Dewey, 2008:113).

### **The beginnings of the masterplanning activities**

The first research encounter with a member of the 21<sup>st</sup> Century Homes’ architectural management team and the project architect was on 16 September 2009. The Edinburgh office of BM is located in the centre of Edinburgh and resides prominently on the first floor of a modern commercial building complex. In its current form BM is a multi-disciplinary service provider whose extended operations are built around the architectural core from which it had evolved. Underlining its professional status, the practice exhibits a high level of management discipline and economic rationality (“manage innovation and minimise risk”). Different statements and stories shared by the practice’s director (R09) during the initial interview in May 2009 are testament to this, such as the aim of achieving specific industry standards “as a benchmark of quality” (although this is something being required by the practice’s insurer, having accreditation is understood to send a strong message to potential clients, partners and the general public and valued as a critical success factor, for instance, when tendering for public work), the Director’s aspiration for what he calls “a bespoke business process” which ensures the materialisation of design (“most architects would like to see things built” and “the business process is an enabler,” “if architecture isn’t built, it’s graphic design,” “architectural design depends on process,” “process allows them [the architects] to get design built,” “we don’t perceive it [the business process] as creative constraint”; architecture comes into existence through the translation of schemes into physical objects; ), the global application of

the RIBA plan of work (while “in [the] crudest sense [this is a] tick-box process,” it is usually slightly augmented (“local deviation”) to account for the fact that “no one size fits all”), the client orientation and concern about added value, the commercialisation of architecture (“being commercial is very correct and sustainable”) as well as its recognition of competitors and the importance of specialised and unique competences (“no indication to competitors what our standards of quality are”). BM further places great emphasis on the development of knowledge and skills and their effective transfer and use across the organisation as is indicated, for instance, by an earlier consultancy project designed to systematically investigate the practice’s knowledge management activities, which resulted in the implementation of an IT-based knowledge management system. It is this commitment to knowledge and learning that had sparked interest in the company in the first place and was hoped to be displayed in the undertaking of the masterplan project.

### **The brief**

The brief for the North Sighthill redevelopment is based on the information contained in the tender document in the appendix to this thesis. The brief was to be developed prior to the commencement of the actual design work. An email from BM’s Director of Planning and Urbanism sent on 1 September 2009, however, documents that this was not the case. About two weeks before the North Sighthill kick-off meeting on 16 September BM was “still trying to define a brief” which would take “the next couple of months.” On the quality of the consultant’s brief at the start of the masterplanning activities, a project manager at the Council remarks:

R01: The brief was just too vague for the job.

HAB: How did this affect the architect’s work in terms of creative space?

R01: I think, it provided him [the project architect] with a creative space but also provided him with an awful lot of frustrations, because you do a lot of work, present it and then we [the client group] go “we can’t have that” and he was like “well, why didn’t you tell me this before, before I got to this stage?” So although it provided space to be creative, it also caused a lot of unnecessary work, I think. [...] I don’t think it was so much an open brief but a lack of clarity [laughs].

HAB: I understand from what you are saying that this it is not normally the case for the Council to have such a “vague brief” as you say?

R01: No, we are normally much tighter. Gracemount was very tight, you know, that was a very specific brief as to what was to happen on that site. It was an easy site. A site with three tower blocks on it, knock them down, there is just housing around it, so there is no library, no community centre, all that’s elsewhere, so you could be very specific in what you wanted on the site. That was straight forward, whereas ours is much more complex.

In scrutiny here is therefore the tender document in as far as it has defined the parameters of the design work. In recognition of the importance of the brief in guiding the design work, details of the tender document are presented in the appendix. The tender document covers two parts: Part A Service Specification, specifying the scope of service, and Part B Consultant’s Brief, detailing the specifications of the masterplans.

### **The institution of a community of inquiry**

Inquiry is discussed in Dewey’s work as an activity performed in relation to others. Dewey explains that “when any one person engages in it, he is committed, in as far as his inquiry is genuinely such and not an insincere bluff, to stand by the results of similar inquiries by whomever conducted” (Dewey, 1938:25). The word “similar” here means similarity in terms of the conditions and postulates upon which inquiry is conducted.

This raises questions about the extent to which design may be viewed as a social product. The project architect generally admits design being the outcome of collaborative efforts but then makes a crucial distinction between a social product “in terms of words” and in terms of action: “someone has to put it on paper”(R02), translate it into the language of architectural illustration. The social dimension of art and design has received much scholarly attention over the last decades. Authors like Howard Becker (1974; 1982) and John Chris Jones (1992) have explored the idea of art worlds and collective design, respectively, to develop our understanding of how art and design is being produced (see also DeFillippi et al., 2007).

The point [...] is that what is taken, in any world of art, to be the quintessential artistic act, the act whose performance marks one as an artist, is a matter of consensual definition... The artist works in the center of a large network of cooperating people, all of whose work is essential to

the final outcome...The artist's involvement with and dependence on cooperative links thus constrains the kind of art he can produce (Howar Becker, 1974:769-770).

Dewey acknowledges the practice of inquiry to be socially conditioned: “man is *naturally* a being that lives in association with others in communities possessing language, and therefore enjoying a transmitted culture” (Dewey, 1938:26). “Inquiry,” he continues, “is a mode of activity that is socially conditioned and that has cultural consequences” (Dewey, 1938:26-27). The discursive space in the masterplanning of the North Sighthill estate is opened up, not least, by the requirement to engage with the concepts of participatory planning and (public) consultation. The Scottish Government recognises that the quality of buildings and the built environment is equally influencing and being influenced by a range of different interests, the consideration and clarification of which requires interaction and constructive dialogue between the different parties involved. As pointed by the Scottish Executive, “design is a specialist skill but it is not an exclusive activity and depends on a meaningful and sustained dialogue between designers and clients, users and communities” (The Scottish Executive, 2001). The question in the context of this thesis is not so much why consultation (both statutory and non-statutory) is undertaken, but how it is perceived and in what way it is epistemically relevant. Reasons for consultation are investigated only in as far as they reveal discrepancies in people’s understanding of the productive value of consultation. Beyond that the question why undertaking consultation shall be answered by reference to Scottish Planning Policy<sup>17</sup> (Scottish Planning Policy, 2010). According to Paragraph 24 of SPP 2012, pre-application consultation is a legal requirement for both national and major developments. With the North Sighthill redevelopment falling into the latter category, engaging stakeholders in the planning process is first and foremost a legal necessity.

24. Prospective applicants are required by legislation<sup>18</sup> to consult communities before

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<sup>17</sup>Scottish Planning Policy comprises the Scottish Government’s policy on nationally important land use planning matters.

<sup>18</sup>Section 35 Planning etc. (Scotland) Act 2006 and Regulations 4-7 Town and Country Planning (Development Management 7 Procedure) (Scotland) Regulations 2008

submitting planning applications for major and national developments<sup>19</sup>. The purpose of pre-application consultation is to allow meaningful consultation to take place before development proposals are finalised and applications for planning permission are submitted. Pre-application discussions between prospective applicants, key agencies and planning authorities are vital to ensure all parties have a shared understanding of the nature of a proposed development, information requirements and the likely timescales for determination.

Engaging the community is increasingly recognised by policy makers as an important mechanism in developing and sustaining a working relationship between public bodies and ‘the community’ to help them both understand and act on the needs or issues that the community experiences. Envisaged is a dialogue between both users and providers of the redevelopment that will serve the aim of improving Scotland’s quality of architecture and the built environment.

31. Effective engagement with the public can lead to better plans, better decisions and more satisfactory outcomes and can help to avoid delays in the planning process. It also improves confidence in the fairness of the planning system. The Scottish Government expects engagement with the public to be meaningful and to occur from the earliest stages in the planning process to enable community views to be reflected in development plans and development proposals. Minimum requirements for consultation and engagement in the planning system are established through legislation<sup>20</sup>. Advice on community engagement in

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<sup>19</sup>The hierarchy of developments is defined in the Scottish Planning Series, Circular 5/2009 *Hierarchy of Developments*. The circular accompanies The Town and Country Planning (Hierarchy of Development) (Scotland) Regulations 20092 (the Hierarchy Regulations) which came into force on 6 April 2009. The hierarchy is designed to allow for “a proportionate approach to be used for dealing with planning applications” depending on the scale of the development. Three categories are being differentiated to which all developments are allocated: local, major and national developments. Housing developments, i.e. constructions of buildings, structures or erections for use as residential accommodation, comprising 50 or more dwellings (flats and houses) are classified as major developments. The same classification applies to cases where there may be less than 50 dwellings but the site is or exceeds 2 hectares. North Sighthill belongs to the category of major development in both regards with 320 dwellings being proposed for re-provision covering a site of 4.4 hectares (Application for Planning Permission in Principle (PPP) for North Sighthill Redevelopment, 2010).

<sup>20</sup>The Planning etc. (Scotland) Act 2006, the Town and Country Planning (Development Planning) (Scotland) Regulations 2008 and the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008

the planning system, linked to the National Standards for Community Engagement<sup>21</sup>, is provided in PAN 81 *Community Engagement*.

32. Everyone has the right to comment on any planning application which is being considered by a planning authority. Legitimate public concern or support expressed on a relevant planning matter should be a consideration in planning decisions. Planning authorities must ensure that communities are given the opportunity to get involved in the preparation of development plans. Planning authorities and developers should ensure appropriate and proportionate steps are taken to engage with communities when planning policies and guidance are being developed, when development proposals are being formed and when applications for planning permission are made. Individuals and community groups should ensure that they focus on planning issues and utilise available opportunities for engaging constructively with developers and planning authorities. Close working with communities can help to identify and overcome sensitivities or concerns associated with new development. Liaison committees can have a role in offering communities greater involvement in the operation of mineral extraction sites and other similar developments (Scottish Planning Policy, 2010).

The rationale for community engagement is further detailed in the Scottish Executives' National Standards for Community Engagement (2005) where it says:

...the effective engagement of local people is critical to the regeneration of our most disadvantaged communities by local partnerships. It is only by listening to the experiences and ideas of the people who live in these communities that we can find solutions which will make a lasting difference.

As all parties to community engagement possess knowledge based on study, experience, observation and reflection, effective engagement processes will share and use that knowledge.

All participants should be given the opportunity to build on their knowledge and skills.

We will develop actively the skills, knowledge and confidence of all the participants (National Standards for Community Engagement, 2005).

## **Forms of Engagement**

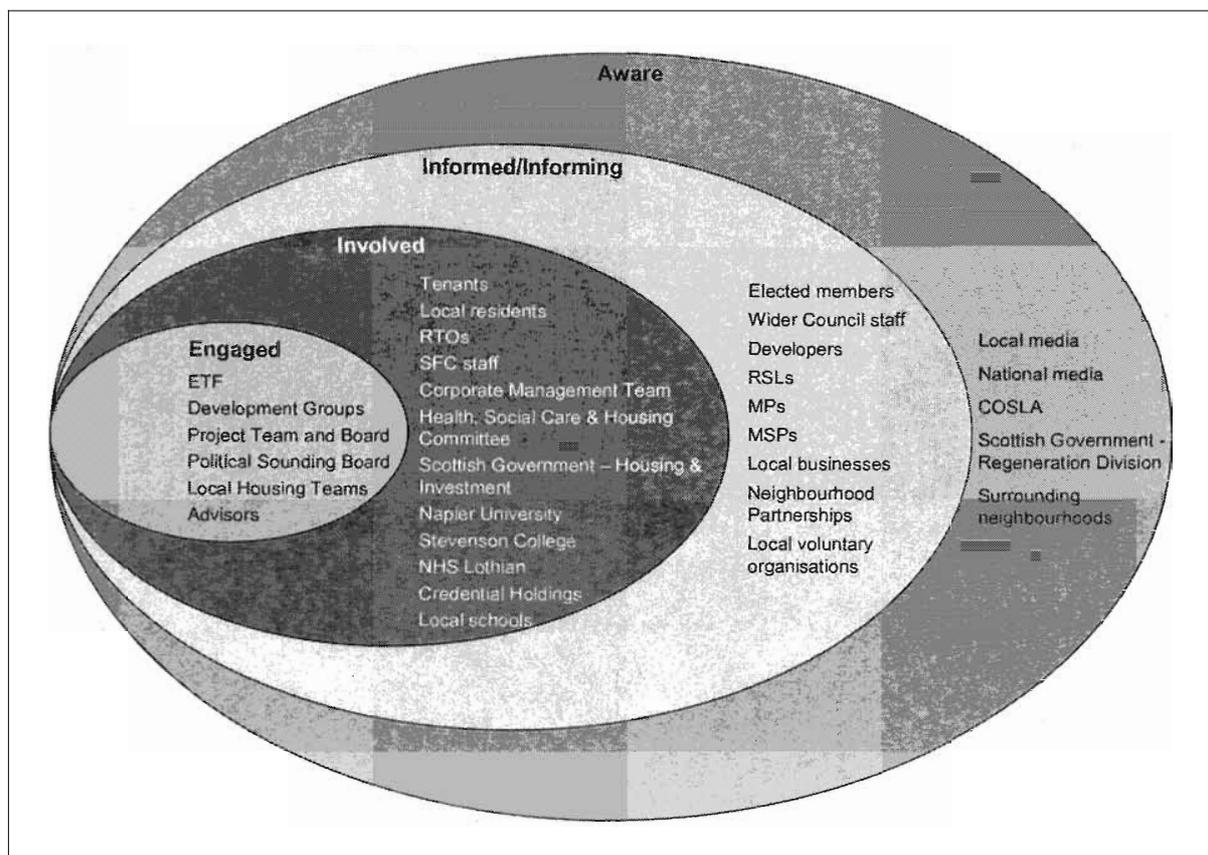
As made clear by the project architect and a member of the architectural management team,

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<sup>21</sup>National Standards for Community Engagement (Communities Scotland, 2005)

direction on the consultation process is given by the client, the City of Edinburgh Council. While the consultation process usually differs with each site, at the heart of it lies the idea to recruit a broad spectrum of people to get a good sense of people’s concerns. On the client side, the architects were “dealing primarily with three/four faces” (R07), which included R04 („essentially the project manager“, „driving project forward“, does not really engage with design questions but prefers R03 to focus on this aspect), R03 (engineer by training; competent in design and construction processes), R18 (Planner), and R19 (Principal/Head Planner). The latter is involved in the development of each site, i.e. Gracemount, Pennywell and indeed North Sighthill.

Figure 7: Stakeholder mapping



Source: CEC Business Case, 2009:19

The projects were set out to engage with a variety of different stakeholders affected by the regeneration programme and its outcomes. In order to account for their differing needs of

involvement, four levels of engagement were conceptualised (see Fig. 7), extending from “engaged” to “involved” to “informed/informing” to “aware.” Their specifications are considered in Table 11.

Table 11: Levels of Stakeholder Engagement

<b>Engaged</b>	Stakeholders that are engaged are part of the project structure. This group of stakeholders will work closely together in partnership. This will enable groups and individuals to become involved in joint projects.
<b>Involved</b>	Stakeholders that are involved are individuals and groups that will be directly impacted by the project. This includes involving individuals in decision making about their own home and involving communities in the planning and decision making processes.
<b>Informed/informing</b>	This group of stakeholders need to be informed of the programme and their experiences and concerns used to inform the programme. This involves listening to people's experiences of the current service and their aspirations or fears about the changes that are being planned. It also involves informing stakeholders of the programme and how they may benefit from the regeneration of the areas.
<b>Aware</b>	This level of consultation will provide information on the regeneration programme that is being planned.

Source: CEC Business Case, 2009:19

Given the constraints of this research in terms of time and resources, attention had been focused on those actors most directly involved with the project, i.e. those “engaged.” Fluid boundaries however implied that some of the stakeholders originally listed under “involved” would also articulate their interests as a member of the development group (such as Napier University and Stevenson College). In order to ensure “a maximum of engagement” with “as many members of the community as possible,” including “hard to reach groups such as the elderly and the young unemployed,” the Council decided to set up what they called the “North Sighthill Development Group” (Discussion Paper for the North Sighthill Regeneration Project: Progress update and proposals for community engagement, 2008:1). Organised as a sub-group of the Neighbourhood Partnership and envisaged to “exist for the duration of the masterplanning process,” the group drew representatives from the local estate (North Sighthill Residents Association (NSRA), library, community centre and shops), adjacent neighbours (health centre, fire station, Napier University, Stevenson College and Parks) and the wider community (community councils, police, schools and interested stakeholders). Representation was further sought from the South-West Local Office and the Council’s Regeneration Team (represented by Senior Project Manager R01 and Project

Manager R02). The group’s remit was defined as follows: i. “[t]o encourage and facilitate consultation and participation from a broad community base;” ii. “[t]o contribute to the masterplanning process, development options and outcomes;” and iii. “[t]o submit progress reports to the Neighbourhood Partnership.” The group was further expected to act in an “advisory capacity to the Neighbourhood Partnership and the Council.” Their responsibility and sphere of influence was defined by the Councils as follows:

The proposed ‘Development Group’ should have a significant role in influencing the masterplanning process, development options and outcomes. A progress report will be submitted to the Neighbourhood Partnership on an annual basis.

In order to “[keep] information channels [...] open” throughout the planning process, the Regeneration Team committed itself to continue producing regular newsletters for residents of North Sighthill, staff and users of the library, shops and community centre. One has to appreciate that the development group is of heterogenous character given the diversity of stakeholders on board. The programme for the consultation process is shown in table 12.

Table 12: North Sighthill Public Consultation Programme August - October 2009

<b>Date</b>	<b>Events</b>	<b>Commentary/Details</b>
26 AUG ‘09	Development Group (18.30-19.30 at Sighthill Community Centre)	<ul style="list-style-type: none"> <li>• Initial Outline of community consultation strategy for review</li> <li>• Outline of base analysis work</li> </ul>
07 OCT ‘09	Development Group (18.30-19.30 at Sighthill Community Centre)	<ul style="list-style-type: none"> <li>• Presentation of on opportunities and constraints options and review of masterplanning principles</li> </ul>
16 OCT ‘09	Place Making Workshop between 12-2pm and 4-7pm at the North Sighthill Community Centre. Format to be around tables developing ideas with residents based on constraints and opportunities options	<ul style="list-style-type: none"> <li>• BM to issue leaflet design advertising event to CEC on 5th October</li> <li>• CEC to distribute flyer to local residents (including those relocated), key stakeholders and adjacent communities on Friday 9th October</li> <li>• 16th October, place making workshop</li> </ul>
20 OCT ‘09	Community Council Meeting (19.00 – 20.00 at Stevenson College)	<ul style="list-style-type: none"> <li>• Outline of masterplan progress</li> </ul>
28 OCT ‘09	CEC Board Meeting	<ul style="list-style-type: none"> <li>• Presentation and feedback on masterplan progress</li> </ul>
30 OCT ‘09	School Consultation (11.30 – 13.00 at Forresters School)	<ul style="list-style-type: none"> <li>• Focused workshop with 20 children from the schools geography department.</li> </ul>

The initial consultation process revealed difficulties and conflicting issues in terms of the

purpose and scope of consultation, its timing and how it was to be conducted. As part of addressing these issues some of the following questions are examined: Why it was instituted (different views)? What type of consultation took place? What were the timescales? Who was consulted, why and how? Who wasn't consulted and implications? What was the consultation supposed to achieve?

### **Involvement in Participation**

Confusion included who was to be involved in the process of consultation and what was being represented. Initially the intention was to include residents groups. However, for some sites this proved difficult, as one of the directors of the project explains:

Sighthill has still got residents on it and is an enclosed, compact kind of site, which people can probably relate to whereas at Pennywell all sites were cleared, there's no residents; some of them [the Pennywell redevelopment sites] are school sites so there's never been any residents. The other residents have been moved out. And possibly not even in the area, they maybe have been moved to other areas of Edinburgh. So it's been difficult to engage with them. R23 has been trying but I don't think she's had too much success. So the Pennywell project was really, in terms of community consultation, driven by the development group, who are well meaning local representatives but they don't live in the area. They represent the library, they represent youth groups, they represent local housing associations and the local Community Council. But they don't live there and we've never really had a resident present at these meetings. (R06)

Because of this, the resident liaison person and the nature of their involvement was also important

The way that the community consultation has been led has been very different I think. I suppose primarily because each project had a different Community Liaison Officer, you have Christine at Gracemount, you've got Karen and Alistair at Sighthill and you've got Cheryl and Eileen in Pennywell. So they have all approached it very differently. I think they have been talking to each other, you know, within the Council, but you can only go so far because there's a very active community in Sighthill and they know they have been very proactive in all the discussions that Robert had been leading. In Pennywell less so, in fact, we've been really struggling in Pennywell to get any of the residents to come to any of the meetings. (R06)

The residents groups were described by the director of the architectural practice as

a very mature residential community that probably wasn't engaged with higher education,

colleges and universities and certainly hadn't got any first-hand experience with that and their only experience will be with the difficulties that the university brought in terms of its car parking and the day-to-day issues. Broadly speaking the majority of them had no personal experience with higher education, I think, they weren't particularly interested in engaging with it, they couldn't understand the potential synergies. (R09)

However, the importance of community involvement is emphasised in the reflections of an NSRA representative and local resident from 7 March 2009:

I have just been listening to a programme on the radio and I heard the following: An old lady living in a care home describing her daily life – and she said: 'I keep myself to myself as I have lost so many friends here. I have my family photographs on top of the radiator. I prefer not to make new friends now.' How sad that this is what we (as a society) are able to offer the elderly – no community involvement, no engagement in daily life, no concern for their wider needs as part of a still vibrant society. Surely this is wrong. Care without real caring is surely deficient. It brings about a separateness ('a hidden apartheid' if you will) that must be intolerable in a progressive and respectful society. (R11)

These concerns also prompted questions as to the 'boundaries' of consultation, in terms of who should be included within the process, i.e., who should be represented

I note that there appears to have been no involvement from the new Care home within our midst. Is this because they have not been brought into the 'discussion', or is it because they have not chosen to become involved. Even so, should we not endeavour to insist that they do become part of the 'consultation'? By this I mean that as they are involved – and will be impacted by the development – they must partake in providing some (at least) inputs into the development proposals. Who, and how, will we ensure that this happens? They do after all consist of a part of the long-term residential community! (R11)

Following on from those initial reflections on the relevance of community involvement, the NSRA representative went on to list those individuals and organisation he felt were missing in the process. He labelled these *Missing in Action (MIA)*:

Fire Station personnel, the church, the garage, shop owners, library staff, local schools and representatives from the classroom, the community centre staff, representatives from the local sports (football) clubs that are users of the central area of the development – 'the Park,' the police view for their perceived needs for community policing within the development, the local health authority, student representatives – as a 'typical future user of the developments facilities' (R11)

This highlighted another problematic concept of what precisely was understood by the concept of ‘community’:

We should be thinking about issues such as this as we are supposed to be involved in the development of a new thriving, sustainable, community engaging all members of the community. It is imperative, therefore, that we engage with this ‘community’ – which already exists within the midst of the proposed development in North Sighthill. (R11)

Acknowledging that some find it difficult to attend meetings due to other commitments, he develops ideas as to how to account for those absentees and offer different forms of engagement

There has been a difficulty in getting meeting representation from the local shop owners – due to the fact that they have to work during the time that the meetings are taking place. They have said to me that it is difficult for them to attend as they are unable to get additional staff to work for the period of the meetings – and trading conditions certainly do not allow them to close-up for the meetings. Can we not provide them with taped records of the meetings? Surely a simple thing to do for them – and it would allow us to get their feed-back at a later time, thus providing us with some real input from them. They are obviously feeling ‘marginalised’. (R11)

Timing, however, was an issue throughout as the director remarks

I think, that it was unfortunate that the Council timescales didn’t naturally coalesce with the college campuses timescales for their masterplan. Although we did have consultation and dialogue with the campus and we did talk to their masterplanners, we weren’t working at the same timescale, with the same window of opportunities at the same time. So the possibilities of greater connections or accessibility or integration or interface were limited by the fact that we weren’t running simultaneously and so...in an ideal world it would have been good if those two neighbours were working their masterplans up at a better pace together. (R09)

The past experience of the process was not conducive to an open spirit of enquiry

People were thoroughly fed up with the whole thing and the Council messing about as they saw it, one minute they were going, one minute it was being refurbished, next minute it was being knocked down. In 2008 when the demolition of the first tower block was happening that was all we were doing, just talking to the community about what was going to happen, about evacuation processes, about what help they needed to be able to leave the home now that the demolition took place [tone of voice falls into melancholy which suggests exhaustion and great effort], you know that was really...ehm...three months of just really focusing on that and

everything else had to sort of be pushed to the sideline. (R01)

Amongst the residents the past influenced their views and expectations of the consultation process.

I think, there's a bit of *lethargy*, you know, *they had all this* [consultation exercises] *before*. There was masterplans done before, which never came to anything." (R06, emphasis in the original)

### **Purpose and scope of consultation**

Beyond formal requirements the consultation process was started for a number of reasons. Among them was a commitment to consultation as articulated by the PA: "And I think that this particular government and that particular led authority, I think, is genuinely sensitive to the Council tenants needs. So I think it's important in terms of valuing consultation, you get good value from it" (R09). For the architects there was also a sense that listening and learning to experience was part of building up a relational connection with the area, which was seen as part of an ethical position vis a vis those with whom they were engaging.

On a residential scheme, we've got the emotive input from the local residents that are actually living there now, but more importantly are looking to actively live there in the future. So from an emotional perspective, you wouldn't want to rush and come to them through from day one "this is the kind of house that you'll be living in". I think there is a process of listening and learning to their experiences and helping to build up a relational connection to the area. (R07)

### **Consultation for the architects also extended to the post built phase**

[P]ost-occupancy consultation dialogue which ideally leads you to conclude that by doing all of the right moves and by putting the buildings in the right shape and the right place, you have actually made meaningful places for people to live, which has improved the quality of their lives and I think you know at the end of the day you're doing a good job. (R07)

### **Also important were practical concerns**

You listen to what people say and appreciate that they're better than you in certain things. So without doing that your project is not gonna go very far. We have to listen to suggestions in terms of business case and you can show the thing can be built because what's the point in doing a nice design if it's never gonna get built? It's pointless. We have to listen to Transport and their requirements for practicalities of moving the car, we have to listen to Refuse, we

have to listen to Fire, we have to listen to planning, we have to listen to all of this so that we gain their professional insight in what we're doing and that's part of what I've learned through the consultation. They know the area, they know where you cross the road, they know where the wind goes and they told us that the north-way wind is the issue because it's the cold one that blasts across the park, and they know what the views are, they know where the shops are, they know what they want [chuckles]. And they all want different things, but you just have to listen to it and make your own judgement as to which bits are bigger for more people. (R07)

Principled commitment also had some more instrumental motivation. Although there was commitment to consultation, it was important the consultation had taken place as stated in the brief. A member of the management team at BM explains:

The client wants a full and fully engaged consultation process, they want, if you like, an audited report to demonstrate, as a local authority, that they have conducted a very full and thorough consultation process, which we have done... which I believe we have done. [...] And I think, interestingly, the motivation is intrinsically linked with...wanting to avoid...I think in some respects it's about wanting to avoid negative resistance rather than wanting to promote positive momentum. If you get positive momentum that's a great thing, if you get the middle ground then that's fine but what you don't want to get is negative resistance. (R09)

Although there are a range of motivations and a number of different views of what the consultation process was designed to achieve, one overriding intention was expressed as

the real value [of participatory planning] is that, I suppose, the classic phraseology that's used is to get "buy-in", is to get them to buy into the idea. (R09)

There are, however, many and different interpretations as to what is meant by this. "Getting buy-in" may be understood as a mechanism of ensuring agreement with, or the acceptance of, a suggestion/proposal or to avoid resistance. For others, getting buy-in allows people to have ownership and suggests a form of active participation over passive acceptance. This was expressed as not only influencing the design

HAB: What does it mean to create a sense of ownership?

R07: It's simply how the consultation has affected the masterplan. So the points we already talked about which, as you know, were open space, the public open space, there was the frontage at Calder Road, Sarah can say look how it's changed, someone else could say "oh, we wanted a public space there - I've got my public space", somebody else said they all wanted pitched roofs and look we put pitched roofs on...so all those things apart from the

masterplan will be part of the development.

It was also thought important that ownership would lead to identification with and caring for the area

What is very crucial, apart from drawing lines, is that people in the area buy into a masterplan and try and make it, have some ownership over it. That's probably the most important thing because if somebody has some ownership of something they care about it a lot more and so the eventual hope would be that when it's finally built, some of the people that inputted in the masterplan, will still be living in the area. And therefore they care about the area more, the new development, because they were involved in the process. (R07)

Getting "buy in" to induce "caring" covers a number of aspects, including behaviour change

The main issue really is tenure, affordable tenure, which means that the person doesn't own their property, therefore they don't have any financial incentive to look after it. Private sale, fine, they're after it, it's a given, it's an investment, if they trash their flat, they'll lose money, or trash the space around it, private space. If you get someone who doesn't own their flat engaged in what that flat is, you stand a better chance that they look after it. It's still a major issue, I think, if that person moved out, say ten years after they were involved in the process, and the next person that moves in hasn't been involved in it at all, probably won't give a shit. (R07)

The potential invested in the process and what it was hoped it would achieve should not be under-estimated, as one participant explained

It's not just masterplanning, it's not just consultation, we take it from the very beginning to that line on a piece of paper that says "we need to do something with North Sighthill" to then we have a community at North Sighthill. (R01)

An interesting aspect of this, however, is that there was quite a strong existing sense of community prior to the masterplanning process, as one of the Council's project managers explains:

There is still [sounds a bit hesitant] a sense of belonging and people are worried that they gonna lose their friends and their neighbours. So a lot of them want to be reassured that they will be able to stay in the area. And when we've created maps of the area and plotted where people have moved to, over 90 percent stayed within a few streets of the area. They've moved over to Broomhouse or they've moved over to Parkhead, or the furthest groups have gone over to Westerhills but the North Sighthill side of Westerhills. So as close as possible to

Calders. (R01)

The “buy in” objectives for the process were somewhat undermined, however, by the process itself. Deliberative practices were organised and structured through the North Sighthill public consultation programme. Under the banner “Sighthill Regeneration: Have your say” the City of Edinburgh Council developed a dialogue with the local residents and those directly affected by the redevelopment. More than 3000 invitations were sent out to people in the North Sighthill Neighbourhood. Their response was meagre, which is partly to be explained by the simple fact that a large part of the tenants had already been rehoused by the start of the planning activities.

R01: We were doing consultation when we had the site half empty. The idea with a masterplan consultation is you do it at the start when everyone is still there. But because we hadn't the time when we were starting with it, we had no idea how we gonna fund it, we just started rehousing everybody. No idea why. So it's all been kind of a bit back to front. You're supposed to do your consultation, then your masterplan, you're rehousing, you're demolishing, you're redeveloping. And we've done rehousing, demolition, continued rehousing, demolition and in the middle of all then masterplanning

HAB: And the reason for that was?

R01: We didn't know what to do with the site. We didn't know if we would be able to put council housing back on it and if there'd be any funding. So we were still looking at funding models and working with finance, and working with Ernst & Young, the consultants, to create a business case for the project. Initially there was the thought that we would hand the site over to our Housing Association and they would redevelop it. There were just so many uncertainties around what was gonna happen.

## **The searching process**

### ***Principles of asking questions***

Inquiry is led by the practice of asking questions. Questions become pointers in the quest for knowledge. The paradox of inquiry, which holds that inquiry is either unnecessary or impossible for that we either know what we are looking for (in which case inquiry is unnecessary) or we do not know (in which case inquiry is impossible), highlights a problem that is inherent to the practice of asking questions. Following the argument presented by the

paradox, it cannot be known what we need to know or otherwise inquiry would be superfluous. If we know what we need to know the question must be assumed to be indicative of the answer. Two types of questions are commonly being differentiated: open and closed questions. It is the quality of the former in particular that raises questions in the context of the paradox. What does it mean to ask 'open' questions and in what way are they 'open' to an answer? Asking questions is a matter of defining the course of inquiry, the areas of exploration and the repertoire of potential answers.

The importance of asking questions in the masterplanning of the North Sighthill estate is well understood by the local residents as is evident in the following statement: "[A]sking questions was obvious, I mean, we needed to be asked questions." Disagreement, however, revolved around the types of questions being asked. Here the same respondent remarks: "I felt that questions were directed." And continues "[t]here is a difference between asking you 'would you like the houses to be coloured in red, blue and green, here is a piece of paper, write down your preference' and asking 'would you like the houses to be coloured.'" The way questions had been asked led him to conclude that "it wasn't the residents coming up with ideas that then got solved." Instead "all these ideas being discussed now [...] are important for the masterplanners to use in their plans." The following illustrates how the 'search' was interpreted:

I try to remember what the questions really were. They were, for instance, do you want to have an outlook over the park, is that of concern to you, some sort of question about public/private space, people like the open space to have drying greens, what type of outlook they want, so very generalised questions. But, they resulted in two option choices or guidelines for BM to produce their first drawings. I felt, asking questions was obvious, I mean, we needed to be asked the questions but I felt that the questions were directed. And the results, like the analysis of the result and the resolving of the results led to 'this is what you've chosen, Option A and Option B, this is what you have chosen'. At the group, I mean, we were probably talking about nearly fifteen people that were involved in doing this sort of selection of collecting the peoples' ideas of what they wanted. It was a very, very small group of people. I wasn't impressed with that. I felt that they were performing a function that they felt they had to perform. There is a difference between asking you 'would you like the houses to be coloured in red, blue and green, here is a piece of paper, write down your preference' and

asking ‘would you like the houses to be coloured’. You see, that’s what I’m saying, the questions weren’t really open questions at all and it wasn’t the residents coming up with ideas that then got resolved. All these ideas being discussed now, which are the important ones that we should concentrate on, they are important for the masterplanners to use in their plan. So that’s what I mean by directed. (R11)

The comments reveal that although inquiry may be viewed as a collaborative process, it is one of unequal powers. And, not surprisingly, the end-users of design and/or those with the ‘local knowledge’ are typically the least powerful in the process of design-led inquiry.

There was a different perspective on this from the architects. At an early stage of the process the reason for engagement was summarised by one of the project managers as “looking what they [the residents] want.” The initial consultation was seen as searching exercise; characterised as one of not knowing what questions to ask. As the project architect described

I’ve already talked to you about the initial consultation being very much a searching exercise where we cannot ask any direct questions because we don’t know what questions to ask, because we’re just receiving information from people and then we’re trying to distil that information...when you get to the point of having two options you can ask direct questions. (R07)

It was described as that of gathering information and finding out what people want

Some projects start with an inspiration, an idea, a clear focus. So the “birds nest stadium” in China for example, it’s a sculptural building form. We didn’t go through the same process in Sighthill. Sighthill, as a contrast to that, is a project about gathering information and finding out what people want. It’s an iterative process. It’s not a project about that big, one idea, it’s an iterative thing that gradually develops. (R07)

### ***Planning workshop: initial consultation as searching exercise***

The consultation process has been organised according to different work stages, beginning with the identification of ‘opportunities and constraints’ (early October 2009), the development of masterplan options (late November 2009) and the refinement of the final masterplan (February 2010). In an attempt to gather information from local people on the

Photograph 5: Place Making Workshop: Engaging Residents



Source: Author / 16-10-09\_HPIM1731 / 11:59:36

North Sighthill estate, the Council in collaboration with the consultants, had arranged a so-called ‘place making workshop’, a public interactive session designed to “guide the masterplanning process.” It seems worth emphasising here, with reference to Monika Buescher (2005), that “[e]very ‘ecological huddle’ (Goffman, 1983:3) [whether in the studio or indeed in the context of place making workshop] where talk, gesture and drawing occurs, where plans, maps, and photographs are used, and sketches are produced, is likely to be a design session.” These sessions can vary in length, formal character (planned or spontaneous) and level of involvement (few or many, ranging from architects to professional partners (planners, consultants, etc.) to other stakeholder such as indeed local residents) and constitute valuable social scenes of in situ inquiry.

The event took place on 16 October 2009, from 12.00 to 7.30 pm, in the North Sighthill Community and Education Centre. Approximately 25 people showed up in the course of afternoon, of which at least three had been long-term members of the North Sighthill Development Group. Given a leaflet-drop to 3,500 properties, the response rate of 0.4% was

Photograph 6: Place Making Workshop: Engaging Residents



meagre. In order to facilitate engagement, the room was prepared with two groups of tables, sketch paper, coloured pens, markers, sticky notes and different sets of drawings (see photographs 6 and 7). The setup and scenery of the workshop is captured in the photographs 5 to 8). Noticeably, the design aids remained largely untouched with the exception of the first attendant, pictured prominently in photograph 6, who had been encouraged by the project architect to articulate his comments through the use of paper and pen. A situation that would

become more characteristic of the workshop is the one documented in photograph 8. The architects would take position in front of the drawings taped to the wall, explain what can be seen, point things out, ask questions, take notes, indicate how things will progress and how residents can get/stay involved.

Photograph 7: Place Making Workshop: Engaging Residents



Source: Author / 16-10-09\_HPIM1735 / 12:35:49

Receiving primary attention were the drawings placed on the wall close to the entrance and the boards on each of the two tables. Those drawings were used to describe different elements of context, analysis, and architects' preparatory work on their perception of the site. Participants were essentially asked two questions: what they thought of the area? and what they would like to see happen?

### ***Framing the problematic situation***

The notion of iterative processes is commonly used in the construction industry to denote the gradual adjustment of initial building targets to the most feasible solution. In construction science iterative processes (or iterative searching) are said to exist when problem solving takes place in such a way that building upon the designer's initial idea, solutions are being gradually developed. In the management field, by contrast, iteration is used to deal with uncertainties and surprises. Given that the course of a project is not always predictable due to changing conditions, certainty only exists in a preliminary state. Linear-causal thinking is replaced by iterative progressing. Uncertainty is lowered, acceptance is gained, impact is made and routine is established through making tentative moves along purposes, interests and power constellations.

Photograph 8: Place Making Workshop: Engaging Residents



Source: Author / 16-10-09\_HPIM1743 / 17:19:

The conditions constituting the problematic situation or, as Dewey calls them, the “facts of the case” are not “self-sufficient and complete in themselves” (Dewey, 1938). Dewey is well aware that the way problems are being constructed from the problematic material at hand determines what facts are being selected for attention (Schön, 1992:123). He further appreciates that those constructions are contextually bound and therefore subject to variation: “All inquiry proceeds within a cultural matrix which is ultimately determined by the nature of social relations” (Dewey, 1938:481). As much as the matrix explains the differences between social contexts, it explains order within: “There is an inalienable and ineradicable framework of conceptions which is not of our own making, but given to us ready-made by society – a whole apparatus of concepts and categories, within which and by which individual thinking, however daring and original, is compelled to move” (Cornford, p.45). And Stebbing adds: “No thinker, not even the physicist, is wholly independent of the context of experience provided for him by the society within which he works.” This is to be understood in terms of both the immediate context within which he operates, i.e. the scientific community, and the broader context in which the scientific community itself operates. This cultural matrix imposes order on those involved in the process. Dewey nonetheless appears to hold what Schön (1992:123) describes as “a robust belief that ‘observed facts’ being just what they are, judgments about problems can be tested against them.” However, and as rightfully emphasised by Schön, Dewey “never fully confronts the ontological differences in our ways of seeing situations and construing them as problematic or not” (1992, pp. 122-123).

From the professionals involved in the process there was a genuinely expressed openness as to the potential parameters of the design in that it was seen as a process of shaping, informing and structuring design.

The value in design terms, I think, is twofold really: I think you want...I think you're unlikely...well, never underestimate who the residents are and what their personal and professional backgrounds are or what they got to offer. I think they will have a huge range of interesting comments to offer. Some of those, I think, can almost emotionally shape the design, I think, some of the comments can technically inform the design and I think, some of those comments can help, well, I want to say structure the design. So I think in terms of the design process, the consultation helps because it forces you to be very strategic and staged in

your developments. (R09)

Although circumscribed to some extent by the technical demands of design, the architects did not necessarily see the technical and the community as being antithetical

You also learn from the design process from technical comments and I think, obviously, the architects in the office are working to technical guidance and technical standards, British standards, which will in many respects shape and form the design of the buildings and the spaces around buildings. But the residents will have their own technical commentary. (R09)

It was recognised, however, that there would be limited dialogue on some issues

I'm quite aware of the fact that when you start to go into some of the more technical aspects of the architectural design, such as the building performance, the specification of the building materials, the lifespan of the building materials and the environmental credentials of the materials, you don't get an awful lot of consultation back. Traditionally and typically it's [role of the community] fairly reactive'. (R09)

And although presented as the opportunity to elicit views, there were constraints on the views or issues which were to be open for discussion. As one resident explains:

An important decision that was also made that has impacted this redevelopment is not only would the high-rise flats be demolished but there will be no high-rise flats built. The decision is just, apparently, not of a discussion. I have tried to raise that quite a few times but have just sort of been, totally brushed off. But, you know, it's not like I'm a particular fan of high-rise but I know quite a lot of residents that have liked living in them, do like them and regret moving from them. Right, so but generally there seems to be...and there is a general principle, I believe, that the Edinburgh Council, amongst other councils in Scotland, is that they are against high-rise buildings. I mean, the majority of residential building that is going on in the world today is high-rise, very high-rise. But there seems to be just like a blanket decision that there's not gonna be any high-rise in Edinburgh and I believe in Scotland. It's just a total decision like that is won. Because what constitutes actually high-rise, what is mid-rise? There's so many options that are not being investigated, particularly, I mean, one of the things I find really mind-bending about the process is that we all know Edinburgh has got a massive housing waiting list and we know that it's increasing, we know it is going to increase, we know there is a shortage of available land for low density building unless you start to open up space park land, which Edinburgh should be and is very proud of maintain. But there are obviously sites around Edinburgh. But it seems to me that there should be no real objection to having fairly high density building and at the end of the day it will be necessary. So personally I see no advantage in just going from no high-rise to just more spread-out lower density but at

the end of the day, we build less dwellings, so your waiting list increases. (R11)

The responses from the workshop were co-ordinated by the project architect into four different headings: community facilities, open space and private gardens, housing types and ownership as well as transport and circulation. The following concerns were expressed:

Table 13: Feedback from Place Making Workshop, 16 October 2009

Areas of investigation	Comments/Concerns from local residents
Community facilities	<ul style="list-style-type: none"> <li>• Will there be a shop, where are the shops to go?</li> <li>• Do the shops have the right to return?</li> <li>• Will the community centre be linked to the shops/retail?</li> <li>• Will the community centre be linked to the shops/retail?</li> <li>• Community Centre is “a must, we don’t want to lose it”.</li> <li>• What will the temporary library facilities be?</li> </ul>
Open space and private gardens	<ul style="list-style-type: none"> <li>• “There is nowhere nice to sit or walk in the area”</li> <li>• Although the park is well used at the weekend for football, it is empty during the week.</li> <li>• Millennium planting is an eyesore and a security issue. It took away a lot of play area.</li> <li>• A continuous maintenance strategy is crucial.</li> <li>• Careful not to plant trees so they block the sun from houses.</li> </ul>
Housing types and ownership	<ul style="list-style-type: none"> <li>• Will it be possible to prevent the right to buy with the new houses?</li> <li>• Can we mix housing association, council houses and private new build to avoid cliques?</li> <li>• Will the build quality ensure no noise transfer between houses?</li> <li>• Will people actually be given the opportunity to move back?</li> <li>• Will the size of new homes be less than those currently in Sighthill.</li> <li>• Safety issues with too much plant growth.</li> </ul>
Transport and circulation	<ul style="list-style-type: none"> <li>• Good bus service but we lack connections to all the facilities in Corstorphine.</li> <li>• A lot of the carparking has taken over green spaces around the NHS buildings.</li> <li>• Students take all the resident parking spaces.</li> <li>• Subway access is a security problem.</li> </ul>

### ***Determining the object of search / Defining an end-in-view***

The question at issue is what drives the masterplan design and, inherently, the quest for design solutions. What is it that planners, project managers, designers, community officers, residents and other stakeholders are trying to accomplish with plan, either collectively or individually? An idea of end to be reached or an end-in-view is, as Dewey pointed out, “logically indispensable in discrimination of existential material as the evidential and testing facts of the case.” “Without it,” he continues, “there is no guide for observation; without it,

one can have no conception of what one should look for or even *is* looking for.” Consequently, “one fact would be as good as another.”

The Council’s aspirations for the 21<sup>st</sup> Century Homes project are summarised in a progress update given by the Council to the South West Neighbourhood Partnership (SWNP) on 20 March 2008. Item No. 4 (Discussion Paper for the North Sighthill Regeneration Project: Progress update and proposals for community engagement , 2008) specifies that

[t]he Council has two strategic objectives: to address the city’s shortage of good quality, affordable housing and to bring all Council houses up to the Scottish Housing Quality Standard, a national government requirement, by 2015.

Specifically the aim of the North Sighthill regeneration project, according to the Council (Discussion Paper for the North Sighthill Regeneration Project: Progress update and proposals for community engagement , 2008:2), is

to redevelop the North Sighthill estate into a sustainable, mixed community situated within the wider mixed use North Sighthill neighbourhood. The estate consists of 451 flats, (4 high rise blocks and 7 low rise blocks), a community centre, library, 4 shop units and areas of public realm. Redevelopment of the site will contribute to the provision of good quality affordable housing for Edinburgh.

Those general aims are broken down into three subsets of goals: i. “[t]o re-house the residents of the high and low rise blocks by 2010/11 [...]”; ii. “[t]o demolish the high and low rise residential blocks and clear the site by 2015/16”; and iii. “[t]o masterplan the redevelopment of the site during 2008/09, taking account of and building on the previous masterplanning work undertaken for the area.” It is the latter that is particularly noteworthy given that the masterplanning process has been emphasised by the Council to start from a “clean slate.”

Because it is a regeneration site and the community, understandably, are losing existing community facilities - the library, the community centre - we’ve got kind of side-tracked almost. What I’ve been tasked to do is a housing project, whereby we’re demolishing and we’re rebuilding. There’s the wider regeneration but I suppose that’s not what I’m tasked to deliver. So it’s not necessarily that the project can’t look at the wider community aspirations but I’m to focus on what’s affordable in terms of the housing delivery and make sure that we drive that forward but that the regeneration staff are picking up on the wider issues. At 21<sup>st</sup> Century Homes for Edinburgh, you know, it’s about delivering new quality housing, it’s not about me building a library or building a community centre but that all will follow from the

regeneration, but I don't have enough control over that to say: "Yes, we'll fund the library, yes we'll fund the community centre." So, I think, it's a kind of false expectation for people to think what this programme is and a housing programme can deliver. It's about, you know, bricks and mortar and making sure people are well housed and well served by the community. But that has to follow through from the wider, I suppose, wider team. (R04)

It is evident in the architects' replies that their aspirations are defined by the brief, contrary to the comments offered by other participants. The brief, despite the dissension regarding its level of detail, contoured the work of the architects.

HAB: What was influential in shaping that brief as you went along?

R01: [sighs] People and the aspirations within the management of the Council. That was what shaped the brief. Due it takes so long to go through these projects, we started rehousing in 2006, we only had initially anticipated finishing the rehousing in 2014 [laughs]. We're well ahead of the game at the moment but because the projects take such a long time from start to finish, when you're having to regenerate an area where there already are people living and you gonna have to demolish the housing. Things are never ever gonna be set in stone because the financial climate can change, people's aspirations can change, landlord use can change...

HAB: When you talk about aspirations are those just the client's aspirations or does this also include things you have heard during consultation?

R01: It's more about the senior management and the Council and what they see as the strategy and the way forward for housing. They want...there's a real drive for affordable housing but there's not a lot of money..."

Although the brief is seen as being very influential in the process, it is not seen as obviating or negating the role for consultation

Well, the brief we set out and designed was to develop a masterplan for the North Sighthill estate and...eh...and how it would link and relate to all other things that were going around it. In a nutshell that was what the brief was. And engaging the community, the local community in that process so that they were part of it. So we have developed, we have engaged the community, a representative of community, you could always have more people in it, I suppose that was the one disappointing thing, I would say, is it would have been *nicer* to see more people at the public meeting, it would have been nicer to see more people at the drop-in sessions but it is not different from other consultation exercises I have done. I mean, in my past experience, you can send out say 100 invitations and you will get anywhere from one till about eight of those people that will turn up. So, we didn't get eighty percent, we didn't get

zero but we got, you know, a cross section of people. So I would say, I'd like to see more there but I do feel that we did certainly, we did certainly engage with a representative of the different people here in the community and they contributed to it. They have told us that they felt, they enjoyed being part of it, they had felt that they have listened to and I am sure we do better. So we have engaged (R02)

### 4.3 Conclusion

The evocation of inquiry is the result of a felt difficulty according to Dewey. A difficulty that does not originate in a person's mind but in an existential situation. The chapter began by developing understanding of such existential situation that has given rise to the North Sighthill masterplan project and prompted the process of inquiry, upon which report is made. As a point of departure one may appreciate that the troubled situation was widely recognised to be associated with the social housing problematic governing the City of Edinburgh (acute shortage in affordable housing):

The supply of affordable housing is major challenge for the city. 12,000 homes are needed over the next 10 years. At present around 600 new homes are completed each year - many through the Council's Affordable Housing Planning Policy, and the downturn in the housing market therefore threatens even that level of completions.

The Council has approved a phased demolition programme for approximately 1700 Council homes which cannot cost effectively be brought up to the Scottish Housing Quality Standard (SHQS)

An opportunity exists to supplement this [building] programme using the sites where old Council homes are being demolished at North Sighthill, Gracemount and Pennywell. However, there is no funding available within the approved housing development programme to develop these sites.

Subject to inquiry is not the overall approach to affordable housing developed by the City in consultation with DTZ and Ernst & Young, nor its implications, but the specific design problematic posed by the North Sighthill estate. From the initial indeterminate situation of housing in an area of Edinburgh through various processes there is the institution of the

problem, a design brief and a consultation process that sets the parameters of the “problem” for which solutions may now be sought.

Dewey suggests with reference to the familiar saying that a problem well put is half-solved. Yet what is the problem here? It has been established through the literature review that a problem does not present itself as an ordered whole but is the product of the selection and arrangement of what Dewey calls the “observed facts of the case”. That is, those facts are not self-sufficient in constituting a problem but in order for them to be conducive to the process of inquiry (have evidential quality) are to be worked upon and systematised. This work has taken place during the problematisation of the situation and entailed the gathering of information by means of site visits and consultation. Important here was the place making workshop by which architects tried to develop an understanding of what people thought the issues were with the existing estate (problem) and what they would like to see happen (ends-in-view).

What has become apparent is that people’s different ways of seeing situations and construing them as problematic has led to differences in the conception of the problem itself and aspirations for their solution. The issue partly being that a lot of the issues raised were not quite as settled or determinable in existence as it would have been necessary for the clear articulation of the factual conditions of the case. Beyond this, different interests shaped the interpretative frameworks of the people involved. While the architects were led by the brief and focused on the timely and successful completion of the masterplan, council members demonstrated particular problem awareness with regards to the attractiveness of the plan to developers (tenure mix, housing types, density, etc.), the business case (ensuring economic success) and budgetary issues (affordability), adjacent landowners concentrated on opportunities for future developments and integrated strategies, and the local residents were concerned about community, identity and ownership. While each individual problem construct may have clarity in itself, unity across the project was difficult to accomplish and has influenced the process of inquiry.

The different actors that are part of the project may be regarded as forming what Peirce and Dewey call a “community of inquiry”. They are related to each other on the basis of their commitment to the development of the North Sighthill masterplan and, according to Peirce

and Dewey, their acceptance of particular method of inquiry established within the social system. The chapter, however, has brought to light confusion about what this method might be in their case as comments from members of the Development Group have revealed (how do actors engage with each other, on what grounds (being heard and listened to or having a stake in the process) and to what effect (how is established what works or satisfies as a solution)) and the binding character of previous results (in how far they should be taken into consideration and by whom).

# Chapter 5

## Empirical Explorations: Developing

### Solutions

While the previous chapter was dedicated (a) to the provision of an historical account of the circumstances that in their entirety have led to the situation that was perceived as troubled and requiring investigation, and (b) to the institution of a problem, the following chapter is focused on the development of possible problem solutions (or ideas) in terms of masterplan options. In scrutiny are the events that took place in the period from November to December 2009 and centred on the presentation and discussion of two masterplan options.

Table 14: North Sighthill Public Consultation Programme November - December 2009

<b>Date</b>	<b>Events</b>	<b>Commentary/Details</b>
17 NOV '09	Community Council Meeting (19.00 – 20.00 at Stevenson College)	<ul style="list-style-type: none"><li>• Presentation and feedback on 2 masterplan options</li></ul>
18 NOV '09	Development Group (18.30-19.30 at Sighthill Community Centre)	<ul style="list-style-type: none"><li>• Presentation and feedback on 2 masterplan options</li></ul>

19 NOV '09	Consultation on 2 masterplan options	<ul style="list-style-type: none"> <li>• BM to issue leaflet design advertising consultation event 4th November</li> <li>• CEC to distribute flyer to local residents (including those relocated), key stakeholders and adjacent communities on 12th November</li> <li>• Consultation event to seek views on 2 masterplan options. Medical Centre and Library from 11.30am to 2pm and 5 to 7pm. BM and CEC on street in front of medical centre and at library. 2 masterplans options displayed in Medical Centre, in the Library and the school. To run for 10 days.</li> </ul>
27 NOV '09	School Consultation (11.30 – 13.00 at Forresters School)	<ul style="list-style-type: none"> <li>• Focused workshop with 20 children from the schools geography department.</li> </ul>
09 DEC '09	North Sighthill Residents Association	<ul style="list-style-type: none"> <li>• Presentation and feedback on 2 masterplan options</li> </ul>

## 5.1 Determination of a problem solution

Dewey proposes that once the problematic situation has been clarified and translated into a problematic statement, inquiry will progress by the development of possible problem solutions. Possible solutions take the form of ideas which are assumed to present themselves “just as the terms of the problem (which are facts) are instituted by observation” (Dewey 2008f, p. 113). Ideas, in turn, are understood as “anticipated consequences” of what will happen if a particular plan is acted out in relation to the observed facts of the case. An idea marks a possibility and because inquiry is a progressive determination of a problem and its possible solution, ideas differ in grade according to the stage of inquiry reached. At first they are vague - with the exception of highly familiar matters - and occur to us simply as suggestions. As Dewey points out “every idea originates as a suggestion, but not every suggestion is an idea” (2008f, p. 114). It is through reasoning and testing a suggestion’s functional capacity to solve a given problem that a suggestion is transformed into an idea.

With the conditions of the case having been established through consideration of the briefing material (see Appendix 7, Part B / Section 9.1), site analyses, and information gathering

exercises, the design team went on to develop three concept proposals as specified in the initial brief (see Appendix 7, Part B / Section 11.1). Those proposals were to be designed “with the aims and outputs of the project in mind” and to serve as a basis for a “meaningful discussion” over “realistic options” for the housing led regeneration of the North Sighthill estate. In particular the proposals were to explore “the quality of the environment than can be created and the potential numbers and types of dwellings.” Factors that had to be taken into consideration included the layout, building heights, potential density, provision of gardens and open space, car parking, services and facilities. The proposals were then to presented to the Council (illustrated on A3 paper) with an explanation regarding its pros and cons, allowing the Council to “provide direction on which two of the three proposals it wishes to be developed into costed masterplans.” It is worth emphasising that only those two plans selected by the Council were subsequently developed through public consultation.

### **Generating ideas**

Following the study of opportunities and constraints, the following section is dedicated to the activities revolving around what the project architect has identified as the second theme: “masterplan options.” Although the approach to each new assignment is seen as an opportunity to learn new things (“Each assignment is different.” R07), and informed by the belief that it is possible to do better than what has been done before, as is evident in the material presented thus far, the context in which the masterplan was to be developed is rich in historical material. The singularity of each project suggests that there is a little room for learning and yet there are no blank slates

Well, I think, everything that we do is informed by success from the past. You know, in terms of a street, a building, the relationships from building to building...erm...so that governs the streetscape and building form. The second thing that might govern that are regulations and standards we have to meet, which you can't get away from such as privacy areas and stuff. I think, I mean, as a landscape architect it's slightly different because I do get a sense that architects are very much building focused in terms of they see their design immediately whereas as a landscape architect we don't. (R06)

Obviously there is not the sense of participants coming to the design process with a ‘blank

slate', however, for some at least there was a large degree of openness about what the possibilities might be as expressed by the Senior Project Manager at CEC:

HAB: Did you have any vision at the beginning of the process of what this site might going to look like?

R02: Me personally no.

HAB: So your mind was completely blank?

R02: No, all I wanted to see...my idea was that we would have a sustainable mixed-used development made up of houses and community facilities. I didn't have any visions as to what it would look like in terms of whether it was four storey, three storey, two storey or what not, I just didn't know. That's probably because I wasn't bringing any baggage, not having been involved in some previous architectural design or stuff like that. So I was pretty neutral in that area. So I just wanted to try and develop a sustainable, you know, mixed-used development with mixed tenancy and all that, you know, mixed tenure and all that sort of stuff.

Having said this, the design process is not a tabula rasa. Initial work by the architects identified key motifs that surfaced at the beginning of the project and focused on key concepts such as 'public space', 'open space', 'circulation' and 'private space'

I didn't really initially envisage, I didn't know what the...I didn't have a complete picture in my head of what the vision was. I suppose I would have had a vision in my head of...a successful streetscape that created good private and public space, what that looked like I wouldn't have had a clue [laughs]. (R07)

Initial research into the area provided the impetus for these concepts

I suppose the initial impetus came from the open space study [one of the initial drawings produced for the first consultation session], the existing open space study which showed the surrounding open space, back gardens basically in Broomhouse and Parkhead and South Sighthill and then it showed North Sighthill, which has hardly any private space at all, and that came as the initial driver that said "we've got to look at somehow getting private space into this. (R07)

The stages incorporated in professional practice thus structure initial concepts and issues

The motivation for open space study came from research, looking into what was there and seeing a series of drawings and when they're done they maybe say a lot, they might not say a lot but it's, like I said, an iterative process through that series of site research drawings and they'll tell you things and eventually paint a picture and, well, that drawing [original plan] is

certainly about telling in effect Sighthill didn't have any private space. And so from that initial drawing, I suppose the idea was of private courtyards and back gardens and somehow developing a proposal that achieved those. Erm...and the other main driver was the transport diagrams in terms of circulation and I suppose in Sighthill it was clear there's a through-route across the site...erm...so I think another major thing was splitting that through-route. Straight away when you do that, you got one line cutting these two bits. And so those, I think, those were probably two main things: circulation and open space. (R09)

What these points illustrate is the complicated relationship between the technical aspects of design and residents understandings of their own community. There are, for example, various aspects of design functioning that have a number of implications for how the 'community' views itself and views its relationship to the broader city. As one architect explains:

It might be about more structure of building shapes and forms so that key views or vistas are set up so residents can still make a visual connection with elements that are outside of their community but back to what they know as their community. So it might be the view to a church, or a view to Edinburgh Castle or something and they've always had that view and to retain that view would help them ground themselves in what is a suburb on the outer skirts of Edinburgh. (R09)

Prior experiences with previous projects also inform understandings

I think the project architect of Gracemount had a good continuity from Gracemount through onto Pennywell and he's been speaking to people about transport issues, about parking standards, about all those sort of technical details that are constant for each masterplan. So at that level they're communicating and trying to, I suppose, economise in what we do. So that the approach is the same for streetscapes and for housing but the context of the three is different. (R06)

### **Disguised restrictions**

Although there is a degree of freedom in the development of the site there are also stipulations. The height of the buildings, for example, was restricted. As stated in the tender document "it is expected that flatted buildings should not exceed four storeys in height". The option of high-rises as contemplated by different people, including the director of the architecture and few local residents, was never to be considered. And there may not have been great support for what seems to be an outdated housing type in the view of policy

makers, but ruling it out as a possible option was ill-received by those who felt the dramatic shortage of affordable housing required an open approach to design.

The planning process itself also had implications for how the designs were received

When I got introduced to the project, it was a very much consultation driven project, and that is what it was in the initial stages: consultation with the local community as well as with stakeholder groups, Napier, Stevenson's. So it seems like that was one of the things very much driving it and it has been. But certainly at the point when the two options were drawn up, it is quite apparent that there was - not a shift - but there was certainly, I thought, very big input which was Delivery, which was Planning, which was Transport, suddenly. First when something is drawn people will comment on it. Up until the point where nothing was drawn it was very much simply the community asking questions and providing input. (R07)

Another complicating issue is the number of houses for the site. The tender document or otherwise referred to as the brief (see Appendix 7, Part B / Section 13.16) asks for 451 houses  $\pm$  10% to be replaced. This was subsequently reduced

The business plan said we have to have 360 houses on the site for it to stack up. Planning wouldn't allow us to put 360 houses on the site, it's a redevelopment, because of the style of housing we want to put back. So we're now down to 300. So we're having to revisit this business case because of both aspects. (R01)

What is being proposed here thus accounts for a difference of 33.5% in terms of the total number of houses planned to be put back on site. In the end the number of dwelling houses proposed was 320, or 29% less than initially planned.

A recurring and "heartfelt issue" (R07) was the location of the community facilities. The community facilities are expected to serve different neighbourhoods, including Broomhouse, Parkhead, Calder, Sighthill (south of Calder Road) as well as North Sighthill. Two positions were primarily being negotiated, one in the south-eastern corner of the estate (facing onto the Calder Road/Broomhouse Road roundabout and underpass) and one in the north-western corner (towards the northern end of Sighthill Court). A third option in the north-eastern corner of the site facing Broomhouse Road, articulated in the planning workshop on 16 October 2012, has never been further explored. Representatives of the Community Council have been particularly vocal in opposing the suggested location on the north end of Sighthill Court, with their primary concerns being visibility and accessibility. It is hoped that a visible

location will help to (re-)connect communities and develop a sense of shared ownership. It is to be recognised that Community Councils are local bodies “with a statutory right to be consulted on local issues and a duty to reflect the views of the local community to the local authority on various issues, including planning” (Glossary of Common Planning Terms in Scotland, 2010). Although the Council has been using a rhetoric of openness and indeterminateness, a preference is indicated in the Development Brief that is material to the development (North Sighthill Development Brief (Draft for Consultation), 2007:12)

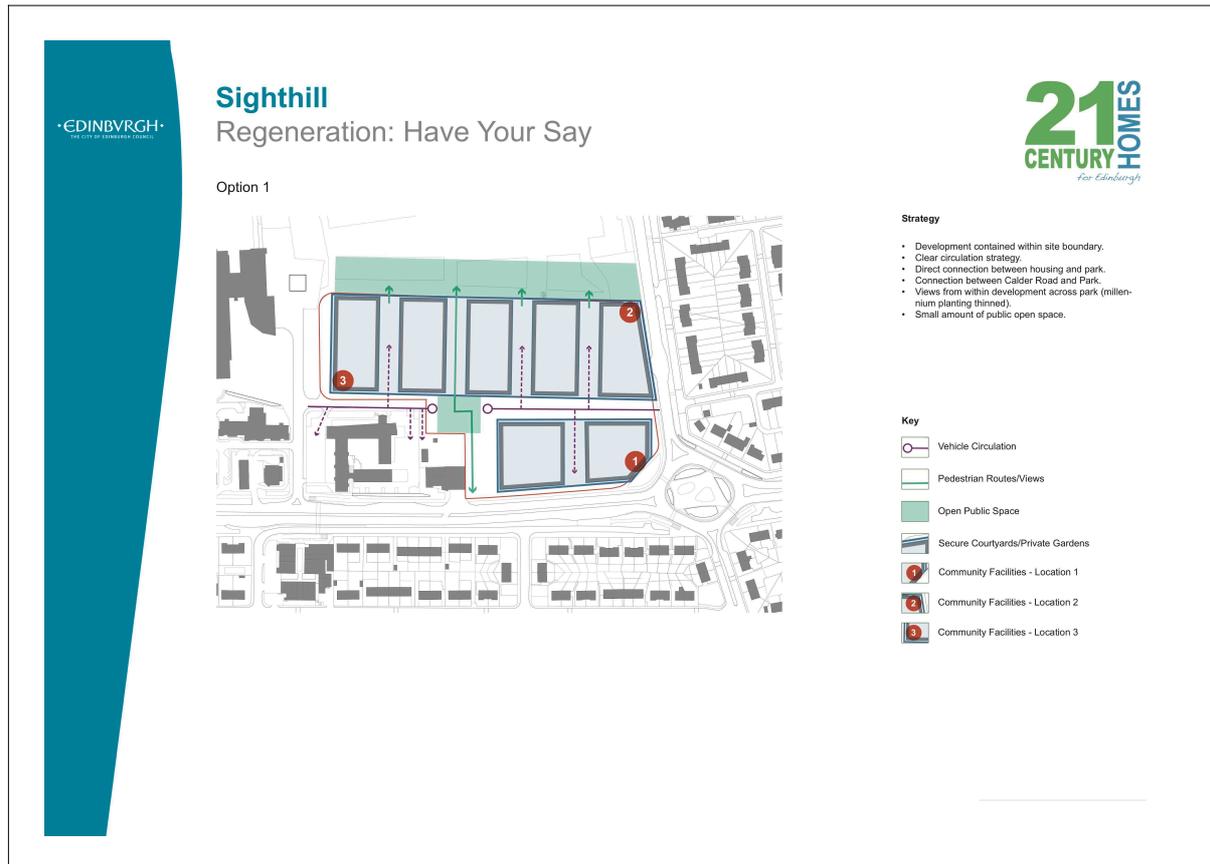
The renewal of the housing estate will require the provision of a new library/community facility. While the development brief identifies a preferred location for this facility, at the north end of Sighthill Court, the Council would welcome comments on this aspect of the development brief.

A preference which has arguably been maintained throughout the planning process, and which was later backed up by the presentation of the Architectural Liaison Officer.

It was this range of issues that influenced the masterplan options that were presented to the council meeting, prior to two options being decided and presented for public discussion. Those fragments of information communicated and secured through the briefing material, including the 2005 North Sighthill Masterplan, the 2007 North Sighthill Development Brief, the Brief for Lead Consultants or the The Ernest and Young Draft Business Case (see Appendix 7, Part B / Section 9.1), contributed to the factual conditions from the which the initial ideas (or concept proposals) emerged. Those proposals are captured in the drawings 1 to 3. It is worth noting that one of the architects involved cautiously admitted in an informal conversation that the third option was entertained primarily for the sake of having a third option. Variation revolved around a few key considerations, including forms of engagement with the park and the use of open space. A common feature of all the proposals is the use of large courtyards as way to address the request for a like-for-like replacement of existing units (see Appendix 7). They all claim to incorporate a clear circulation strategy and they all share views from within the development across the park--although vary with regards to the use of the existing Millennium Planting. While Option 1 suggests the thinning of the planting, options 2 and 3 make recommendations for a land swap.

Option 1 further differs from Option 2 and 3 with regards to its boundary definitions. While the latter two propose a development that extends beyond its boundaries, it is contained in Option 1. Additional characteristic features of Option 1 are the small amount of public open space, the direct connection between housing and park and the connection between Calder Road in the south and the park in the north.

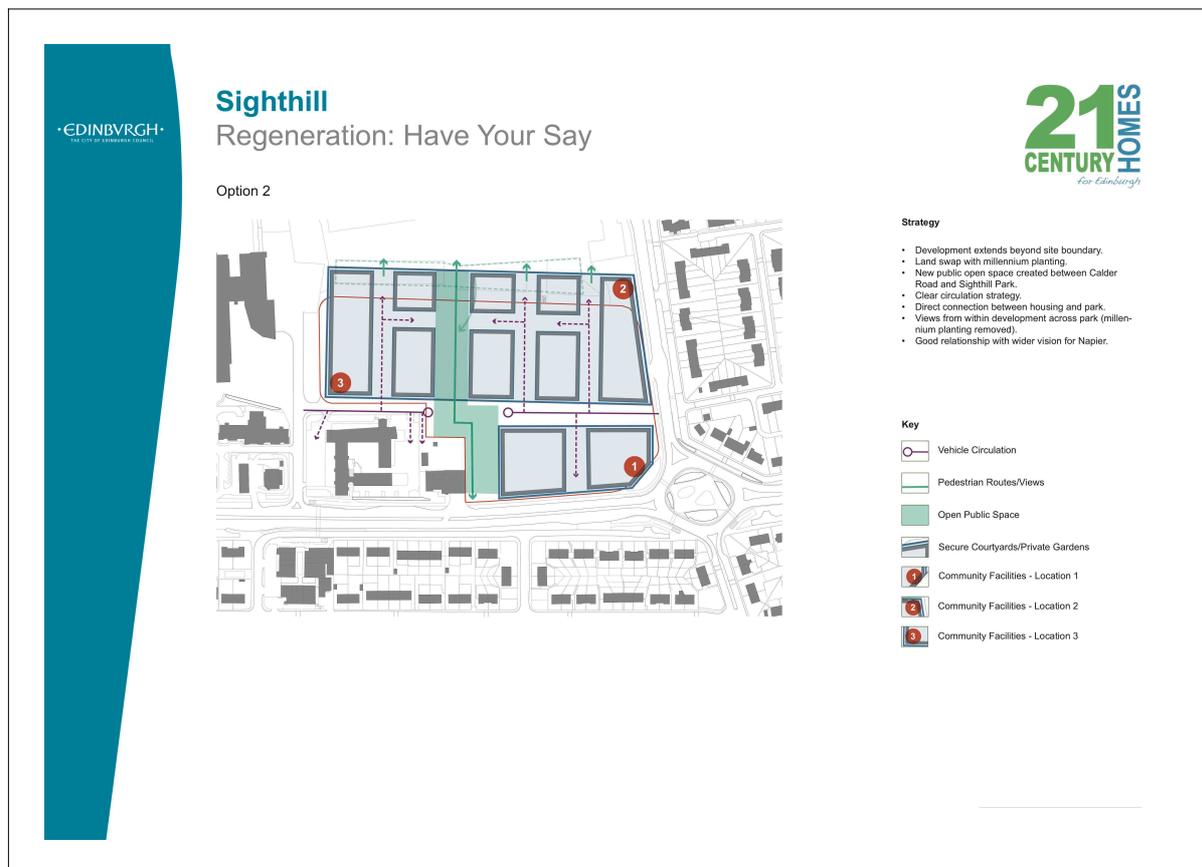
Drawing 1: Masterplan Option 1 (Pre-Consultation)



Source: BM

Option 2 also features a direct connection between housing and park, and a prominent new public open space between Calder Road and Sighthill Park. Importantly, it is also considered to offer a good relationship with the wider vision of Napier University, which located on the wester edge of the Sighthill estate. Option 3 is defined by the new public open space that accentuates the east-west connection of the site and the road between housing and the park.

Drawing 2: Masterplan Option 2 (Pre-Consultation)



Source: BM

The integration of the regeneration area with the Sighthill Park to the north was to be ensured in order to provide a “shared community focus”, as specified in the brief. This also concerned the question how to proceed with the Millennium Planting. While appreciated for the protection it provides from the northerly winds, responses from local residents articulated during the place making workshop (see chapter 4) pointed to a pressing safety issue: “The Millennium Planting is wrong.” “Somebody could be hiding there and jump out.” “Don’t have the path there that’s really creepy.” “People are terrified to walk through here.” “My son found needles.” The removal of the trees, which were planted as part of the Council’s Urban Forestry Project, grant aided by the Millennium Commission, Forestry Commission and others, however, required like for like replacement elsewhere within the Park or the site. Eventually thinning and allowing families to overlook the park seemed to be

the preferred option rather than taking them down and replacing them.

Drawing 3: Masterplan Option 3 (Pre-Consultation)



Source: BM

## 5.2 Reasoning

Inquiry into the terms of the problem of the North Sighthill estate has led to the formulation of ideas. Those ideas take the form of design proposals and offer planning solutions to the redevelopment of the North Sighthill estate. In Dewey's view those ideas are prospective and anticipatory in character. They represent statements about the "anticipated consequences (forecasts) of what will happen when certain operations are executed *under and with respect to observed conditions*" (Dewey, 1938:113). Given that inquiry is "a progressive

determination of a problem and its possible solution” (Dewey, 1938:113), as stated before, ideas vary in their degree of elaboration depending on the stage of inquiry. Unless developed in response to familiar matters, they are initially vague. Dewey therefore differentiates between ‘ideas’ and ‘suggestions’ with the latter accounting for those first thoughts “that just spring up, flash upon us, occur to us.” They may guide further action “but they have as yet not logical status” for that “every idea originates as a suggestion but not every suggestion is an idea” (Dewey, 1938:114). It is through examining the capacity of a suggestion to solve a given problem that it is transformed into an idea. Those examinations are exercised in the form of reasoning and serve the purpose of developing the meaning-content of ideas in relation to one another. The meaning of an idea is determined by the plan of action. For that “ideas are plans of action, proposals for possible solution for a given problem, that plan of action will be their meaning” (Thayer, 1952:54).

Reasoning in Dewey’s theory of inquiry takes the form of ratiocination or rational discourse and is evidenced in the sketches, meetings, presentations, discussions, planning policies and guidelines, and other means of engagement through which the design proposals for North Sighthill have evolved.

### **Public consultation**

Two plans were subsequently presented to the community for comments. Drawings 4 to 8 have been produced for the second session of consultation with the local community. As characterised in the Planning Statement the two options, in principle, are “a reaction to the existing situation where very tall buildings with small footprints have resulted in lots of public space but no private gardens.” This disproportion was particular evident in the open space study conducted prior to the actual masterplanning activities. This has been addressed in both masterplans by using larger footprints which effectively bring down the height of the buildings while providing secure private space. The main difference between the two ideas being entertained is the level and type of public space provided.

Drawing 4: Session 2 - Portrait

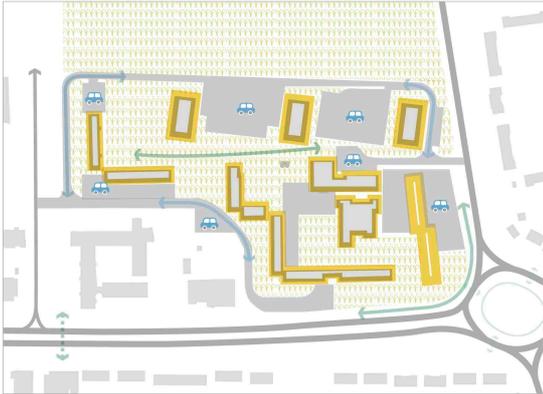


## Sighthill

### Regeneration: Have Your Say



KEY					
	External/Public Edge		Play Area		Vehicular Access (Primary)
	Internal/Private Edge		Pedestrian Route		Vehicular Access (Secondary)
	Private Garden/Courtyard		Proposed Crossing Point		Residents Parking
	Public Green Space		Second Phase		



Existing

- Unprotected public space
- Car parking exposed and lacking ownership
- Lacking clear pedestrian linkages
- Lack of private amenity

- Lack of definition between Sighthill park and the buildings
- Very tall buildings meaning lots of flats and no secure private outdoor space



Option 1

- Well protected private amenity
- Controlled and manageable public space
- Controlled relationship / boundary with Sighthill park
- On street parking with focused parking clusters to the south

- A series of smaller localised play spaces and public amenity
- More homes with back gardens means lower buildings, less flatted accommodation and less large areas of public open space



Option 2

- Well protected private amenity
- Strip park between Calder Road and Sighthill park
- Permeable boundary with Sighthill Park
- On street parking with focused parking clusters to the north

- One large focused public space and play area
- More public open space means taller buildings, more flatted accommodation and less homes with back gardens

Source: BM / 18.11.2009

The existing situation is described by the architects as being characterised by unprotected public spaces, exposed car parking, the site's lack of 'ownership', the lack of clear pedestrian linkages, a lack of private amenities as well as a lack of definition between the Sighthill park and the buildings. They add that very tall buildings also mean a high density of flats with no secure private outdoor space.

Drawing 5: Session 2 - Masterplan Option 1



Source: BM / 18.11.2009

The proposed masterplan Option 1, by contrast, was promoted to offer well protected private amenities, a controlled and manageable public space, a controlled relationship / boundary with Sighthill park, on street parking with focused parking clusters to the south, a series of smaller localised play spaces and public amenities, more homes with back gardens, lower buildings, less flattened accommodation and less large areas of public open space.

While Option 2 shared some characteristics with Option 1, such as the well protected

amenities, the distinguishing features are the green strip that extends from Calder Road (in the south) to Sighthill Park (in the north), the large focused public space and play area, the permeable boundary with Sighthill Park and the focused parking cluster to the north. It is pointed that the more public open space means taller buildings, more flattened accommodation and fewer homes with back gardens.

Drawing 6: Session 2 - Masterplan Option 1 (3D)



Source: BM / 18.11.2009

Initial reactions from the audience gathered during the Development Group meeting on 18 November 2009 were quite negative in tone: “It’s like a prison: it’s cutting off everything.” “We don’t want flat roofs” [this, however, was a false reading of the plans]. “There isn’t any identity.” “It won’t work, you have to have your own back garden” [referring to the open bits]. One of the NSRA representatives (R11) recounts: “As soon as they came up with the first set of plans, which showed the courtyards, there was immediate objection. They sort of

said it looks like prisons.” The following extracts from my fieldnotes shall provide some context and give a sense of the atmosphere experienced during the meeting:

It seems as if there is quite a bit of reservation amongst the community. In fact, during the presentation the [architect (R07)] himself realised that the audience was very quiet (later on he would say that silence means agreement / support)

Drawing 7: Session 2 - Masterplan Option 2



Source: BM / 18.11.2009

Noticing the quietness in the room, the Senior Project Manager (R02) tried to intervene, asking if people could actually see:

The senior project manager asked whether people could actually see and whether they would like to move forward but nobody did; there was quiet a distance between the audience and the architect; the content of the slides was difficult to read as the screen was relatively high up, a couple of meters away from the audience and quite dark.

Apparent became the importance of the setting for engaging with the consultees, the effective use of media and other informational tools (handouts were in black and white):

Some people seemed to be struggling with the drawings as is reflected in Sarah’s comments (“drawings of no use”); apparently, models would be appreciated as a way to facilitate communication.

Drawing 8: Session 2 - Masterplan Option 2 (3D)



Source: BM / 18.11.2009

## Investigating options

The two options or ideas being entertained, according to the project architect, provide a sense of orientation in the development of the designs. They may be seen to indicate what Dewey calls an “end-in-view.” As elaborated earlier (see chapter 4) an end *to be* reached or indeed an end-*in-view* is “logically indispensable” in the arrangement of the existential material that will provide the evidential and testing facts of the case. Without an end-in-view observation

is impossible for “one can have no conception of what one should look for or even *is* looking for” (Dewey, 1938:451). The initial consultation, “being very much a searching exercise” (R07), may, in fact, be viewed to be indicative of just that: an unclear end to be reached. The project architect describes the situation as one “where we cannot ask any direct questions because we don’t know what questions to ask” (R07). Towards the beginning of the design phase “we’re just receiving information from people and then we’re trying to distill the information” (R07). It is only when they arrived at the two options that “there were clear questions we needed to ask” (R07)

When we got to two options there were clear questions we needed to ask. And without the questionnaires it would have been quite hard for us to know definitely that a public space is the right thing to do. (R07)

Asking questions is with the specific purpose of “finding out what works”.

### **Finding out what works**

In the midst of design and phases of reflective thought a recurring term was “works”. For Dewey the terms “works” and “satisfies” have no reference to a personal state of mind or “whim and fancy”, as Thayer put it, but are determined by the conditions of the problematic situation. What works (plan of action), and thus may be considered warranted as an assertion, is not a matter of personal preference as in what works for or satisfies me – although many critics suspected Dewey to purport just that as pointed out by Thayer (1952:62-63). Experiments involve the overt activity of acting out a particular plan of action, i.e. a hypothesis. Thayer suggests that “a hypothesis that ‘works’, is a hypothesis that experiment, or the overt activity of carrying it out, makes evident, ‘satisfies’, the demand set by the troubled situation in leaving the situation complete and no longer troubled” (1952:61). The prerequisites therefore which determine whether or not a hypothesis is satisfactory, are in no way to be construed as ‘subjective,’ ‘mental,’ or private” (Thayer, 1952:62-63). Having said this, although the architects made frequent use of the term, they had difficulties in trying to specify what was meant by it.

HAB: You mentioned that you should have been bolder in saying what works or doesn’t work, which is a phrase that’s been used repeatedly throughout this project. This made me wonder

what it actually means to say this or that works or doesn't work, and how do you know it?

R04: Oh, I was probably thinking of like the physical...how it looks..., it works because it looks...because the design suits that particular location [note: not purpose], so that works or it doesn't. It does not work because it looks ugly, you know, it doesn't work, it doesn't look like a nice place that you'd want to live, so it doesn't work.

HAB: So is the reference personal taste or past experience with projects? What is it?

R04: It's probably more of a personal view rather than anything... It is to look at something and say 'well, does that look like somewhere you would want to live, would you want to be surrounded by 17 parkings outside your flat?' No, you probably wouldn't. So, it's not really working as a design solution. But a lot of that comes from people who have a better background in design, planners, you know, sort of technical people. So it might not necessarily be my opinion in the first place but I now have got a good enough feel of, well, I know that planning wouldn't like that because, you know, for whatever reason it doesn't look like a good design solution.

What is being referred to here is an intuitive understanding born of experience as to how something would 'look' as to whether it would work. It does not, however, necessarily whether some thing is suitable for purpose. Reference is aesthetic, absorbed from what is taken for granted as the 'facts' of professional practice:

What works has been, you know, studied, books written about scale, dimensions and you just have to see some successful squares and times in England or in Europe, Britain, whatever, which work because of the right scale, because they've got active elements to it and merely because there is something active in space; so it could be a play area, could be a little kiosk or something that attracts into that space. Then there are defensible edges for them to sit in, you know, there's all those sort of discussions about defensible areas, your back to an edge so you feel safe and distances that you can rush with people. So those dimensions they're all well understood, I guess. (R06)

Reference is not purely to that which is absorbed through an established discipline. It is also supported by reference to practical experience:

HAB: How do you know that something works?

R07: It's just from years of wondering and reading books. Also just hearing what people say, people, for example, don't like it when someone can go right up to their bedroom window. So you shouldn't place the bedroom facing a public street. Just walking around and talking to people.

In terms of how this translates into a housing development, the example of another development area is addressed:

HAB: I also find this formulation interesting in the context of the Craigmillar development. I mean, Craigmillar has been discussed as an example of what Sighthill houses could look like and I suppose it was taken as precedence because on some level it is considered to be successful and it was in this context that Craigmillar was said to be working--although it's only been up and running for about a year now. So the question is again, in what sense is it working?

R04: Yes, and on what level is it not? I think, something like Craigmillar is working because the designs have translated into a good physical product.

HAB: Can you elaborate on that?

R04: I just think that the laying of the buildings look nice, the streetscape is nice, the public realms and the quality finish. It's clean, it's tidy, it's well maintained. Where it's probably not working is...I'm not sure people want to live there. People certainly don't want to buy there. They don't want to buy there because it's too expensive. So, I think, when people say it works they're probably thinking as an architect; it works because you've got slightly different building forms, shapes, designs, where it all sits together and it looks, it looks like a nice development and it's nicely kept and it's clean and neat, you look at a home zone area, there's all this shared space. And then you come back again, it works [laughs]. Why does it work?"

The photographs 9 to 11 show scenes from an open surgery that took place on 19 November 2009 at different locations, including the Medical Centre on the North Sighthill compound, the North Sighthill Library and the North Sighthill Community and Education Centre. On display are the two masterplan options that have been developed following the placing making workshop in October. People passing by were invited to inspect the proposals, ask questions and provide comments. The architect, in turn, would provide guidance in reading the plans and highlight the differences between them. Given the small degree of variation, it is perhaps not surprising that one of the comments noted on the questionnaire that were completed during and after the open surgery read: "More opportunities to have a larger variety of options."

Photograph 9: Public Consultation



Source: Author / 19-11-09\_IMG\_0062 / 14:46:13

The drawings and short explanations were left on display in the Medical Centre, the Library and Forrester High School for a period of 10 days from 19 November 2009 onwards. Pictured in photograph 10 is the North Sighthill Library setting. The presentation boards were accompanied by questionnaires on people's views and preferences regarding the two options. The questions were of the following kind: What type of open space is more important to you, public or private? Do you think the views northwards should be onto the existing planting, or private partial views across the park? What type of community facilities do you think are needed, given the size of the community? Which of the options presented do you prefer and why?

Photograph 10: Drawings on display



Source: Author / 19-11-09\_IMG\_0057 / 12:21:33

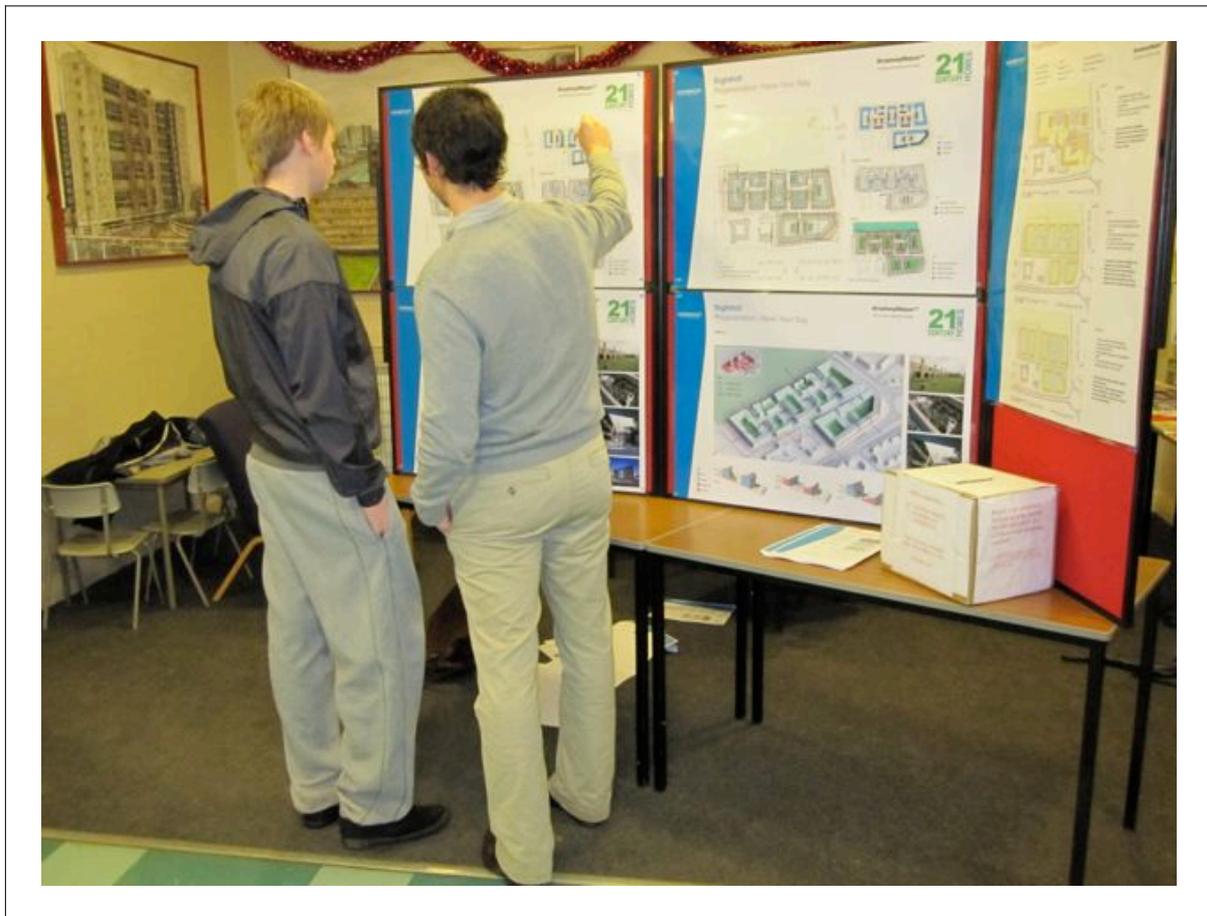
Despite difficulties engaging with the wandering youth, one of the architects felt that within the short window of opportunity, captured in photograph 11, they still received “some good comments:

R08: It was a very short session, obviously it wasn't anything particularly in-depth but it felt it was a five minute window after which it stopped being productive in any way because they very quickly became quite destructive. But, you know, that was a very good. I think, those five minutes were very valuable, we got some good comments and we were engaging, engaged a little bit with them.

The architect elaborated that apart from many “glib comments” there were a few insightful ones which made the engagement worthwhile.

I mean, there was a lot of glib comments about, you know, we wanna be able to run away from the police and all that sort of thing...erm...you obviously not gonna design a housing scheme that facilitates the escape from the police. But I thought that...erm...the kinds of things they would point as an engaging...that would not involve being in the streets and drinking...erm..in particular how the community centre works, I thought, that was probably one of the best. There was another one potentially good comment that they [the community centre and the library] should be in separate buildings so if you get barred from one, you don't get barred from the other. (R08)

Photograph 11: Engaging the youth



Source: Author / 19-11-09\_IMG\_0065 / 17:47:31

### **Consultation aids**

Finding out ‘what works’ from the communities point of view, however, is dependent on the extent to which that which is presented is accessible to them. The difficulties involved in

communicating architectural ideas and the importance of visual aids are emphasised by one of the local residents, an elderly lady that had lived in North Sighthill for more than forty years before she was rehoused in 2007:

R12: You know, there're things that they can do, the architects, they can make a wee housing scheme out of match sticks or something or wood and have it in, right, erm...I was hoping we could get that for us.

HAB: You are talking about a model?

R12: Yeah, absolutely, a model. I would like to have seen that, the model. So you were looking at it and see there's a house, you know it's a house because it looks like a house. But when you're looking at this [the architectural drawings], it's all just wee squares. You know, so therefore I thought if we could get a model of this and put it out, you might have found more information on that model but they didn't do that.

What is being highlighted here is the importance of a visual representation of a two or three dimensional design representation.

R12: And the plan gives you that but you've got to be able to sit back and shut your eyes and think 'oh right.' But you don't do that. So I honestly feel that no matter what kind of architecture, right, is being done by the masterplanner, OK? Now, whether it's a community centre or a whether it's an area like this or whether it's a shopping centre, whatever, they should do it with a model. And that way it can go from the model you're looking at in your brain. If you've got that [points at the drawings], and I'm looking at it and I'm thinking, 'good grief'.

HAB: It's interesting that you say that ...

R12: Architects now, right, they've got to sit down and listen to the people and I, honestly, I feel so strong about this, that every architect who are doing plans should do a model because that is where the key lies, people can see how...some people don't understand plans and quite truthfully I don't really. So, and I'm looking at this one and all these pensioners and it's like 'oh, what does that look like.' If you've got a model you can sell that plan on a model alone.

HAB: So you think this project would have improved?

R12: Yeah, if they had done a model of this with matchsticks or whatever they do it with, my husband used to make little houses out of matchsticks, erm...if they did that, I honestly feel that we would have had more attraction to it, you know. I mean the plans have been here there and everywhere, up in the clinic, everywhere but a seventeen year old child wouldn't

understand it, somebody at thirty can't understand it, but they can understand the model.

### The request for visual aids was common throughout the process

Now, one of the things that a lot of the residents have been asking about is: "Why can't we see a typical picture or drawing of the type of housing that you're going to actually build here - whether it's a single storey, two storey, three storey or four storey building type?" And we're just continually fobbed off with "well, that'll come later, when the architects get involved". And that's an acceptable answer, except it's not really acceptable because there is no reason why we can't see "well, this is the type of thing that we're conceptualising when we produce the plans that we produce." I understand that the developers, the masterplanners don't want to be settled with something that they said "this is a possibility". But it's really rather disappointing now I would have thought, particularly for the length of time that has been spent on this whole process that they wouldn't have managed to get to a stage where they could sort of say "for instance, this is the type of ... might look something like this." (R11)

Architectural drawings are limited in their capacity to transmit design ideas that were regarded as an example or guide to be considered in the development of the North Sighthill estate. However, for the architects some of the difficulties of consultation can be overcome with physical demonstrations of issues

I think the consultation process shows as well that you get great value in design if you know that on the ground it will practically work, and therefore when we took the residents to places like Craigmillar and we could show them real-time examples, and we could have either convinced them of the argument or the design, technical solutions that we know works and, I think, allowing them to realise that technical solutions do actually practically work, and that they can buy into those, again, I think is really important. And getting that feedback about how the recycling works, how the cycle stores work, how the parking provisions work, I think are all in many respects quite practical issues and I'm quite aware of the fact that when you start to go into some of the more technical aspects of the architectural design, such as the building performance, the specification of the building materials, the lifespan of the building materials and the environmental credentials of the materials, you don't get an awful lot of consultation back because unless some of the residents actually have a genuine expertise in this area, they're unlikely to get down to those technical issues and that's fine. (R09)

Architects refer to these as precedence studies and see value in their use, either in the visit of an actual area or in visual representations of similar schemes. The use of precedents in the conception of new design solutions is an old and established practice in the field of

architecture and design.

You can try and inform the community as much as you can. We have used precedence studies of what things might look like and they do have opinions on that, absolutely. You know, they would rather see a terraced two storey house than a mile of four storey flats, for example, and that came across quite strongly, I think, in the Sighthill discussions where they saw this big wall of four storey flats against Calder Road. So that's quite an interesting discussion that you're informing them by showing them some precedents of what it could look like. So maybe on that level they're making decisions on what they like and what they don't like and that does inform the masterplan. Normally we would usually always make a model. (R06)

Drawing 9: Greendykes North Masterplan by Cadell2 LLP

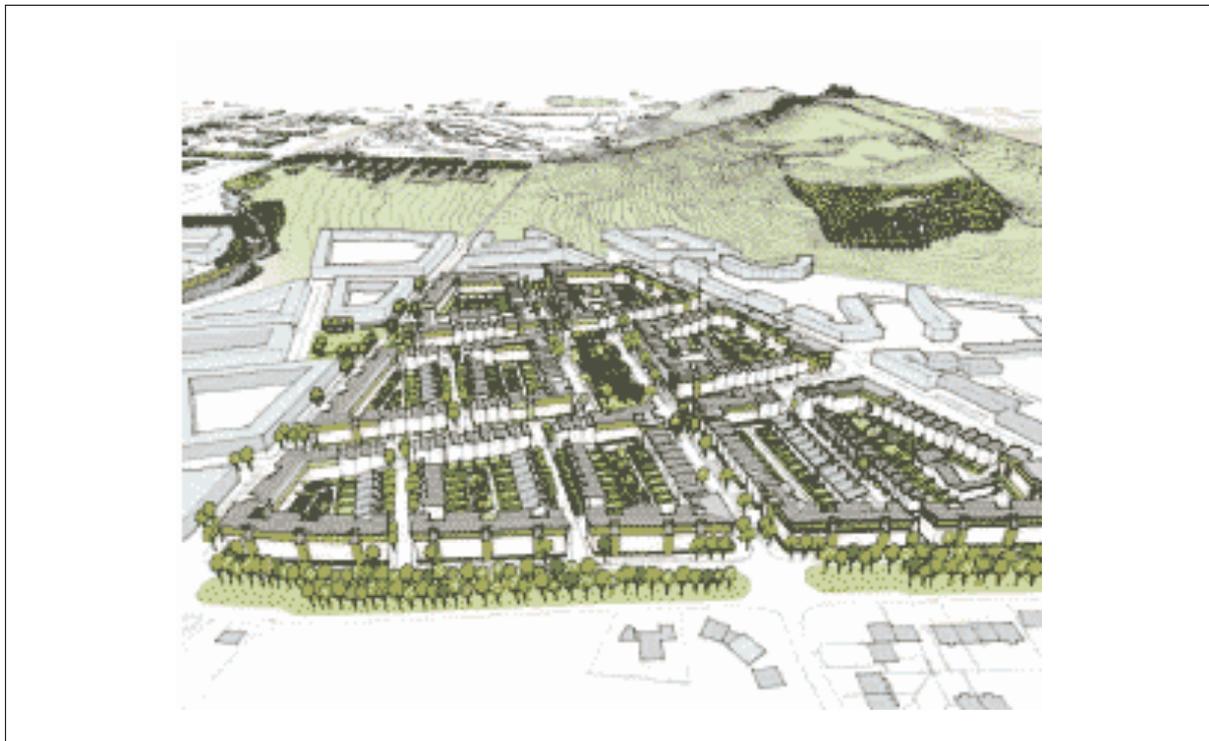


Source: <http://www.scotland.gov.uk/Resource/Img/244134/0071502>

It is only when presented with this that the significance or relevance of the plans ‘become real’

Lynn had raised concern about the idea of a courtyard and she raised concern because in her mind she just wanted a private space for each individual and she couldn’t quite understand how private space can be translated into semi-private space, a courtyard basically, which would be secured by people living round it. She just didn’t get how that could be achieved. So we took her to those sites so that she could see a build in the same ethos, basically of a courtyard surrounded by private gardens and they really bought into it and understand and they quite liked it as well. So, yeah, the precedence was selected there as a direct comparison for what we were doing. I think people needed to see the physical reality. It’s quite a difficult thing for them to understand. (R07)

Drawing 10: Greendykes North Areal Sketch by Cadell2 LLP



Source: <http://www.scotland.gov.uk/Resource/Img/244134/0071504.gif>

As one resident explained:

I know, it’s supposed to cost quite a bit to do a model. So it’s probably been cheaper taking us up to Craigmillar and to Greendykes that day, you know, and there was snow on the ground and other things so it gave you a practical look at it. You know, the snow and the gravel, we

didn't go up on a beautiful summer's day, when you had that, you know your best time to go is in the middle of the winter and that's when we went. And that's what I saw and it all started to come together against the plan. So, you know, *people don't need just plans, they've got to see something within that plan*. What they did was they took us to Greendykes and to Craigmillar to see the area, which is going to be very similar to this [the North Sighthill Development], and that was better because you actually saw the houses, you know, the cars, the trees, pavements, and so forth. But when I saw it, it all came together. But *it doesn't come together if it's just another paper*. You have to have something. [author's italics]. (R12)

Important however is the choice of precedence or comparator as is explained by one of the architects:

The precedence of Craigmillar was partly brought about because the project manager was involved in it in some way and had already taken groups down there. So they were fully aware of them being quite successful. I suppose, I mean, in one sense it's not a new idea, it's the New Town. They have done it hundreds of years ago with private space surrounding common greens basically. It's not a new precedence in that sense but I didn't want to take them to the New Town because they already heard [another architect] had expressed the desire for the New Town as a precedence for the masterplan and presented that to the community and I think he came across to the them "and...I want a posh New Town". Great! So Craigmillar and Greendykes were a good comparative example for Sighthill because it's not this posh New Town thing, but something that's more...they are both relevant but maybe more understandably relevant. (R07)

### **Closing down versus opening up the discursive space**

It was emphasised earlier that the design process is opening up a discursive space; a space that allows for the clarification of expectations, developing clarity on the problem to be addressed and an idea of an end to be reached. While the process did clarify a lot of issues in terms of what it was envisaged the site would look like, there were still a number of unanswered questions. Some of these related precisely to what was envisaged for the site in terms of the total housing and the type of housing that was available. As one resident explains:

R11: I mean, my understanding of it [the project] was that the second masterplan was still to be based around "we have to provide approximately 1300 dwellings and so equivalent density for the site," which I knew immediately was going to be an interesting prospect because, you

know, it was already understood that high-rises were going and weren't to be replaced. Therefore you're either going to have to utilise more land or you sort of virtually have to get rid of all public space within that redevelopment *or* you have to reduce even further the size of the dwellings themselves and that leads on to the question of then is [it] just going to be single person dwellings rather than family dwellings--because you can't have everything? And questioning how this was going to be managed, I just never received any *real* response, let alone adequate responses because as it has turned out plans are being developed with a much reduced number of dwellings and we're still at the stage where, although if it's planned to go forward for planning permission just now, *we*, the residents, as part of the Development Group, Residents Association and the Edinburgh Tenants Federation itself and the other, wider side of Community Councils, we don't know how many houses are actually going to be built here and what type they are. Now, there is some detail here [he is referring to the drawings] but it's not explained to us, so we're gonna have to do that work or not for ourselves.

HAB: And why do you need this clarity at this point in time?

R11 [hesitating]: I mean, the answer is, actually I don't, right? But it seems to me that...hm...the original expectation was that there would be--I'm not saying that because of the 1300 houses, 1300 dwellings there must be 1300 dwellings--but we were always understood that there was going to be like a redevelopment in place, the previous development, and housing numbers would virtually be maintained as sort of status quo...that number of people coming back to the community. And it's now clear that this is not happening, the residents are not being made aware of that but...hm...something has happened to allow this position. A question why is it not just being openly explained? So that leads me to sort of say: Well, what type of redevelopment are you actually wanting to produce here? And in the background we know that it's something that we didn't really want because right from the beginning of all the meetings that I have attended, where residents were present, I believe they were asking *the same* questions at the first workshops: "How [many] Council houses are gonna be built here?" And you don't get a hard answer and we still can't get a hard answer out of the Council.

Another recurring issue was the location of the community centre. One of the project managers acknowledges this and responds that, on hindsight, choices should have been restricted:

HAB: What do you make of the debate about the location of the community centre? I mean, that's been quite a polarising issue.

R01: It polarised. That was really interesting and because it was polarised. The people that were representing North Sighthill wanted the community centre where we had positioned it. People that wanted it on the roundabout where it was extremely visible, mostly to passing

traffic, were the people that don't live on the site and don't know what it's like to live next door to a community centre. And have it so surrounded by housing and the parking issues and also the underpass issue having the community centre right next to it. Erm...I think, we could have dealt with location of the community centre a bit better by not entertaining that site at all and not giving the choice of that site. We got three sites that we could have put it on, there was up by the underpass, there was further down Broomhouse Road next to the park, and there was next to Napier University. So I think, what we should have done is put down next to the park on Broomhouse Road and then at the other side of the site. And I think that would have caused less argument and angst.

HAB: Is that something which you think would have been your responsibility or something the architects should have dealt with?

R01: Yeah, that is something that we should have pushed for, we should have thought it through better but also the whole masterplanning process was being cramped into an incredibly tight timescale because of [the architects] contract, which runs for a year. So the three sites had to be masterplanned within a year.

In this case the council project managers felt that in retrospect there were some issues where 'choice' became too broad and more knowledge of 'what works' should have informed how the consultation was handled. Once again the constraints of the project in terms of time are being highlighted.

Underlying all these issues however is the broader issue of what is understood and meant by the concept of community, which had underlain the project for the beginning, as a local resident explains:

R11: We know basically what's going to happen is that there's gonna be as few council houses as they get away with because of the economics and the whole redevelopment. It's going to be a new community that is being invited in. Not because the Council wants a new type of resident but because houses are for sale. Some will be at mid-market rent, which will be beyond the reach of a lot of people in any case. There'll be minimum number of council houses and that's what's happening. Which means that people that sort of said they want to come back and the right to return, will they actually have anything to come back to? So in the background there has been a decision made on the social engineering basis, although it wasn't the purpose, if you understand what I mean. In actual fact, a community is being forced to change. It'll be a replacement community.

HAB: So it's more gentrification rather than regeneration? Replacing a group of people with

another, better off group of people?

R11: It's a redevelopment with a purpose, I would say, right.

HAB: And it's to create different dynamics on site?

R11: Yeah, I mean, *actually* it goes further because when you look at housing issues, right, housing issues in the United Kingdom and what has been going on, there are political forces at work. Take for instance the mixed community concept. It's definitely a current experiment, and it is an ongoing way of trying to redevelop housing, where housing has to be redeveloped. There is a base concept that is still being used although now there are lots of objections to it where it has been used.

HAB: Why?

R11: Some people say it's just failing.

HAB: And do you know why?

R11: It's quite difficult just to get different people, with different lifestyles, right, and in different income groups and it's difficult to just force them to live together without problems arising. You've got people that are out of work, you've got people that are long-term unemployed, you've got people that are in work and, you know, they are able, they're having a nice life, they are able to afford things other people can't, and you're putting them cheek by jowl and expecting everyone to be happy and that there won't be problems. It is an unrealistic expectation. It is a nice expectation but on the ground it just cannot actually work. In some places it will, in other places it won't.

HAB: So it's an ideal which doesn't meet the reality of daily life?

R11: Yeah.

The continued reflections from one of the NSRA representatives show the level of dedication and depth of intellectual involvement in the planning and design activities. The issues contemplated are diverse and broadly concern the composition (design) of the site and its capacity to serve the interests of its residents and neighbouring communities. The reflections highlight a number of unanswered questions and uncertainty about some of the project's most basic assumptions, such as what demographic is actually being assumed? is it being planned for at all? are housing sizes/capacities in accordance with population size and breakdown? will projected children numbers fit with local school capacities? how will the needs of 'returnees' be incorporated into the housing plans? How are the levels of 'social-rents' to be

established, and how does this effect the levels of ‘support’ that will be available for those relying on housing benefits? The notes further reveal confusion about the extent to which the community is involved in some of the decision-making processes as is shown in the question about the distribution of ‘tenancy types’ throughout the new estate and whether or not this decision is to be ‘approved’ by the local community. Significantly, it is expressed that there is still confusion over the actual “makeup of the ‘Community’” and “how it / they can be involved in the consultation / planning process.” Contemplating the seemingly low “returnee population” it is asked: “If the ‘returnee’ population is so low, as it appears to be, then who will make up the community for these purposes?” This led to the question: “If the community is also to include the wider area community residents – Broomhouse / Parkhead / and the Calder - then should we not be inviting and including their direct participation now? Having some local Community Council members turning up is not the same as engaging with the actual residents from those adjacent areas. Should we not perhaps leaflet them asking them to provide input to the project regarding their ‘needs and wants’ for any ‘community’ facilities that might be established within the N. Sighthill redevelopment project?”

Contrary to the widely held belief that resident’s ability to contribute to the development of design solutions is limited to practical concerns, the articulated issues reveal a surprising level of conceptual thinking. The text lays bare an inner dialogue that raises questions about the harmonious accounts given by Council representatives and architects about the level of shared understanding, the uncomplicated character of the project, the number of issues and the extent to which they have been resolved. Given that these notes are a “revised” version of previous commentaries we can and should understand those notes in light of the developments surrounding the two masterplan options that have been entertained. The following revised notes are from 9 December 2009.

Data Extract 1: Our Community (Revised 09.12.2009) - Reflections from NSRA Representative

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This plan is about the future – but that future encompasses the whole lifespan of a community including birth, life, death, and renewal

#### **Housing**

- Private and Social mixture of housing:

- properly sited with regard to sunlight / wind direction / and outlooks
- built to the highest standards of insulation
- built to reasonable standards of sound insulation
- with broadband / cable TV infrastructure pre-installed
- reasonable restricted general public access from nearby park area and colleges (i.e. some sort of separation of the housing estate areas so that they don't just become totally public space)
- the need for the incorporation of new technologies concerning energy-saving measures (e.g. intelligent metering, use of solar panels etc)
- Gardens (community and private) and safe pedestrian areas – well lit and visible (no hidden areas)
- Well structured car parking areas – residents and visitors
- Speed restrictions with traffic-calming measures
- Safe access to main roads
- Adequate clear and attractive standardised signage (vandal proof?)
- Sensible and clean facilities for rubbish disposal / collection / recycling points
- Litter receptacles on pedestrian areas
- Trees and landscaping
- Wind reduction measures
- CCTV monitoring of estate accesses? (If installed then to be controlled by and records accessible to the community – through its appointed representative)

### **Shopping facilities**

- Local store with Post Office facility
- Cafeteria
- Take away
- Delivery access / parking / refuse storage area
- Disabled access considerations
- Pedestrian area – no car zone – layout and facilities
- Security enhancements – probably CCTV to local police point

### **Community facilities**

- Community hall and meeting place with a Police point (community police patrol office) and community services office
- Crèche / nursery facility (this could be either an estate-only facility or a local-business type of facility catering for the larger area – possibly including services to the colleges)
- 'Youth club' facility with provision for indoor activities and access to music / video / and computer-gaming rooms. (there may be a cross-over with activities provided within the community hall)
- A safely designed and provisioned mini playground for young children

- Library
- IT facility (probably within the community hall -access after library closing times for working people)
- Public telephones (vandal-proofed)

### **Sporting facilities**

- Indoor Fitness facility / centre for young children and the elderly

### **Health facilities**

- Local Health Centre & pharmacy (preferably not to be used as a general city-wide drug-rehab distribution point)

### **Estate Environment**

- Entry / exit considerations:
  - Linkage to main roads
  - Estate roads / pavements / resident and visitor parking facilities. (Taking into account the needs of disabled)
  - Traffic calming measures and speed restrictions
  - Access to all areas for fire and ambulance services
  - Designed-in separation from main road
  - Designed-in main-road noise protection
  - Designed-in boundary line division between estate and nearby colleges
  - Adequate and clear signage – for street names/numbering, and location of public-use facilities
  - Road crossing points within estate road system
  - Lighting plans – and designed-in consideration of light annoyance to close-by residents
  - Pre-planned layout for access to underground services designed to minimize disruption and disfigurement during maintenance and repair/renewal.
  - Recycling points
  - Clear responsibility-plans for maintenance of public garden areas
- How are rubbish bins to be provided for the low-rise housing? – are they to be individual or part communal?
- Are they to consist of separated-rubbish type containers?
- How will this work?
- Where are they to be stored?
- Surely we don't want to have streets lined with 'wheelies' and 'boxes' causing constant arguments and existing as vandal targets – not to mention the current fire-lighting vogue.
- The whole 'atmosphere' of the estate could be blighted from the beginning if a sensible,

realistic, and health-conscious resolution to the problem of rubbish disposal and collection is not pre-planned into the estate.

Some of the suggestions made so far can be examined within the housing estate at Wester Hailes for a demonstration of how they can fail totally – dumping by others / fire risks / non-clearance disfigurement / bad odours and general public health risk from infestation etc.

### **Sighthill Regeneration Plan – Questions**

Here are some questions:

- What demographic is being assumed? It will be different from the existing. Is a demographic being planned for at all?
- Population size and breakdown needs to be configured
- Are housing sizes / capacities in accordance with the above
- This will affect all the associated community service provision assumptions
- Will projected children numbers – over the medium to long term – fit with local school capacities?
- Housing estate proportions: what are the proposed numbers for: -
  - Outright-purchase house numbers?
  - Shared-ownership house numbers?
  - Social-rent / Council house numbers?
- How will the disposition of Social-rent / Council houses be effected?
- What criteria will be used?
- How will the needs of ‘returnees’ be incorporated into the housing plans? (We don’t know. This is not just a matter of ‘how many residents’ choose to elect to have the right to return, but also to the reasonable projections of the makeup of that segment – how many houses are needed? what family sizes are needed? and therefore; what type of housing is needed for them?)
- How are the levels of ‘social-rents’ to be established, and how does this effect the levels of ‘support’ that will be available for those relying on housing benefits? This involves economic decision-making by the concerned individuals and local government departments concerning affordability.
- What criteria, if any, are to be applied as to the distribution of ‘tenancy types’ throughout the new estate? Is this decision to be ‘approved’ by the local community?

### **Extras**

- Disabled provision? (This covers many areas besides the ‘minimum quantity’ requirement. We should be deciding what we consider is necessary – we need to discuss this aspect – and then ensure that the thoughts are incorporated into plans)
- Note that the road provision on the plan seems insufficient, and that there is an obvious lack of car-parking space compared to that existing at present – particularly for visitors and delivery / maintenance vehicles. The plans represent a trade-off between space and numbers. This may not be acceptable as currently planned. We need to think-on with this.
- Also that the proposed route to the college from Calder road will cause serious congestion and restrict access for the fire brigade vehicles returning to the station – not to mention the

congestion problem for those accessing the Health Centre.

- I am still confused as to the makeup of the ‘Community’, and how it / they can be involved in the consultation /planning process. If the ‘returnee’ population is so low, as it appears to be, then who will make up the Community for these purposes?
  - If the Community is also to include the wider area community residents – Broomhouse / Parkhead / and the Calders - then should we not be inviting and including their direct participation now?
  - Having some local Community Council members turning up is not the same as engaging with the actual residents from those adjacent areas. Should we not perhaps leaflet them asking them to provide input to the project regarding their ‘needs and wants’ for any ‘community’ facilities that might be established within the N. Sighthill redevelopment project?”
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### 5.3 Conclusion

The chapter revolved around the formulation and examination of ideas or possible solutions to the architectural problems explored in chapter 4. Those ideas initially took the form of three concept proposals, which were presented exclusively to the Council (the client). The Council then selected two proposals (Option 1 and 2) for further development into costed masterplans, upon which both statutory and non-statutory bodies were consulted (see Figure 4). In this regard the planning process as it presents itself, predefined by the brief, has revealed an interesting facet of idea generation in that, contrary to the Deweyan pattern of inquiry which suggests a gradual refinement of an initial, and typically, vague idea, inquiry in the initial stages of the present case meant developing three ideas and discarding one without further consideration. In fact, Option 3 was allusively disqualified by one of the architects involved as an option that had been entertained simply for the sake of having a third option. What we see is the simultaneous entertainment of different problem solutions, undermining the idea of the gradual development of solutions in response to a growing understanding of the problem itself. In fact, comments from one of the NSRA representatives reveal the state of confusion three months into the project regarding some of the “factual conditions” constituting the problem: the actual makeup of the “community” is still unclear.

Following on from the acceptance of the concept proposals 1 and 2, further facts were secured through observation (place making workshop), which informed the development of the initial proposals into the two masterplan options presented in this chapter. We may understand the place making workshop as part of the continued process of developing understanding of the problem to be addressed. The ideas entertained and facts gathered in response to the two masterplan options by means of consultation are operational. They are operational for that they do not have any present existence. Ideas are possibilities, concerned with future states of affairs and a such hypothetical in character necessitating the use of symbols. The same applies to the facts secured by means of experimental observation. They are provisional (therefore called “trial facts”) and equally to be carried and treated by means of symbols in order not to become categorically asserted.

It is important to note here that the development of the masterplan options progressed in a way that renders the strict differentiation between reasoning, as in establishing the meaning content of ideas (the plan of action), and exploring the operational character of facts-meanings (the plan acted out), difficult to hold up for that ideas are acted out on paper (or by means of models) and as representational artefacts form part of the ongoing process of inquiry. Ideas are communicated and interrogated through the drawings, which in themselves are turned into objects of inquiry interrogated by the Development Group and other consultees. Consultation on those drawings was facilitated by a variety of informational tools, including the architectural presentations, displays, handouts and questionnaires.

It has been suggested in the previous chapter that the various actors involved in the project (see Fig. 4 for a general overview) form a community of inquiry, where people are related to each other, act and think together, on the basis of their commitment to a particular subject of inquiry. The term suggests a form of unity that is established within the social system by agreement on a particular method of inquiry and consensus on the points of departure. However, as the material on disguised practices and the closing down of debate has shown, inquiry takes place within a context of imbalance (also communicated through the series photographs which show consultation in a classroom format with the architect standing and

explaining and the consultees listening and asking questions). It is suggested that the process of inquiry has given rise to what one may refer to as “sub-communities of inquiry” within which options were being developed and weighted according to their specific methods of inquiry and funds of knowledge.

# Chapter 6

## Empirical Explorations: Testing Solutions and Drawing Conclusions

This final empirical chapter covers the planning and design activities of the period from January to April 2010. To be accomplished were the revision of the two proposed plans and their development into a final masterplan. The first submission date was scheduled for the 8 February, yet in the course events first postponed to the 26 February and eventually to the 13 March. The final masterplan was subjected to another iteration of consultation, which included, as before, meetings with the Development Group, the Community Council, Forrester High School and the general public. In addition to that, the plan was displayed for ten days in the Medical Centre, the Library and Forrester High School.

Table 15: North Sighthill Public Consultation Programme January - April 2010

<b>Date</b>	<b>Events</b>	<b>Commentary/Details</b>
28 JAN '10	Advertisement in the local paper	<ul style="list-style-type: none"><li>• BM to produce advertisement design by Tuesday 19th January</li></ul>
03 FEB '10	Development Group Meeting (North Sighthill Community Centre)	<ul style="list-style-type: none"><li>• Presentation and feedback on development of final masterplan</li></ul>
04 FEB '10	Community Council (North Sighthill Community Centre)	<ul style="list-style-type: none"><li>• Presentation and feedback on development of final masterplan</li></ul>
05 FEB '10	Primary and Secondary School Consultation	<ul style="list-style-type: none"><li>• Workshop with children from Forresters Secondary School and separate events with pupils from the primary schools.</li></ul>
09 FEB '10	Public Meeting (North Sighthill Community Centre)	<ul style="list-style-type: none"><li>• Presentation and feedback on development of final masterplan</li></ul>

10 FEB '10	Consultation on final masterplan	<ul style="list-style-type: none"> <li>• BM to issue leaflet design advertising public meeting and consultation programme to CEC on Tuesday 19th January</li> <li>• CEC to distribute flyer to local residents (including those relocated), key stakeholders and adjacent communities on Friday 29th January</li> <li>• Consultation event to seek views on final masterplan. Medical Centre and Library from 11.30am to 2pm and 5 to 7pm. BM and CEC on street in front of medical centre and at library.</li> </ul>
11 FEB '10	Display of final masterplan	<ul style="list-style-type: none"> <li>• Final masterplan displayed in Medical Centre, in the Library and the school. To run for 10 days. Manned from 12 noon to 2pm and 5pm to 7pm on both Thursday the 11th February 2010 and Friday 12th February 2010 at the Medical Centre, the Library and Forrester High School.</li> </ul>
08 FEB '10	Envisaged submission of Planning Application	Submission date postponed
24 FEB '10	Report on forthcoming application by CEC Services for Communities	Purpose of the report is to inform the Development Management Sub-Committee of the forthcoming application and thus to account for the “involvement of committee members in the pre-application stages of major development proposals” (The City of Edinburgh Council, 2010)
26 FEB '10	Envisaged submission of Planning Application	Submission date postponed
13 MAR '10	Submission of Planning Application	Submission of planning application to the Head of Planning and Strategy, City Development Department, City of Edinburgh Council
14 APR '10	Final Development Group Meeting (18.30 -20.00 at Sighthill Community Centre)	

## 6.1 The operational character of fact's meaning

The ongoing process of inquiry into the problems to be addressed by a masterplan design has led to the development of the initial concept proposals into two costed masterplan options (chapter 5). Consultation on those two plans, their examination through both statutory and non-statutory bodies, eventually led to their transformation into one final masterplan. The process of inquiry entered into a final phase examination. It is being proposed by Dewey that

once an idea (or hypothesis) has received a form that it can “instigate and direct an experiment that will disclose precisely those conditions which have the maximum possible force in determining whether the hypothesis should be accepted or rejected,” the plan (idea) is acted out. An experiment is an overt activity and constitutes the final test to the solution entertained. An experiment of such form is not being conducted, instead the reciprocal process of observation (gathering trial facts) and idea modification is being continued as will be shown in the following.

### **The development of the final masterplan**

The final masterplan represents a revised hypothesis (idea) for the redevelopment of the site that is based on the new order of operational facts established through consultation on Option 1 and 2. It is in this context that one may appreciate the project architect’s comment that the final masterplan is not simply an integration of Option 1 and 2 but in fact a development of those. The “new” masterplan is characterised by the creation of a large focal public space in the centre of the scheme, the introduction of smaller courtyard buildings to Calder Road creating what the architects described as a “friendly street edge”, the development of the courtyard designs after site visits to Craigmillar and Greendykes, the development of the layout and orientation of buildings according to so-called “secure by design” guidance, the strengthening of the site’s relationship with the park edge, the development of the landscape design to ensure an attractive streetscape, the detailing of the vehicular movement including refuse collection, fire access and parking provision, and finally the positioning of the community facilities in the North West corner of the site to benefit, as it is argued, from the relationship with the Park, Napier University, the Medical Centre and existing retail facilities.

The location of the community centre, as indicated further above, was a recurring issue and debate continued with the presentation of the final masterplan. The two locations considered were, as mentioned before, the one in the North Western corner, supported by Edinburgh Council, and the one in the South Western corner as supported by the Community Council (for reasons of visibility and accessibility). Members of the Development Group had noticed

that in one of the drawings (Drawing 12) the perspective has been altered in such a way that the community facilities moved from the North Western corner of the Sighthill estate into the centre of the larger neighbourhood. Visually, it therefore became a focal point. One of the architects explains:

Robert [the project architect] produced this drawing that zooms out from the site to say ... well, actually, the argument is he wanted several communities and considered it from this perspective. He already had this community focus and wanted to strengthen it. (R08)

Drawing 11: Session 3 - Development of final masterplan



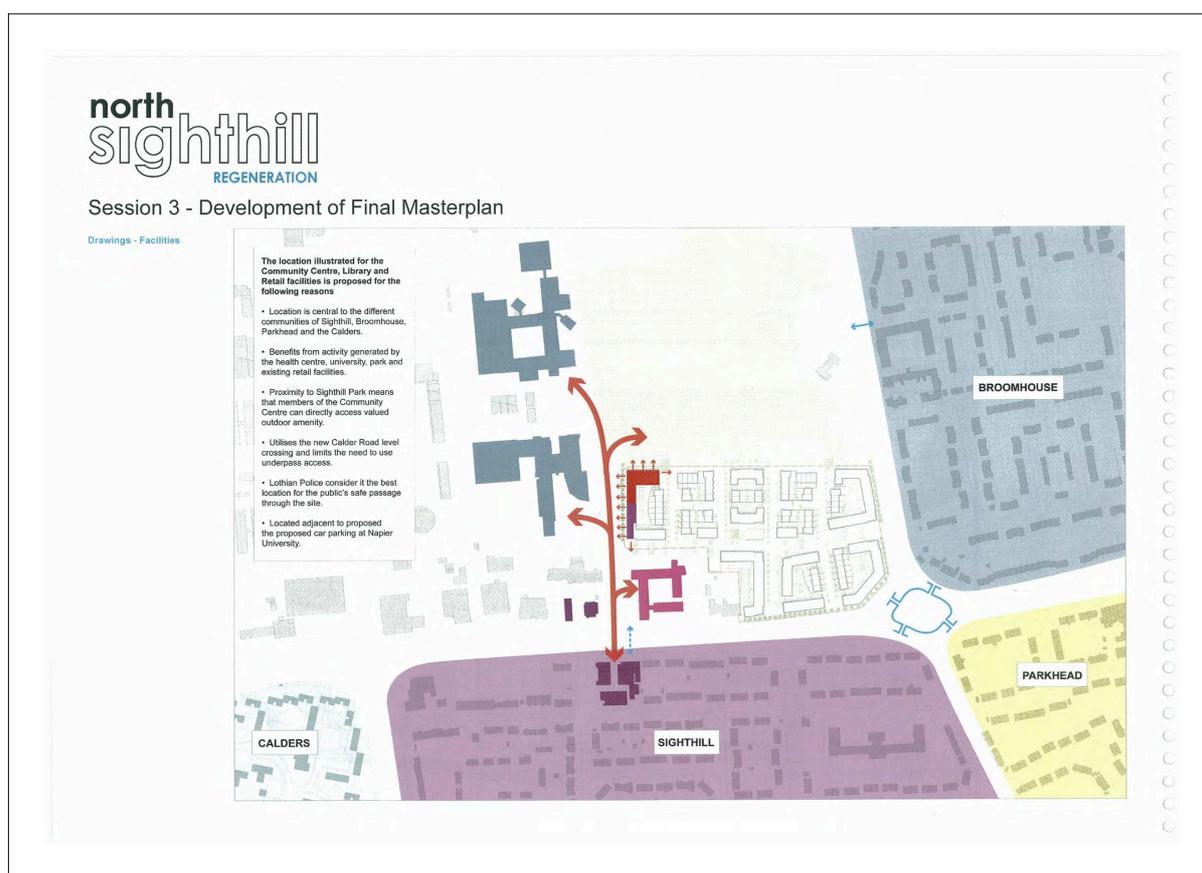
Source: BM

As indicated by one of the NSRA representatives, however, there was great confusion about what “community” actually meant. And as others in the Development Group, he only became aware of Calders (located in the South Eastern corner) when drawing 12 “emerged”. (R11)

It’s like we talk about community here [points at drawing], this is a community, then it was

“no, that’s community, with them and Parkhead”. Broomhouse tends not to be talked about for some reason. Calder’s recently has been added in a little bit. But I’ve been asking over and over: What is our community? Where is it? *Where is it?* I don’t need a dotted line around it but “community”? What are you talking about? I couldn’t get an answer. I just *cannot* get an answer. When we say community, are we talking about North Sighthill, which is just this part, or not? I get a sort of grudging recognition that community means, well, part of Broomhouse, this part of Sighthill land, I suppose a little bit of Calder’s but now you’ve also got other interested parties, like universities, right, and of course there’s Health, the Fire Brigade, and I’m sort of saying “right, in that case, why aren’t they turning up?” (R11)

Drawing 12: Session 3 - Facilities



Source: BM

### Influencing the design process

From the beginning of the consultation programme it was emphasised by the Council representatives that “comments will be included in the masterplanning” (R02). This was

echoed by one of the architectural assistants in the first development group meeting: “We are here to listen to what your views are,” “it is a very open discussion” and “there are no hidden agendas.” The presentation on opportunities and constraints delivered by the project architect stated, that it “is not [to present] fixed ideas” but only options. It was emphasised by the senior project manager that “we have to be aware of what people’s opinions are” while attaching to it the condition that “[t]here’s lots of cost analysis to be done to see whether aspirations can be put into practice”.

Certainly contributions were welcome, as for example comments on the community centre about which there was much concern:

How the Community Centre works, I thought, that was probably one of the best. There was another one potentially good comment that they should be in separate buildings so if you get barred from one, you don’t get barred from the other. If you think about the autonomy of both the facilities, which is something I hadn’t really thought about before then that, you know, those were useful things to bring on board...we appropriated as much as we could have done in the design but I think that that’s been outside of our hands, you know, the Community Centre is obviously quite a loaded issue...but those types of comments are viable and necessary insights they brought to the table. (R08)

This was especially the case if views were thought to represent a consensus view:

So whether it’s things like heights of buildings or open space, you know, things that are sort of tangible and easy to change in the design but I think that’s where their role is most useful, to be able to say “we heard you say that, we have taken that on board” because it was a sort of consensus view as well. You probably need more than one individual with a lone voice making a point. You want sort of get a consensual view of the Development Group to say “right that’s a valid point, we can fix that” and that’s how it’s translated and had changed the design. (R04)

Input was also generated by formal consultation aids

R07: It doesn’t matter if a questionnaire is either gonna say this one is right or another one is right or it’s gonna say we’re not sure. If it says we’re not sure than fine, it’s a bit more of a difficult consideration that needs to be done then but it’s still asking the question.

HAB: How does the questionnaire affect the design work?

R07: I suppose in what’s visible and clear. What the...presumably you’ve picked that up already was the open space and the two options that were presented showed different

quantities of open space. And there was a clear preference in the questionnaires for Option 1 but yet there was a wish expressed in a lot of the questionnaires for public open space and that it's important. That showed us that Option 1 was probably the preferred one but that a public open space needed to be incorporated into it. So you can see that in the latest maturation of the masterplan.

There were however perceived constraints on the degree of contribution that was possible, both in terms of technical issues but also financially.

So in principle terms when you're designing, there's always, as I said earlier, the standards you have to comply with and they include all the engineering restrictions, such as existing surfaces. So that should be something that you look at straight away and that can inform quite a lot in terms of where the buildings are...the question is value for money for some of our consultants on the team and the outcome of that is reflected in the plans. (R06)

In terms of the actual influence on the design process, opinions vary. Participants were able to identify specific examples of where comments or suggestions had been incorporated:

R16's comment, which was when we were at the point of consulting on two options and I think that got addressed quite successfully in the latest illustration of the masterplan which we presented and R16, for once, was quite happy with that development of the masterplan - it's the Calder Road frontage basically she was talking about and...ah...that developed quite successfully. (R07)

Project managers from the Regeneration Team were positive about the process

R01: I think we did very well in incorporating the community's ideas 'cause they were very clear in what they wanted. So I think that the project architect did an excellent job in incorporating that.

HAB: In what way?

R01: The way he dealt with the back gardens and the street layout into the park. I thought he did that very well and the community seemed to have really liked that idea with the back gardens and the common space and the courtyards

That's not to say that contributions were always appreciated

I have made the point that they are in fact many gated communities within the redevelopment and I've raised my very strong objection to gating as a concept at all and particularly as it denies the public space that is enjoyed within those four blocks is denied to the rest of the overall estate, which..., you know, there are lots of other problems about gated communities.

(R11)

Disagreement over this point, however, generates the possibility of discussion about what precisely is meant by terms and what concerns are

In terms of R11's comment on gated communities it has been a bit of a curve ball to be honest because it's not...hm...his understanding of a gated community is perhaps contrary to most other people's understanding of a gated community. I had a one to one with him, talked about it and I think...I hope he's got a better understanding where we're coming from now. He certainly seemed to appreciate it. There's always gonna be comments like that, somebody is always gonna have looked up something and it's their thing they want to talk about, whether it's pitched roofs, whether it's pigeons sitting on the roof and crapping on it, there's always gonna be some random comments. (R07)

The tone of the comment suggests a posture that is likely to have caused the impression on the end of some local residents that they are perceived "as being difficult" because they are "always asking a question or raising an objection" (R11). And so "when I'm putting stuff forward, I'm not getting adequate feedback or proper reasoning coming back" (R11). The point that is raised here concerns the architects' receptiveness, i.e. their willingness to consider and/or accept new ideas and suggestions from members of the development group.

The extent to which local residents were able to influence the design was perceived quite differently from that of the architects and the council.

HAB: To what extent do you feel that you've been able to influence the process and the actual design product.

R11: I feel that I've not, I feel that my views have not...they have been *listened to* and that's it. Suggestions I've made have been listened to and that's it. So, I don't think that I have had any effect on the overall development. Not as yet because this will still be ongoing once the architects or the developers, actual developers become involved in the project.

The residents comment reveals frustration about the scope of involvement and a different understanding of participation as it seems to be supported by the client and its architects. His critique points to a reduction of the concept of consultation<sup>22</sup> to "being listened to." Opportunities for transforming "done-to into doers, spectators into activist, fragmented

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<sup>22</sup>From Latin *consultare*: 1. take counsel; 2. deliberate, debate, discuss; 3. consider carefully, weigh, ponder

groups into renewed bodies, old resignation into new beginnings” (Forester 1999, p. 115)

Certainly there were concerns about the changes that had been instigated between the two options that had been initially posed and the final masterplan that was introduced, as data extract 2 indicates.

Data Extract 2: Reflections from NSRA representative on the North Sighthill redevelopment, dated 21 February 2010.

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**Re Sighthill: (210210)**

At what point did BM decide to chop +/- 50 houses from the plan and replace them with ‘more car parking space’?

Was this done solely as a result of rearranging the layout to provide greater public space and openness? (i.e. as a consequence of)

Or was it done as a result of a decision to reduce the overall cost of the development so that it remained within the estimated/likely budget limit.

We were not invited to consider our objections to the ‘selected’ option (which is now to be put forward for planning consent) and to present them to BM for their consideration as part of their ‘public consultation’ responsibilities.

[Note to himself:] Look at the BM plan and identify the housing mix (by bedrooms) to collate the necessary table to compare with existing provision – also to get an idea of the ‘type’ of community that is being proposed (families / singles / couples / elderly / disabled etc). This should have been provided by BM with their plans as an addition!

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While there is no suggestion of unanimous disapproval of community engagement, individual and critical thinking on part of the local community and its representatives is frequently met with an embracing gesture of indeterminacy. The rhetorical figures that find common use by the Council representatives and architects to avoid or delay the debate take the following form: “We appreciate your comment but...” “This is a different debate.” “There are bits and pieces but we’re trying to focus on [x and y].” “This will come later.” “This is to be discussed

at the next meeting.” “I’d rather not revisit that now.” These responses are not just idle reactions but do particular kinds of work. Given the time constraints of the 21<sup>st</sup> Century Homes project, linearity and “focal attention” (Beck 1972), as in the concentration of attention on specific design aspect, was required in the execution of the consultation programme. One may therefore understand the responses as management work of prioritising and agenda setting, scheduling tasks and controlling progress, as deliberative work of clarifying what matters, assessing possibilities, and considering means and ends, as political work of delineating the boundaries of power, highlighting interests and needs, clarifying support and opposition or, indeed, as authoritative work of organising attention, controlling debates, and undermining deliberative practice.

And indeed, some participants in the planning workshop demonstrated a great awareness of power differences and wondered about the designers’ ability to influence the Council’s decisions, asking: “How much say do you [the architects] have?” The council privately admitted that “We won’t take on board something there is no business case for” (R02).

Although the design process went through a number of iterations and consultations to arrive at the final masterplan, it is interesting to note the criteria that would be used for evaluating the proposal at its first stage in the council process, in that the criteria for evaluation do not specifically relate to the design itself in detail but rather more general concerns about traffic, schooling etc.

Data Extract 3: Protocol note of Development Management Sub-Committee meeting from 24 February 2012:

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The application will be for planning permission in principle and key considerations against which the eventual application will be assessed include whether:

- the principle of developing the entire site is acceptable;
- there will be any traffic or road safety issues, including parking provision; the form, design and layout are acceptable;
- the proposals are at risk of flooding from surface water or have special drainage requirements;

- the residential amenity can be protected from noise generated by the surrounding road network or potential site contamination;
  - there is sufficient school capacity;
  - there will be acceptable affordable housing provision;
  - open space is satisfactory.
- 

### **Structuring the nature of the consultation**

Although there was the opportunity for consultation, the consultation process itself was quite directed:

R01: We tried to learn from Gracemount and we did learn from Gracemount experience.

HAB: Can you give me an example?

R01: Erm...mostly about...how to handle meetings. Meetings with the community. What was the best way to do it instead of just standing up there and telling them things, to actually do workshops with them, divide them into smaller groups to keep control, and make sure things don't get out of hand. Because on the last consultation, the public meeting that we had, we had a back-up plan, because the way the Community Council were telling it was that we were gonna come more pundits, you know, lots and lots of people would come and they would all be saying the community centre had to be on this side [close to the roundabout]. So we had a backup plan of dividing them up into groups and the project architect had come up with a list of questions that would stimulate discussions within the groups and they would do group work with them and after the presentation.

HAB: What sort of questions were on the list?

R01: Well, questions like: what do you think about the courtyards...erm...what about the landscaping,...erm and where do you want the community centre to go, what do you want to happen to it? And it was again, you know, thinking about the millennium planting, thinking about the access to the sites, so it was the things that we'd asked before. But it was just to...we thought we would have a lot of different people there so we could potentially use them to our advantage.

The approach to consultation was not especially welcomed by those who took part and prompted comment on the nature of the practice:

HAB: What's your understanding of the preferences? Both the Council and the architects keep saying that there's a preference for Option 1. Did you feel that there was indeed such a preference?

R11: No, I didn't. In actual fact, the whole, I've said earlier, like, the group that turned up if you like on the night, then suddenly, we went in, there was a sort of flip-chart going out and they started hanging sticky notes and sort of said "right, we gonna ask you a few questions", X sort of saying, right a few questions about preferences and this is your chance. And we split up into three groups--so it must have been at least twelve of us--and we had to sit down and there was a series of questions and we're going to hand out sticky notes, and you have to write down, well, from that question, which was outlook, green space, private gardens, traffic, something to do with traffic, car parking or whatever, write down, you want it, yes, you want this, you want this, yes, and...you've to make three choices. And they collected all the stickies and took them away. Came back after they'd analysed them. And at the next meeting sort of said "this is your choice". This is Option 1, Option 1. This is what you've chosen.

HAB: Did they go into detail?

R11: No, no, no, they'd analysed it. But it doesn't really matter. It's representative of nothing. They only represented the views of 12 people that were given, as I said earlier, directed questions. So consultation, yes, direct participation, *yes*, choice, *no*. Absolutely not.

Again, the extent to which the consultation represented meaningful input was questioned by some of those taking part:

HAB: If we go back to this drawing here, the final masterplan, do you feel that--with reference to the previous plans [Option 1 and 2]--the document reflects the input that you, as development group, have given?

R11: Only to the extent that residents have asked for...basically, they've asked for a nice outlook. They liked the idea of having open public space within the development, seeing as the development is going to be low-rise, instead of all this concrete, basically that we had, apart from a couple of green patches that we've had, we're gonna have more like a sort of, not a park, but more open green space that will be private gardens, because a lot of people asked that they have housing with private gardens, which they're not really used to having. We've had green areas around the existing buildings but they're not private at all, just open space that happens to be green and obviously for the flats, they had nothing. ...So those wishes had been incorporated. ...I would say, right, because you're next to the park in any case they're going to be there. So, the extent to which you've been given what you want rather than "this is the way we're building it and there will be green spaces anyway because that's generally the way that

we develop sites these days”...The overall shape of the site seems to have dictated the way that they lay out stuff. So, Option 1 is pretty rigid, this one [pointing at Option 2] is basically to increase the green space and the outlook to the park. That’s supposed to be an avenue to the park and how much it would be is open to question, right, but I suppose from the park view it looks much more open.

## 6.2 Inquiry concluded and warranted assertions

This final phase documents the process of inquiry coming to a close. The ending of inquiry marks the transformation and settlement of the problematic situation. The settled outcome of inquiry is what Dewey calls “judgement.” Judgements can be viewed, according to Thayer (1952:64) as the “over act - the decision taken and carried out - when the energies and resources of inquiry have been ordered and brought to the point where action is ripe and ready.” Warranted assertions, by contrast, might be viewed as “the articulated, or discursive representatives of judgements.” Ordinarily referred to as “true statements,” a term which Dewey objected, warranted assertions are the solutions to the original difficulty, “the formulation of that plan and action which have brought inquiry to a close” (Thayer, 1952:64).

### **What was learnt?**

One of the original intentions behind ‘inquiry’ is the search for knowledge in the sense of learning ‘new’ knowledge which may then be incorporated into future projects. The final ‘facts’ or evidence in the case of architecture lies in the ‘reality’ of the built environment:

It’s really difficult to strike the right balance and you never really know if you’ve done it or not until the community is up and running. You find that out once it’s built and people are living there and if it’s wrong, it’s a bit late [chuckles]. (R01)

Because of this learning from other projects is an important element of the process:

So what we try and do is learn from other projects and from each other. So we went out on visits to the City of Glasgow and to Stirling and out to Craigmillar, where it seems to be working quite well. And look at research on other places to see what’s worked and what

hasn't. (R01)

Although this would indicate that learning is an important aspect of the inquiry process, it is not necessarily the case that it is seen in these terms. Following is an excerpt from a long interview with one of the architects as to what in their view was learnt from the project. Initial comments reveal quite an instrumental response:

HAB: How valuable is the information you get from consultation from an architectural point of view?

R06: "I think it's valuable as an exercise..It's never just a...it's never just done because we have to....I think it's valuable because you get the community on your side and you just feel that they have...are engaged with the process. And when it comes to filling out an application it would be easier dealt with from the Council because there won't be as many objections with that ...

This position is not however as cynical as might be assumed. The 'lack of learning' is reflective of the learning that has gone before. Urban design has already 'learnt' its principles through previous practice. Because there is a lack of awareness of these principles, i.e., there isn't the requisite knowledge base, then residents are unable to contribute in a meaningful way to the established knowledge base, beyond basic aspirations:

But, you know, if you take Sighthill as an example, I don't believe the way the buildings were set out or...the way the streets were orientated...the frontage to the park, the frontage to the streets was dictated by the community at all. I think, that's just good design and urban design tools that we all know about. It's tested, for sure it's tested. I mean, we've shown the community the proposals...but I don't believe, unless you've got a bunch of architects within your community that you're engaged with, I don't believe that they've got the intelligence or the knowledge really to give a convincing argument to contradict what we are proposing. I think there is...there is principles that you could suggest are informed by them..."we would like to engage more with the park", for example, so X has done a design which engages the park... ( R06)

From this perspective, the 'true' test of the knowledge reflected in design comes from the judgements of fellow professionals:

The other testing of course is with Architectural Design Scotland and the Urban Design Panel, who are architects and knowledgeable people and they give us advice too and we take it on board, it's part of the process. So, I think, in terms of the actual layout or design those higher

level consultations with the ADS and the Urban Design Panel probably informed the layout more than the community. (R06)

The role for residents is thus to contribute to those areas with which they have direct personal experience and concerns:

And if you take Sighthill again, the only thing that the community couldn't agree on was something that was really fundamental to them, which is the location of the Community Centre...and there were two variable opinions on that. And I think that's because they're passionate about it and they understand that. I think, we can really understand the value of the Community Centre 'cause of where...what they've got at the moment and what's maybe not right with it. (R06)

Again the perspective that knowledge and valuable participation comes from direct experience is seen to circumscribe where participation may be useful and the expectations of where input may be sought:

But as I say I don't think in terms of house layout or anything it's that fundamental...and where do you make it more? I mean, this is...we're veering off in different directions here, but I did the consultations with Craigmillar and at one point we were doing dual consultations with [architects] who were designing specific housing on this specific site. When we were presenting masterplan, there was no serious discussion about big issues...it was acceptable we're doing, it was great. You're building a new school, fantastic, we love that. You're building a new square, brilliant, that's fantastic...Can you maybe sort of the transport issues cause there's parking problems here and there's parking problems there and that junction doesn't quite work. So you engage with the Transport Consultant and get them to resolve those issues. So there are things that people understand because there's traffic queues on their street everyday. When [the architects] did their...presentations, they were talking about the interior of a house...Your front door is here, you're walking into the hall, on your right is the kitchen, on the left is your lounge, in front of you the stairs up to the top floor...Loads of hands-up: why is my fridge behind the door? Every time I open the door I'm gonna hit the fridge. You know, people understand on a small scale those issues that they come haunted with on day-to-day basis. But I don't think they necessarily have the knowledge to comment on masterplans at that level. (R06)

This view on the value of the consultation process and what may be learnt was echoed by another member of the architecture practice, who in addition to seeing value in the feedback on practical issues, emphasised that learning is a 'two way' process, in that members of the

public also have an opportunity to learn about the nature of design:

I think allowing them to realise that technical solutions do actually practically work and that they can buy into those, again, I think is really important. And getting that feedback about how the bins, how the recycling works, how the cycle stores work, how the parking provisions work, I think are all in many respects quite practical issues and I'm quite aware of the fact that when you start to go into some of the more technical aspects of the architectural design, such as the building performance, the specification of the building materials, the lifespan of the building materials and the environmental credentials of the materials, you don't get an awful lot of consultation back... We're not expecting a huge amount and not getting a huge amount. It tends to be on a slightly more practical technical level but I think all of those points are equally valid and important and I think they genuinely influence the design process. (R09)

This view on the ability of those involved to participate in the process is partially supported by data extract 4, which as stated is concerned with practical issues concerning the layout of the accommodation, those day-to-day issues that are of direct concern to those who will be living there. However it is also directly contradicted by the comments that follow on from these concerns, which although not relating to the general architectural design, raise the underlying concern about the purpose of architectural design in terms of the nature of community and the lack of precision as to what is being envisaged for the redevelopment of the site for those who live there.

Data Extract 4: Notes from NSRA Representative and local resident on Craigmillar visit from 18 February 2010

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**Housing** (notes from Craigmillar visit 180210)

- Odd shaped rooms, and no sense of proportionality within the show homes we visited.
- Utility switches in wrong or inconvenient positions.
- Restricted hallway space in some of the designs - not thought out (particularly when you have to move all your furniture thru that one space into the house.
- Back door entrances are done away with when the rear gardens are gated - the width of the gate and access to your own particular back door make furniture moving difficult.
- Assume that the high windows were of the self-cleaning type?

- No evidence of the use of solar panels in the various designs seen.
- Rear garden fencing was oppressive - and did not look as if it would last very long. Some of it was already broken. It was too standardised - and looked it. It seemed as if its purpose was solely to demarcate between properties thus negating any efforts at encouraging neighbourliness. (challenging?).
- Rear bin storage areas and access for collectors did not seem to have been properly thought out.
- The views from a lot of the houses (at rear) were only of other houses and intervening gardens - by this i mean that there did not seem to be any effort made in the design layout to allow for the houses to have / enjoy open outlook to surrounding landscape.
- What is the plan (B?) should the concept of joint decision making and management of the communal garden areas within the home zones not prove successful?
- The orientation of the houses did not seem to be concerned with maximising available sunlight conditions.
- The concept of 'factoring' the ground maintenance of the estate areas seems not to be working already - untidy gardens, evidence of waste aggregation, unkempt garden areas, excessive dog mess within the front garden (converted into child play area - crèche?) of a corner house. 'Broken windows' policy not being observed?
- I am not at all convinced that the traffic-calming plan will work as anticipated, particularly when the estates are fully occupied and the schools are in full operation. Is this being monitored for future developments?

I note that nothing was said re the overall management plans for the Craigmillar (housing) developments. Who is responsible? Is it split between separate bodies for each distinct developer? Who makes overall decisions where matters affect the overall development?

We did not see - or ask about - what specific provision was being incorporated into the developments regarding 'sustainable elements', or 'heating and energy usage efficiencies', or provision for other utility services of the 21<sup>st</sup> century - e.g. smart metering, cable services, lighting innovations, etc. (we didn't have the time - but it wasn't offered either?)

The 'affordable rents' question also remains unanswered - what factors might make these rents become 'unaffordable', and what happens then? (Mid-market levels are not being openly discussed by the council - and the control of the set levels is an unknown factor).

I was not at all convinced that I was seeing a long-term redevelopment of the Craigmillar area. The housing did not look substantial enough to suggest permanence.

I talked briefly with the ‘keyholder’ at the Greendykes development – he had been brought up in the area and had recently brought his mother to look at the changes to the area and the new housing. He said that she did not recognise the area any longer, ‘but it was no longer Greendykes’. Apparently some of the names have been taken from the old pit buildings – as if to suggest ‘continuity’.

I asked if there were original residents moving back into the area, or if the tenants were new ‘incomers’ with no apparent previous connection to the area. It was thought that the majority would be incomers. This is presumably related to the type of tenancy / affordability being offered within the developments. In other words: a new community for a *new community*. (should ‘alternative’ be used instead?)

It would be interesting to find out how many more housing units were being provided within the overall area development compared to the pre-existing housing stock of that area. If the figures show less than the previous provision then where are the excess families being put?

*(A population movement table / graphical representation would be interesting – it would show the various movements into the area together with the sources from whence they came. It would show up the overall area resident losses, and this could be combined with a separate table/graphic showing their location distribution).*

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### **The value of inquiry: views on the consultation process**

Interestingly one of the architects described the process as being “quite linear”, from consultation to options and then final option:

It’s been quite, well certainly in my mind, quite a...it’s been a linear route...It was taken in a clear direction...which was very much to be led through the consultation, which is maybe slightly different from some of the other 21<sup>st</sup> Century projects, where the consultation maybe didn’t form such as large...point of departure for the project...So it was quite clear in this project when you’ve done one consultation, which was getting peoples’ ideas of the area. Then the next one was the two options and the next one was on the final option and through that process it was consultation leading the development...In that sense it worked very well. (R07)

Such a depiction might reflect the degree of commitment to consultation, or a post-hoc rationalisation. It is an interesting description because it is both misleading and apt of the process involved. Misleading in that it fails to take into account the process whereby options became identified, developed and finally decided upon. Apt, in that there is a sense in which

given the construction and the representation of the process choices were quite constrained.

It is not a view that finds unanimous agreement with all concerned (see Data Extract 5), where concerns are raised in relation to consultation procedure in terms of the parties that were involved in the process, their status and role. More importantly were comments directed at the lack of information about the overall aims of the process in terms of what type of ‘community’ redevelopment is being planned for, in terms of the mix of housing type; the overall budget committed and the financial details of the project. Although there was ‘consultation’, the view expressed is that a lack of basic information does not allow for direct involvement and participation.

Data Extract 5: Comments from NSRA to the Senior Project Manager at the City of Edinburgh Council from 25 May 2010 (pre-submission)

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### **1. Purpose and scope of consultation**

We feel that there has been a lack of a clear expression of the scope of the process, the rules that are to apply, and a detailed planning schedule of the events / milestones that will occur throughout the process.

There has been a lack of a clear vision of the intent and purpose of the redevelopment. Who is the redevelopment intended for, and what type of ‘community’ is envisaged? What relevance does this have to the existing community, and what are the intended opportunities for that community within the planned redevelopment?

### **2. Understanding of the various parties involved in the process**

We feel that there has not been enough information on the stakeholders involved in the redevelopment of the area. For example information on land owners, council involvement and activities from concept to completion and handover, masterplanners, architects, designers, constructors and eventual ownership of for-rent units should have been provided on some sort of basic organisation chart showing the various parties and their functions. This would have supported our understanding of the process and decision making structures.

### **3. Description of the project itself**

There has been a lack of a clear description of the type of housing that is to be provided; essentially the number and types with the mix between family, single, couples, elderly / disabled with a clear reasoning for those decisions and also who had that decision making authority should have been explained.

### **4. Financial considerations**

There has been a lack of a clear expression of the financing and eventual cost models that have been determined at the outset of the overall redevelopment plan.

A clear vision of the affordability of the various housing types that are to be built should have been presented to the community but this does not appear to have been taken into consideration.

The community has not been involved in the decision-making surrounding the future ongoing costs relating to the various housing type costs; we feel that this was and is essential.

### **5. Consultation process management issues**

Reporting of the concerns and issues that have been raised during meetings with the various groups during the consultation period has not been dealt with adequately. A predetermined procedure for the clearance / resolution of these items would have been useful.

There has also been a lack of clear co-ordination and reporting between the various stakeholders that are expressing views on the redevelopment plans. Reviews and re-evaluations of the success / failures of the efforts being made during the process should have been reported through a series of *project management reports*.

### **6. Redevelopment design participation**

There has been a lack of sufficient involvement of the community in deciding the makeup of the redevelopment for example layout, housing types, density, housing construction method, included amenities, eventual cost factors, etc.

Community involvement in the design process has been limited; if there had been more community involvement then sufficient alternative designs could have been explored for consideration before decisions were put to the masterplanners for their initial redevelopment plan preparation. The scope of the project has not been fully described and therefore

understood, by the community that is being consulted.

## **7. Project timescale weaknesses**

The length of time during which the consultation – through its various incarnations – has taken place has contributed greatly to its overall ineffectiveness.

It is not possible to easily maintain interest and involvement in such a lengthy process without special efforts being made to rejuvenate the interest of those involved.

This is more so, when there is confusion about the overall intent of the Council who have on occasion proven evasive or undecided about the detail of the redevelopment and its timing.

When you also consider that the affected community is also being dispersed, then it is unsurprising that the originally intended consultation process itself must undergo '*change*'.

These changes have not been adequately described to the participants and this has led to continuing confusion about the revised project scope including the eventual products and its actual planned timescale. A process timescale would have been useful.

## **8. General points**

We feel that to a large extent the 'choices' now incorporated into the masterplan, have more or less been assumed and have been pre-determined with little or no allowance for direct community participation in various issues (overall design options) that should form an important part of a real participatory consultation. This has resulted in the general community feeling left-out, and therefore becoming disinterested in the process.

This situation should have been anticipated and suitable action taken to minimise these effects. For example more contact should have been made with previous tenants and those who have expressed an interest to return.

We would also like to request written confirmation from the City of Edinburgh Council that a new community centre and library will be built on the North Sighthill site; we understand that it is in the plans but these are only outline plans and can still be changed at a later date.

We would like to work with you in improving consultation process and would like to base any discussions on the National Standards for Community Engagement. May we also suggest the Council uses VOICE (Visioning Outcomes in Community Engagement available from the Scottish Community Development Centre [www.scdc.org.uk](http://www.scdc.org.uk)) as a tool to involve, record and evaluate community participation in the future?

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From the perspective of the Regeneration Teams's project manager the submitted masterplan is a success.

HAB: How do you feel about the submitted masterplan?

R01: I like it. I'm pleased that within the constraints we had we actually ended up with a decent masterplan. I feel it ticked a lot of the boxes that people wanted: the height of the building, the public spaces, the private spaces, the elevations along Calder Road, the connection with the park, I was really pleased that Parks had come on board and actually tackling the Millennium Planting now in preparation for when we start to develop.

HAB: Is there anything in the plan that concerns you or makes you think could have been addressed more effectively?

R01: No, not really. I'm actually surprised that I pretty much got what I felt should be there. Although there is one thing, I would have preferred less car parking. That's the one thing I'm not happy about. The amount of land that is getting over to parking cars. I think, there is far too much land afforded to it.

HAB: And why is that?

R01: Well, there were new guidelines submitted through the Council Committee. So Councillors decided that we needed to have extra car parking, bigger car parking spaces and wider streets to accommodate bigger vehicles. So, we can't go against those guidelines.

The project manager highlights the planning requirements for car parking as “one of the biggest [design] influences” (R01).

Planning requirements for car parking—that influenced the layout of the site greatly. That was one of the biggest influences, because of the number of cars...because we've got 300 houses and we've got 360 car parking spaces, which we have to have because of policy. And that really caused issues with designing the site and also, in some respects, I felt that a chunk of the design was driven by the car parking requirement and not so much by the brief. Although [the project architect] did manage to combine the two extremely well. (R01)

One has to bear in mind that the brief demanded attention to be given towards “balancing the needs of pedestrians, cyclists and motor vehicles to achieve integrated circulation within each area.” Crucially it says that “[i]t is important that the car parking is visually integrated into the development to ensure that it does *not* become a dominant feature” [italics added by

author].

Drawing 13: Submitted Masterplan



Source: BM

### The process continues...

Once you go through the planning process it's...and the design in many respects has been frozen, that's what you've got, the design is fixed and that is what you got planning for. (R07)

March/April 2010 saw the submission of the revised masterplan for *planning permission in principle*. But when does the project reach closure? Aspirations formulated by the local NSRA representative for the level of future involvement give some sense of the frustrations felt on part of the members of the development group. It is emphasised that in the future the group needs to be equipped with “some sort of representation right through the development itself” and be empowered so that it is not just a group “that’s been told what’s going on and there’s the news and bye, bye; ‘we’re keeping you up-to-date but we’re doing our thing and

you've got no influence at all.' Because that would just be a total waste."

HAB: You expressed concerns yesterday, I think, that once planning permission has been granted that you may disappear and not have any further involvement in this process.

R11: Right. My concern is once the developer or once the architects or the architect and developer or there could even be, perhaps, the same group but once they are appointed and given the signal to go ahead for the next stage of the redevelopment, that the development group meetings might be disbanded. There's no guarantee that we're going to continue having these. So, I think that we need to try getting ETF [Edinburgh Tenants Federation] to help us to make sure that these meetings will continue and that we will have some sort of representation rights right through the development itself. But they would have to be regular and they would have to have some sort of...hm...empowerment...not just being a group that's been told what's going on and there's the news and bye, bye: "we're keeping you up-to-date" but "we're doing our thing" and you've got no influence at all. Because that would just be a total waste. But you know, I'm concerned about where we go from there, how regular those meetings can be, can we keep a core group together and can we continue this right through the development. And particularly, with some sort of recognised empowerment...hm...between ourselves and the Council or between ourselves and the Council to have an effect on the developer.

As data extract 6 demonstrates the requests for future involvement in the development process relate as much to procedure and the importance of having the tools and the knowledge to be able to know about, understand and relate to procedural issues.

Data Extract 6: Draft letter to Council written by NSRA representative on 9 June 2010 (post-submission):

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We need to know the Council procedures regarding planning issues.

We need to know the Council's reporting and decision making procedures regarding project reports and updates.

We need to know how to access the decisions that are made after reports are put before committees for decision and action.

We need to know how to access and keep up-to-date with decisions made by the Council as they apply to the planning applications for relevant projects.

We need to know how we can access the various minutes, and other agreements, at all levels

within the Council that relate to the project.

We need to know how to access the relevant Council policies that are in effect and any changes that are made to those that affect the project scope and their effect on the 'community'. (Policy register and condition)

We need to know how to access and navigate through the Council's web pages as regards issues relevant to the project. Workshops run by the Council and attended by consultee representatives are needed for this activity. This should be a part of the consultation inauguration process.

We need to know how to make representations to the relevant Council department.

We need to know the various scheduled milestones that govern the progress of the project's evolution. This should be provided to the consultees and updated throughout the project.

We need, as a result, to know the critical dates and time frames allowed for lodging comments, representations and objections to the plans, if any. This so that such are not time-barred.

We need to maintain a log of all the activity that the consultees have been engaged in with the Council and its representatives (e.g. masterplanner etc).

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## 6.3 Conclusions

What we have seen in this chapter was the continuation of the reciprocal process of observation and idea formulation in the course of which the two masterplan options entertained in chapter 5 were fused into one. Consultation on the two masterplans led to new operational facts of which some linked up with those previously observed (such as the support from Lothian Police for locating the community centre in the North Western corner of the estate) while ruling out others (the Community Centre in the South Eastern corner), and eventually gave rise to the modified idea presented as final masterplan. This masterplan has been subjected again to observation and alteration before it was finally submitted. At the end of this sequence it is worth noting that some ideas have been strikingly robust, which is to say that some concepts were saved from the process of (repeated) examination such as the

courtyard layout which, despite harsh initial reactions (“It’s like a prison: it’s cutting off everything.”) was never challenged beyond different alterations (such as the breaking up of the Calder Road frontage). Other concepts, by contrast, such as high-rise buildings, never made their way into any proposal for that they were ruled out in advance, arguably reflecting the general tendency against tower-blocks across the UK (see chapter 3). The process of inquiry therefore remained constrained in its capacity to explore fundamentally new avenues.

The funnelling down of ideas meant that judgements were made along the way which options to keep and which to abandon or, in Deweyan terms, which hypotheses to accept or reject. In order to do so, Dewey argues, ideas ought to be developed into a form that they can “instigate and direct an experiment that will disclose precisely those conditions which have the maximum possible force in determining whether the hypothesis should be accepted or rejected” (Dewey 2008f, p. 116). The process as defined by the brief renders such advancement of ideas a difficult task to accomplish for the complexity of social matters. It is important to note, however, that the question how decisions are made (as in the acceptance or rejection of ideas or proposals) was indeed one of concern to the representatives of the community. In this context the use of questionnaires had been emphasised by which preferences would be identified. This suggests a form of democratic voting of the type: the most preferred option wins. Questionnaires were used, as mentioned before, to gather views and preferences on Option 1 and 2. They were advertised through a leaflet drop to 3,500 properties and resulted in 19 responses from Forrester High School (questionnaires were to be completed at the end of the second workshop) and 17 from the local community. It is for this reasons that its validity and findings in terms of a preference for Option 1 were questioned by some:

If there’d been 300 people turned up and been asked these type of questions and the answers analysed, I would have sort of said: “OK, that is possibly getting a representative view”. With this number of respondents it doesn’t matter what the answers are, there is no way it can be representative of anything apart from those 17 or 19 people. And I’m sorry, that’s it. You know, it allowed them to tick the box. (R11)

When is an idea satisfactory or considered working? Responses showed that people struggled

to rationalise their decisions and varyingly referred to aesthetic, economic, and social grounds.

Throughout the process, the development and examination of ideas was realised by and large in the two dimensional space of architectural drawings. No haptic, three dimensional models were used as desired by members of the community--although site visits had been arranged for people to appreciate some of the design principles in the context of precedents. At the time the study was conducted the Council suggested that there may still be a model once the plan has been decided for the people to see what is going to happen. As a tool to engage people in the development and testing of ideas, where they could alter layouts, modify structures, change designs and move things around, the opportunity was missed.

# Chapter 7

## Analysis, Discussion and Conclusion

This final chapter offers a thoroughgoing discussion of the empirical material and a reflective summary of the content and process of this thesis. Embedded in a themed critique of the theoretical framework, it will further develop and conclude the work's main argumentative lines, highlight its contribution to the field of knowledge, and reflect upon the wider use of Deweyan pragmatism as a potential source of insight into the field of organisation studies. The strength and limitations of this work will be discussed before this chapter will close with an account of the future research avenues that are seen to derive from this thesis. The different sections are drawn together by a broader iterated dialogue between inquiry, knowledge and architectural designing, engaging those topics with the themes and thinking underlying the philosophical pragmatism of John Dewey.

This thesis grew from an abiding interest in the areas of knowledge and architecture and the underlying social processes of creation. It was during my master studies at Warwick Business School when I started reading about knowledge and learning within the broad spectrum of management and organisation studies. I wrote my master thesis on organisational learning from failure, dwelling on what the American sociologist Richard Sennet called “the great modern taboo” whilst offering an integrated conceptual framework and empirical insight into the process hitherto missing. Despite failure being anathema in the Western culture of success<sup>23</sup>, to the extent that it may serve as a learning impetus and stimulus to the sort of

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<sup>23</sup>see Harvard Business Review's *The Failure Issue* published in April 2011.

experimentation that authors like Campbell (1969), March (1987) and Wildavsky (1988) have emphasised as being crucial for sound policy development and organizational management, it is often heralded in a dialectical fashion as being “good” (Sitkin 1992, p. 232). And as much as the inevitability of failure is commonly acknowledged, learning from it was found to be all the more difficult to accomplish than aphorisms would have us believe. This postgraduate work has led not only to continued interest in the broad theme of learning as the acquisition of knowledge through experience (as opposed to being taught or otherwise acquired through scholastic activity), but in reflection on the ambiguous notion of failure and essentialist rhetoric in use, provoked more fundamental questions about essences, certainties, reality and how we may come to know about it. I started reading widely about the metaphysics of being and knowing and the philosophy of social science to develop both an appreciation of the spectrum of existing positions (along the grand argumentative lines of Platonic idealism and Aristotelian realism) and a reflexive understanding of my own fundamental assumptions. Rather than looking to philosophy for any claims to certainty, I approached the discipline - mindful to William James’ assertion “philosophy is vision” - in its capacity to sensitise people to the life around them and challenge established beliefs. In fact, just how different the history of western philosophy might have developed if modernity had been shaped by the humanist thinking of Michel de Montaigne and Francis Bacon - and their idea of an honest examination of experience - rather than the rationalist programme of Descartes and his disciples (attempting to establish distinct, clear and definite foundations of knowledge) is documented in Toulmin's (1992) *Cosmopolis*, in which he destabilises the view that the Cartesian quest for certainty is “intrinsic to the nature of science or philosophy.”

Influenced by the philosophical debates around being and knowing, I felt increasingly drawn to the field of knowledge, the development of the latter and the problematic quest for certainty; drawn to the study of people as questioning beings who engage in explorative practices not because they are rational (cf. Socrates) but because they are assumed to be reflective creatures, curious to know and inherently driven by the idea of social progress; and drawn to the rich social practices that give form to human aggregations and indeed their cultural achievements (language, tools, works of art, architectural creations, etc.). The initial

inquiry into those topics revolved around a methodological quest rather than a concrete research issue. At that time I had moved on from the foundational works of organisational learning (including March and Simon, 1958; Cyert and March, 1963; March and Olsen, 1975; Argyris and Schön, 1978; Duncan and Weiss, 1979; Fiol and Lyles, 1985; Daft and Huber, 1987; Argyris and Schön, 1996), to concern myself with what Gherardi and Nicolini (2001) call “the micro-interactionist tradition.” While they suggest that it owes to both the pragmatist philosophy of Charles Peirce, and here specifically his social theory of the mind<sup>24</sup>, and Alfred Schutz’ (1967) phenomenology, it was the body of literature that showed affinity towards the latter that I was initially interested in - even though indirectly. Influenced by Schutz (1967) was the ethnomethodological movement, associated with the works of Erving Goffman (1959) and Harold Garfinkel (1967), with its conception of society as a process rather than a structure, that I lent growing support to. It is a perspective that I have tried to retain throughout this work for that I believe the idea of process in the sense of a continuous recalibration of the individual/environment relationship has an equally strong presence in the pragmatist thinking. Ethnomethodology is concerned with the common-sense world of everyday life (cf. Schutz), the situated practices and social actions (people coming together and coordinating their actions in response to the anticipated behaviour of the respective other) by which men and women on the street construct their roles, situations, social orders and eventually the body of knowledge that progressively becomes established as taken-for-granted reality (see Berger and Luckmann, 1966). It is a movement that places emphasis on the organising power of non-conscious rules, theories-in-use, embodied skills and sedimented routines, and in so far also owes greatly to the themes and thinking of Pierre Bourdieu, especially his theory of practice and concept of *habitus* (see Miettinen 2006). It relies on a constructionist epistemology, giving primacy to social practice as mediated through language. As Gherardi and Nicolini (Gherardi and Nicolini, 2001, p. 42) argue, the micro-interactionist approach is “the cradle of the concept of organizational learning as the transmission of

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<sup>24</sup>Peirce’s theory of the mind suggests that thinking is an inherently social activity in that it takes place within a community, in which knowledge is established as ‘true’ and ‘objective’ on the basis of habitus and thus the sedimentation of historical individual and collective practices. His theory resonates with the Marxist position that man’s consciousness is the consequence of his social being.

knowledge within occupational communities.” The assumption here is that people learn by engaging in collaborative practice and social interaction.

As I continued burrowing into the participatory and cultural approaches to learning (e.g. Cook and Yanow, 1993; Brown and Duguid, 1991; Brown and Duguid, 2001), I started contemplating potential research settings. I was focused on the knowledge-intensive industries, assuming an innate propensity to and appreciation of themes revolving around learning and knowledge apart from preferable conditions for in situ research. Exposed to the creative industries through my involvement with the Institute for Capitalising on Creativity (ICC) at St Andrews University, I felt particularly drawn to the field of architecture. As a profession, in comparison to such prominent sectors as accounting, finance, health, advertising or consultancy, it appeared to have received rather little attention from management scholars in general, and students of organisational knowledge and learning in particular. I have a strong affinity towards architecture as a form of expression torn between art and craft that is to do not only with the aesthetic experience and enjoyment of physical structures but also, and in particular, the complex relation between human beings and their built environment. How this is being addressed by the functionalist themes and thinking of the German Bauhaus School and expressed through the integration of art, architecture and design, has been a long-standing curiosity of mine.

The architectural profession in the UK has changed significantly over the last three decades, with its long-held status of self-sufficiency being left challenged (see Symes et al., 1995; Schön 1991). A status cultivated on the basis of what Everett Hughes (1959) called “the professions’ claim to extraordinary knowledge in matters of great social importance.” Along with a high level of specialisation went a tendency to mystify the design process and practices by restricting the information shared with collaborators and building users, the use of technical language and jargon as well as the proliferation of isolated methods of rewarding success (Symes et al., 1995). In the functioning of our societies, professions - broadly defined - (still) play a central role. It is through them and reliance upon their special skills that we realise some of the most fundamental tasks, including, amongst other things, national

defence, medical care, jurisdiction, education, and indeed the design of our built environments (Schön 1991). The professions are called upon to define and address the issues of public concern and new challenges to human competence. Increasing media exposure and public attention, prominent scandals (British property scandal, Libor scandal, global banking scandals, etc.) and cases of failed professional action, however, have led people to question the professions' autonomy and control over social issues, and more significantly their competence and claim to extraordinary knowledge (Schön 1991). Despite the loss of faith and wider calls for regulatory intervention, with regards to architecture - specifically within Scotland - there has been a growing recognition amongst policy-makers of the profession's significance in shaping the places and environments that foster social integration and stability, communal life, health and wellbeing. Architecture and place, one may argue, have grown into agents of change and social transformation, and thus important contributors to our the social, economic and environmental success of our cities, towns and rural communities. At the same time, the Scottish planning system has been subjected by *Planning etc. (Scotland) Act 2006* to radical overhaul. The expressed aim of it was to make the system "more inclusive and accessible to people" ensuring "greater openness and accountability in the decision-making process." As a result Scottish Executive has issued advice on the basis of *Planning Advice Note (PAN) 81 Community Engagement* to planning authorities and developers "on how communities should be properly engaged in the planning process" (2007). Addressed are a number of barriers that people believed were impeding engagement in the planning system including the lack of awareness of available opportunities, the complexity of procedures and practices, the inaccessibility of documents, consultation fatigue, belief that views are not taken into account and broad distrust of local governments. It is acknowledged that effective engagement and deliberative practice can lead to "better plans, better decisions and more satisfactory outcomes" while "improv[ing] confidence in the fairness of the planning system" (The Scottish Government, 2010). Not only are citizens given back greater control over issues of human importance but revealed is a growing recognition that processes which concern the future of our built environment are to include those affected by the outcomes in the planning processes and thus the processes of shaping that future. Participation, community engagement and deliberative practice have become important political topics that are enforced by law in the context of major and national

development projects (see The Scottish Government, 2010). In light of these developments, my research interest started to revolve around the co-creational processes in the design of our built environment, the making of our homes and communities and the idea of creating something new together. I became interested in the notion of people having a say in shaping their structural surroundings, the concept of deliberative practice, and more fundamentally the conception of architectural creation as a democratic process.

I was searching the literature for studies of learning in the context of architecture and design, when led back to the work of Donald Schön. It was his article *The Theory of Inquiry: Dewey's Legacy to Education*, published in *Curriculum Inquiry* 1992, that appeared and caught my attention. While familiar with his, Schön's, seminal work *Organizational Learning: A Theory of Action Perspective*, co-authored with Chris Argyris and published in 1978, I was not able to see and appreciate the Deweyan influences at first. Dewey was an unknown to me but the themes and arguments covered by Schön, although in a rather brief account, nurtured interest to the extent that they seemed to provide new perspectives on some of the methodological and theoretical issues I was contemplating. Amongst those themes were Dewey's critical stances towards the various dualisms (thought and action, mind and body, science and common sense, research and practice, etc.), epistemological individualism and the quest for certainty. It was at this point that I first came across his theory of inquiry, which Schön (1992, p. 121) had introduced as the "centrepiece of Dewey's revolt." He draws upon Dewey in the development of what he calls "[his own] version of Dewey's reflective thought" that he labelled: "reflective practice." A concept he explores by looking at a small example of designing in the context of a workshop/classroom at MIT. For that he considers designing and discovering as "closely coupled forms of inquiry" and because "learning is essential to designing", he argues, "there is great potential for learning through designing" (1992, p. 131). It is the combination of these terms that has brought Dewey to light. It is rather interesting to note that Schön does not actually introduce Dewey as a *pragmatist* but *constructivist* - although one that does not follow the lines of thinking drawn by Jean Piaget and one that requires to be corrected for his insufficient acknowledgement of the ontological differences in the way we see and construe things. Something Schön attempts to confront in

his refinement of his idea of reflective practice. It is equally worth noting, however, that neither in this particular article, nor in *Organizational Learning II* does Schön provide an account of Dewey's pragmatist philosophy so central to the system of thinking underlying his theory of inquiry (or reflective thought as Schön calls it). Notably, he describes Dewey as a philosopher of education.

I was intrigued by Dewey's philosophical work for two reasons: his theory of truth and his theory of inquiry. At a time when I was trying to develop clarity about my own fundamental assumption upon which to build this research and frustrated with the polarity of ontological views, the idea of a mediating philosophy struck me as an interesting way to move forward. Since then I have developed a growing interest in pragmatist philosophy and in particular the writings of the American philosopher and educationalist John Dewey (1859-1952) as the third figure in the pantheon of classical pragmatists, next to Charles S. Peirce (1839-1914) and William James (1842-1910). His *theory of inquiry* forms the conceptual basis of this thesis. Inquiry is used in this thesis not in the colloquial sense of juridical investigation but in the fundamental sense of how we come to know. Reading Dewey and material from his fellow pragmatists has led to a significant re-appreciation of the state of organisational learning research and the growing recognition that the literature was noticeably biased towards the acquisition of knowledge (in terms of diffusion) to the neglect of its creation. A reading of the situation that seems to be confirmed in the more recent commentaries on the state of the OLKM literature. As Easterby-Smith and Lyles point out, there is a "growing interest in organisational knowledge creation and the social processes underlying organisational learning and knowledge" (2011, p. 7). Abandoned in this thesis, however, is the confining and abstracting view of knowledge as contained within a specific organisation in favour of a view that is centred on knowledge being shaped and worked out in the course of action. In her encompassing review of the present and past of organisational learning research, Argote reveals that "[a]lthough research has been done on all three learning sub-processes of creating, retaining and transferring knowledge, more work has been done on knowledge retention and transfer than on knowledge creation" (Argote 2011, p. 441). Consequently she calls for "more theorising and empirical research" in this particular area,

arguing that “[r]esearch on knowledge creation is needed to round out our understanding of organizational learning” (2011, p. 442). And while suggesting that valuable insight is to be gained from building on research on creativity, she also draws attention to the work of Antonacopoulou (2009) who argues for more research to be conducted into the co-creation of knowledge. It is precisely these three aspects - knowledge, co-creation and creativity (as articulated through the function of design) - that this research engages with by means of the Deweyan theory of inquiry, his concept of community as well as the study of the creative practice of designing as inquiring and inquiring as designing. This work not only aspires to develop our theoretical understanding of knowledge creation through the lens of collaborative inquiry but also to provide the lacking empirical insight.

The study of the case of architectural designing, apart from any empirical considerations, was driven by personal interest as indicated above. However, architectural designing, at the same time, offers a vivid way to understand the aims of inquiry proclaimed by Dewey in terms of effecting change and social transformation through critical thinking and responding to the doubtfulness of a situation. Architecture further lends itself in a rather unique way to the study of the Deweyan conception of knowledge as evolving from the relation between organism and environment and mediated through language, reflecting thinking and other tools. Such coordinating tools, in the context of architecture, may be found in the sketches and drawings, workshops and presentations, displays and questionnaires, handouts, minutes, and other (co-created) material. Investigating an architectural design process from the appraisal stage to submission allows to study what Karin Knorr-Cetina (2001, p. 187) describes as the “unfolding object” (read: masterplan) and their “meaning generative force”. Architectural drawings make understandable what Dewey meant by symbols or representational forms (such as models) needed to grasp and develop ideas (or plans of action), give meaning to its elements and alter a course of activity. The study of architectural designing further provides insight into the relationships between objects, thought, imagination, and the transformation of ontological states (i.e. the transformation of indeterminate situation into a determinate one). As pointed out by Schön, designing further allows to appreciate what Dewey meant by *transactional* inquiry - inquiry as an ongoing

process where the settlement of one problematic situation constitutes the conditions of the next rendering inquiry a process shaping and being shaped by a problematic situation. Beyond that architecture as a profession suggested a particular sensitivity towards issues of knowledge and the co-creation of knowledge through processes of design. The architectural design process, in turn, as neatly defined by the Royal Institute of British Architects (RIBA), echoes the stages of the Deweyan process of inquiry and suggested an interesting degree of formal and conceptual congruence. The functions of inquiry and design are seen to be sharing certain characteristics that centre around the confrontation of doubt, a feeling of a difficulty or insufficiency, a perplexing moment that evokes reflective thinking or inquiry. It is in this regards that a design proposal may be understood as an idea, a suggestion to a possible course of action (the translation of particular design into its physical form) that will possibly settle the problematic situation. In scrutiny are the ideas that are being entertained as possible solutions to a problem.

Premised on the conceptual congruence between inquiring and designing (cf. Schön, 1991), this research was undertaken within the empirical setting of architecture, specifically, in the course of an eight month masterplanning project on the western outskirts of Edinburgh. It seeks to make a contribution to the literature of knowledge creation in the field of management and organisation studies by drawing upon and exploring the Deweyan theory of inquiry. In this thesis I argue that, within the realm of social phenomena, the egalitarian notion of inquiry that characterises the Deweyan theory renders the warranting of an assertion (conventionally referred to as the assessment of a statement as either true or false) on the basis of satisfactoriness a matter of intellectual acceptance rather than logical necessity. Knowledge is suggested to be the product of discursive practices, the result of argument and discussion effected through collaborative inquiry. At the heart of this work is an analysis of the collaborative transformation of an "indeterminate situation" (grounded in the decision to demolish and rebuild the North Sighthill estate) into a "determinate" one (a masterplan submitted for planning permission in principle), the construction of knowledge and shaping of artefactual forms through the process of inquiry. This research had been approached in such a way that the method by which knowledge is understood to be created, was studied on

the grounds of “what actually occurs”. The Deweyan pattern of inquiry in this regard served as a simple framework of reference to guide observation and experimentation. The empirical work was pursued abductively and with the intention to develop understanding of the knowledge creation process that largely remains an enigma (Simpson and Woods, 2003). That is, understanding of the very process was sought to be gained by turning inquiry (as means of knowledge creation) back on itself and explore the process of inquiry through inquiry. The Deweyan theory has been drawn upon as a helpful working hypothesis to guide the empirical observations.

### **The social dimension of architecture**

Although it is important to acknowledge that the architectural profession, throughout its history, has encouraged different conceptions of the architect, from the nineteenth century *architect as artist* to the *architect-entrepreneurs* of the twentieth century (Symes et al., 1995, p. 5), architecture is a product of collaboration. Even the visions of a singular mind require the input from a range of people and organisations for their translation into physical objects. As pointed out by Feldman and Khademian (2007), the challenge for those engaging in participatory action lies in combining information and perspectives from three domains: the political, the technical and the local or experimental - evident also in the masterplan project. The authors propose the implementation of what they call “communities of participation”, in which representatives from all three domains can apply their knowledge to the resolution of the problem. The term echoes the notion of communities of inquiry, as coined by Peirce and Dewey, in as far as it resembles the idea of a space of encounter that enforces social engagement, reflection and intellectual advancement. It brings together people with different funds of knowledge and sets of experience on the premise of creating something new together. The Deweyan community of inquiry may be understood as a social composite that emerges from a shared commitment to a specific subject of inquiry, a continued dialogue with previous results and agreement upon a particular set of assumptions and methods. We may understand the latter in a paradigmatic sense as a constellation of shared values, beliefs and techniques (cf. Kuhn, 1970). Inquiry, for Dewey, is an inherently social activity where people are related to each other in quasi-contractual fashion. In how far and what way, however, can

we understand architectural designing as occurring within a community of inquiry? How may we understand the social aggregations that evolved in the course of the design process as described in the previous chapters?

Initial insight is to be gained from what some refer to as the interpretation-oriented approach. It is based on the general assumption that “members of organisations create a set of intersubjective meanings (construction of reality) that can be assessed by artefacts such as symbols, metaphors, ceremonies, and myths and that are tied together by values, beliefs, and emotions” (Pawlowsky, 2001:72). Even though this approach does not allow to be classified belonging to any particular organisation theoretical perspective, it is closely related to the cultural perspective described by Pawlowsky (2001). The core thrust is the idea that organisations are entities of commonly shared cultural understandings, which underlie action and are developed by their inhabitants' interpretations of the system-environment relationships. These interpretations are referred to by Argyris and Schön (cf. 1996) as “theories-in-use”. That is, theories of action which are implicit in the pattern of activity explained or justified by “espoused theory”<sup>25</sup> and constructed by observation of the pattern of action in question. Theories-in-use can thus be understood as the organisation's cognitive structures. According to Argyris and Schön (1996:16) organisational learning occurs when “the learning that results from organisational inquiry [becomes] embedded in the images of organisation held in its members' minds and/or in the epistemological artefacts [...] embedded in the organisational environment.” We may ask in how far the cultural bracket that governs organisational action also exists within communities of inquiry. What do the artefacts used and developed within the process of inquiry tell us about the presence, nature and role of the community of inquiry in question? Consensus within communities, Johnson and Duberley (2000) argue, is “grounded in a tradition that bases their [the community members'] work around a shared way of thinking and working within an established network of ideas, theories

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<sup>25</sup>“Espoused theory” refers to the theory of action meant to explain or justify a given pattern of activity (Argyris and Schön 1996:13). That is, espoused theories are those pretended by organisational members to be guiding action, whereas theories-in-use are the ones which actually do it.

and methods” (2000:68).

According to Dewey the generation of ideas (or plans of action) requires the use of symbolic forms or embodiments in as far as reference is made to a state of possibility (read: an idea of what the architectural future of North Sighthill might look like) rather than a physical situation. Equally, the observed facts of the case, i.e. the pieces of information gathered about the existing situation within the operation of inquiry, are to be communicated by means of symbols. Otherwise they will lose their provisional character and become categorically fixed. “The carrying on of inquiry,” Dewey (2008f, p. 118) writes, “requires that the facts to be taken as *representative* and not just as *pre-sented*.” Yet what does it mean to say a plan (or proposal) represents X and how does this relate the pragmatist reading offered here? Pragmatism, after all, discourages the theoretical use of the notion of knowledge as an *accurate representation* of reality, arguing that the latter is “simply an automatic and empty compliment which we pay to those beliefs which are successful in helping us do what we want to do” (Rorty 2009, p. 10). In making statements about an unknown future, architectural designing enters the hypothetical realm. The relation in scrutiny here is not between the objects of a hypostatized reality and their *re*-presentation in the architectural drawing but between the latter and the subject-matter of inquiry.

The Deweyan conception of knowledge denies any “enduring constraints on what can count as knowledge” (Rorty, 2009:9) and holds that justification is to be seen “as a social phenomenon rather than a transaction between the ‘knowing subject’ and ‘reality’” (Rorty, 2009:9). Knowledge is the product of inquiry. The empirical material, however, alerts us to the problem that inquiry without a concept of equality is at risk of becoming a technology of control in the hands of the privileged, i.e. those having the power, such as explained by Steven Luke’s (1974) three faces of power, to determine the course of inquiry.

### **Pragmatism, Dewey and organisation studies**

Philosophical pragmatism is often cornered as an American peculiarity, a reflection of the distinctive features of American civilisation encompassing “its revolutionary beginnings

combined with a slaved-based economy; its elastic liberal rule of law combined with an entrenched business-dominated status quo; its hybrid culture in combination with a collective self-definition as homogeneously anglo-american; its obsession with mobility, contingency, and pecuniary liquidity combined with a deep moralistic impulse; and its impatience with theories and philosophies alongside ingenious technological innovation, political strategies of compromise, and personal devices for comfort and convenience” (West 1989, p. 5). American pragmatism, however, was not developed in an intellectual vacuum but the result of an intense dialogue between Americans and Europeans. Authors like Richard Rorty argue that in its anti-foundationalist positioning philosophical pragmatism prefigures the themes and thinking of what would later come to be known as social constructionism. Despite initial resistance amongst European thinkers of the early twentieth century, pragmatism, as emphasised by Baert and Turner (2004, p. 267), “has become a vital force in contemporary intellectual life.” Notwithstanding this, they criticise, “a lot of the secondary literature on pragmatism [...] erroneously conceives it as solely an American product.” In their article there is no suggestion to the contrary, although they point out that some European philosophers, including Henri Bergson and Friedrich Nietzsche, developed similar ideas at that time, but it is emphasised that “pragmatism has been used and re-used by European intellectuals since its inception” (Baert and Turner, 2004, p. 268). Pragmatism has found particular recognition in the critical theories of Jürgen Habermas, specifically his earlier work on the philosophy of science as well as his writings on communicative rationality and discourse ethics, it has informed the campaigns of European feminists and equally influenced the mainly British tradition of critical realism (Baert and Turner, 2004, p. 268).

Pragmatism as coined by Dewey puts forward the idea of social transformations through critical thinking and inquiry, aspiring a form of political deliberation. The world is not something given but formed by humankind (see Rorty, 1982:165f.). Pragmatism in so far resonates with the voluntaristic view of organisations as social composites. In *Reconstruction in Philosophy* Dewey, discussing the emergence of philosophy, argues that “[a]side from natural accommodation and assimilation springing from the fact of intercourse and the needs of common understanding, there is often political necessity which leads the ruler to centralise traditions and beliefs in order to extend and strengthen his prestige and authority” (2008, p.

**Power and conflict**

Architectural designing, as has been documented in the previous chapters, is a process instituted and maintained through social interaction. And it is through social interaction that knowledge is understood to be formed. Evinced in the empirical work are the tenacious links between ideas and power, discourse and social structures and the interventional role of co-constructed artefacts. Despite Dewey's concern with the social and political, he is frequently accused of being strangely "unsuspicious" of power as documented by Hildreth (2009). "For Peirce and Dewey, inquiry [i.e. the generation of knowledge] is cooperative human interaction with an environment; and both aspects, the active intervention, the active manipulation of the environment, and the cooperation with human beings, are vital. [...] For the pragmatists, the model is a group of inquirers trying to produce good ideas and trying to test them to see which ones have value" (Putnam, 1995:70-1). Inquiry is seen as a social process that is coordinated by membership in a social system through which the methods of inquiry and underlying assumptions are established. "To engage in inquiry is like entering into a contract" (Dewey 2008f, p. 108). At the heart of inquiry, for Dewey, is the realisation of some goal.

The formation of knowledge is not a matter that "naturally" runs its course in the sense that it establishes correspondence with some external reality. The object of knowledge, it is argued in agreement with Dewey, is not a reality fixed and complete in itself but formed within the operation of inquiry, "which has in it any element of product of change" (Dewey 2008g, p. 19). The process of inquiry as studied both in theory and practice has shown just how much its results, which by definition is knowledge, are shaped by the institution of a problem. A problem is a social construct and the product of the purposeful selection and arrangement of pieces of information. A problem well-stated, according to Dewey, has "reference to a possible solution" (Dewey 2008f, p. 112). Inquiry is therefore a process of controlled knowledge formation, the outcome of which is defined by its initial parameters. The notion of

control lays bare a mechanism of manipulation. As pointed out further above, Dewey, not only acknowledges but emphasises the “necessity of evaluative judgement in social inquiry” (Dewey 2008f, p. 491). He elaborates, as already quoted above, that “the need for selective discrimination of certain existential or factual material to be data proves that an evaluative estimate is in place” (Dewey 2008f, p. 491). Given the inevitable power differences between the council, the design team, statutory and non-statutory consultation bodies, control over the process of inquiry (organising attention, selecting and arranging materials, establishing the factual conditions of the problem, etc.) is likely to threaten the Deweyan notion of knowledge production as a source of democratic power. Awareness of the power differences was revealed in the question “[w]ho will decide on the final options?” (R12), as formulated by one of the residents. Reflected is equally a concern about the level of involvement and ability to influence the course of events which was brought home in the following statement:

My feeling is that they are involved in the public consultation exercise and they’re running it quite professionally but their goal is to get through it, to get plans submitted for Council approval, for redevelopment to take place and that’s *really* the interest, and wishes of the residents are just being listened to but essentially ignored.

There is a risk of the process of consultation degenerating into a practice of “listening to” and “being heard” at the expense of a more profound process of deliberation that not only gives participants a “sense” of ownership but a real stake in design. A question that follows from this has been formulated in 2010 by Jürgen Habermas: “Does participation in democratic procedures have only the functional meaning of silencing a defeated minority, or does it have the deliberative meaning of including the arguments of citizens in the democratic process of opinion- and will-formation?” The relevance of this is question is evident in one of the comments made by the director of the architecture practice:

I think in some respects it’s [public consultation] about wanting to avoid negative resistance rather than wanting to promote positive momentum. But if you get positive momentum that’s a great thing. If you get the middle ground then that’s fine. But what you don’t want to get is negative resistance. (R09)

It is to be acknowledged that he thinks the Council is genuinely sensitive to the council tenants needs and values consultation. In fact, at one point there is the description of an ‘ideal’ residents group participant which if ‘activated’ might have been able to reconfigure

the design. An important factor appears to be the ability of the residents to engage with the technical elements of the design process.

Inevitably on this particular project the Council of being the most proactive in terms of starting the initiative and starting the scheme, so the community and [inaudible] is always reacting to what next put in front of it. I do think, I genuinely do believe that with both the design consultant team and with the clients and with the Council that if there was a community of local residents that had the expertise and the design...the willingness to want to be more proactive in the decision-making going forward that I think that the Council would on some level be open-minded to that and that they could be more pro-active in driving the agenda as to what they want to talk about at the next meeting and such like. And I think you almost saw seeds of that happen where you knew that you'd agreed and that affects the agenda to the next consultation meeting that that had been informed by what the community wanted to talk about. (R09)

It is important to emphasise that residents concerns *were listened to*, as has been pointed with reference to the development of the masterplan and, at earlier point in time, *did determine policy* in that initial consultation had concerned the ownership of the regeneration project (failed stock transfer). There is, however, a risk of reducing consultation and deliberative practice to “getting buy in” and avoiding “negative resistance.” For meaningful change to happen, Jones argues, the nature of designing ought to change:

It is unlikely that ‘design participation’, the sharing of the process of design with those affected by its results, will make much difference until the nature of designing is itself changed, e.g. by transferring responsibility from designers to makers and users...what is needed now in design: a change from the specifying of geometry, physical form, to the making of a context, a situation, in which it is possible for others, for us all as users, makers, imaginers, to determine the geometry ourselves (Jones 1992, p. xxxvi).

### **The materiality of inquiry**

The empirical material has drawn attention to the non-human entities (or interventional artefacts) through which the relations between individual inquirers are enacted and entertained. These composites can be seen, in analogy to Callon (2005), as “hybrid collectives” comprising both human beings as well as material forms. Amongst those materials are the drawings, sketches, doodles, computers and programmes, Powerpoint

presentations, displays, questionnaires, newsletters, leaflets, the physical settings, etc. Drawing upon Hasselbladh and Kallinikos (2000:702) we may understand these as the material forms of organising and acting. Miettinen (2005, p. 434) observes that within philosophy, the social sciences, and psychology a variety of theoretical approaches exist which suggest that “norms of action and cognition are objectified into artefacts” and as such “decisively influence the course of action.” Among these approaches are Vygotsky’s (1979) cultural historical activity theory, Wartofsky’s (1979) historical epistemology, Latour’s (1991) actor network theory, and indeed Dewey’s philosophic pragmatism. For Dewey (1938:52) “[a] tool is also a mode of language [in that] it says something, to those who understand it, about the operations of use and their consequences. [...] In the present cultural setting, these objects are so intimately bound up with intentions, occupations and purposes that they have an eloquent voice.” The heterogeneity of the group of inquirers, however, raises important questions about the role of material forms in default of a shared language. When we are faced with problems of the voiceless and pre-linguistic, and artefacts are only coming into being. Indeed, architectural drawings may be understood as a mode of language spoken by architects and similarly trained professionals (such as planners, engineers or developers) to communicate aspects of scale, perspective, axonometrics, etc.; it is a language, however, of which command is typically limited to the experts. To describe spaces in which goods are exchanged between different cultures, defined by different languages, habits and attitudes, anthropologists use the term "trading zones" (see e.g. Kellogg et al., 2006; Morrill 2012). Their currencies are alternative forms of representation and understanding such as images, diagrams or models through which (situational) knowledge and ultimately reality is being constructed. Communication in trading zones thus requires the co-creation of forms that permit the exchange of ideas (cf. Crane 2010). Such forms or artefacts may be conceived of as *boundary objects*, a concept that has gained popularity in the management literature over the last couple of years (Sapsed and Salter, 2004). Boundary objects serve as a mediative tool, “a basis for negotiation and knowledge exchange between differentiated communities of practice” (Sapsed and Salter, 2004, p. 1515).

The process of inquiry reported on here has seen the collective development of a series of masterplan options. Those options were presented and *re*-presented in the form of drawings.

Gathering to inspect and discuss the drawings, talking about what had been done and why allowed the council, architects and consultees to move towards a sharing of appreciations, and arguably to what Schön (1992, p. 131) describes as a “collective design world.” There is no suggestion of univocal agreement, but the lack thereof provoked necessary discussion of what the concerns are, and if in doubt about terms to clarify what they actually mean. In expressing themselves and their architectural aspirations, architects often make use of a convoluted language that carries with it certain sets of assumption and expectations. A central place in the architect’s repertoire of expression, for instance, is occupied by the term “quality,” which has been used excessively throughout the masterplan project. There is the mentioning of high quality buildings, materials, spaces, etc. However, quality is an empty phrase that requires detailed explanations as to what is intended, aspired, preferred, considered feasible, practical and/or aesthetically pleasing. Only then is it possible to clarify and negotiate different expectation, designs and built possibilities. On the contrary, it might have been exactly this level of ambiguity that opened up room for interpretation and helped building a sense of shared, albeit unspecific, understanding that guaranteed the relatively smooth progression of the project.

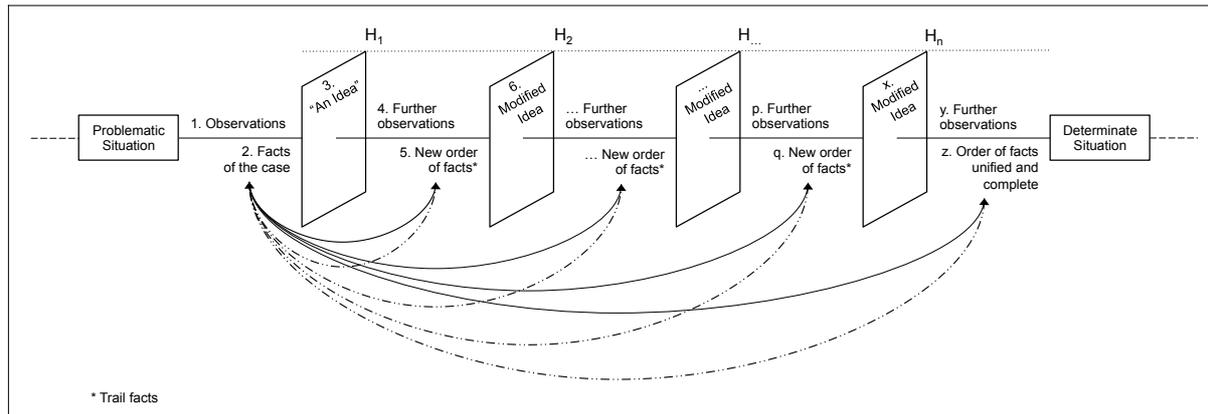
Despite the value of the architectural drawings in terms of prompting debate, they equally posed difficulties to the untrained eye. Notwithstanding this, the development of ideas was largely confined to the two dimensional space of drawings. Given the difficulties to read the architectural drawings (in a conceptual and aesthetic sense), members of the development group at different points requested a model. Not only would a model have allowed the people to engage with the ideas in a three dimensional space, but it would have given them the opportunity to physically co-create rather than be confined to making sense of the drawings. As Paavola and Hakkarainen (2005b, p. 250) point out “new ideas emerge from interaction between different kinds of knowledge and sources of knowledge.” And it is in this sense that the co-creation of artefacts might have mediated the generation of new ideas (or plans of action).

### **The design process as a process of inquiry**

The Deweyan pattern of inquiry suggests that observed facts point to an idea, an idea evokes

further observation, observations lead to new facts, which either link up with the previously observed facts or are ruled out in respect to their evidential function. The new order of facts suggests new ideas, new ideas occasion new observations and new observations constitute a new order of facts. This serial process continuous until an existing order is determined as “complete and unified” (see Fig. 8).

Figure 8: The Deweyan process of idea generation



Source: Author

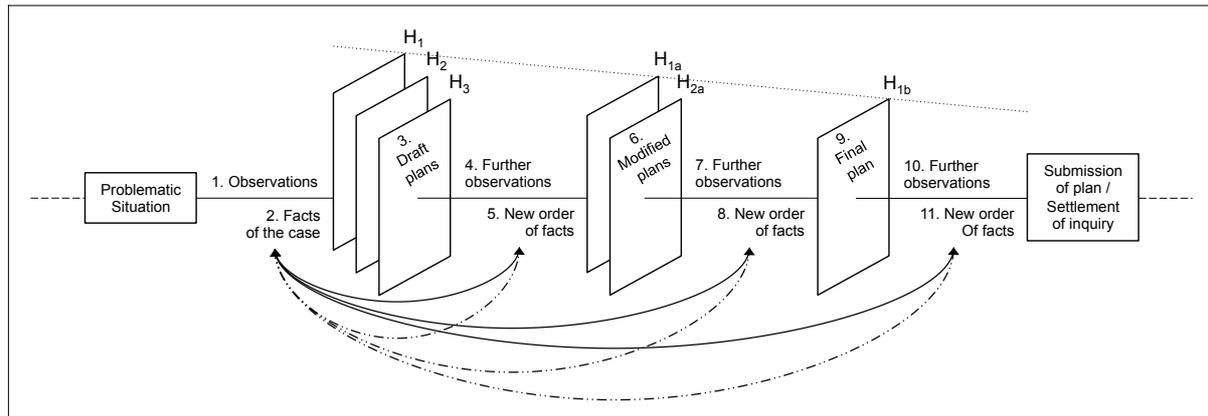
Contrary to this, however, the North Sighthill project brief did not make provisions for the continuous iteration of design solutions through the interplay of trial facts and new ideas. Architects were instructed to produce three design proposals, further develop two of them, and finalise the one that receives greatest support from the consultees (including statutory and non-statutory bodies). A fundamental difference between the pattern of inquiry as theorised by Dewey and the process of inquiry engaged in in this study therefore lies in the approach to inquiry. Whereas Dewey’s pattern of inquiry suggests the progressive determination of a problem and its solution, inquiry into the North Sighthill proceeded to solution by the progressive exclusion of options as depicted in Figure 9. What becomes evident is the funneling effect of both the brief and the formal characteristics of the project which renders the design process front-loaded with the three draft masterplans developed at the conceptual stage governing the subsequent development of designs. To the extent that ends get fixed (courtyards, low-rise buildings, flattened buildings should not exceed four storeys in height, 20% of dwellings should be houses, spaces between buildings designed to be designed to

high standard of urban design, shared garden spaces should be allocated to groups of houses, etc., see Appendix 7) the draft plans lose their operational character and become determinant in the discovery of new design solutions. With only minor differences between the first drafts, one may argue that no radical alteration followed. Given that initial ideas are typically vague, as Dewey points out, they usually serve an important function in prompting further observation and the generation of new facts, which, in turn, will contribute to the development of understanding of the problem and point to new, more nuanced ideas. The immediate acceptance of the concept proposals as plans of action on the basis of which the following process of inquiry would be conducted, in a Deweyan sense, rendered the process of inquiry cut short. It rendered the process cut short for that the meaning content of those ideas could not be further developed. The meaning of an idea is the plan to act in a certain way (Thayer 1952). In the context of the North Sighthill masterplanning activities this meant to respond to the need for affordable housing and the like-for-like replacement of existing dwellings by means of low-rise, high-density, courtyard based schemes. The meaning content further defined the relationship of the accepted meanings (plans of action) to other meanings within the system of which they are a member; for instance, what the plan to act in a certain way means for the expansion strategies of adjacent landowners. Although Dewey makes clear that the observed facts of the case as well as the ideas entertained for the development of a problem solution ought to be considered operational, the North Sighthill masterplan project unveiled an explorative practice torn between free motion and early fixation. A practice characterised by the interplay of two opposing forces: the drive for innovation (reflected in the entertainment of operational facts and ideas), on one hand, and replication (expressed through the formulation of determinative statements) on the other.

The masterplanning of the North Sighthill estate was further constrained by the tight timeframe. While the Deweyan process of inquiry rests on the assumption of continuity and is inherently open-ended, the masterplan was initially scheduled to be completed within six months. The deadline had then been pushed by the 21<sup>st</sup> Century Homes project group (see Figure 4), which pays and controls the masterplanning, from 8 February 2012 to 13 March 2010, partly to account for the implementation of new technical standards. With the application for planning permission in principle, the process of inquiry into the

masterplanning of the North Sighthill estate came to an end; at least temporarily for that it was emphasised by the council’s project managers that the masterplan is not something set in stone. In as far as the masterplan remains a subject of inquiry, the process, one may argue, continues. The submission of the plan, nevertheless, marked the arrival of form to the extent that a stable, even though moving, equilibrium had been reached.

Figure 9: Ideas funnelled through the process of design



Source: Author

So does the process of inquiry lend itself to the discipline of design at all? It is argued that it does if we depart from a strictly scientific interpretation of the Deweyan process of inquiry and, in the spirit of Dewey, “[take] advantage of the experimental method to the extent that is practicable” (Dewey 2008f, p. 502). Further it requires a reconsideration of the process of design as it presented itself in the context of this project where plans of action became settled upfront. It is precisely the process that is being questioned by John C. Jones in his book *Design Methods*:

To organise life by first fixing the goal, and then planning a series of steps by which it can be reached, with certainty, is the essential method of technology as we know it so far. It is the method of the production-line, the main source of industrial wealth...In design, this undoing the mistakes of our industrial past can begin, not by abandoning goals altogether, but by switching from fixed goals to variable ones. John C. Jones (1992, pp. xxviii-xxix):

For inquiry to take effect in the realm of design arguably requires a shift from the “method of technology” as defined by Jones to a method more in line with “modern science” as proposed

by Dewey. A method that has at its core an openness about the course of inquiry and allows for the progressive development of problems and solutions. One that is supported by an explorative attitude of mind and allows to “become familiar with the unknown possibilities and limitations of ‘the new’ before making irrevocable decisions” (Jones 1992, pp. (xxvii)). More generally one has to appreciate that there are rather obvious and fundamental differences between the world of business and academia, which ultimately affect the practice of inquiry. The differences may be understood in terms of the level of commitment to inquiry. Both systems are constrained in some way in their engagement with such practice by the resources available. The notion of open-ended inquiry, one may argue, is only true to the extent that the settlement of one process constitutes the problematic material of the next. The differences lie in the different problems to be dealt with and ends to be achieved. Whereas scientific inquiry is driven by the quest for knowledge as an end in itself, the attainment of knowledge in the non-scientific realm is to be understood as a means to an end. Apart from that it is to be acknowledged that the underlying market dynamics hardly allow for intensive, long-winding processes of inquiry.

### **A concluding critique of Dewey’s theory of inquiry**

Pragmatism as coined by John Dewey, in conversation with the works of Charles S. Peirce and Williams James, marks an important antithesis to the foundationalist thinking that characterised modern European philosophy and is seen as an alternative to both German rationalism and British empiricisms. Given the strong emphasis on inquiry as a method of modern science it is all too tempting to disqualify Dewey’s work for having little relevance in the study of social phenomena. In fact, Dewey is aware of this and writes: “The idea that because social phenomena do not permit the controlled variation of sets of conditions in a one-by-one series of operations, therefore the experimental method has no application at all, stands in the way of taking advantage of the experimental method to the extent that is practicable” (Dewey 2008f, p. 502). His work has been approached in this thesis with much respect for its progressive character and affect it had on the philosophical debates of the twentieth century as documented by Bernstein (2010) in his book *The Pragmatic Turn*. As will be discussed in more detail later on, Dewey not only was aware the of the social factor

and its bearings on inquiry and the production of knowledge but considered it constitutive in the determination of evidence and its probative force. His idea of a community of inquiry, drawing on Peirce, is an acknowledgement of the contextuality of knowledge and its formation.

Dewey tends to view facts in a Heideggerian phenomenological sense as self-given. Indeed Dewey's argument of the inquirer being in the situation resonates with Heidegger's ontology of Being, specifically human existence as involvement with a world of objects. The self-evident correspondence between action and consequences, however, has revealed issues with the ontological underpinnings of the Deweyan theory of inquiry. Dewey appreciates that facts constituting a problem are not self-sufficient but require attention, selection and arrangement. Facts are functional in that they are arranged for a purpose which is the statement of a problem involved in such a way "that its material both indicates a meaning relevant to resolution of the difficulty and serves to test its worth and validity." And he adds: "In regulated inquiry facts are selected and arranged with the expressed intent of fulfilling this office" (Dewey 2008f, p. 117). It is in this sense that he considers facts to be functional and therefore necessarily operational. It is acknowledged by him that all inquiry proceeds within a cultural matrix, determined by the nature of social relations. Culture provides us with an interpretive framework by which we define and deal with problems and its constituents. Being a child of his time, however, sympathetic to the position of objective realism, he seems to believe that the observed facts of the case, which are then subjected to arrangement, "[are] just what they are" (see Schön 1992, p. 123).

According to Dewey inquiry as mode of conduct is not only accessible to study as is any other mode of behaviour but its subject-matter is "objectively observable," allowing for the "reflective conclusions [to be] tried and tested" and the "dependence upon subjective and 'mentalistic' states and process [to be] eliminated" (Dewey, 2008:107).

"Any account of inquiry that supposes the factors involved in it, say, doubt, belief, observed qualities and ideas, to be referable to an isolated organism (subject, self, mind) is bound to destroy all ties between inquiry as reflective thought and as scientific method. [...] But the absurdity rests upon the acceptance on an unexamined premise which is the product of a local "subjectivistic" phase of European philosophy. If what is designated by such terms as doubt, belief, idea, conception, is to have any objective meaning, to say nothing of public

verifiability, it must be located and described as behaviour in which organism and environment act together, or *inter-act*. [...] There is, of course, a natural world that exists independently of the organism, but this world is *environment* only as it enters directly and indirectly into life-functions" (Dewey 1938, p. 33).

It is worth noting that Dewey's primary concern is with the empirical quality of logic and the expression of a view which holds that logic is indeed empirical in as far as its subject-matter consists of "inquiries that are publicly accessible and open to observation" (Dewey, 2008:45). He describes an empirical quality that is "distinct from the merely speculative and from the a priori and intuitional" that is found in the works of Mill, Locke and Hume (Dewey, 2008:45). Notwithstanding this, the notion of objectivity and interpretation of the materials of inquiry as "objective facts" (Dewey, 2008:106) remains problematic. Latour and Woolgar's (1986) insightful studies into laboratory life remind us of the significance of the social in the construction of scientific facts. Now, there is no suggestion that Dewey rules out all evaluative procedures. The contrary is the case, he critically acknowledges that "the need for selective discrimination of certain existential or factual material to be data proves that an evaluative estimate is operating" (2008f, p. 491). He admits that many people seem to think that "the facts are out there and only need to be observed, assembled and arranged to give rise to suitable and grounded generalisations" (2008f, p. 489). A kind of thinking that, Dewey argues, is often reflected in the verbal and written accounts of scientific research. He therefore explains that what scientist *do*, instead of what they *say*, is to "execute certain operations of experimentation--which are operations of doing and making--that modify antecedently given existential conditions so that the results of the transformation are facts which are relevant and weighty in solution of a given problem" (2008f, p. 492). That is, the facts of the case are the necessary result of an antecedent process of evaluation, selection and arrangement and the precondition for any generalisations to be made in the course of experimentation. Notwithstanding this critical engagement with the neutrality of scientific facts, Dewey seems to have little doubt about the objective quality of the fact itself: facts are just what they are. Facts may not be self-sufficient in as far as they have to be selected and described for a problem to be indicative of a solution, but in themselves they are determinate. The case material, by contrast, has shown that things are rarely so clear in themselves as to have factual status.

The facts of the case may therefore be better understood as an “account” of the problematic situation. An account that is dependent on the individual’s interpretative framework or “way of seeing things” (Schön 1992, p. 129), shaped by hidden motives, assumptions, and pre-structures (such as previous plans, models or prototypes). The notion of facts as pieces of information known to be true is deemed problematic in regards to the well-known difficulties in establishing truth. Certainly, it is argued here in agreement with Peirce and his critiques of Descartes’ notion of *universal doubt*, we cannot question everything at once. “We must begin with all the prejudices which we actually have when we enter upon the study of philosophy [or, it is believed, any other matter]” (1955, p. 128). We need to have some element of foundation from which to start our process of inquiry for that “we must act in the world, and action requires belief in a great many things” (Pardales and Girod, 2006, p. 300). The point here is that while we have to have some interpretative or conceptual point of departure, and Dewey points out that there is in fact an “inalienable and ineradicable framework of conceptions which is not of our own making, but given to us ready-made by society” (Dewey 2008f, p. 482), we need to be aware of the tenuous ground upon which we base our claims to knowledge.

Another aspect which shall receive some attention is the establishment of satisfactory solutions as in finding out what “works”. In simple terms one may say that a solution (or hypothesis) that “works” is one that settles the problem-situation that instigated inquiry. What works is evaluated with reference to the level of agreement between actions and their consequences. Given the ambiguous nature of problems in the social realm (the empirical material has shown that a univocal account of the design problem was difficult to accomplish and in conflict with the plurality of views articulated by the council, the architect, and the different consultees), however, the extent to which a solution may be deemed satisfactory is arguably a matter of perspective and thus intellectual acceptance. Even if we are able to observe the social consequences of architectural conclusions in present existence, the relation does not necessarily become any clearer. Pragmatism has nurtured the idea of ‘meaningful action’. Action that serves the purpose of clarifying or probing an assertion on the basis of its consequences. Dewey appreciates that testing the agreement between activities and their

consequences brought out in public is of a different nature than the testing as executed in the strictly scientific context, yet he nevertheless considers such an agreement to be “an integral part of a complete tests of physical conclusions wherever their public bearings are relevant” (Dewey 2008f, p. 484). He makes his point clear by stating that when the social consequences of scientific conclusions lead to an intensification of social conflicts then there is “presumptive evidence of the insufficiency, or partiality, and incompleteness of conclusions as they stand (Dewey 2008f, p. 484). However, if agreement between actions (architectural operations) and their consequences would be a straightforward matter then perhaps a low-rise high-density scheme, as proposed in the submitted masterplan, would have never been accepted considering authors like Hillier and Hanson (1984, see final section) argue that those schemes do not provide a “convincing alternative” to the “debacle of high-rise housing”. Rather both schemes appear to produce “lifeless and deserted environments”. Edinburgh Council and many other councils across the UK in this regard must be assumed to be of a different opinion believing that in fact (on some level) low-rise high-density schemes *do* work.

Dewey assumes that eventually those solutions will prevail that are the ones most satisfactory in their practical consequences. This may be a fair observation in some respects (such as fields of exploration in which it is possible to establish relatively closed systems of observation) in consideration of the argument that inquiry is inherently open-ended and ideas never so settled as to initiate further investigation into the functional fitness of an idea. Studies into the diffusion of new technologies (or innovation), however, indicate that there may also be other factors influencing the pertinency of a solution other than the quality of the solution itself. As the seminal diffusion studies conducted by Everett Rogers (1995) suggest the success of a solution (or innovation) may also be affected by the rate of adoption and how quickly it reaches critical mass, i.e. reaches the tipping point at which ideas (solutions or innovations) catch fire. Rogers (1995) gives the example of the QWERTY keyboard which we still use despite the availability of other keyboards which allow much faster writing for the average user (the QWERTY keyboard was originally designed by Christopher Latham Sholes to slow down typists). Another point to be made is that once we have understanding of how diffusion works within a particular system, be it industry or academia, effecting system-

wide change arguably becomes more achievable. In accordance with a philosophical pragmatism as articulated by Richard Rorty it is found that what people aimed for in the process of inquiry and designing is not truth or objectivity but agreement within a community or as adequately summarised by Misak “what our peers will let us get away with saying.”

Pragmatism has been shaped by the cultural and historical soil of Northern America. In particular the horrific experience of the Civil War (1861-1865), as argued by Louis Menand (2001) in *The Metaphysical Club: A Story of Ideas in America*, has shaped the thinking of young intellectuals in America and imprinted itself on the birth and growth of American pragmatism. Peirce, James as well as Oliver Wendell Holmes Jr., all leading members of what Margolis (2003, p. 35) describes as “a rather obscure, academically minded [yet informal] conversation group” at Harvard University in 1872, known as *The Metaphysical Club*, that substantially shaped the themes of what would later be called the pragmatist movement, were profoundly influenced by the atrocities of the Civil War, either through direct involvement in combatant action as in the case of Holmes, or indirectly through the involvement of family members and friends as in the case of James and Peirce. As Brandom (2011, p. 44) argues, they saw the Civil War “above all [as] a colossal failure of American democracy.” A failure in dealing with the “high-stakes moral and economic issue of slavery” (ibid.). Menand summarises the conclusions drawn by this group of thinkers that would later come to be known as pragmatists as follows:

What had choked democracy was inflexible, uncompromising commitment to principles. What was needed was a different attitude toward our beliefs: a less ideologically confident, more tentative and critical attitude, one that would treat them as the always provisional results of inquiry to date, subject to experimental test and revision in the light of new evidence and experience, as permanently liable to obsolescence due to altered circumstances, shifting contexts, or change of interest.

The argument is put forward here that - although for entirely different reasons - a pragmatist attitude towards beliefs, be it in the spheres of science, economics or politics, is ever more needed today than it was at the time of burgeoning modern thinking in America. The growing diversity and complexity of a new-technology enabled, interconnected world, renders dogmatism a source of latent conflict, or as Menand (2001, p. 61) aphoristically concludes

the Holmesian lesson learned from war: “Certitude breeds violence.” Pragmatism cultivates an idea of knowledge as something constantly in the making. Equally needed beyond a sceptical attitude towards certainty, however, is a theory of inquiry that is more sensitive to the most difficult issues of power and conflict facing the co-creation of knowledge and material forms such as indeed the design proposal for a socially, politically and economically important housing redevelopment programme on the western fringe of Edinburgh as reported on in this thesis.

### **Strength and limitations**

The strength of this work lies in the empirical exploration of the Deweyan conception of knowledge and his theory of inquiry. Specifically, the study of inquiry and human acting with the social environment of architectural designing has offered unique insight into the explorative and epistemic practices of design professionals and those affected by their actions. Engaging with local residents has allowed me to give voice to those lacking the kinds of power Steven Lukes (1974) discusses in his book *Power - A Radical View*, i.e. the ability to make decisions on issues (actual or potential) over which there is an observable conflict of interests as well as the ability to shape and control an agenda by means of collective forces and social arrangements.

However, sympathy with a particular group of people, an individual or a certain perspective carries with it the risk of observation bias. Quiet voices may become amplified too much leaving the dominant ones marginalised. There is a tendency for people to seek information that matches their established beliefs and to force it into place within a given interpretive framework. The empirical material presented here is the result of my own selection and arrangement and, as a matter of course, my very own reading of the case. This reading, however, is intersubjective to the extent that it has been influenced by the many conversations I had with the people that contributed to this research. This is to say that my ideas and interpretations have been shaped in conversation with the research situation and material generated from it. Hence, the empirical material was presented in such a way to provide a nuanced view on the process of inquiry, using different types of data, ranging from extended interview passages and commentaries, to visual material, rich descriptions and

complementary secondary data.

The scale of masterplan project in terms people, space and time meant that inevitably I would only be able to study a small section of the larger process. Emphasis has therefore been placed on masterplanning in the public realm, paying particular attention to the role and impact of the local stakeholders in the development of the plans. It would have been hugely beneficial for our understanding of the evolution of the design proposals, had I been able to study more closely the statutory consultation activities and how they were absorbed by the architects.

### **Future research avenues**

This work casts light on and raises important questions about inquiry as a source of democratic power, the practice of collaborative design, and the ideal of shared solutions. Concerned are aspects of political and social exclusion, deprivation and the fragile concepts of participation and tenant power. With a primary focus on inquiry as a knowledge-generating process, however, these topics were only touched upon. Valuable insight is therefore expected to be gained from further research into the difficult relationship between inquiry, power and participation and a careful examination of the ethical-political consequences of a pragmatist democratic orientation. Concerned are the enabling and transformational capacities of collaborative inquiry. If it is through participation that we define and re-define the social meanings that govern our thinking and acting, democracy is dependent on the scope that is left for people to co-write the narratives that constitute our understanding of the world and help addressing the challenges of the future.

# Bibliography

- Argote, L., 2011. Organizational learning research: Past, present and future. *Management Learning*, 42(4), pp. 439-46.
- Argote, L. and Ingram, P., 2000. Knowledge transfer: A basis for competitive advantage in firms. *Organizational behavior and human decision processes*, 82(1), pp. 150-69.
- Argyris, C., 1990. *Overcoming organizational defenses*. Prentice Hall New Jersey.
- Argyris, C., 1999. *On Organizational Learning*. Oxford: Blackwell .
- Argyris, C. and Schön, D., 1978. *Organizational learning: A Theory of Action Perspective*. Reading, Mass.: Addison-Wesley.
- Argyris, C. and Schön, D.A., 1996. *Organizational Learning II: Theory, Method, and Practice*. Reading, MA: Addison-Wesley.
- Aristotle, 2006. *Metaphysics*. Stilwell, KS: Digireads. Com.
- Baert, P. and Turner, B., 2004. New Pragmatism and Old Europe: Introduction to the Debate between Pragmatist Philosophy and European Social and Political Theory. *European Journal of Social Theory*, 7(3), pp. 267-74.
- Beck, J., 1972. Similarity grouping and peripheral discriminability under uncertainty. *The American journal of psychology*, pp. 1-19.
- Becker, K., 2004. Knowing and Possessing Knowledge. *American Philosophical Quarterly*, 41(1), pp. 21-36.
- Berger, P. and Luckmann, T., 1966. *The social construction of knowledge: A treatise in the sociology of knowledge*. Garden City, NY: Doubleday.
- Bernstein, R.J., 2010. *The pragmatic turn*. Polity.

- Boydston, J.A. (ed.), 2008. *Essays, Miscellany, and Reconstruction in Philosophy*. Carbondale and Edwardsville: Southern Illinois University Press.
- Brandom, R.B., 2011. *Perspectives on Pragmatism: Classical, Recent, and Contemporary*. Harvard University Press.
- Brown, J.S. and Duguid, P., 1991. Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation. *Organization science*, 2(1), pp. 40-57.
- Brown, J.S. and Duguid, P., 2001. Knowledge and organization: A social-practice perspective. *Organization science*, 12(2), pp. 198-213.
- Bryman, A. and Bell, E., 2003. *Business Research Methods*. Oxford, UK: Oxford University Press.
- Burgelman, R.A., 1990. Strategy-making and organizational ecology: A conceptual integration, In: 1990. *Organizational Evolution: New directions*. Newbury Park, CA: Sage, pp. 164-81.
- Büscher, M., 2005. Social life under the microscope? *Sociological Research Online*, 10(1).
- Callon, M., 2005. Why Virtualism Paves the Way to Political Impotence: A Reply to Daniel Miller's Critique of The Laws of the Markets. *Economic Sociology: European Electronic Newsletter*, 6(2), pp. 3-20.
- Campbell, D.T., 1969. Reforms as experiments. *American Psychologist*, 24(4), pp. 409-29.
- Carlile, P.R., 2002. A pragmatic view of knowledge and boundaries: Boundary objects in new product development. *Organization science*, 13(4), pp. 442-55.
- Carlile, P.R., 2004. Transferring, translating, and transforming: An integrative framework for managing knowledge across boundaries. *Organization Science*, pp. 555-68.
- Carré, J., Body-Gendrot, S. and Garbaye, R. (eds.), 2008. *A City of One's Own: Blurring the Boundaries Between Private and Public*. Ashgate Publishing Group.
- Cohen, M.D., 2007. Reading Dewey: Reflections on the study of routine. *Organization Studies*, 28(5), p. 773.

- Cook, S.D.N. and Brown, J.S., 1999. Bridging epistemologies: The generative dance between organizational knowledge and organizational knowing. *Organization science*, 10(4), pp. 381-400.
- Cook, S.D.N. and Yanow, D., 1993. Culture and Organizational Learning. *Journal of Management Inquiry*, 2(4), pp. 373-90.
- Cooperrider, D.L. and Srivastva, S., 1987. Appreciative inquiry in organizational life. *Research in Organizational Change and Development*, 1(1), pp. 129-69.
- Cornford, F.M., 2009. *From Religion to Philosophy: A study in the Origins of Western Speculation*. New York: Cosimo.
- Crane, D., 2010. Cultural Sociology and Other Disciplines: Interdisciplinarity in the Cultural Sciences. *Sociology Compass*, 4(3), pp. 169-79.
- Crossan, M.M., Lane, H.W. and White, R.E., 1999. An organizational learning framework: From intuition to institution. *Academy of Management Review*, pp. 522-37.
- Cyert, R.M. and March, J.G., 1963. A behavioral theory of the firm. *Englewood Cliffs, NJ*, 2.
- Czarniawska, B., 2004. On Time, Space, and Action Nets. *Organization*, 11(6), pp. 773-91.
- Daft, R. and Huber, G., 1987. How Organizations Learn: A Communication Framework. *Research in the Sociology of Organizations*, 5, pp. 1-36.
- Denzin, N.K., 1970. *The research act in sociology: A theoretical introduction to sociological methods*. Butterworths London.
- Denzin, N.K., 1978. *The research act in sociology: A theoretical introduction to sociological methods*. 2nd ed. ed. New York: McGraw-Hill.
- Denzin, N.K. and Lincoln, Y.S. (eds.), 2011. *The Sage Handbook of Qualitative Research*. 4th ed. ed. Sage Publications, Inc.
- Dewey, J., 1931. The Development of American Pragmatism, In: 1931. *Philosophy and Civilization*. New York: Minton, Balch and Co., pp. 13-35.
- Dewey, J., 1938. *Logic: the theory of inquiry*. New York: Henry Holt.
- Dewey, J., 1998. *The Essential Dewey, Vol. 1: Pragmatism, Education, Democracy*. ed. by L.

Hickman and T. Alexander. Bloomington, IN:: Indiana University Press.

Dewey, J., 2008a. *Democracy and Education*. In: The Middle Works, 1899-1924 , 9:1916, ed. by J.A. Boydston. Carbondale and Edwardsville: Southern Illinois University Press.

Dewey, J., 2008b. *Essays and How We Think*. In: The Later Works, 1925-1953, 8:1933, ed. by J.A. Boydston. Carbondale: Southern Illinois University Press.

Dewey, J., 2008c. *Journal Articles, Book Reviews, and Miscellany in the 1902-1903 Period, and Studies in Logical Theory and The Child and the Curriculum*. In: The Middle Works: 1899-1924, 2:1902-1903, ed. by J.A. Boydston. Carbondale: Southern Illinois University Press.

Dewey, J., 2008d. *Journal Articles, Book Reviews, Miscellany in the 1910-1911 Period, and How We Think*. In: The Middle Works, 1899-1924 , 6:1910-1911, ed. by J.A. Boydston. Carbondale and Edwardsville: Southern Illinois University Press.

Dewey, J., 2008e. *Journal Articles, Essays, and Miscellany Published in the 1916-1917 Period*. In: The Middle Works, 1899-1924 , 10:1916-1917, ed. by J.A. Boydston. Carbondale and Edwardsville: Southern Illinois University Press.

Dewey, J., 2008f. *Logic: The Theory of Inquiry*. In: The Later Works: 1925-1953, 12:1938, ed. by J.A. Boydston. Carbondale: Southern Illinois University Press.

Dewey, J., 2008g. *The Quest for Certainty*. In: The Later Works: 1925-1953, 4:1929, ed. by J.A. Boydston. Carbondale: Southern Illinois University Press.

Drucker, P., 1994. The Age of Social Transformation. *The Atlantic Monthly*, 274(5), pp. 53-80.

Drucker, P., 2001. The next society. *Economist*, [online] Available at: <<http://www.economist.com/node/770819>>[Accessed 1 July 2011].

Drucker, P.F., 1993. *Post-Capitalist Society*. Oxford: Butterworth-Heinemann.

Drucker, P.F., 2001. The next society. *The economist*, 52.

Duncan, R. and Weiss, A., 1979. Organizational learning: Implications for organizational design, In: B.M. Staw, ed. 1979. *Organizational Behavior: An Annual Series of Analytical*

*Essays and Critical Reviews*. Greenwich, Conn.: JAI Press, pp. 75-123.

Easterby-Smith, M., 1997. Disciplines of Organizational Learning: Contributions and Critiques. *Human relations*, 50(9), pp. 1085-113.

Easterby-Smith, M., Crossan, M. and Nicolini, D., 2000. Organizational Learning: Debates Past, Present And Future. *Journal of Management Studies*, 37(6), pp. 783-96.

Easterby-Smith, M. and Lyles, M., 2011. The evolving field of organizational learning and knowledge management, In: M. Easterby-Smith and M.A. Lyles, eds. July, 2011. *Handbook of Organizational Learning and Knowledge Management*. Chichester, West Sussex: John Wiley & Sons, pp. 1-20.

Edmondson, A. and Moingeon, B., 1998. From Organizational Learning to the Learning Organization. *Management Learning*, 29(1), pp. 5-20.

Edvinsson, L. and Malone, M.S., 1997. *Intellectual Capital: The Proven Way to Establish Your Company's Real Value by Finding Its Hidden Brainpower*. London: Piatkus.

Elkjaer, B., 2001. The Learning Organization: An Undelivered Promise. *Management Learning*, 32(4), pp. 437-52.

Elkjaer, B., 2004. Organizational Learning: The 'Third Way'. *Management Learning*, 35(4), p. 419.

European Commission, 2003. Commission recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (notified under document number C(2003) 1422). *Official Journal of the European Union*, L 124, pp. 36-41.

Feldman, M.S. and Khademian, A.M., 2007. The Role of the Public Manager in Inclusion: Creating Communities of Participation. *Governance: An International Journal of Policy and Administration*, 20(2), pp. 305-24.

Fielding, N.G. and Lee, R.M., 1998. *Computer analysis and qualitative research*. Sage Publications Limited.

Fincham, R. and Rhodes, P.S., 2005. *Principles of Organizational Behavior*. 4 ed. Oxford: Oxford University Press.

- Fiol, C.M. and Lyles, M.A., 1985. Organizational Learning. *The Academy of Management Review*, 10(4), pp. 803-13.
- Flyvbjerg, B., 2001. *Making social science matter: Why social science fails and how it can succeed again*. Cambridge: Cambridge University Press.
- Forester, J., 1999. *The Deliberative Practitioner: Encouraging Participatory Processes*. Cambridge, Mass; London, England: MIT Press.
- Friedman, V.J., Lipshitz, R. and Popper, M., 2005. The mystification of organizational learning. *Journal of Management Inquiry*, 14(1), pp. 19-30.
- Gandelsonas, M., 1995. The Master Plan as a Political Site. *Assemblage*(27), pp. pp. 19-24.
- Garfinkel, H., 1967. *Studies in ethnomethodology*. Englewood Cliffs.
- Gavin, W.J., 1988. *Context Over Foundation: Dewey and Marx*. Dordrecht: Reidel.
- Gee, J.P., 1999. The Future of the Social Turn: Social Minds and the New Capitalism. *Research on Language & Social Interaction*, 32(1-2), pp. 61-8.
- Gee, J.P., Hull, G. and Lankshear, C., 1996. *The new work order: Behind the language of the new capitalism*. Boulder, CO: Westview Press .
- Gettier, E.L., 1963. Is justified true belief knowledge? *Analysis*, 23(6), pp. 121-3.
- Gherardi, S., 2006. *Organizational knowledge: The texture of workplace learning*. Oxford: Blackwell.
- Gherardi, S., 2009. Introduction: The Critical Power of the Practice Lens'. *Management learning*, 40(2), pp. 115-28.
- Gherardi, S. and Nicolini, D., 2000. To Transfer is to Transform: The Circulation of Safety Knowledge. *Organization*, 7(2), p. 329.
- Gherardi, S. and Nicolini, D., 2001. The Sociological Foundations of Organizational Learning, In: 2001. *Handbook of Organizational Learning and Knowledge*. Oxford: Oxford University Press, pp. 35-60.
- Gherardi, S. and Nicolini, D., 2002. Learning in a constellation of interconnected practices:

canon or dissonance? *Journal of Management Studies*, 39(4), pp. 419-36.

Glendinning, M. and Muthesius, S., 1994. *Tower Block: Modern Public Housing in England, Scotland, Wales, and Northern Ireland*. New Haven and London: Yale University Press.

Goffman, E., 1959. *The presentation of self in everyday life*. Garden City, NY: Doubleday.

Golden-Biddle, K. and Locke, K., 1993. Appealing Work: An Investigation of How Ethnographic Texts Convince. *Organization Science*, 4(4), pp. 595-616.

Gomez, M.-L. & Lorino, P., 2005. The Passion for Learning and Knowing: Proceedings of the 6th International Conference on Organizational Learning and Knowledge: Proceedings of the 6th International Conference on Organizational Learning and Knowledge, *The passion for inquiry: The contribution of abduction for research on organizational knowledge and learning*. Trento, Italy: University of Trento.

Guba, E. and Lincoln, Y.S., 1994. Competing Paradigms in Qualitative Research, In: N.K. Denzin and S. Lincoln, eds. 1994. *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage, pp. 105-17.

Gubrium, J.F. and Holstein, J.A., 2000. Analyzing interpretative practice, In: N.K. Denzin and Y.S. Lincoln, eds. 2000. *The Sage Handbook of Qualitative Research*. Thousand Oaks, CA: Sage Publications, Inc, pp. 487-508.

Hedberg, B., 1981. How organisation learn and unlearn, In: P.C. Nystrom and W.H. Starbuck, eds. 1981. *Handbook of Organisational Design*. London: Oxford University Press, pp. 8-27.

Hedberg, B. and Wolff, R., 2001. Organizing, learning, and strategizing: From construction to discovery, In: M. Dierkes, A. Berthoin Antal, J. Child and Nonaka, eds. 2001. *Handbook of Organizational Learning and Knowledge*. Oxford: Oxford University Press, pp. 535-56.

Heron, J. and Reason, P., 1997. A participatory inquiry paradigm. *Qualitative Inquiry*, 3(3), pp. 274-94.

Hesse-Biber, S., 1995. Unleashing Frankenstein's monster: The use of computers in qualitative research. *Studies in Qualitative Methodology*, 5, pp. 25-41.

Hickman, L.A., 2003. John Dewey, 1859-1952, In: A. Marsoobian and J. Ryder, eds. 2003.

- The Blackwell Guide to American Philosophy*. Blackwell Publishing, pp. 155-73.
- Hildreth, W., 2009. Reconstructing Dewey on Power. *Political Theory*, 37(6), pp. 780-807.
- Hillier, B. and Hanson, J., 1984. *The social logic of space*. Cambridge: Cambridge University Press .
- Holland, J.H., 1975. *Adaptation in Natural and Artificial Systems*. Ann Arbor, MI: University of Michigan Press.
- Houser, N. and Kloesel, C., 1992. *The Essential Peirce: Selected Philosophical Writings, Vol. 1 (1867-1893)*. Bloomington: Indiana University Press.
- Hughes, E.C., 1959. The study of occupations, In: R.K. Merton, L. Broom and Cottrell, eds. 1959. *Sociology Today*. New York: Basic Books, p. 447.
- James, W., 2000. *Pragmatism and other writings*. ed. by G. Gunn. New York: Penguin.
- Janesick, V.J., 2000. The choreography of qualitative research design, In: N.K. Denzin and Y.S. Lincoln, eds. 2000. *The Sage Handbook of Qualitative Research*. Thousand Oaks, CA: Sage Publications, Inc, pp. 379-99.
- Jones, J.C., 1992. *Design methods*. 2 ed. New York, Chichester, Weinheim, Brisbane, Singapore, Toronto: John Wiley & Sons.
- Kellogg, K.C., Orlikowski, W.J. and Yates, J., 2006. Life in the trading zone: Structuring coordination across boundaries in postbureaucratic organizations. *Organization Science*, 17(1), pp. 22-44.
- Kim, D.H., 1993. The Link between Individual and Organizational Learning. *The Sloan Management Review*, 35(1), pp. 37-50.
- Knorr-Cetina, K., 1981. The manufacture of knowledge. *An Essay on the Constructivist and Contextual Nature of Science*.
- Knorr-Cetina, K., 2001. Objectual practice, In: T. Schatzki, K. Knorr-Cetina and E. von Savigny, eds. 2001. *The Practice Turn in Contemporary Theory*. London and New York: Routledge, pp. 175-88.
- Kolb, D.A., 1984. *Experiential learning: experience as the source of learning and*

*development*. Englewood Cliffs, NJ: Prentice Hall.

Krebsbach-Grath, C., 1996. *Organisationslernen: Theorie und Praxis der Veränderung*. 189, Wiesbaden: Deutscher Universitätsverlag.

Kuran, T., 1988. The tenacious past: Theories of personal and collective conservatism. *Journal of Economic Behavior & Organization*, 10(2), pp. 143-71.

Latour, B., 1992. One more turn after the social turn: Easing science studies into the non-modern world, In: E. McMullin, ed. 1992. *The Social Dimensions of Science*. Notre Dame: Notre Dame University Press, pp. 272-92.

Latour, B., 2005. *Reassembling the Social: An Introduction to Actor-Network Theory*. Oxford, UK: Oxford University Press.

Latour, B. and Woolgar, S., 1986. *Laboratory life: The construction of scientific facts*. Chichester, West Sussex: Princeton University Press.

Lawrence, P.R. and Lorsch, J.W., 1986. *Organization and Environment: Managing Differentiation and Integration*. In: Harvard Business School Classics, Boston, Mass.: Harvard Business School Press.

Lawrence, T.B., Mauws, M.K., Dyck, B. and Kleysen, R.F., 2005. The politics of organizational learning: integrating power into the 4I framework. *Academy of Management Review*, 30(1), pp. 180-91.

Lincoln, Y.S., Lynham, S.A. and Guba, E.G., 2011. Paradigmatic Controversies, Contradictions, and Emerging Confluences, Revisited, In: N.K. Denzin and Y.S. Lincoln, eds. 2011. *The Sage Handbook of Qualitative Research*. London: Sage, pp. 97-128.

Lipman, M., 2003. *Thinking in Education*. 2 ed. Cambridge: Cambridge University Press.

Lukes, S., 1974. *Power: A Radical View*. London Macmillan.

Lyotard, J.F., 1984. *The postmodern condition: A report on knowledge*. Manchester: Manchester University Press.

March, J.G., 1991. Exploration and exploitation in organizational learning. *Organization science*, 2(1), pp. 71-87.

- March, J.G. and Olsen, J.P., 1975. The Uncertainty of the Past: Organizational Learning Under Ambiguity. *European Journal of Political Research*, 3(2), pp. 147-71.
- March, J.G. and Shapira, Z., 1987. Managerial perspectives on risk and risk taking. *Management Science*, 33(11), pp. 1404-18.
- March, J.G. and Simon, H.A., 1958. Organizations. .
- Margolis, J., 2003. The First Pragmatists, In: A.T. Marsoobian and J. Ryder, eds. 2003. *The Blackwell Guide to American Philosophy*. Blackwell Publishing, pp. 35-51.
- Marrewijk, A., Veenswijk, M. and Clegg, S., 2010. Organizing reflexivity in designed change: the ethnoventionist approach. *Journal of Organizational Change Management*, 23(3), pp. 212-29.
- Martin, J., 1982. Stories and scripts in organizational settings, In: A. Hastorf and A. Isen, eds. 1982. *Cognitive Social Psychology*. New York: Elsevier-North Holland, pp. 225-305.
- Maxcy, S.J., 2003. Pragmatic threads in mixed methods research in the social sciences: The search for multiple modes of inquiry and the end of the philosophy of formalism, In: A. Tashakorri and C. Teddlie, eds. 2003. *Handbook of mixed methods in social and behavioral research*. Thousand Oaks: Sage, pp. 51-90.
- Menand, L., 2001. *The Metaphysical Club: A Story of Ideas in America*. New York: Farrar, Straus and Giroux.
- Miettinen, R., 2000. The concept of experiential learning and John Dewey's theory of reflective thought and action. *International Journal of Lifelong Education*, 19(1), pp. 54-72.
- Miettinen, R., 2006. Epistemology of transformative material activity: John Dewey's pragmatism and cultural-historical activity theory. *Journal for the Theory of Social Behaviour*, 36(4), pp. 389-408.
- Miettinen, R. and Virkkunen, J., 2005. Epistemic objects, artefacts and organizational change. *Organization*, 12(3), p. 437.
- Miner, A.S. and Mezas, S.J., 1996. Ugly duckling no more: Past and futures of organizational learning research. *Organization Science*, 7(1), pp. 88-99.

- Misak, C.J., 1991. *Truth and the end of inquiry: A Peircian account of truth*. Oxford: Oxford University Press.
- Mitroff, I.I. and Kilmann, R.H., 1976. On organization stories: An approach to the design and analysis of organizations through myths and stories, In: R.H. Kilmann, L.R. Pondy and D.P. Slevin, eds. 1976. *The management of organization design*. New York: Elsevier North-Holland , pp. 189-207.
- Morgan, .L., 2007. Paradigms Lost and Pragmatism Regained: Methodological Implications of Combining Qualitative and Quantitative Methods. *Journal of Mixed Methods Research*, 1(1), pp. 48-76.
- Morrill, C., 2012. From Bridges to Trading Zones in Organizational Culture and Institutional Research. *Journal of Management Inquiry*, 21(1), pp. 109-13.
- Mumford, M.D., 2000. Managing creative people: strategies and tactics for innovation. *Human Resource Management Review*, 10(3), pp. 313-51.
- Murray, P. and Moses, M., 2005. The centrality of teams in the organisational learning process. *Management Decision*, 43(9), pp. 1186-202.
- Nonaka, I., Toyama, R. and Byosière, P., 2001. A theory of organizational knowledge creation: Understanding the dynamic process of creating knowledge, In: M. Dierkes, A. Berthoin Antal, J. Child and Nonaka, eds. 2001. *Handbook of Organizational Learning and Knowledge*. Oxford: Oxford University Press, pp. 491-517.
- Nonaka, I. and Takeuchi, H., 1995. *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. New York and Oxford: Oxford University Press.
- Nonaka, I. and von Krogh, G., 2009. Perspective--Tacit Knowledge and Knowledge Conversion: Controversy and Advancement in Organizational Knowledge Creation Theory. *Organization Science*, 20(3), pp. 635-52.
- Orlikowski, W.J., 2002. Knowing in practice: Enacting a collective capability in distributed organizing. *Organization science*, 13(3), pp. 249-73.
- Örtenblad, A., 2002. A typology of the idea of learning organization. *Management Learning*,

33(2), pp. 213-30.

2007. Written by P. Jenkins, S.G. Ferrari, G. Murray, S. Phillips and F. FeeneyScotMARK - gm+ad architects

Paavola, S. and Hakkarainen, K., 2005a. The knowledge creation metaphor: An emergent epistemological approach to learning. *Science and Education*, 14, pp. 535-57.

Paavola, S. and Hakkarainen, K., 2005b. Three abductive solutions to the meno paradox-- with instinct, inference, and distributed cognition. *Studies in Philosophy and Education*, 24(3), pp. 235-53.

September, 2008. PAN 83 Masterplanning. The Scottish Government.

Pardales, M.J. and Girod, M., 2006. Community of Inquiry: Its past and present future. *Educational Philosophy and Theory*, 38(3), pp. 299-309.

2005. The Passion for Learning and Knowing: Proceedings of the 6th International Conference on Organizational Learning and Knowledge. Proceedings of the 6th International Conference on Organizational Learning and Knowledge, Trento, Italy: University of Trento.

Patton, M., 2002. *Qualitative methods and evaluation*. 3 ed. Thousand Oaks, CA: Sage.

Pawlowsky, P., 2001. The Treatment of Organizational Learning in Management Science, In: A.B. Dierkes, J. Antal, J. Child and I. Nonaka, eds. 2001. *Handbook of Organizational Learning and Knowledge*. New York: Oxford University Press, pp. 61-88.

Peirce, C.S., 1955. *The Philosophical Writings of Peirce*. ed. by J. Buchler. New York: Dover.

Peirce, C.S., 1982a. The Fixation of Belief, In: H.S. Thayer, ed. 1982. *Pragmatism, the Classic Writings: Charles Sanders Peirce, William James, Clarence Irving Lewis, John Dewey, George Herbert Mead*. Hackett Publishing Company Inc, pp. 61-78.

Peirce, C.S., 1982b. How to make our ideas clear, In: H.S. Thayer, ed. 1982. *Pragmatism: The Classic Writings*. Indianapolis/Cambridge: Hackett Publishing Company, pp. 79-100.

Peirce, C.S., 1992. *The Essential Peirce: Selected Philosophical Writings*. In: Peirce Edition Project, ed. by N. Houser and C. Kloesel. Bloomington: Indiana University Press.

Polanyi, M., 2009. *The tacit dimension*. Chicago and London: The University of Chicago Press.

October 5, 2001. A Policy on Architecture for Scotland. Edinburgh: The Scottish Executive.

Prosser, J., 2011. Visual Methodology, In: N.K. Denzin and Y.S. Lincoln, eds. 2011. *The Sage Handbook of Qualitative Research*. Sage Publications, Inc, pp. 479-95.

Quinn, J.B., 1992. *Intelligent Enterprise: A Knowledge and Service Based Paradigm for Industry*. New York: The Free Press.

Reekie, R.F., 1972. *Design in the built environment*. Edward Arnold.

February 24, 2010. . Edinburgh: The City of Edinburgh Council

Rogers, E.M., 1995. *Diffusion of innovations*. New York, NY: The Free Press.

Rorty, R., 1982. Consequences of Pragmatism (Minneapolis. *University of Minnesota Press*, 66, pp. 89-110.

Rorty, R., 2008. Introduction to The Later Works of John Dewey, Essays and How We Think, Vol. 8:1933, In: J.A. Boydston, ed. 2008. *Essays and How We Think*. Carbondale: Sothern Illinois University Press, .

Rorty, R., 2009. *Philosophy and the mirror of nature*. Thirtieth-Anniversary Edition ed. Princeton and Oxford: Princeton University Press.

Sackmann, S., 1991. *Cultural knowledge in organizations: Exploring the collective mind*. Sage Publications, Inc.

Sapsed, J. and Salter, A., 2004. Postcards from the edge: local communities, global programs and boundary objects. *Organization Studies*, 25(9), p. 1515.

Saunders, M., Lewis, P. and Thornhill, A., 2000. *Research methods for business students*. 2nd ed. ed. Essex, England: Pearson Education Limited.

Schatzki, T.R., Knorr Cetina, K. and von Savigny, E. (eds.), 2001. *The Practice Turn in Contemporary Theory*. London and New York: Routledge.

Schein, E.H., 1984. Coming to a new awareness of organizational culture. *Sloan*

*Management Review*, 25(2), pp. 3-16.

Schiller, F., 1970. Was heisst und zu welchem Ende studiert man Universalgeschichte? Eine akademische Antrittsrede, In: K.H. Hahn, ed. 1970. *Schillers Werke. Nationalausgabe*. Weimar: Heumann Böhlaus Nachfolger, pp. 359-76.

Schön, D.A., 1983. *The reflective practitioner: how professionals think in action*. New York: Basic Books.

Schön, D.A., 1991. *The Reflective Practitioner: How Professionals Think in Action*. Basic Books.

Schön, D.A., 1992. The theory of inquiry: Dewey's legacy to education. *Curriculum Inquiry*, 22(2), pp. 119-39.

Schumpeter, J.A., 1934. *The Theory of Economic Development*. Cambridge, MA: Harvard University Press.

Schutz, A., 1967. *The phenomenology of the social world*. Evanston, Illinois: Northwestern University Press.

Senge, P.M., 1991. *The fifth discipline: The art and practice of the learning organization*. Century Business.

Sfard, A., 1998. On two metaphors for learning and the dangers of choosing just one. *Educational Researcher*, 27(2), pp. 4-13.

Shields, P.M., 2003. The Community of Inquiry: Classical Pragmatism and Public Administration. *Administration & Society*, 35(5), pp. 510-38.

Shipton, H., 2006. Cohesion or confusion? Towards a typology for organizational learning research. *International Journal of Management Reviews*, 8(4), pp. 233-52.

Shrivastava, P., 1983. A typology of organizational learning systems. *Journal of Management Studies*, 20(1), pp. 7-28.

Simon, H.A., 1996. *The sciences of the artificial*. MIT press.

Simpson, B., 2009. Pragmatism, mead and the practice turn. *Organization Studies*, 30(12), p. 1329.

- Simpson, B. & Woods, C., 2003. Conference on Organizational Knowledge, Learning, and Capabilities, *Knowledge Creation: Systems Thinking Or Process Paradigm?*.
- Sitkin, S.B., 1992. Learning through failure - The strategy of small losses. *Research in Organizational Behavior*, 14, pp. 231-66.
- Skagestad, P., 1981. *The road of inquiry, Charles Peirce's pragmatic realism*. Columbia University Press.
- Sleeper, R.W., 2001. *The necessity of pragmatism: John Dewey's conception of philosophy*. University of Illinois Press.
- Smith, J., 1978. *Purpose and Thought*. Chicago: University of Chicago Press.
- Staehele, W.H., 1999. *Management: Eine Verhaltenswissenschaftliche Perspektive*. Vahlen.
- Strati, A., 2000. *Theory and method in organization studies: paradigms and choices*. London; Thousand Oaks, Calif.: SAGE.
- Symes, M., Eley, J. and Seidel, A.D., 1995. *Architects and their practices: A changing profession*. Oxford, UK: Butterworth Architecture.
- Thayer, H.S., 1952. *The logic of pragmatism: An examination of John Dewey's logic*. The Humanities Press, Inc.
- Thayer, H.S., 1982. *Pragmatism, the Classic Writings: Charles Sanders Peirce, William James, Clarence Irving Lewis, John Dewey, George Herbert Mead*. Hackett Publishing Company Inc.
- The Scottish Executive, 2007. PAN 81 Community Engagement: Planning with People. Edinburgh: Scottish Executive.
- The Scottish Government, 2006. Planning etc. (Scotland) Act 2006 (asp 17). The Scottish Government.
- The Scottish Government, February, 2010. Scottish Planning Policy. Edinburgh: The Scottish Government.
- Thomas, M.H., 1962. *John Dewey: A Centennial Bibliography*. Chicago: University of Chicago Press.

- Thompson, J.D., 1967. *Organizations in action: Social science bases of administrative theory*. New York: McGraw-Hill Book Co.
- Toulmin, S.E., 1992. *Cosmopolis: The Hidden Agenda of Modernity*. Chicago: The University of Chicago Press.
- Tsang, E.W.K., 1997. *Human Relations*, 50(1), pp. 73-89.
- Tulving, E., 1995. Organization of memory: Quo vadis. *The Cognitive Neurosciences*, pp. 839-47.
- Türk, K., 1989. *Neuere Entwicklungen in der Organisationsforschung*. Enke.
- Vera, D. and Crossan, M., 2004. Strategic leadership and organizational learning. *Academy of Management Review*, 29(2), pp. 222-40.
- Von Krogh, G., Ichijo, K. and Nonaka, I., 2000. *Enabling knowledge creation: How to unlock the mystery of tacit knowledge and release the power of innovation*. Oxford University Press, USA.
- Wagner, J., 1979. *Images of information: Still photography in the social sciences*. Beverly Hills and London: Sage Publications.
- Weaver, A. and Atkinson, P., 1994. *Microcomputing and qualitative data analysis*. Avebury Aldershot.
- Weick, K.E., 1991. The nontraditional quality of organizational learning. *Organization science*, 2(1), pp. 116-24.
- West, C., 1989. *The American Evasion of Philosophy: A Genealogy of Pragmatism*. University of Wisconsin Press.
- Whittington, R., 2006. Completing the practice turn in strategy research. *Organization Studies*, 27(5), pp. 613-34.
- Wildavsky, 1988. *Searching for safety*. New Brunswick, NJ: Transaction Books.
- Wright, T.P., 1936. Factors Affecting the Cost of Airplanes. *Journal of Aeronautical Sciences*, 3(4), pp. 122-8.

# Appendix

Appendix 1: Scottish policy development on design and place

<b>Publication Date</b>	<b>Publication Title</b>	<b>Description</b>	<b>Publisher</b>
Sept 1999	The Development of a Policy on Architecture for Scotland	Framework document setting out Government's views on the social, cultural, environmental and economic benefits of architecture; raising awareness of the importance of good building design and stimulating debate on the many and complex issues involved in the making of good architecture; beginning a dialogue with both users and providers of building,	Scottish Executive
Nov 2000	Affordable Housing Policy (AHP)	First AHP approved by the Council	The City of Edinburgh Council
Oct 2001	A Policy on Architecture for Scotland	Sets out the principles that underpin the Executive's commitment to the promotion of good architecture and good building design to meet current and future social, cultural, economic and environmental challenges	Scottish Executive
Feb 2005	SPP20: Role of Architecture and Design Scotland	Draws together and reinforces the Executive's published design policy commitments and sets out the role of Architecture and Design Scotland	Scottish Executive
Mar 2005	A Policy on Architecture for Scotland: Progress Report	Sets out progress in meeting architecture policy commitments since policy launch in 2001	Scottish Executive
Jun 2006	Affordable Housing Policy Review		
Feb 2007	Building Our Legacy: Statement on Scotland's Architecture Policy 2007	Document seeks to underline the value and benefits of good design, encourage debate about architecture on national and local level and foster understanding of products and processes of building design	Scottish Executive

Sept 2008	PAN83: Masterplanning	Explains the role of masterplanning in the creation of successful and sustainable places from beginning to end; from understanding the need for masterplanning, to preparing, creating, processing and implementing a masterplan	Architecture and Design Scotland
Feb 2010	Scottish Planning Policy	Sets out Scottish Government's policy on land use planning	Scottish Executive

## Appendix 2: Synopsis of Scottish Planning Series

<b>Planning Series</b>	<b>Description</b>
Scottish Planning Policy (SPP)	Statement of the Scottish Government's policy on nationally important land use and other planning matters, supported where appropriate by a locational framework
National Planning Framework (NPF)	Scottish Government's strategy for Scotland's long term development of towns, cities and countryside
Circulars	Provide statements of the Scottish Government's policy and contain guidance on policy implementation through legislative or procedural change. Statements of Scottish Government policy in the SPP, NPF, Designing Places, Designing Streets and Circulars may be material considerations to be taken into account in development plans and development management decisions. Designing Places, Designing Streets and the West Edinburgh Planning Framework have the same status in decision making as the SPP and NPF.
Planning Advice Notes (PANs)	Provide advice and information on technical planning matters
Design Advice Guidance	Will provide guidance and information on design matters covering a range of practical projects and roles

Source: Scottish Planning Policy, Scottish Executive, February 2010.

### Appendix 3: Introductory email to selected architecture practices

Apart from slight variations to account for the different addressees, the introductory email read as follows:

Dear ...,

Allow me to introduce myself; I am a PhD student at the University of St Andrews School of Management researching into the architectural design process. My aim is to develop knowledge and understanding of the collaborative processes that give rise to particular design proposals. More specifically, I am interested in the negotiations and clarification of expectations that take place during the proposal discussions in order to understand more about the underlying learning dynamics. I see learning and knowledge as being at the fundamental core of architecture in practice and wish to understand how learning takes place in organisations such that they build a specialised and unique competence. In order to do this I hope to analyse case studies of different design projects, which will give me insight into the initial phases of the architectural design process - from aspiration to the final proposal.

I find your practice particularly interesting for its clarity of operational values and design principles, its sensitivity towards both the process and end result, liquidity and crystallisation, its interdisciplinary culture, integrated expertise and understanding of the inclusive nature of architectural production. It further reveals a distinct appreciation of knowledge generation and management as an important element of the organisation's design and business strategy and as such promises to be an exciting research context.

To undertake the research I would hope to observe some design meetings and presentations as well as conduct some interviews. My research findings would provide insight into the architectural design process and the extent to which it provides the basis for inquiry and learning. Providing dedicated organisation-based research and access to key expertise in the areas of organisational learning and knowledge, I hope my study would be of particular interest to you.

I would be grateful if I might have a short meeting with you or one of your colleagues to discuss this research in more detail. If you require any further information, please do not hesitate to contact me.

I look forward to hearing from you.

Yours sincerely,

Henning A. Berthold

Appendix 4: Semi-structured interviews conducted between February and May 2010

<b>Interview Ref.</b>	<b>Affiliation</b>	<b>Position</b>	<b>Date of Interview</b>	<b>Code</b>
100211-0811-I	CEC	Project Manager	11-02-2010	R01
100217-1922-I	CEC	Senior Project Manager	17-02-2010	R02
100219-1002-I	ETF	Outreach Worker	19-02-2010	R13
100225-1001-I	NSRA	Chair	25-02-2010	R10
100225-1912-I	CEC	Project Manager	25-02-2010	R03
100226-2002-I	CEC	Project Manager	26-02-2010	R04
100303-1308-I	BM	Associate	03-03-2010	R06
100304-1016-I	BM	Associate	04-03-2010	R07
100304-1313-I	BM	Architectural Assistant	04-03-2010	R08
100310-1002-II	ETF	Outreach Worker	10-03-2010	R13
100311-0203-I	NSRA	Member	11-03-2010	R11
100311-2002-II	CEC	Project Manager	11-03-2010	R04
100312-1113-I	CEC	Planner	12-03-2010	R05
100312-1912-II	CEC	Project Manager	12-03-2010	R03
100331-0203-II	NSRA	Member	31-03-2010	R11
100407-1608-I	Napier University	Director Property & Facilities	07-04-2010	R14
100414-1223-I	NSRA	Member	14-04-2010	R12
100415-1922-II	CEC	Sen. Project Manager	15-04-2010	R02
100416-8101-II	CEC	Project Manager	16-04-2010	R01
100420-1302-I	BM	Director Edinburgh Office	20-04-2010	R09
100420-1016-II	BM	Associate	20-04-2010	R07

Appendix 5: RIBA Plan of Work 2007

# RIBA Outline Plan of Work 2007

The Outline Plan of Work organises the process of managing, and designing building projects and administering building contracts into a number of key Work Stages. The sequence or content of Work Stages may vary or they may overlap to suit the procurement method (see pages 2 and 3).

RIBA Work Stages		Description of key tasks	OGC Gateways
Preparation	A Appraisal	Identification of client's needs and objectives, business case and possible constraints on development. Preparation of feasibility studies and assessment of options to enable the client to decide whether to proceed.	1 Business justification
	B Design Brief	Development of initial statement of requirements into the Design Brief by or on behalf of the client confirming key requirements and constraints. Identification of procurement method, procedures, organisational structure and range of consultants and others to be engaged for the project.	
Design	C Concept	Implementation of Design Brief and preparation of additional data. Preparation of Concept Design including outline proposals for structural and building services systems, outline specifications and preliminary cost plan. Review of procurement route.	3A Design Brief and Concept Approval
	D Design Development	Development of concept design to include structural and building services systems, updated outline specifications and cost plan. Completion of Project Brief. <i>Application for detailed planning permission.</i>	
	E Technical Design	Preparation of technical design(s) and specifications, sufficient to co-ordinate components and elements of the project and <i>information for statutory standards and construction safety.</i>	
Pre-Construction	F1 Production Information	Preparation of production information in sufficient detail to enable a tender or tenders to be obtained. <i>Application for statutory approvals.</i>	3C Investment decision
	F2 Tender Documentation	<i>Preparation of further information for construction required under the building contract.</i> <i>Preparation and/or collation of tender documentation in sufficient detail to enable a tender or tenders to be obtained for the project.</i>	
	H Tender Action	<i>Identification and evaluation of potential contractors and/or specialists for the project.</i> <i>Obtaining and appraising tenders; submission of recommendations to the client.</i>	
Construction	J Mobilisation	Letting the building contract, appointing the contractor. Issuing of information to the contractor. Arranging site hand over to the contractor.	4 Readiness for Service
	K Construction to Practical Completion	Administration of the building contract to Practical Completion. Provision to the contractor of further Information as and when reasonably required. Review of information provided by contractors and specialists.	
Use	L1 Post Practical Completion	Administration of the building contract after Practical Completion and making final inspections.	5 Benefits evaluation
	L2	Assisting building user during initial occupation period.	
	L3	Review of project performance in use.	

The activities in *italics* may be moved to suit project requirements, ie:  
 D *Application for detailed planning approval;*  
 E *Statutory standards and construction safety;*  
 F1 *Application for statutory approvals;* and  
 F2 *Further information for construction.*  
 G+H *Invitation and appraisal of tenders*

## Appendix 6: The empirical concept

<b>Thematic specifications</b>	
• Topic area	Collaborative inquiry and knowledge creation in creative work environments
• Research focus	The construction of knowledge through processes of collaborative inquiry
• Research question	How do processes of collaborative inquiry shape the evolution knowledge and material forms?
• Sector of analysis	Planning and architecture
• Research site(s)	Architecture practice (BM), redevelopment site (North Sighthill), precedent site (Greendykes North, Craigmillar)
• Departments/Functions/Groups	Various functions from architecture practice (incl. urban planning and design, regeneration, landscape architecture, etc.), various departments from City of Edinburgh Council (masterplanning, regeneration, housing, transport, refuse, planning, etc.) and various groups of stakeholders (incl. Edinburgh Tenants Federation, Sighthill Parkhead Broomhouse Neighbourhood Partnership, North Sighthill Residents Association, Stevenson College, Napier University, etc.)
• Participants	Architects, client representatives, project managers, planners, interest group representatives and local residents
• Unit of analysis	Processes of collaborative inquiry giving rise to the masterplan
<b>Methodological specifications</b>	
• Theory-building approach	An abductive theory approach is followed in as far this study seeks to develop our understanding of inquiry and knowledge creation by highlighting existing limitations and developing new hypotheses
• Ontological orientation	This research is sympathetic to a pragmatist paradigm / understanding of reality and truth
• Epistemological orientation	Consistent with the ontological assumptions made knowledge is being viewed as social construction
• Research strategy	The study is qualitative in nature and ethnographically informed. In so far particular attention is paid to the languages, behaviours and artefacts through which those participating in the design process create, communicate and share their views.
• Research design	A case study design is employed
• Research methods and instruments	The research methods employed resonate with an ethnographic research mode and include different sets of interviews (unstructured, semi-structured, narrative) as well as techniques of observation and shadowing.
<b>Spatial and temporal specifications</b>	
• Spatial restrictions	The North Sighthill masterplan project is part of the larger 21 <sup>st</sup> Century Homes for Edinburgh redevelopment project. The focus of this research, in both spatial and thematic terms, has been almost exclusively on North Sighthill.

• Temporal restrictions	The duration of the empirical work was determined by the timeline of the North Sighthill masterplanning activities, which went on from August 2009 until the submission of the masterplan plan in April 2010.
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Appendix 7: Extracts from Tender Document Section No 2: Specification for Consultancy Service

Part	Paragraph	Section Title	Description
<b>A</b>	<b>1</b>	<b>Project Summary</b>	
A	1.1	[Scope and aspirations]	<ul style="list-style-type: none"> <li>• Regenerate communities in North Sighthill, Pennywell and Gracemount</li> <li>• Apply new approach to building affordable housing in the city of Edinburgh through building and managing new council homes for rent and for sale</li> <li>• Address the significant shortfall of affordable housing within the city, which is recognised as a major strategic challenge as well as a risk to future economic development</li> <li>• Meet and exceed the minimum CEC planning requirement [according to which] 25% of any major development should be affordable (Affordable Housing Policy)</li> </ul>
<b>A</b>	<b>2</b>	<b>Objectives</b>	
A	2.2	[Purpose of Commission]	<p>Produce detailed masterplans for each area which will:</p> <ul style="list-style-type: none"> <li>• contribute to the regeneration of the selected sites by delivering new developments which are sustainable, desirable and community focused;</li> <li>• achieve an agreed tenure mix to the satisfaction of CEC in consultation with local communities [informed by business case, see paragraph 7.1 Existing Work];</li> <li>• gain the commitment of the key partner organisations and stakeholders;</li> <li>• demonstrate how each plan will achieve integration with neighbouring residential communities and their supporting facilities and other significant redevelopment opportunities (e.g. Napier University, Sighthill campus and Stevenson College).</li> </ul>
<b>A</b>	<b>4</b>	<b>Regeneration Areas</b>	
A	4.1	[Rationale]	According to the CEC “the current properties on [all three sites] would be extremely expensive to upgrade to the Scottish Housing Quality Standard (SHQS) and are currently scheduled for demolition.”
A	4.6	[North Sighthill]	<ul style="list-style-type: none"> <li>• 451 flats are proposed for demolition. 369 of these are in multi storey blocks and the remaining 82 are low rise. There are 43 owner occupiers affected by demolition (30 of these are in low rise properties).</li> <li>• Demolition began in September 2008. It is scheduled to continue in two phases ending with demolition of the low rise in 2012/13.</li> <li>• The shops, library and community centre also require to be demolished and consideration given to whether and where they might be re-provisioned within the regeneration area.</li> </ul>
<b>A</b>	<b>6</b>	<b>Consultation</b>	

A	6.1	[Development Groups]	<ul style="list-style-type: none"> <li>The Council is establishing development groups in each of the key regeneration areas. The development groups will form the core framework for initial consultation [see Fig. 7 Stakeholder Mapping].</li> </ul>
<b>A</b>	<b>7</b>	<b>Existing Work</b>	
A	7.1	[Business Case]	<ul style="list-style-type: none"> <li>This project will build on work which is being undertaken by Ernst and Young to build a business case for council housing. This report will identify a preferred option for tenure mix within the regeneration areas.</li> </ul>
<b>B</b>	<b>8</b>	<b>Timescales for masterplan and outline application</b>	
B	8.1	[Timing]	The Council will undertake to facilitate [on time delivery of the project] by ensuring that appropriate information is made available, contacts are provided with stakeholder organisations and that decisions are made in good time.
B	8.6	[Consultation Programme]	During week 1 of the [Gracemount] project it is expected it is expected that the masterplanners will agree a programme for the preparation of and consultation on the masterplans for the other sites [North Sighthill and Pennywell]
	<b>9</b>	<b>Site assessment and information collection</b>	
B	9.1	[Reference Points]	<p>The following documents [are] made available:</p> <ul style="list-style-type: none"> <li>Pennywell Regeneration Masterplan and Detailed Implementation Programme reports (2005): prepared by RPS consultants</li> <li>North Sighthill Masterplan (August 2005): prepared by Smith, Scott, Mullan Associates</li> <li>North Sighthill Draft Planning Brief (2007)</li> <li>“Progressing the City Housing Strategy – Feedback on the Demolition Consultation”: Report to the City of Edinburgh Council (23rd November 2006)</li> <li>“Neighbourhood Regeneration: Update on the Re-Housing and Demolition Programme”: Report to the City of Edinburgh Council, Health, Social Care and Housing Committee (11th December 2007);</li> <li>Brief for Lead Consultants: 21<sup>st</sup> Century Council Homes for Edinburgh (August 2008)</li> <li>The Ernest and Young draft business case</li> </ul>
B	<b>9.3</b>	<b>Site Analysis</b>	A site analysis which explores such issues as surrounding context, climate, orientation, views etc will be required by the end of week 2 of the project.
<b>B</b>	<b>10</b>	<b>Finalise Brief</b>	
	10.1	[Steering and timing]	<ul style="list-style-type: none"> <li>The information contained within [the tender document] will form the basis of the briefs for the project.</li> <li>[T]he Council has clear aspirations for each of the sites and the kind of information and issues that each masterplan will require to address</li> <li>The briefs for the other sites [Sighthill and Pennywell] will require to be drafted by the masterplanners and agreed with the Council prior to commencing design work upon them.</li> </ul>

<b>B</b>	<b>11</b>	<b>Prepare 3 concept proposals for each site</b>	
B	11.1	[Concept Proposals]	Concurrently with the finalisation of the briefs, 3 concept proposals for each site require to be prepared. These should be designed with the aims and outputs of the project in mind.
B	11.2	[Quality of Environment]	It is expected that each proposal will explore the quality of environment that can be created and the potential numbers and types of dwellings through consideration of such issues as layout, building heights, potential density, provision of gardens and open space, car parking, services and facilities.
<b>B</b>	<b>12</b>	<b>Consultation with stakeholders and community</b>	
B	12.1	[Recognition of interests]	<ul style="list-style-type: none"> <li>• It is essential that the information discussed and provided in the [stakeholder] meetings is fully considered and taken on board by the masterplanners.</li> <li>• [C]onflicting and competing issues will arise which will require to be balanced</li> <li>• It is important that the Council has input into what weight is ascribed to each issue. This will help to ensure that the design development process moves in a direction that satisfies the aims of the project, the Council and the masterplanners. [Note: not the aims of the residents/the community or other stakeholders]</li> </ul>
B	12.2	[Community involvement]	<ul style="list-style-type: none"> <li>• A key feature of the service to be provided by the appointed Consultants is the requirement for community involvement and partnership working in developing the Masterplans as a means of ensuring these reflect the visions and aspirations of all the relevant stakeholders. [Author's italics]</li> <li>• [I]t is essential that the community are able to input into matters which they can reasonably influence</li> <li>• [M]asterplanners are required to develop a stakeholder engagement strategy to be agreed with the Council.</li> </ul>
B	12.5	[The consultants role]	The consultants will be expected to take a leading role in contributing to consultation and in the preparation of the publicity material.
B	12.6	[Communication tools]	The masterplanners will be expected to prepare appropriate material to allow each consultation be effective such as models, posters, drawings, 3D visualisations etc. The workshops will be facilitated by the Council's regeneration team.
B	12.7	[Summaries]	Masterplanners will be required to prepare leaflets summarising the chosen masterplan and setting out how the communities' views were taken on board.
<b>B</b>	<b>13</b>	<b>Draft masterplans general requirements</b>	
B	13.1	[Development of masterplans]	Once the Council has provided direction on the 2 masterplans it wishes to be developed for each area, the masterplanners should develop these in accordance with the [requirements laid out in paragraph 13.2 to 13.34]

B	13.2	Planning and other policy requirements	<ul style="list-style-type: none"> <li>• Council Development Plan Policies</li> <li>• Edinburgh City Local Plan</li> <li>• Relevant Supplementary Planning Guidance contained in the Council's Development Management Handbook: <ul style="list-style-type: none"> <li>• Edinburgh Standards for Urban Design</li> <li>• Edinburgh Standards for Sustainable Building</li> <li>• Edinburgh Standards for Streets</li> <li>• Movement and Development</li> <li>• Parking Standards</li> </ul> </li> </ul>
B	13.10	Public realm, open space, landscape and layout requirements	<ul style="list-style-type: none"> <li>• Shared garden spaces should be allocated to groups of houses, and designed in such a way that a sense of ownership is created and that there is defensible space.</li> </ul>
B	13.11		<ul style="list-style-type: none"> <li>• Public open space should be designed to be easily maintainable</li> </ul>
B	13.13		<ul style="list-style-type: none"> <li>• The layout of housing should be such that rear elevations are not presented to main streets and parking should not dominate the open space or interfere adversely with streetscapes</li> <li>• Main door entry should be provided for ground floor flats.</li> <li>• It is expected that flatted buildings should not exceed four storeys in height.</li> </ul>
B	13.16	Building design requirements	<ul style="list-style-type: none"> <li>• It is the Council's aspiration that the number of new dwellings proposed for any of the master plan areas is the same as that plus or minus 10% of the buildings demolished. [in the case of North Sighthill this means 451± 10%, i.e. the minimum number of dwellings to be replaced is 406 and the maximum number 496]</li> </ul>
B	13.17		<ul style="list-style-type: none"> <li>• It is the Council's aspiration that 30% of the dwellings should be suitable for housing with children. [→ preferably 3 bedroom dwellings, access via front doors, back gardens]</li> </ul>
B	13.18		<ul style="list-style-type: none"> <li>• [A] minimum of 20% of the dwellings on each [of the three sites] should be houses.</li> </ul>
B	13.20		<ul style="list-style-type: none"> <li>• [E]nsure that it is possible to provide direct access to ground floor flats from front doors.</li> </ul>
	13.22		<ul style="list-style-type: none"> <li>• [Ensure that] the spaces between the buildings are designed to a high standard of urban design and are useable and attractive.</li> </ul>
	13.24		<ul style="list-style-type: none"> <li>• Buildings should be designed to ensure that there is a good potential for daylight.</li> </ul>
	13.25		<ul style="list-style-type: none"> <li>• [Ensure] that there is a good potential for residents to benefit from sunlight within their homes</li> </ul>
B B	13.27	Sustainability requirements	<ul style="list-style-type: none"> <li>• [A]chieve the upper ratings of the Edinburgh Standards for Sustainable Building or BREEAM eco homes excellent.</li> </ul>
B	13.28		<ul style="list-style-type: none"> <li>• Design must take account of initial and whole life costs.</li> </ul>
B	13.30		<ul style="list-style-type: none"> <li>• Consideration should be given to vandal deterrent design, ease of maintenance, and availability of replacement components etc.</li> </ul>
B	13.31		<ul style="list-style-type: none"> <li>• [C]onsultants must demonstrate energy efficient design and construction</li> </ul>
B		Engineering and infrastructure requirements	
B		Phasing requirements	

B	13.37	Transport requirements	<ul style="list-style-type: none"> <li>• Attention should be given to balancing the needs of pedestrians, cyclists and motor vehicles to achieve integrated circulation within each area.</li> </ul>
B	13.38		<ul style="list-style-type: none"> <li>• Each option should seek to integrate the development with its surrounding areas particularly with regard to pedestrian and cycle accessibility.</li> </ul>
B	13.41		<ul style="list-style-type: none"> <li>• It is important that the car parking is visually integrated into the development to ensure that it does not become a dominant feature.</li> </ul>
B	13.43	Education requirements	<ul style="list-style-type: none"> <li>• The masterplans should set out the education requirements for each site and consider the implications for the catchment of surrounding schools.</li> </ul>
<b>B</b>	<b>14</b>	<b>Draft masterplans site specific requirements - North Sighthill</b>	
B	14.2	[Surrounding areas]	<ul style="list-style-type: none"> <li>• Address the issues of improved integration between North Sighthill and the surrounding areas</li> </ul>
B	14.3	[Sighthill Park]	<ul style="list-style-type: none"> <li>• Ensure integration of the regeneration area with Sighthill Park to the north to provide a shared community focus for high quality recreation.</li> </ul>
B	14.4	[Non-housing facilities]	<ul style="list-style-type: none"> <li>• Take account of the existing non-housing facilities on the site (library, community centre, shops), consider their social and economic value within the context of the wider area. [...] Review the North Sighthill Shopping Area Study (Roger Tym &amp; Partners, 2005)</li> </ul>
B	14.5	[Other developments]	<ul style="list-style-type: none"> <li>• Take account of current and developing proposals</li> </ul>
B	14.6	[Adjacent land owners and occupiers]	<ul style="list-style-type: none"> <li>• Take account of and liaise with all other adjacent land owners and occupiers</li> </ul>
B	14.7	[Other stakeholders]	<ul style="list-style-type: none"> <li>• Take account of and liaise with all other stakeholders</li> </ul>
B	14.8	[Flexibility]	<ul style="list-style-type: none"> <li>• Allow for any adjustments to the site boundary and scope of work resulting from all consultations.</li> </ul>
<b>B</b>	<b>16</b>	<b>Preparation of individual masterplans</b>	
B	16.1	[Funnelling]	<ul style="list-style-type: none"> <li>• Once the council has provided direction on the 2 draft masterplans for each site, it is expected that 1 of these for each site will be developed further in advance of making an outline planning application.</li> </ul>
<b>B</b>	<b>17</b>	<b>Client Delivery Group and Decision Making</b>	
B	17.1	[Client Delivery Group]	<ul style="list-style-type: none"> <li>• It is anticipated that this will be made up of a small number of officials from Housing, Planning and Strategy and Building Standards.</li> <li>• [E]nsure that the Council's aims are clearly communicated to the masterplanners.</li> <li>• [M]ake day to day decisions on the masterplan as it develops.</li> </ul>

B	17.3	[Key decisions]	<ul style="list-style-type: none"> <li>At key points [...] the Board will ensure that decisions can be made on fundamental issues such as which concepts and masterplans to take forward.</li> </ul>
<b>B</b>	<b>18</b>	<b>Outline Planning Application</b>	
B	18.1	[Expectations]	<ul style="list-style-type: none"> <li>[I]t is expected that the masterplans will have been developed with close regard to the requirements of the Council's Planning and Strategy as well as Housing.</li> </ul>
B	18.4	[Masterplanners' role]	<ul style="list-style-type: none"> <li>The masterplanners will be required to act as agents on behalf of the Council for the purposes of submitting and progressing the planning applications.</li> </ul>
Source: CEC, Tender Document A, Final Issue			

#### Appendix 8: Chronology of Events Affecting North Sighthill Masterplanning Activities

<b>Date</b>	<b>Events</b>	<b>Commentary/Details</b>
1968	Completion of North Sighthill development	The North Sighthill Youth and Community Centre opened in November 1968 and has been "an important community hub since"(Capital Collections, The Edinburgh and Scottish Collection). In the course of the redevelopment of the North Sighthill estate both the community centre and the library were moved to Gate 55 (former Westburn Primary School at 55 Sighthill Road).
1980	Ratification of Tenants' Rights, Etc. (Scotland) Act introducing right to buy scheme	
1990's	Since the 1990's "all new affordable housing has been provided through housing associations" (CEC, Item No 6, 12 Aug 2008)	
2004	Smith Scott Mullan commissioned by the Council to design a masterplan that guides "the process of urban renewal of the North Sighthill housing estate" (North Sighthill Development Brief (Draft for Consultation), 2007:6)	
AUG 2005	Smith Scott Mullan to present its masterplan to the Council	Smith Scott Mullan is currently working on Napier University's campus expansion; SSM has criticised the plans proposed by BM for their lack of urban appeal.
DEC '05	Stock Transfer Vote fails to go through due to residents objections; in the consequence of this the Council is "unable to progress its redevelopment proposals for the estate" (North Sighthill Development Brief (Draft for Consultation), 2007:6).	15 December 2005

2006	Sighthill Library received 'face lift' engaging teenagers in refurbishment work with the attempt of creating 'ownership'	
2006/07	Drop-in session are held for residents of Broomhouse View and Hermiston Court to give information and advice on the re-housing process	
NOV '06	The CEC "identif[ies] five areas for demolition affecting a total of 1,746 homes across the city in Pennywell, North Sighthill, Gracemount High Flats, Leith Fort and Rouston/Wardieburn" (CEC, 20 March 2008, Item No 4)	367 of the properties identified for demolition are in North Sighthill; this includes Hermiston Court, Weir Court and Glenalmond Court
OCT '07	North Sighthill DRAFT Development Brief approved ("for consultation purposes" (CEC, 20 March 2008, Item No 4)) by the Council's Planning Committee	Brief developed by CEC
OCT '07	Article published in the Evening News entitled "Goodbye to the high rise as Sighthill ups its game", in which lack of consultation effort on part of the Council is criticised by Sighthill residents in reaction to the expected approval of the North Sighthill Development Brief.	The Development Brief is described to serve as basic guideline for future planning applications. Amongst other things it envisages a new street to be built alongside Sighthill Court, complete with a parade of shops, new (shared) community facilities and a student housing development. It is warned that the Development Brief must not adversely delay the redevelopment plans of Napier and Stevenson.
OCT '07	The Health, Social Care and Housing Committee announces that a further 82 low-rise flats are included in the North Sighthill demolition programme after consultation with residents in these blocks (CEC, 20 March 2008, Item No 4)	
NOV '07	A consultation event is held to seek views on the Council's Draft Development Brief, the re-provisioning of community facilities and the demolition programme; feedback is given to residents of NS after the consultation (CEC, 20 March 2008, Item No 4)	
Dec. '07	DTZ ("well-regarded housing consultancy") is commissioned to "advise on the feasibility of the Council itself developing these sites [Gracemount, Pennywell, North Sighthill], without recourse to Development Funding" (CEC, Item No 6)	

DEC '07	Drop-in session for residents of Broomhouse View and Hermiston Court end due to decline in attendance; one-on-one sessions are continued by the South West Local Office with those residents still due to be re-housed	
11 JAN '08	Consultation period on North Sighthill Draft Development Brief ends	
17 JAN '08	R02 (Development and Regeneration Team) and R21 (Architectural Services) outline aims and progress of North Sighthill regeneration project at South West Neighbourhood Partnership meeting (Committee Minutes, 20 March 2008); it is proposed to set up a sub-group of the Neighbourhood Partnership to engage the community and the Partnership throughout the masterplanning and redevelopment of the estate; it is suggested that the the South West Local Office would recommend the 'appropriate' membership; it is decided that the Director of Services for Communities sets up the Development Group and "draw[s] up proposals for the membership of the group" (Committee Minutes, 20 March 2008)	At the same meeting Napier's consultation efforts with the local community on their development plans are praised; it is mentioned that "sustantial links with local communities [had been] fostered; consequently it is decided that Napier University should be "invited [...] to be represented on the North Sighthill Development Group" (Committee Minutes, 20 March 2008)
20 MAR '08	Publication of CEC discussion paper (CEC, 20 March 2008, Item No 4) in which the South West Neighbourhood Partnership is being informed about "the aims and progress of the NS regeneration project" and "proposals for community engagement" are made; the responses to the proposals of the Development Brief are being considered by the Head of Planning & Strategy before a finalised Development Brief will be presented to the Planning Committee later in the year (CEC, Item No 4); ideas as to how engage with the community more structuredly throughout the masterplanning and redevelopment have been explored with the NSRA and ETF; it is proposed to set up a 'North Sighthill Development Group'	Progress on rehousing exceeds projected timescales; Broomhouse View is scheduled for demolition during the summer of 2008; it is acknowledged that "the mastepplanning and redevelopment stages will require maximum engagement with as many members of the community as possible, including hard to reach groups such as the elderly and the young unemployed"; in this context it is propsted that a "North Sighthill Development Group" should be established as a sub-group of the Neighbourhood Partnership.

AUG '08	CEC approval of Napier's campus development plans, maintaining "the spirit of the Council's North Sighthill Development Brief, which also envisages a street with shops, a library and community facilities" (planningresource.co.uk, 15 August 2008, accessed 15 May 2010)	
08 AUG '08	Publication of CEC Health Social Care and Housing Report (Item No 6) on 21 <sup>st</sup> Century Homes Programme, stressing need for affordable housing, yet indicating that there is "no funding available within the approved housing development programme."	The report recommends the development of "a full business case" for this proposal and thereafter to oversee its implementation." Despite unsolved funding issues, a "phased demolition programme" has been approved; affected are Council homes which, so the argument goes, "cannot cost effectively be brought up to Scottish Housing Quality Standard (SHQS); the CEC Project Team is instructed to produce a business plan alongside the masterplanning for each site
Oct 2008	Ernst and Young appointed to establish feasibility of building and managing new council homes for both rent and for sale as a new approach to building affordable housing in the city.	The project initially applies the approach to the three key regeneration sites in North Sighthill, Gracemount and Pennywell but the Council wishes to develop a model which could be considered for use in other areas
NOV 2008	Establishment of North Sighthill Development Group	Development Group "goes through" R02; according to Ernst & Young's Business Case (Feb. 2009), DGs are a constitutive element of the closest planning circle
26 NOV '08	Meeting 1: North Sighthill Development Group	Key points (derived from minutes): <ul style="list-style-type: none"> <li>• Introduction of members to each other</li> <li>• Introduction of agencies, groups or organisations they represent</li> <li>• Background on the regeneration programme</li> <li>• Discussion of membership of the group and how it will work</li> <li>• Identification of concerns and issues</li> <li>• Issues raised included: <ul style="list-style-type: none"> <li>• Community involvement?</li> <li>• Community facilities?</li> <li>• Housing type, tenure and design?</li> <li>• Napier University and Stevenson College's future plans?</li> </ul> </li> </ul>
16 DEC '08	Publication of the Council's Proposed Economic Development Plan for 2009-12 (CEC, 16 Dec. 2008, Item No 8)	
DEC '08	Consultation in Gracemount commences with establishment of Gracemount Development Group	

JAN 2009	BM commissioned to masterplan 21 <sup>st</sup> Century Homes redevelopment sites: Gracemount, Pennywell and North Sighthill	Gracemount is chosen by the Council as a pilot case and the first site to be masterplanned; here planning permission was granted in January and consultation began in June; in an article published in the Evening News on 3 Sept., entitled "Council Homes fit for 21 <sup>st</sup> Century revealed", it is pointed out that the community "broadly welcomes the flats", yet that there are issues still to be addressed; some changes were made in response to the consultation (replacing a strip of fencing, internally redesigning some units and accounting for traffic calming measures)
07 JAN '09	Meeting 2: North Sighthill Development Group	Key points (derived from minutes): <ul style="list-style-type: none"> <li>• Getting an update on the 21<sup>st</sup> Century Homes Project</li> <li>• Catching up on progress with the regeneration of North Sighthill</li> <li>• Issues raised included: <ul style="list-style-type: none"> <li>• Initial plans for informing the community of the regeneration process?</li> <li>• Initial plans for collecting residents' views before master planners are appointed?</li> <li>• Re-provisioning of community facilities?</li> </ul> </li> </ul>
25 MAR '09	Meeting 3: North Sighthill Development Group	Key points (derived from minutes) <ul style="list-style-type: none"> <li>• Catching up on progress with the regeneration of North Sighthill</li> <li>• A presentation on Edinburgh Napier University's ideas and long-term vision on the future of Sighthill</li> <li>• Napier University envisions regeneration of North Sighthill and surrounding area to create mixed sustainable community</li> <li>• Community members concerned over losing sense of identity/community</li> </ul>
10 JUN '09	Update report on progress in Gracemount (CEC, 10 June 2009, Item No 11); it is announced that masterplanners (BM) have been appointed "to develop masterplans for Gracemount, Pennywell and North Sighthill over the next 12 months"	

24 JUN '09	Meeting 4: North Sighthill Development Group	<p>Key points (derived from minutes)</p> <ul style="list-style-type: none"> <li>• Noting progress of the regeneration of North Sighthill</li> <li>• Hearing presentations by: <ul style="list-style-type: none"> <li>• Planning and Strategy</li> <li>• Library Services</li> <li>• Children and Families – Community Centre</li> </ul> </li> <li>• Taking part in a pre-masterplanning workshop</li> <li>• Project manager at CEC (R01) arranged pre-masterplanning workshop to look at: <ul style="list-style-type: none"> <li>• issues and concerns</li> <li>• strengths and benefits</li> <li>• ideas for the area</li> <li>• priorities for the area</li> </ul> </li> </ul>
AUG 2009	Masterplanning activities for North Sighthill begin	<p>R07 is appointed Project Architect; reports to BM Management Team formed by R09 (Director), R15 (Director of Planning and Urbanism) and R06 (Landscape Architect; more directly involved in Pennywell masterplanning/consultation activities)</p>