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TOWARDS NEW RESEARCH METHODOLOGIES IN DESIGN

Shifting inquiry away from the unequivocal towards the ambiguous

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Research in design, as in any subject, is 'a process of investigation leading to new insights, effectively shared'.[1] This simple definition makes you wonder why it is apparently so difficult to undertake, why design research remains 'highly contested',[2] weighed down with 'confusion and controversy'[3] and still fraught with the misunderstandings and misconceptions that Durling[4] identified more than a decade ago, when it was a relatively young, emergent discipline.

Arguing for a fundamental shift in the way we think about how we perceive, to deal head-on with the 'one big mistake' that Ryle derides as 'the absurdity of the Official Doctrine',[5] this chapter traces the contentious nature of design research directly back to the dichotomy between body and mind to which Ryle refers. Proposing that research in design should not really be any different from research in any other discipline does not suggest that design research is just another form of '"problem solving" or "information processing"'. It does tell us, however, that groundbreaking research in or through design is absolutely achievable, and that it can be critical, rigorous and 'brilliant in idiosyncratic freewheeling ways'.[6] The point is that research in design does not necessarily have to be scientific, and neither does it need to be based on rationalist views about the nature of intelligence, emotions, facts and values.

This chapter outlines a central premise that fundamentally redefines the relationship between the senses and intelligence,[7] and that has far-reaching consequences for our understanding of language, intelligence, meaning, the senses and subjectivity. A pragmatic and holistic approach to consciousness has been used as a tool to examine and reconceptualize the epistemology, pedagogy and function of design, and it is used here to re-evaluate some of the assumptions underlying practice-based research inquiry and research through design. Set here within the context of landscape architecture, it also has implications for other art and design disciplines, architecture, philosophy, aesthetics and education more generally.

Philosophical underpinning

This chapter is underpinned by research taking a pragmatic line of inquiry into the perceptual realm, drawing in particular on the work of the American pragmatists including William James, John Dewey, Hilary Putnam and Richard Rorty. Rorty brought pragmatism back into

focus after several decades of decline with the publication *Philosophy and the Mirror of Nature*.[8] The radical redefinition of perception on which this chapter is based is presented in my book *Overlooking the Visual: Demystifying the Art of Design*.[9]

Since its emergence as an intellectual movement in the latter part of the nineteenth century, pragmatism's main thrust has been to question and debunk the metaphysical basis of disciplines. Cutting across the 'transcendental empiricist distinction by questioning the common presupposition that there is an invidious distinction to be drawn between kinds of truths',[10] pragmatism sets itself against the traditions of analytical philosophy, including those of language, evolutionary psychology, ecopsychology and phenomenology, which currently underpin much of design discourse. Analytical philosophy has many guises, but from the point of view of the pragmatist, they all share the idea that there is a distinctively philosophical method of analysis that can be used to get to the bottom of problems about the mind, knowledge, meaning, truth and so on.[11] Pragmatism also challenges evolutionary psychology with its 'central premise' that 'there is a universal human nature' and its belief that 'this universality exists primarily at the level of evolved psychological mechanisms, not of expressed cultural behaviours'.[12] It questions the cognitive psychologists for whom the 'challenge lies in explicating the universal rules that govern perception'.[13] Countering the argument that there is a collective subconscious or human memory, the bottom line is that pragmatism suggests there are no predetermined end points and no universal truths to measure up to, even in vision and perception. The aim of pragmatism, far from finding universal truths, Rorty explains, is to undermine the reader's confidence in 'the mind' as something about which one should have a 'philosophical view', in 'knowledge' as something about which there ought to be a 'theory' and which has 'foundations', and in 'philosophy' as it has been conceived since Kant.[14]

Overlooking the Visual develops the argument that, from a pragmatic perspective, designing is an iterative, complex process involving researching, testing, redefining, refocusing and expressing ideas in a particular medium. It is the synthesis and analysis of a plethora of information to make propositions for the future. To do it well takes aesthetic skill, artistic sensibility, expertise and judgement as well as technological know-how. Currently, the predicament in which design research finds itself is that no matter how scientific or phenomenological the process is, some part of it is thought to involve a deeply mysterious and unique act that lies beyond investigation, separate from intelligence, entangled in creativity, the mind's eye and the subconscious, engaging with universal truths and essences, archetypes and visual modes of thinking.

Although it might make design seem special and alluring, this introduces a fundamental weakness, a conceptual void at the heart of the process that compromises research inquiry as much as it does design pedagogy. *Overlooking the Visual* puts forward the radical idea that the problem stems from theories of perception. Descartes was largely responsible for maintaining the perceptual myth, and we are still suffering the consequences.

The sense datum theory of perception

Intensely nuanced and variable, the general picture we have of the perceptual process is that it depends on a sensory mode of thinking that somehow intervenes on our behalf to organize various inputs in order to serve intelligence—'a disastrous idea that has haunted Western philosophy since the seventeenth century'.[15]

According to legend, absorbing the plethora of information that surrounds us, the sensory interface sifts, crystallizes or in some other way processes it all, acting as a mediator between us and the world, and as an interlocutor between what are taken to be different conceptual realms or ways of knowing or thinking. The interface is called a number of things—the haptic, the

experiential, the visual, creativity, the black box, the genius loci, the mind's eye, even a kind of understanding that lies just beneath intelligence. However, it is characterized, and this changes with the times, the details of the process remain shrouded in mystery.

A raft of rationalist beliefs and practices supports the premise. These include the idea that there are different ways of thinking (for example, visual or verbal, emotional or rational) and the idea that there are pre-linguistic modes of knowing, such as deep-seated structures in our brains, primeval yearnings or subconscious memories. Such ideas are dependent on the concepts of universal truth, independent logic and determinate facts. These are the 'real truths' 'in here', 'out there', 'somewhere', for us to find if we are clever enough or sensitive enough. Candidates for these truths include 'God, the material or "brute act" world, rationality in general or logic in particular' and 'the set of eternal values'.[16]

It is widely recognized that if we remove the assumption that there are different types of truth, this dismantles the idea that there are different kinds of reasoning or separate modes of thinking. As Fish remarks, this rationalist tradition has been consistently undermined over the last century, but it has proved 'remarkably resilient and resourceful'[17] mainly because these distinctions are so deeply embedded in our culture that they have become part of Western common sense.[18] The sense datum theory of perception is not only dependent on but also constantly reinforces the distinctions made between reality and appearance, pure radiance and diffuse reflection, intellectual rigour and sensual sloppiness, absolute and relative, nature and convention, body and mind.

Despite all the postmodern rhetoric, concepts such as visual thinking, intuition, language, emotions, artistic sensibility and design expertise remain imbued with the fundamental Cartesian distinction between mind and body, between facts and values, real truth and mere opinion—the consequence of a damaging metaphysical duality that has slipped under the intellectual radar, disguised in visual and perceptual theories. It is rarely recognized that this is just one way of understanding the world.

The impact of these dichotomies

It is difficult to exaggerate how much the general understanding of intelligence is dominated by the false notion of a sensory interface, and by the difficulties this notion creates. It lies at the heart of the common idea that art involves a different conceptual framework from science and requires a different mode of thinking; that art is a pleasurable pastime, whereas science is a serious endeavour; that it is possible to forget all you know in order to appreciate fully a piece of music, a painting or the landscape, embracing the sensuality of the experience with a clean slate, uncontaminated by knowledge or rationality. This is why, despite so much evidence to the contrary, we still characterize scientists as cool, detached and unencumbered by emotion, and artists as passionate, subjective and slightly deranged; why we think decisions can be made on the one hand intuitively, without knowledge, and on the other hand objectively, without value judgements. More generally, it skews the way intelligence is defined or what counts as valid knowledge, and gives a prejudicial and narrow view of the role of language.

Educationally this is disastrous. For example, at the centre of aesthetic experience, the sensory mode of thinking is what students are expected to reap the benefits of if they are to be in any way successful. But the fundamental dichotomy between body and mind enshrined in theories of perception actually creates insoluble puzzles within aesthetics that inevitably spill into design discourse.

Aesthetics, almost more than any other discipline, is dependent on the idea of universal truth. It does not seem to matter whether the notion of truth is approached from a transcendental or empirical perspective: in aesthetic theory, what really count are the universal superstructures

that are thought to stand outside culture but also act to underpin and unite our responses. In the attempt to identify these universals we are supposed to set aside all reason, opening ourselves without reservation to what is outside of us in order to sense something 'other'. However, from a pragmatic perspective, asking anyone to step outside of what he or she knows and to sense significance or beauty as it really is, without the encumbrances of knowledge and culture, is as pointless as it is ridiculous.

Then, most damaging of all, running through a whole range of design theory is the highly pejorative attitude towards the visual, underscoring the contention that, whatever it is that determines our responses, it is certainly not 'merely' visual. The visual may well be acknowledged as a component, but it is also thought to be a distraction. The physical, material qualities of place are thus edged out of the frame because an appreciation of such things is considered too subjective or ephemeral.

As a result, society generally speaking has lost the art of critical looking. Through long-term neglect and discrimination, we no longer have the confidence, the appetite or even the language to talk about appearances. It is abundantly clear, however, that we live and work in a visual, spatial medium. It is both pretentious and foolhardy to think we can manipulate that medium without knowing the implications of what we are dealing with. Undervaluing the cultural and social criteria of appearances disables our attempts to understand the impact of the made environment on our quality of life.

Within design we habitually think that it is possible to reconcile what are by definition irreconcilable opposites such as visual thinking with verbal thinking, creativity with intelligence; that it is possible to switch on one's creativity (can we ever switch it off?), that it is possible to 'graze the senses' and engage our intuition by drawing, in the belief that, the hand captures what neither the eye nor language can grasp. We expect novice students to sense the genius loci or sense of place without thinking, to leave their ideas at the studio door and rely on their intuition or subconscious, without using language. We seek what lies beneath the surface of what we see, without understanding what is in front of our noses. More broadly, this habitual thinking shapes current disciplinary and institutional silos and hierarchies.

Ramifications

Underpinning the distinction made between different conceptual frameworks such as science and art, this oddly enduring duality leaves us with a narrowly defined view of intelligence and rationality: language is seen as linear and logical, while emotions and intuitions are subjective, irrational and inexplicable. Belief in a sensory interface that is supposedly making decisions on our behalf means that whether research is undertaken from an empirical or transcendental perspective—or indeed anywhere between the two—it cannot escape the clutch of metaphysical concepts based on objective, universal truth or subjective, hidden essences. Yet either position is nothing more than a camouflage for all sorts of agendas that are poorly articulated and open to abuse, essentially opinion masquerading as self-evidence. The process of designing is thought to be a special case, because it supposedly straddles these two conceptual realms.

It leaves us with a number of fairly predictable scenarios: on the one hand, it translates into efforts to identify primeval, subconscious yearnings and recognitions, the invisible, or what lies beneath the surface; on the other, it calls for research to be neutral, simple, clean and objective, with replicable analyses based on hard facts and incontrovertible truth. Caught on the horns of this dichotomy, an awful lot of time is spent developing increasingly complex and elaborate strategies to build bridges or gateways between what are characterized as the emotional, intuitive aspects of design and the logical side that deals with practicalities and language. Similarly,

trying to understand the creative possibilities of a 'confusion of thought and perception',[19] working out how we can synthesize thinking in images with thinking in words, as well as how we might teach such a skill, has become a preoccupation. In their attempts to patch up the division between the senses and intelligence, either by stressing the close proximity of the two or even by claiming to reverse the usual rationalist bias, researchers are forever looking for new ways to freshen up old propositions, for example by focusing on the aesthetic nature of scientific thought or language and the consensual, rational basis of poetic discourse. In contrast, speculation about what is actually perceived is negligible, even though, as Ingold[20] observes, this is almost certainly a far more significant question to ask.

Notwithstanding the substantial and impressive body of research dealing with an array of historical, contextual and technological issues as esoteric, practical, obscure or technical as you could wish, the picture remains pretty much the same. At the critical point, when it tries to address the designing part of design, significant chunks of the process go missing; they slip away into an arcane, sensory netherworld. The spatial, conceptual and visual skills needed to generate form, to express ideas through materiality, the nuts and bolts of understanding why things look the way they do given the time, place and context, are hardly ever addressed (see *Overlooking the Visual* for a detailed analysis of this problem).

The rule of rationalism

The extraordinary success of the scientific paradigm has led to our being practically transfixed by the idea that research has to adopt a scientific methodology, maintaining at all times a neutral objectivity, even though time and again it has been shown that the design process does not sit easily within it[21]—and incidentally, neither do many other disciplines, including, paradoxically, the sciences. Over the years, warning bells have been sounded about the validity of the rationalist doctrine. Railing against the proclivity for empiricism at the turn of the twentieth century, James said that the devotion to science was so overwhelming that it was, to all intents and purposes, a religion: 'Our children, one might say, are almost born scientific.'[22] The 'cult of the fact', Hudson argues, remains almost impassible,[23] and we are still 'dazzled', Midgley says, by science.[24] Support for such dissenting views, particularly from within the scientific community itself, has made a bit of a dent in science's otherwise copper-bottomed reputation, and design research is not alone in emerging from decades of analytical, logical, inductive reasoning, number-crunching, longitudinal studies and so-called objective analysis. Many agree with Cross that it is 'no longer necessary to turn design into an imitation of science; neither do we have to treat design as a mysterious, ineffable art'.[25] But despite a slow migration away from explicitly scientific systems of inquiry such as those espoused by McHarg—led by, among others, the existential 'happenings' organized on the beaches of California by Halprin,[26] phenomenological explorations of topophilia by Yi-Fu Tuan[27] and (the) concepts of placelessness of Edward Relph[28] the promise of certainty and truth offered by hard scientific methodology is difficult to resist. One alarming piece of evidence, for example, discussed at the Forty-Sixth World Council of the International Federation of Landscape Architects (Rio de Janeiro, 2009) and the General Assembly of the European Federation for Landscape Architecture (Brussels, 2009), is the growing number of university departments requiring teachers of design to hold a scientific PhD. Both meetings voted unanimously to urge funding bodies, universities, ministries of education and professional organizations to address the decline in knowledge and expertise this is causing as a matter of urgency, on the basis that it is damagingly prescriptive and will do enormous harm to the future development of the discipline.

More insidious, however, is the fact that even when a scientific methodology is not explicitly adopted, the underlying rationalist principles are just too sticky to peel off—evident, for

example, in the belief that we are "'getting closer to the way things really are" or "more fully grasping the essence of…" or "finding out how it really should be done"'[29] (Kuhn, quoted by Rorty). Such beliefs underlie attempts to find descriptions of the world as it really is, and are clearly exposed in the notion that it is possible to gather practical, utilitarian hard facts, remote from the 'muddy, painful and perplexed' world of personal experience,[30] as well as the idea that these facts can be separated from values or that values can be added on after the facts have been established. Lurking in the background is a residual, deep-seated dependence on universal conceptions that are beyond all doubt, impermeable and implacable. The divided consciousness remains absolutely fundamental.

The alternative

The alternative is to avoid altogether the 'obsolete and clumsy tools' that distinguish 'between absolutism and relativism, between rationality and irrationality, and between morality and expediency'.[31] If we adopt an interpretative view of perception, the whole metaphysical edifice built on the flawed conception of a sensory mode of thinking comes tumbling down. Rather than argue that we should recognize the intelligence of perception, we should be seeing that perception *is* intelligence. Such a belief unlocks a major part of the debate and disengages aesthetics, the visual, creativity and many aspects of consciousness from primitive bodily ways of knowing. It becomes disentangled from psychology and uses a fresh, common-sense approach, bringing materiality back into the picture.

From a pragmatic perspective, it follows that all thinking, whether in the arts or the sciences, is therefore interpretative and metaphorical; neither uses a special kind of reasoning. Essentially, this is to say that we think the same way no matter what we happen to be thinking about. In understanding emotions or equations, formulae or artistic responses, we interpret, reinterpret, judge and try to make sense of our feelings because there is simply no other way to make sense of what we see, to make sense of the world. Just because we are looking at a painting does not mean we are thinking in pictures, or that when we are reading a book we are thinking linguistically. Whatever grabs our attention or catches our eye, no matter what gets us thinking, we always get to think about it by the same route, through language. There are no exceptions, no special cases, no ifs, ands or buts. Language binds us, separates us: it quite literally defines us.

Recognizing that both perception and language are interpretive removes a blindfold. This recognition is the final radical shift that enables us to understand one of the most obscure aspects of the whole design process: that of generating form. It demonstrates the indivisibility of ideas, theory, expression and technology in practice, making us realize that it is as impossible to design without concepts as it is to talk without a tongue. Sensible discussions can emerge about the making of informed, imaginative and often difficult design decisions, making it clear that there is nothing magical or mysterious about the process.

The impact this makes in the studio is in many respects quite simple—it is a matter of consistently asking 'why' things look as they do, what ideas are being worked with, what they look like, and why they are appropriate given the site, project brief and context. What spatial principles are being worked with, and how are ideas being expressed—whether at a strategic or a detailed level? It means asking for an explanation as to why a particular kind of materiality is involved (light, shape, form, texture) and what quality of experience is being designed for what kind of user. This way of teaching is about encouraging students to plunge wholeheartedly into the visual, spatial world, working with ideas, space, form and materiality. It is also about adopting strategies to discourage the habitual or clichéd decisions that students often fall back on (presumed to be instinctive or intuitive, but actually learned) and instead pushing and challenging

students to go further. This develops their confidence in knowing which line of inquiry is a good one to follow, supports risk-taking, and challenges both faculty and student-held preconceptions. Above all else, to teach in this way is *not* to presume that anything visual or spatial or conceptual is self-evident. It *is* to enter an ambiguous world.

Embracing ambiguity

Not only does this give us a means of dealing with spatial, visual information that is artistically and conceptually rigorous, but we can also reject the idea of universal, inviolable truth without necessarily being sucked into the argument that the only alternative is to believe everything is relative and dependent on a point of view. But moving the purpose and methodology of design inquiry into such potentially ambiguous areas requires taking on board what may seem at first to be a number of contradictory propositions. For example, apart from recognizing the slippery quality of language and the interpretative nature of facts, we have to accept the rationality of emotions. We do not switch modes of thinking. Pragmatism focuses unequivocally on knowledge within a particular medium rather than any notion of innate, generic skill, suggesting that all perceptions, observations and analyses (even the most scientifically based) are ambiguous, flexible and open to interpretation.

Offering 'a middle way between reactionary metaphysics and irresponsible relativism', as Putnam asserts,[32] and redefining the relationship between the senses and intelligence means that essentially there is no need to choose one or the other. This releases us from the endless debate between positions that are natural or cultural, scientific or artistic, theoretical or practical, value-laden or quantitative. Collapsing the visual, intelligence, language and many other elements of consciousness into a holistic concept of perception takes the supernatural element of design theory and education out of the equation. It also reveals that, far from masking design ability or creativity, concepts and language actually allow us access to the arts, in both their making and criticism.

Profoundly changing the epistemological basis of design leaves us no option but to engage with ideas at every stage of the process. Even the most intimate, seemingly mystical elements of design are based on knowledge and knowledge alone. The bottom line is that, as individuals or as a community, in any study, design or otherwise, we are constrained or liberated by the language and concepts we have at our disposal. There is no other way of knowing, no other kind of meaning to uncover, no 'genius loci' to give us a nudge in the right direction. Neither the site nor what lies beneath, within or without it, nor even the fears and desires of our prehistoric ancestors, can speak to us beyond what we know.

There is no way to operate with the presumed objective neutrality of a so-called scientific approach. We need a healthy measure of scepticism to deal with the hard facts enshrined in regional spatial plans, perennially used to justify the economic imperative for new roads, the distribution of new settlements, how big they should be, or the cost the market will stand in terms of quality housing or town centre development. The evidence of the impact of such quantitative factual decisions is all too clear: you just need to look around any town or city. Or compare today's transport, housing and agricultural policies with those of fifteen years ago. Were all those experts just plain wrong back then, or were they simply working under different circumstances and with a different set of values—different ideals?

Re-evaluating fundamental assumptions about objectivity inevitably has an impact on research and pedagogy, especially in teaching aspects of the design process. For example, rather than simply aiding the mechanical or practical part of a project, we have learned to see technology as a means of understanding how far materials might be pushed or manipulated in order to

Figure 24.1 Drawing as research and research through design, 2017. Exploring the materiality the West Midlands, United Kingdom, this drawing, one of a sequence of studies, re-discovers a vast, hidden landscape that has been largely overlooked and undervalued for many, many decades. © Moore, Kathryn.

express ideas with style and confidence. Similarly, drawing, rather than just a technique offering access to intuition, somehow kicking part of the brain into the long grass, should be valued more as a way of working things out, exploring ideas and speculating on the possibilities. As an investigative tool, drawing is hard to beat (Figure 24.1).

All of this prepares the ground for a fresh artistic and conceptual approach to design, establishing it as a holistic, critical endeavour. From this perspective, any and every part of the design process becomes accessible to investigation. It also makes clear that the limits of our inquiries are governed only by our knowledge, nothing more or less. Responsibility for understanding what sense we make of the world is thus handed back to us. The driest, most reductive statistical equation or number-crunching analysis is as full of presumptions and preconceptions as any ephemeral, instinctive response. Look at the debates relating to climate change and it is easy to see how open to interpretation the facts can be, let alone finding any consensus as to what is an actual fact and what is not.

What makes a good researcher?

We should recognize that what is considered to be clear and rigorous research is absolutely contingent upon the knowledge, values and opinions of those who judge it. This explains why Swaffield and Deming[33] find that what is valued in research is shaped by academic location, the educational background of academics, and the particular approach of editors and reviewers. Those undertaking research effectively enter a lion's den, as work can easily end up in the hands

of someone with a conflicting agenda, an entirely different view of the world. So, as supervisors, reviewers and editors, our role is to be informed and make judgements from a position of knowledge and experience, aware of our prejudices, preconceptions and desires. The hard part is to recognize what these are and then have the courage to put them to one side if necessary: not trying to gauge how closely the work measures up to our own ideas, but being open and pragmatic enough to appreciate what might be an entirely different way of understanding things, aware that there is no single model for good work in any academic discipline. It also means that we can even be, as Richard Rorty suggests, more relaxed about whether we have a rigorous research methodology, or whether the work produces knowledge rather than mere opinion.[34] This is the embodiment of objectivity.

Precisely what excites or appeals to us will depend on our inclinations and temperament. James distinguishes between those who are tough-minded and those who are tender-minded,[35] whereas Rorty suggests that a more apt divide is between 'those busy conforming to well-understood criteria for making contributions to knowledge [and] people trying to expand their own moral imaginations'.[36] And this is precisely the point. Rather than staying within the safety of fixed disciplinary parameters, and in order to overcome a long period of technological stagnation, we need to be more aggressively expansive, appropriating and operating confidently, making connections between disciplines, linking theory and practice, ideas and form; evaluating the ethical, aesthetic, ecological and artistic value of physical and imagined environments, with the explicit purpose of investigating how this knowledge can be used directly to inform design.

The richness and complexity of landscape architecture can often appear difficult to capture, and essentially this comes down to our own conceptions and ideas. If we really want to fully articulate the way we experience the world, there can be no room for the dry bureaucratic talk that squeezes the life out of any debate about place and space. We need a better set of descriptions. It is not as though we are stuck for ideas, or indeed for words. There is a wealth of literature and research, with evidence scientific, academic and anecdotal—imaginative narratives to inspire and show us things we had not noticed in the world. The real skill of a designer or a researcher is in using the information to capture these narratives and/or create new ones through good investigative digging, and then explicating the work in such a way that it fires the imagination. Obviously, this is not just about language and language alone. The narratives, the words, must be made real, supported by a demonstration of their spatial implications. When we are dealing with the transformation of a place, it is not only the understanding of new ideas that enables us to adjust to new circumstances and possibilities, but also the convincing and appropriate evidence of their expression in physical form. Within both research and design, if we steer clear of the safe options, we can begin to fill the conceptual void by talking seriously about ideas and their function in quality design. Whereas designers tend to express ideas and experience in space, form, light and texture, the researcher relies more on words and a wide range of images. To practise either as a designer or as a researcher requires different kinds of expertise, calls on quite different kinds of contextual information (including literature, editorial objectives and peer expectations), and has different motivations and outputs. But the real skill in both is to shape the experience of those with whom we wish to engage, either as readers or people who use the spaces we create.

What makes a skilful researcher? Being objective enough from a position of knowledge to realize, for example, that some of your initial assumptions are erroneous. Being brave enough to reconceptualize basic beliefs again and again, to work things out without having a preconceived idea as to what the results are going to be. Having the insight to bring to bear new ideas and understandings that can enlighten and inform. Discovering something that effects real change and affects policy, people's lives, the way we teach. Making research that makes a difference.

Conclusion

This perspective gives us a new imperative to improve the academic credibility of design research and design itself. Ditching the metaphysical baggage that weighs down most current theories of perception enables us to demystify the art of design, teach the generation of form, connect spatial strategies to real places, and develop ways of working that not only encourage but also demand the expression of ideas—the ideas that are fundamental to the design process. Changing the focus of how we think of landscape from technology towards ideas, seeing it as both a cultural and natural resource and a physical and abstract entity that has economic and social value, and looking at the experience people have of their physical environment as well as making the vital connections between governance, culture, health and economics: these steps go some of the way to providing a viable new platform from which to deal holistically with the rural and the urban, wilderness and human-made, the most treasured and memorable as well as the unloved and degraded. They set a new agenda for both design and research to bring fresh insights that will shape the future of our environment. That is not to say that research and design are equivalent. Researcher and designer are governed by different protocols, agendas and ambitions. Each is judged by different criteria, criteria that, as Swaffield and Deming show,[37] are absolutely contingent on the social and cultural milieu.

Whether one is a researcher or a designer, there is inevitably a degree of anxiety when old certainties are challenged and the interpretative, transient nature of everything we believe to be true finally dawns on us. Shifting any inquiry away from the unequivocal towards the ambiguous is perhaps one of the most difficult aspects of this paradigm. It is not just another way of saying that anything goes, but suggests rather that work must be judged against different criteria. Truth is contingent, beliefs change; nothing is set in stone. And it is this flexibility that gives us such a great opportunity. If we have the confidence to move away from the central hard core of scientific assumption and methodology, there is a real chance to develop new approaches, make connections across and between disciplines, and erase rigidly drawn boundaries delineating and distinguishing practice from theory. The old Cartesian duality is a house of cards … time to blow it down.

Notes

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34 Rorty, *Philosophy and Social Hope*, 181.
35 James, *Pragmatism*, Lecture 1.
36 Ibid., 127.
37 Swaffield and Deming, 'Research Strategies in Landscape Architecture'.

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