Ethics, Architecture, Responsive Cohesion, and the Transition to a More Habitable Future

Warwick Fox

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1. The Architecture of Ethics

I want to begin by asking *and answering* the basic question, 'What is ethics about?' But what I really mean by this question (and what anyone who asks this question would and should ordinarily be assumed to mean by it) is actually a question that philosophers would phrase more precisely as, 'What is normative ethics about?' Thus, it's useful first to understand something about the basic structure – or the basic architecture if you like – of philosophical ethics in order to understand exactly what I mean by the question 'What is (normative) ethics about?'

To begin with, we can note that the terms *ethics* and *moral philosophy* are used interchangeably in philosophical discussion. Why two terms for the same thing? Simply because Western philosophy derives from ancient and classical Greece and its Latin continuation and development via Rome and the Roman influenced world. Many philosophical terms therefore derive from Greek or Latin roots and that is the case here: the term *ethics* derives from Greek whereas the term *moral* derives from Latin, but they refer to the same thing, and it is that 'same thing' that I want to go on to define here. In proceeding, I will tend to use the term *ethics*.

Philosophers divide the study of ethics (or moral philosophy) into *normative ethics*, *metaethics*, and *applied (or practical) ethics*. *Normative ethics* represents the philosophical heart of ethics and

refers to what most people think of when they hear the term ethics. It is called *normative ethics* because it refers to the study of the goals, standards, or *norms* that our behaviour should conform to or exemplify. The three main approaches to normative ethics are generally referred to as *virtue ethics*, which is concerned with the kinds of dispositions and qualities of character that moral agents should strive to cultivate; *deontological ethics* (from Greek *deon*, duty), which is concerned with the kinds of moral principles that moral agents should consider themselves as duty-bound to act under; and *consequentialist ethics*, which is concerned with the kinds of outcomes that moral agents should strive to promote. The classical exemplars of these three approaches are considered to be represented, respectively, by Aristotle's version of virtue ethics, Kant's formulation of deontological ethics, and Bentham's and Mill's versions of utilitarianism.

Metaethics refers to higher-order discussion about ethics such as questions concerning: (i) how we can claim to know about matters of vice and virtue, right and wrong, good and bad; (ii) the existence status of ethical values (e.g., do they exist subjectively, objectively, or in some mixed state?); (iii) what we mean when we make ethical claims and what the truth status of these claims is (e.g., can ethical judgements be true or false or should we think of them as, say, simply expressive of a feeling or merely prescriptive – like saying 'Shut the door!' – and so not subject to objective standards of truth and falsity); and (iv) what the sources of our moral motivation are. Thus, metaethics is concerned with the kinds of epistemological, metaphysical, semantic, logical, and psychological questions that can arise in normative ethical discussion.

If metaethics rises above normative ethical discussion, then *applied (or practical) ethics* grounds such discussion, since applied (or practical) ethics is concerned with the application of normative ethical

approaches in specific, practical, real-world contexts. That said, applied (or practical) ethics does not refer to the passive application of normative principles in specific contexts. Rather, it's a two-way street since the kinds of thorny problems that can arise in the context of applied ethics can often lead us back to reflect on, adjust, recalibrate, or even reject the normative ethical principles with which we began. (You might consider this situation as similar to the interactive relationship between theory and data – or, in this context, between the unsullied architectural plan and the unforeseen issues that arise in attempting to implement that plan in a specific real-world context. Thus, the time-honoured adage: 'Back to the drawing board.') This is one reason why some people prefer the term *practical ethics* to *applied ethics* since the word *applied* can carry the connotation of *simply* applying an ethical principle in a particular context.

Clearly, normative ethics lies at the heart of the philosophical study of ethics. Without it, we are left with no normative ethical ideas about which to ask higher-order, metaethical questions or with which to address specific ethical problems in real world contexts. It is not surprising then that when most people talk about ethics, plain and simple, they mean normative ethics, and that will be my practice in what follows; that is, I will from here on just use the term *ethics*, but I will be intending what philosophers technically refer to as *normative ethics*.

2. What is Ethics About?

What, then, is (normative) ethics about? I define ethics as concerned with *the values we should live by*. Don't be fooled by the apparent simplicity of this definition: in my view, it is neither too loose nor too precise, but rather what Goldilocks would call 'just right,' and what I would call the most defensible definition of ethics you will find. (Moreover, this definition is neutral with respect to the three main approaches to normative ethics.) In contrast, some understandings or

definitions of ethics are too broad while others are too narrow. For example, the free-floating, general idea that ethics is 'concerned with values' or 'about our values' is right as far as it goes, but it is too broad; it leaves things too open. We do not ordinarily think of a personal colour preference for blue rather than green or for wearing our hair short as opposed to long as an ethical matter. These might express values in the sense of personal preferences, but other things being equal, we do not ordinarily think of these kinds of preferences as being an ethical matter, as being subject to judgments of right and wrong. Why not? I would argue that this is precisely because we do not think that it is sensible to deem such matters as falling with the realm of 'the values that we should live by,' which is the definition of ethics that I think is most defensible. In contrast, we think that we *should* live by the value of allowing people to express preferences of these kinds; that we *shouldn't* discriminate against people who wear blue rather than green or who have long hair rather than short hair and so on. This is an ethical matter precisely because it we think that it *does* concern the 'values we should live by.'

On the other hand, some prominent philosophical ethicists define ethics as concerned with choices or behaviours that affect the well-being of others. For example, Hugh LaFollette (1997, 2002, 2007) states in the opening section of each of the three editions of his best-selling teaching anthology *Ethics in Practice* that 'Morality, traditionally understood, involves primarily, and perhaps exclusively, behaviour that affects others' (LaFollette, 2007: 4). This, too, is right as far as it goes, but in this case it goes too far, it is too precise, and is consequently too narrow. This is because we ordinarily think of 'others' as referring to *other people*, and yet many of us now accept that we ought to be able to ask ethical framed questions about people's actions in regard to many more kinds of entities than other people alone. Some might argue that by 'others,' we should understand all sentient beings. But even with this stretching of our

normal understanding of 'others' we are still excluding questions regarding how we should act in regard to the rest of the natural world from the sphere of (direct or first-order) ethical consideration. Thus, when LaFollette concludes all three editions of *Ethics in Practice* with a selection of papers on the ethics of the 'environment' it seems that he has violated the definition of ethics that he provides at the beginning of his own book. The fact that LaFollette says that ethics concerns 'behaviour that affects others' together with the fact that it stretches any ordinary understanding of 'others' beyond breaking point to suggest that we should consider the 'environment' as an 'other' means that, by definition, there ought to be no room in a book on ethics for papers on (direct or first-order) ethical concerns in regard to the 'environment.' Yet, LaFollette, like many 'others,' obviously thinks that we ought to be able to ask ethically framed questions regarding the natural world in general. Thus, it is his definition of ethics that needs correction, not the inclusion of a selection of papers on environmental ethical concerns.

This question regarding the definition of ethics is terribly important for two reasons. First, if we define ethics in too loose a way such as being 'concerned with values' or 'about our values' (i.e., values in general), then by conflating personal preferences with genuine ethical values (i.e., the values *we should live by*) we can get a dilution of the tough-mindedness of ethical thinking to the point where people think that ethics *is* just about personal preferences. (You would be astonished to learn how many first-year philosophy students effectively have this as their default setting – assuming, of course, that they don't already hold a standard issue, off-the-rack set of religious values.) Second, if we define ethics too narrowly, as leading philosophical ethicists can do (if they even bother to define ethics in the first place), then we can find that whole areas of potential ethical inquiry are deemed to be outside the sphere of (direct or first-order) ethical concern, including both the natural and the human-

constructed environment. (I say 'if [philosophical ethicists] even bother to define ethics in the first place' here because in my experience most ethicists just seem to assume a free-floating, shared sensibility in regard to what ethics is. Moreover, I think that the kind of unspoken understanding that they typically assume – their default setting if you like – is exactly the one that LaFollette makes partially explicit, namely, that ethics is concerned with behaviour that affects *other people*.)

3. From Interhuman Ethics to Ethics of the Natural Environment to General Ethics

The dominant trend in Western ethical thinking from the time of the classical Greek philosophers until at least the 1970s has indeed been, implicitly or explicitly, to deem the entire nonhuman world to be outside the sphere of ethical concern. In LaFollette's terminology, we could therefore say that 'others' has always meant 'other people,' and often only some other people at that. It is only since the 1970s that a few philosophers have begun to explore ethical questions in regard to various aspects on the nonhuman world in its own right. Thus, we have recently seen the development of a range of approaches to animal ethics, life-based ethics (i.e., ethics directed to individual living things), and ecosystem integrity ethics. Collectively, these approaches are now referred to as *environmental ethics* in contrast to the traditional, dominant, and to this day ethical-business-as-usual focus on what I refer to as *interhuman ethics*.

Yet just as interhuman ethicists have until quite recently either ignored or actively denied the ethical relevance of the nonhuman world in general (see Passmore, 1980, and Singer, 1990, ch. 5, for overviews of this sorry legacy), it turns out that in their concern to escape the anthropocentric legacy of Western ethics, environmental ethicists have been overwhelmingly concerned with the ethics of the *natural* environment (including nonhuman animals and other living

things) and, with a few rare exceptions, have ignored the *human-constructed, or built,* environment. This means that so-called *environmental* ethicists have not yet realized the full implications of their own name, notwithstanding the importance of issues concerning the human-constructed environment to not only our own future but the future of life on earth. Realizing this, I ran what is thought to be the first conference of its kind on the ethics of the built environment in the Lake District in England in 1999. Selected papers from this conference were published as the book *Ethics and the Built Environment* by Routledge the following year (Fox, 2000).

In my subsequent work I have accordingly argued that we now need to develop what I refer to as a *General Ethics* (Fox, 2006). I define a General Ethics as *a single integrated approach to ethics that encompasses the realms of interhuman ethics, the ethics of the natural environment (which includes everything from animal ethics to ecosystem integrity ethics), and the ethics of the human-constructed environment*. There are many tensions both within and between these realms of ethics as things currently stand and we need a more unified approach as a matter of both obvious theoretical advancement and, in my view, real practical urgency. I say the latter because I think that we will need a widely shared, broad-based ethical approach in order collectively and effectively to address the challenges that lie before us.

4. The Significance of Architecture and the Built Environment to General Ethics

As the most obvious and prominent form of our human-constructed world – the one that structures most people's day-to-day lives in space and time more than any other kinds of human artefacts – architecture, and the built environment generally, represents a significant challenge for both conventional, anthropocentric approaches to ethics and more recent, nonanthropocentric approaches. This is because it lies beyond the reach of any *direct* or

first-order form of ethical concern that issues from interhuman ethics, animal ethics, life-based ethics, or ecosystem integrity ethics for the simple reason that buildings are not human, animal, living, or a natural, self-renewing ecosystem. The upshot is that considerations regarding architecture and the built environment have played a key role in the development of my approach to General Ethics for at least one obvious reason: we do not even have a candidate for a General Ethics (as I have just defined it) if we do not have an approach that can directly address not only the interhuman and natural realms – which a range of approaches already do (albeit with varying success) – but also the world of artefacts that humans have constructed by bringing their own ideas to bear on material originally drawn from the natural world (each iteration of which is then able to draw on all the other human constructions that humans have made together with the further ideas that these artefacts have themselves helped to stimulate).

Yet we badly need such candidates for a General Ethics since it seems both reasonable and important that we should be able to ask *ethically* framed questions – that is, questions in regard to the values we should live by – in regard to not only the interhuman realm and the natural realm but also the human-constructed realm in general and, thus, architecture and the built environment in particular. For example, consider the case of a building that flies in the face of its context such that it 'sticks out like a sore thumb' – let's call it the ST Building (for 'sore thumb'). People will often say when they see such a building something like, 'Ugh, there ought to be a law against it!' (and sometimes there are laws against such buildings). Now this is an extremely strong normative reaction. If someone reacts this way, then they are saying not only that this kind of building is morally wrong in the sense of being, say, inconsiderate (like letting a door go into someone's face who is walking right behind you because you didn't take the care to hold it open for them as you passed through yourself),

but that it is so morally wrong that in contrast to other kinds of day-to-day moral failures (such as the 'door' example I have just given) there 'ought to be a law against it.' However, the fact that we lack an ethical framework that enables us to articulate the basis for our initial, strongly normatively-laden reaction to the ST Building means that, if challenged, we tend to back down from our this initial reaction and say that our reaction is 'just an aesthetic preference' or 'just a personal preference.'

If we wish to stick to our initial, strongly normatively-laden objection to the building, then our only alternative (in the absence of a bona fide ethics of the human-constructed realm) is to draw on an established ethical theory – typically one from the realm of interhuman ethics, but it could be one from animal ethics, life-based ethics, or ecosystem integrity ethics – and to say something like, 'Well, people generally find its lack of contextual fit thoroughly off-putting and so we shouldn't build in this kind of way because it doesn't lead to the greatest happiness of the greatest number (of people).' This is an example of a good old fashioned, thoroughly anthropocentric, utilitarian framed objection to the existence of this kind of building. (Utilitarianism comes with excellent, even if much disputed, philosophical credentials: as I noted earlier, it is one the three main approaches to normative ethics that most ethicists work with.) However, notice two things about this kind of objection. First, it represents an *indirect* or *second-order* form of ethical objection to this kind of building since the objection is not based on building in this way per se but rather on the effect that building in this way has on *people*. Objections to the building based on claims about its harm to other animals, other living things, or its ecosystem would also represent indirect forms of ethical objection to building in this way per se.

Second, this kind of indirect objection might simply be wrong. For example, it could be the case that this is a clean, 'green' building that is as non-harmful to its environment as any other reasonable alternative and that, for argument's sake, *80% of the local people really like it* – even though it 'sticks out like a sore thumb.' There could be any number of reasons for this. For example, it could be that what is going on here is an argument between a minority who are primarily concerned with the figure-ground relationship of buildings – the 'contextualizers' – and the 80% majority who don't stress about the figure-ground relationship because they're captivated in some way by the figure, the ST Building, itself – the 'non-contextualizers.' (Personally, I suspect that fascination with alluring architectural figures at the cost of concern for the figure-ground relationship is a common condition. Indeed, I can even recall voicing my objection about a particular iconic building to a senior government arts administrator once only to be told, 'But, Warwick, there was no context!') Alternatively, it could be that people are quite well aware of the 'sore thumb' nature of the ST Building but have come to love it in spite of – perhaps even *because* of that – on the grounds that it's become such a focus of interest that it either has or will 'really put the place on the map.' (Indeed, some of the local people might have even taken to pronouncing the name of the ST Building as the 'Saint Building' following the lead of a group of foreign tourists who had mistakenly taken the 'ST' acronym in their guide book as an abbreviation for 'Saint' and so came to the town asking where the 'Saint Building' was.)

But does this make it ethically permissible – or perhaps even obligatory – to build in this 'sore thumb' way if 80% of the people really like the building? Or are the values that we should live by such that there are 'in principle' reasons why we ought not to build in this way regardless of what proportion of people might or might not like the result? In order to answer this question we need an ethics that

can be applied *directly* to the human-constructed realm. Moreover, we need an ethics that can be applied to questions about not only the physical *stuff* that buildings are made from and their physical interactions with the world around them, but even to their mere *form* – including their form relative to their context as in the ST Building example I have just considered. But if we have an ethics that can be applied to the mere form that things have – an 'ethics of form' if you like – then we have an ethics that is applicable not only to the human-constructed realm but to everything else in the human and nonhuman natural world as well since anything that we can think of at all has a form of one kind or another – even if we are referring to intangible things such as a conversation or a theory. Of course, whether the generality of what we might call an 'ethics of form' can be matched by the soundness of its guidance is another matter, but that aside, I don't think that we can doubt its theoretically unifying potential. This gives us a second, subtler reason why considerations regarding architecture and the built environment have played a key role in the development of my approach to General Ethics: they have driven me to develop an approach that embraces considerations about the value of different basic kinds of form per se, and this opens up the possibility for the development of a single integrated theory that can encompass the realms of interhuman ethics, the ethics of the natural environment, and the ethics of the human-constructed environment (in other words, a General Ethics) since an 'ethics of form' can be applied to anything.

5. The Architecture of Value: Responsive Cohesion

I refer to my own approach to General Ethics as the *theory of responsive cohesion*. Its (initial) central ideas go like this (I can obviously only give the briefest sketch of the initial parts of this theory here; for the full theory see Fox, 2006). I have argued that, fundamentally, value should be conceived of as having a *form*, *structure*, or if you like, *architecture*. Specifically, I argue that the

most valuable things of their kind within *any* domain of interest exhibit a fundamental form of organization that I refer to as *responsive cohesion.* By this I mean that they *hold together – or cohere – by virtue of the (functional or intentional) mutual responsiveness of their elements or constituent features.* Another way to put this is to say that the elements or salient features of things that are responsively cohesive can be said to 'answer' to each other in some way, whether literally or metaphorically (the word *responsive* derives from the Latin *rēsponsum,* meaning 'answer'). This form of organization contrasts with two other fundamental forms of organization, which I refer to as *fixed cohesion* and *discohesion.* (I use the neologism *discohesion* in preference to the similar terms *chaos* and *anarchy* in order to sidestep the scientific and political connotations, respectively, that come with these latter terms.) Fixed cohesion refers to the form of organization that things have when they hold together – or cohere – in a highly regimented way, as if determined by a master variable or template of some kind. Discohesion refers to the form of organization that things have when they simply fail to hold together – or cohere – at all.

I have argued the case in detail in *A Theory of General Ethics* (Fox, 2006, see esp. Ch. 4) that our most informed and considered judgments about the best examples of their kind within any particular domain of interest – whether we are considering theories, conversations, personal relationships in general, individual psychology, politics, economics, organizational management, the written, visual, and performance arts, skills, sports, ecological systems and the management thereof, architecture, or anything else – typically converge on the examples that turn out to exemplify the most responsively cohesive form of organization. I can convey a flavour of the argument here by briefly by considering a couple of examples; let's take the domains conversations and politics. Think of examples of conversations that conform to these three fundamental forms of

organization. An example of fixed cohesion in the realm of conversation occurs when a conversation takes a highly structured form such that you virtually know how it's going to go before you have it (conversations in a workplace or with a relative whom you are obliged to see might take this form); an example of responsive cohesion occurs when a conversation takes a relatively unconstrained (or free-flowing) form in which both parties are genuinely responsive to each other so that that although neither can predict exactly where the conversation will go they nevertheless keep in step with each other as they go there (the word *conversation* can be read as carrying the etymological sense of 'keeping company with each other through constant turnings' – from the Latin *conversārī,* 'to keep company with,' which in turn comes from from *conversāre,* 'to turn constantly' – which is a nice way of describing responsively cohesive processes in general); an example of discohesion occurs when the conversation takes the form of two people 'talking past each other' and not really communicating. Which do you think is the best kind of conversation? What about politics? A dictatorship, a democracy, and lawless anarchy represent obvious examples of fixed cohesion, responsive cohesion, and discohesion in the realm of politics. Which do you think is the best form of politics?

I will not pursue the consideration of examples in each of these domains here both because I have done so elsewhere (Fox, 2006, see esp. Ch. 4) and because I need to move on to other matters in the space available in this context, but I trust that the point is clear. The implication of these kinds of examples is that our most informed and considered judgments about the best examples of their kind within any particular domain of interest typically converge on the examples that turn out to exemplify the most responsively cohesive form of organization. But note the full implications of this conclusion. I am not arguing merely that valuable things have this feature of responsive cohesion *in common,* but something much deeper. This is because this

conclusion is based on a level of analysis that concerns *the most basic distinctions that we can make in regard to the very organization of things.* We simply cannot make any more fundamental kind of distinction about the organization of things than that of noting whether they are or are not organized in some way. (Of course, some things will represent a combination of the two, but we are concerned here with outlining the basic structure of the theory of responsive cohesion and so will take this 'mixed case' kind of observation for granted in what follows.) Neither is there is much more we can say about things that are genuinely disorganized for this straightforward reason: if we could discern a more basic pattern or structure within them, then it would turn out that they were in fact organized in some way as opposed to (plainly and simply) disorganized; their messiness would be revealed as more apparent than real. However, we can say considerably more about the various ways in which things can be organized, and this leads to the basic distinction between what I refer to as *fixed cohesion* and *responsive cohesion.* In my view, the most basic kind of distinction that we can make between different forms of bona fide organization is that between those things that hold together in a highly regimented – master variable or template determined – kind of way and those things that hold together by virtue of the (functional or intentional) mutual responsiveness of their elements or constituent features.

Now if these are the most fundamental distinctions that we can make in the very organization of things and if one of these three forms of organization is consistently found to underpin our most informed and considered judgments about the best examples of their kind within any particular domain of interest, then we have not simply found any old form of organization that these examples have in common; rather, we have found that one of the three most fundamental forms of organization that we can identify – responsive cohesion – lies at the basis of our most informed judgments of value. This means that we

have reached rock bottom in our search for the basis of value – there is no more fundamental thing, structure, or pattern, no more fundamental level of analysis, to which we can appeal. I therefore refer to responsive cohesion as the *foundational value.*

If we are persuaded by the idea that responsive cohesion is the foundational value – the most fundamental value there is – then it follows that we should live or be guided by this foundational value to the extent that we reasonably can because the best answer to the question 'What value or values should we live by?' is not, say, 'The twenty-sixth most fundamental value we can find,' or even 'The third most fundamental value we can find,' but rather '*The* most fundamental value we can find.' And if we ought to live by the foundational value of responsive cohesion, then it becomes extremely important to elaborate its full implications. The first of these is to see that the concept of responsive cohesion immediately issues in a further distinction between that of *internal responsive cohesion* and *contextual responsive cohesion* since we can consider any item of interest whatsoever both in terms of the degree of responsive cohesion it has internally and the degree of responsive cohesion it has with its wider context.

The next thing to see is that respect for the foundational value of responsive cohesion itself – which is to say, accepting that we should live by the value of preserving and/or generating examples of responsive cohesion to the extent that we reasonably can – automatically generates a priority ordering between internal and contextual forms of responsive cohesion to the extent that there is any conflict between the two. For example, if some new bars of music don't fit the responsively cohesive symphony you've largely written, then the obvious thing to do is to modify or else jettison the new bars of music in favour of the whole symphony in order to preserve or generate responsive cohesion. To do otherwise – that is, to tear the

symphony apart every time you came up with some new bars that don't fit the whole – is functionally equivalent to an ongoing state of *discohesion,* which will never get the symphony completed (or will leave in a state in which no one would want to listen to it). Or consider having some builders in to work on your house who decide to rebuild various parts of the house – or even the whole house – in order to make it responsively cohesive with the 'wrong' bit of wood they got for a certain job, and so on, again and again, each time some minor thing didn't fit with what they are doing. These are truly the builders from hell; the builders who realize your worst nightmares. If either the composer or the builders fail to understand the appropriate 'direction of fit' (to borrow a very useful term that philosophers normally employ in the rather different context of the philosophy of mind and language) between contexts and introduced elements, if they 'come at things from the wrong end,' then they will fail in their tasks of completing their different kinds of composition; they will fail to leave things 'well arranged' (the word *composition* derives from the Latin *compositus,* meaning 'well arranged').

This distinction and (ultimate) priority ordering between internal and contextual forms of responsive cohesion leads naturally to the need for a general *theory of contexts* so that we have a systematic understanding of what is internal to what – or, alternatively, what is the context of what – at the most general level. The theory of responsive cohesion's theory of contexts looks like this: I argue that our most informed and considered views suggest that the biophysical realm – or 'nature' in general – constitutes the overarching context of (and is therefore ultimately more important than) the human social realm and that the latter constitutes the overarching context of (and is therefore ultimately more important than) the human constructed realm (although the idea is always to aim for the preservation and/or generation of responsive cohesion at all levels).

The theory of responsive cohesion therefore give us a clear ethically framed reason – a reason based on the values we should live by – why it is wrong *in principle* to build not only in a way that is not responsively cohesive with (or that does not 'answer' to) the biophysical realm in terms of its physical interactions with the biophysical realm but even in terms of the contextual fit of its design features. In a nutshell, the guidance that the theory of responsive cohesion offers to architects, designers, builders, and planners is this:

> When you make material things, make them so that they exemplify both contextual and internal responsive cohesion. If tough choices have to be made between these two forms of responsive cohesion, then give priority to contextual responsive cohesion over internal responsive cohesion. And if tough choices have to be made between contextual forms of responsive cohesion themselves, then give priority to contextual responsive cohesion with (i) the natural realm over the human social realm (since the natural realm provides the wider, generative and sustaining context of the human social realm) and (ii) the human social realm over the human-constructed realm (since the human social realm provides the wider, generative and sustaining context of the human-constructed realm). But on no account engage in prioritizing things in any of these ways unless you are confronted with a genuinely forced choice. The thing to aim for is responsive cohesion at all levels. To settle for less is actually to settle for a failure of design.

There is considerably more to the theory of responsive cohesion than the arguments I have briefly sketched here in regard to its argument for the foundational value of responsive cohesion and its theory of contexts. The most significant missing component in this outline is the theory of responsive cohesion's *differentiated model of our obligations in respect of all beings*. This model also derives from

elaborating the implications that flow from the claim that responsive cohesion is the foundational value. More specifically, it offers further forms of guidance, priority ordering, and constraints that need to be taken into consideration within the theory of responsive cohesion's overall theory of contexts when we consider issues that involve other sentient beings, including other humans. However, this aspect of the theory of responsive cohesive is not of central relevance in the context of this discussion of the ethics of architecture and the built environment per se and so for both that reason and reasons of space I will bypass it here. But anyone interested in these ideas needs to be aware of this and not take the summary offered here as a summary of the whole theory (for which, see Fox, 2006).

6. The Transition to a More Habitable Future

I want to conclude by noting one obvious implication of the theory of responsive cohesion for the future. Whereas it is easy and seems quite natural to think of the kinds of ideas I have outlined here in terms of fitting the built environment and the human-constructed realm generally to *pre-existing* biophysical, social, and human-constructed contexts, we need to be alive to the fact that human-constructions, of which the built environment represents the paradigmatic form, are around for a relatively long time and that the world is changing. Thus, our idea of what constitutes the most responsively cohesive built environment today – considered in terms of the biophysical, human social, and human-constructed realms – might not correspond to our idea of what constitutes the most responsively cohesive built environment tomorrow. In other words, we need to think of responsive cohesion not only in terms of pre-existing contexts but also in terms what we might rather formally call 'projective temporal' terms – or, more simply, the future – as well. Antony Radford (2009) incisively captures this point in his paper entitled 'Responsive Cohesion as the Foundational Value of Architecture' in the *Journal of Architecture*. After concluding that the

kind of guidance offered by the theory of responsive cohesion's theory of contexts is 'the essence of achieving a more sustainable architecture' he proceeds to add that taking this theory of contexts seriously means 'seeking a building design that is adaptable enough to offer hope of achieving responsive cohesion with future contexts' (Radford, 2009: 526). In other words, if responsive cohesion is the foundational value, then designers need to build, let's call it 'responsive cohesion capacity' (or RC^2 if you like acronyms, which I don't) into their designs so that what they design continues to exemplify this quality rather than ossify into a form of fixed cohesion or deteriorate into a form of discohesion in the future.

So far, so theoretical. But what might this mean in the real world of our near future? It is a simple matter to rehearse the gathering storm of problems we are facing. In the oceans: the desertification of life sustaining sea beds from trawling; over-fishing and the collapse of fisheries; and acidification of the oceans. On land (and elsewhere): increasing pressure from human populations, the prospect of resource wars, and increasing numbers of what are in effect ecological refugees; melting of ice caps and glaciers leading to rising sea levels; increasing scarcity of fresh water; loss of global biodiversity; deforestation; soil loss, salination, and desertification; and the peaking of oil production and the end of cheap oil (with massive consequences for agriculture and the organization of society generally – if you think that 'peak oil' simply means that it will cost you more to drive your car, then think again!). In the atmosphere: rising temperatures driving extreme weather events in particular and climate change in general (even our solving of the ozone problem is now thought to represent an environmentalists' 'own goal' since it solved this problem by replacing CFCs – Chlorofluorocarbons – with HFCs – Hydrofluorocarbons – which are now thought to possess hundreds to thousands of times more global warming potential than CFCs). And behind this

combination of problems looms the possibility of reaching 'tipping points' that will lead to their acceleration.

However, the single most chilling thing I have read in regard to our global future for some time is the following. Graham Turner, a researcher in the Sustainable Ecosystems section of the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO), has recently published a paper entitled 'A Comparison of *The Limits to Growth* with 30 Years of Reality' (Turner, 2008). *The Limits to Growth* was a landmark study published by the MIT Systems Dynamics Group in 1972 (Meadows et al, 1972; see also the 30 year update by this team: Meadows, et al, 2005). What was theoretically significant about this study was that it didn't attempt to model the future development of just one variable – such as atmospheric CO_2 levels – or even just one economic or ecological subsystem – such as industrial production or the climate – but rather attempted to model the interactive effects of five global subsystems and see how they would *collectively* evolve under different assumptions. The five subsystems they considered were those of human population, food production, industrial production, pollution, and the consumption of non-renewable natural resources. What Turner has done for the first time is to gather 30 years of real world data since 1970 for each of these five global subsystems and compare these trends to those found in the three most significant scenarios studied by the Systems Dynamics Group. These scenarios are referred to as the 'standard run' scenario, which makes assumptions based on a 'no surprises,' business-as-usual continuation of then (circa 1970) current trends in these global subsystems; the 'comprehensive technology' scenario, which makes optimistic assumptions about our ability to address problems in each area by means of technological solutions; and the 'stability' scenario (which we would these days call the 'sustainability' scenario), which makes assumptions in which 'both technological solutions and deliberate social policies are implemented to achieve

equilibrium states for key factors including population, material wealth, food, and services per capita' (Turner, 2008: 401).

What the *Limits to Growth* team found was that the 'standard,' business-as-usual scenario leads to 'overshoot and collapse' of the globally intertwined ecological-social-economic system by the middle of *this* century; that the 'comprehensive technology' scenario delays this outcome to the latter part of this century; and that only the 'stability' scenario avoids this outcome. What the first two 'overshoot and collapse' scenarios mean in real world terms is an almost unimaginably less habitable world for ecological, social, and economic reasons, the consequent prospect of war, and, in any case, human misery and massive (involuntary) decline of human population over the decades that follow. Moreover, it appears that you need to do a hell of a lot of tweaking of these models in order to escape this working out of their dynamics; trying to fix things in regard to one parameter just leads to new problems elsewhere. The only 'escape' it seems is to tweak these models to the extent that they morph into the 'stability' (or sustainability) model.

So what track are we on? The importance of Turner's work is that he has shown that 'the observed historical data for 1970-2000 most closely match the simulated results of the LtG [Limits to Growth] "standard run" scenario for almost all outputs reported; this scenario results in global collapse before the middle of this century' (Turner, 2008: 410). Now if this doesn't get your attention, then nothing will. But if I keep my philosophical wits about me rather than sink into the ever-tempting option of despair, then the philosophically oriented conclusions that I briefly draw from the kinds of considerations I have referred to in this closing section are the following.

First, we should no longer continue to talk about 'sustainable this' and 'sustainable that' – including 'sustainable architecture.' It is

getting too late for that. Instead we need to talk in terms of the even more active and urgent notion of *transition* since we need to make a relatively rapid transition *from* our standard, business-as-usual appointment with likely global collapse *to* what we might then be able to call a sustainable society. The Limits to Growth team themselves now talk in terms of 'transition' (Meadows et al, 2005) and we find that there is an active 'Transition Town' movement springing up around the world in response especially to the twin challenges of climate change and peak oil (Hopkins, 2008). We need to think in terms of *transition architecture*, *transition urban planning*, and so on; in terms of architecture and planning that has its eye on a climate changing, post peak oil world in which issues surrounding 'food security' (not a term I like when you think about its connotations) seem likely to loom large. (A number of people are looking at Cuba in this regard, which, in the wake of its own oil shortages, rose to the challenge of food production in part by means of widespread community urban gardening. Think of how that kind of planning would alter the structure of our towns and cities.)

Second, adopting the theory of responsive cohesion's (normative) theory of contexts – or something that looks very much like it – is no longer an option for architects, designers, builders, and planners. If you fall into any of these kinds of categories, then even if you are not persuaded by my argument for the *foundational* nature of the argument on which the theory of contexts is based, there are now nevertheless overwhelming *pragmatic* reasons why a theory of this kind needs to guide your actions. In the face of the kinds of considerations I have referred to in this section, it is clear that we simply have no option but to give overwhelming importance in the way we design, build, and plan to responsive cohesion with the biophysical realm. That said, since I believe that the foundational arguments on which the theory of responsive cohesion's theory of contexts is based are essentially correct, I would argue that it is actually unethical not

to actively adopt this approach – or something very like it – in your work.

Third, in view of the first two points regarding the urgency of our situation and the moral imperatives that I believe we need to bring to bear on this situation, it increasingly seems to me that professionals of many kinds – including architects, designers, builders, and planners (and even otherwise retiring philosophers) – will need to adopt a more advocatory role in their professional lives. They/we need to be able to say: 'No, you should not want me to design this building (or this urban plan) in this way, and these are the reasons why. We need to work together to achieve a satisfactory outcome in the light of these reasons' – that sort of thing. This represents a transition in the way in which many of us – and I include myself – have seen and might like to see our professional roles. It might also be difficult to do this for straightforward 'bottom line' kinds of reasons. But we are now all involved a *very* high stakes game, whether we like it or not, and all previous, business-as-usual kinds of bets are off. Good luck!

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