8. Where disciplinary boundaries blur: the environmental dimension of institutional economics

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> And did the Countenance Divine
> Shine forth upon our clouded hills?
> And was Jerusalem builded here
> Among these dark Satanic Mills?
> William Blake (2002), from 'Preface' to Milton, pp. 211–14.

> The world is too much with us, late and soon,
> Getting and spending, we lay waste our powers
> Little we see in Nature that is ours;
> We have given our hearts away, a sordid boon!
> This Sea that bares her bosom to the moon,
> The winds that will be howling at all hours,
> And are up-gathered now like sleeping flowers,
> For this, for everything, we are out of tune,
> It moves us not.
> William Wordsworth (2000), from 'The World Is Too Much with Us', p. 270.

DISCIPLINARY BOUNDARIES AND RIVAL STRATEGIES

Very few would notice that in naming as 'Satanic Mill' the first half of the second and most original part of his book, Karl Polanyi sought safe harbour in William Blake's poetry. Written during the interwar period, this book borrowed not only this title from William Blake but also owed much of its spirit to the English Romantics who reacted to the so-called Industrial Revolution:

> In literary *romanticism* Nature had made its alliance with the Past; in the agrarian movement of the nineteenth century feudalism was trying not unsuccessfully to recover its past by presenting itself as the *guardian of man's natural habitat,*

> *the soil*. If the danger had not been genuine, the stratagem could not have worked. (Polanyi, 1944, p. 186; emphases added).

It is a pity that more than half a century after its publication, this connection, of vital importance to Polanyi, seems to have been lost because of our blinding disciplinary specialization, and as such Polanyi's *The Great Transformation* remains less than fully appreciated. At a time when the Iron Curtain of disciplinary boundaries was about to be further consolidated, Polanyi himself insisted he would 'encroach upon the field of several disciplines in the pursuit of this single' overarching intellectual motive (Polanyi, 1944, p. 4).

If, as was apparent on the eve of the twenty-first century, our dissatisfaction with existing disciplinary boundaries has considerably increased, then it must be time to look at the process of the formation of these boundaries with a long view. The disciplinary boundaries as they exist today are a legacy of modernity in general, and of nineteenth-century intellectual heritage in particular. Whereas the division among the natural and the social sciences was incumbent upon the spread of Cartesian philosophy that separated the domain of the natural from that of the human condition, the differentiation among the social sciences came much later and rested on less philosophical and more practical foundations. Within the domain of the social sciences, disciplinary boundaries crystallized during the last quarter of the nineteenth and first quarter of the twentieth centuries. Having crystallized as such, they were diffused as much as possible over the globe under US hegemony as consolidated after the Second World War. US hegemony meant practically the worldwide dominance of Anglo-American social sciences.

The fracture of US hegemony came about first with the intellectual upsurge of 1968 and then with the 1973 economic crisis. As a consequence, a questioning of the existing academic structures of knowledge and intellectual paradigms gained legitimacy and momentum (Gulbenkian Commission, 1996). Today we stand at a major turning point along this process of unfolding dissatisfaction. There is a debate over where we go next. While some may think that it is time to bring down once and for all this last Berlin Wall that divides the disciplines, others may take a more moderate stand and content themselves with the greater liberty of travelling across the boundaries. It should be noted that virtually all parties to this debate, including those subscribing to neoclassical orthodoxy, agree that it is high time something should be done about existing disciplinary boundaries. The differences remain as to what exactly should be done.

There exist three rival strategies concerning what should be done. The first strategy belongs to the dominant neoclassical approach. Neoclassical economics considers itself as the logical culmination and perfection of a century-long tradition that has increasingly abstracted itself from time and space, thereby becoming a pure theory of choice under constraint with universal applicability. If neoclassical approach has become a truly pure theory of choice under constraint, then the choices in question do not necessarily have to be economic ones. This approach can now liberate itself from the restricting domain of economics and apply equally well to other domains of inquiry where choice-making under constraint is involved. This strategy can conveniently be dubbed the imperialism of economics. In tune with the more current fashion, we may well term it as the purported 'globalization' of the neoclassical approach to all fields of social inquiry.

According to neoclassics, there are right and wrong approaches in all distinct fields of inquiry. The notion of the neoclassical approach as being the right approach can be exported to other fields to the detriment of the supposedly inferior approaches that have until now found safe haven in those fields that were 'protected' from intrusion by disciplinary boundaries. The now classic work of Gary Becker that seeks to explain conventionally sociological subjects such as family, marriage and education by way of microeconomic tools is a good example (Becker, 1976). When the scope of some concepts is broadened beyond a certain point, they inevitably cast light on their own limitations (Foucault, 1977). In Foucault's terminology, such concepts have a trangressional attribute. Inspired by this, we might as well characterize the neoclassical attitude as transdisciplinary aggression.

In juxtaposition to the expansionist momentum of the neoclassical strategy that attempts to do away with all substantial differences, the other two strategies belong to the opposition. Of these, the currently more fashionable one is the second strategy. It is characteristic of the New Institutional Economics (hereafter NIE). At first glance it seems to be very cautious and as such, it is likely to exert a growing influence over the greater part of the academic audience. Nowadays one can find behind most contemporary interdisciplinary academic events a legitimization and reinforcement of this strategy. This strategy takes for granted existing disciplinary boundaries. Some economists venture into other domains, borrow ideas and/or tools, and bring them into the domain of economics and apply it for the study of relevant problems. By doing so, these economists (Williamson, 1985; North, 1990) have extra ideas and/or tools at their disposal in addition to those that they are as much equipped with as their rivals by their disciplinary training. As such, they have an advantage over their rivals within their own field, namely economics.

Metaphorically, in the shadow of such economists we can identify the image of the medieval or early-modern-period merchants of long-distance trade (Pirenne, 1936; Braudel, 1979). A typical medieval merchant would bring from far away lands a piece of valuable china or an exquisite spice and benefit from windfall profits due to prevalent market differentials based on risk, uncertainty and ignorance. In a similar vein practitioners of NIE bring piecemeal ideas and tools from neighbouring disciplines into the domain of economics, which has shut itself off from the social sciences. Within this kingdom of self-imposed ignorance, high returns for the otherwise fairly commonplace ideas and tools can be enjoyed. Obviously, this strategy is more prudent than its neoclassical rival. It does not ignore substantial differences, nor does it outright attack the disciplinary boundaries. Far from doing so, it is in the interest of these adherents of NIE that the disciplinary boundaries should remain as a Berlin Wall for all others but themselves. Were the Wall to be brought down, this strategy would become defunct as it is actually parasitic on the existence of the disciplinary boundaries.

In contradistinction to the second strategy identified with NIE, the third strategy seeks deliberately to challenge the very logic of disciplinary specialization. This strategy is a distinguishing attribute of the original institutional economics, oftentimes misleadingly referred to as the Old Institutional Economics (hereafter OIE). While in certain other respects original institutional economics and NIE can be reconciled and integrated within a broader research program, as far as this strategic attribute is concerned the two variants of institutionalism stand as poles apart. Whereas moderate scholarship has satisfied itself with occasional '*inter*disciplinary' or '*multi*disciplinary' ventures that take for granted the existing disciplines as building blocks of these temporary interdisciplinary or multidisciplinary projects, institutional economics has persistently defined itself as essentially '*trans*disciplinary'.

William Kapp, one of the two institutionalists we will study at great length in this chapter, in his work *Social Costs of Business Enterprise* (dating from 1963 and further revised in 1976), insisted on the transdisciplinary scope of institutional economics. These two dates deserve particular emphasis as shortly before and after the 1968–73 prolonged crisis. We have already seen how Karl Polanyi, the other institutionalist who will be evaluated in the rest of this study, in his book *The Great Transformation* (1944), had defined his motive as encroachment into the field of several disciplines. By doing so, at a time when the disciplinary boundaries were on the verge of consolidation *pace* the Iron Curtain, he chose to swim against the tide. Therefore, during the golden age of disciplinary boundaries, institutional economics remained at odds with this characteristic of the dominant structures of knowledge. In light of this fact we can conclude that of the two oppositions to mainstream neoclassical economics, as far as the attitude to disciplinary boundaries is concerned, we can label economists of NIE as the 'loyal opposition' – where the 'loyalty' component outweighs the 'oppositional' ingredient – and the institutionalist economists as the true rebels.

We have so far dwelled upon the nature of disciplinary boundaries within the social sciences and the attitudes of economists of different persuasion. It is no coincidence that much of the ongoing academic activities concentrate on the relationships among the social sciences. However, specialization within the social sciences is deeply entrenched within a broader division of labour that extends from humanities to the natural sciences. The intermediary position in this spectrum of sciences is occupied by the social sciences in general, and by economics in particular. It is also due time for addressing the problem of separation within this broader domain (Santos, 1995). We should remind ourselves that Polanyi's characterization of Satanic Mill, cited previously, covered an equally broad spectrum ranging from the English Romantic literature to the social sciences.

The study of environment is a field of inquiry that relates to the interface of the social and natural sciences.[2] As such, when addressing the study of environment, we should not narrowly concentrate on exchanges among the social sciences, but delve into the broader interaction taking place across the social and natural sciences. Furthermore, it should be noted that nowhere is the contrast between NIE and OIE more marked than in the study of environment. Whereas in other domains the two can be reconciled to some effect, within environmental studies NIE starts off from Coase (1960) and develops by recourse to the Property Rights School (Sagoff, 1998).[3] The underlying attitude of this approach is to elaborate, extend and hypothetically construct markets where there are none. Put differently, according to NIE environmental problems arise because, first, property rights are not properly defined and generalized, and second, markets are not as universalized as they ought to be. In juxtaposition, the institutional approach connects environmental problems to the logic and domination of the market system and seeks remedy at circumventing the market in accordance with the principle of social value that can be made operational by way of a participatory deliberation process.

The purpose of this study is twofold. First, I would like to demonstrate how institutional economics, as evidenced in the works of Polanyi and Kapp, was environmentally conscious from the very beginning. The study of nature was conceived as integral to the economic process in a systemic way with real temporal and spatial attributes. In juxtaposition to neoclassical environmental economics, which is the manifestation of the venture of microeconomic analysis after its maturation into a virgin domain, institutional economics was originally defined in such a way as to be simultaneously an institutional and an environmental economics. Second, institutional economics could not have been conceivable without an environmental dimension. It evolved together with the environmental metaphor, to which it owes much of its originality.

In contradistinction to this rich potential that has always been at the core of institutional economics, some recent contributions to the field lose sight of these two aspects and unintentionally betray the intellectual layout of the original institutional research program (Swaney, 1985 and 1987; Martinez-Alier and Schlupmann, 1987; Godard and Salles, 1991; Dietz and van der Straaten, 1992; Sachs, 1993; Söderbaum, 1994; Martinez-Alier, 1999). The vulnerability of such works of recent vintage arises from two reasons. They take for granted the existence of a subfield of specialization, namely 'environmental economics', that bears the heavy birthmark of neoclassical strategy for expansion.[4] Having taken these coordinates as given, they inevitably succumb to some extent to the underlying policy-oriented and pragmatic-minded philosophy of neoclassical environmental economics. On the other side, when critical scholars reject to accept the subfield as such, they seek refuge under alternative labels such as 'ecological economics' (Martinez-Alier, 1987; Costanza, 1997; Daly, 1999). Ecological economics is linked to the seminal work of Nicholas Georgescu-Roegen, by all accounts a vital link in the institutionalist chain. Within this literature, Kapp is cited from time to time, whereas, at best, infrequent lip service is paid to Polanyi. However, ecological economists have so far not established systematic connections with such important earlier links of the very same institutionalist chain. Furthermore, one crucial distinction among environmental and ecological economists can be traced back to the contrast between market values as favoured by the former, and alternative values as elaborated by the latter. Some ecological economists incline towards a forum-like deliberative process for the determination of the alternative set of social values, whereas other ecological economists insist that, we might as well to resort to some scale of physical value (van der Straaten, 1999).

A convenient point of departure to this end has been identified in Georgescu-Roegen's concept of energy (Georgescu-Roegen, 1976). Whether market prices can be used interchangeably or together with physical values refers us to the question of the social constitution of values of various kinds in a market society. Practical as it may seem, this is obviously a methodological problem linked with the quest for ontological foundations. Therefore, as long as this alternative terrain of ecological economics is not linked with a strong ontological specification, it remains as shaky ground. In order to resist the temptation to succumb to neoclassicism directly or by way of NIE, a potentially institutionalist alternative has to be conscious of its own strategy. It is argued that a return to original sources such as, first, Polanyi's work (that provides us with an alternative ontological layout), and second, Kapp's work (which develops practical tools without betraying the underlying ontological premises), is of critical importance.[5] Last but not least, the institutional approach would not content itself with a one-way expansion from economics to environment but on a reciprocal relationship where the metaphorical deployment of environment would equally well open new vistas for the study of institutional economic phenomena. Therefore a return to original sources would in fact be a step forward to tackle the shortcomings and drawbacks inherent in some recent institutional environmental studies.

BRINGING NATURE BACK IN: THE DARK SIDE OF *THE GREAT TRANSFORMATION*

A creative reading of Polanyi's main theses through the lens of institutional economics would provide us with a set of valuable inferences for the kind of ontological foundation we are now in search of. The so-called Industrial Revolution that took place in England introduced an entirely new era in the history of human civilization. This era was a 'distinct stage', a 'singular departure', (Polanyi, 1944, p. 5, 71), and a 'parenthesis' that was bound to come to an end. What exactly was the character of this exceptional epoch, most manifest in the case of England but of worldwide significance?

According to Polanyi, the Industrial Revolution was of paramount importance as it raised the rate and scale of production, thereby massively expanding the scope of consumer markets, which would therefore impact back upon factor markets as the convention would call them:

> But how shall this Revolution itself be defined? What was its basic characteristic? Was it the rise of the factory towns, the emergence of slums, the long working hours of children, the low wages of certain categories of workers, the rise in the rate of population increase, or the concentration of industries? *We submit that all these were merely incidental to one basic change, the establishment of market economy, and that the nature of this institution cannot be fully grasped unless the impact of the machine on a commercial society is realized.* We do not intend to assert that the machine caused that which happened, but we insist that once elaborate machines and plant were used for production in a commercial society, the idea of a self-regulating market was bound to take shape. (Polanyi, 1944, p. 40; emphasis added)

Hence the synergetic combination of a commercial society with modern machinery is the key to the explanation of the achievements of the so-called Industrial Revolution. Had it not been for what the Industrial Revolution unintentionally achieved, the above presentation would fit well with any standard description of economic history. However, with the sudden lift it gave to production and consumer markets, the Industrial Revolution made insufficient and obsolete the type of institutional setup within which the pre-industrial economy was contained. Precisely because the existing institutional setup could no longer suffice to contain the dynamism of the nascent industrialism, economy was let loose, that is, paraphrasing Polanyi, 'disembedded' from social relations (Polanyi, 1944). We should re-emphasize that this disembeddedness was largely because the existing institutional setup was no match for the nascent economic system. Far from being able to regulate it, the institutional setup became an obstacle on its way. Under these circumstances, the most practical and ad hoc solution was to remove the obstacles on the way and leave the mechanism to its own, at least in the short term. Power and policy worked effectively to this end, and helped create the space within which the 'self-regulating market system' could then be left to its own in order to run its course: 'There was nothing natural about *laissez-faire*; free markets could never have come into being merely by allowing things to take their course' (Polanyi, 1944, p. 139). As such, the putting into effect of the market system was far from spontaneous, but once in effect, the system worked in its own spontaneously expansionist way.

When approached in this manner, the whole 'nineteenth-century civilization' becomes a period of permanent crisis where the whole thrust was to re create an institutional setup that could measure up to the demands of the new economic way of life. The eventual creation of this institutional setup by a combination of spontaneous, self-protective and instinctive reactions together with human design, if and when accomplished, would serve to re-institute the market in the ensemble of social relations thereby bringing an end to the exceptional disembeddedness of the economy.

The impasse of market society was that it could not do without an integrated set of self-regulating markets – including those for 'fictitious commodities', namely land, labor and money, – *pace* Léon Walras as the organizing principle of the whole social edifice, and yet not help cultivate various reactions in favour of self-protection, which, if put into effect, would inhibit the market. With respect to specific instances, Polanyi talked of 'the needs of an industrial civilization with which market methods were unable to cope' (Polanyi, 1944, p. 154). In fact, in conformity with the thrust of Polanyi's overall assessment, this message ought to be generalized to the relationship among the market on the one side and industrial civilization on the other. This is what Polanyi did in another context. As Polanyi put it, the challenge was to come up with a new way other than the self-regulating market for how the industrial system could be instituted: '*The congenital weakness of nineteenth century society was not that it was industrial but that it was a market society*. Industrial civilization will continue to exist when the utopian experiment of a self-regulating market will be no more than a memory' (Polanyi, 1944, p. 250, italics as original).

Market society had not measured up to the task of harnessing the full potential of an industrial system. It remains to be seen whether mankind is any better prepared now than it was at the dawn of the Industrial Revolution to come up with a solution to the problem of recreating the necessary institutional setup for this purpose.

We may now have serious misgivings about the exclusive timing and placing by Polanyi of the centre and scope of this self-regulating market system to nineteenth-century England. Nevertheless, the system that Polanyi constructed of the market society has much to offer for a proper understanding of the world in which we still live. Within the 'concepticon' of the Polanyi-esque approach, two terms stand out in terms of widest usage, namely 'embeddedness' and 'fictitious commodity'. We shall look at each of these terms in turn. We shall then proceed with linking them to one another. The nexus of these concepts will serve us to define the parameters within which we can bring nature back into the institutionalist analytical framework in light of the lessons of *The Great Transformation*.

The thesis concerning the embeddedness of the economy within the broader domain of the social has already been noted. For Polanyi, there exists a 'natural' counterpart to the 'social', implying that the economy under the normal state of things is embedded squarely in both the 'natural' and the 'social', and that it cannot be otherwise. As such, the natural and the social constitute the double pillars of the economy. When the economy assumes the form of a self-regulating market, both the 'natural' and the 'social' find themselves in an inevitable state of retrogression. The two supporting structures are by no means symmetrical. However badly violated, while the 'social' responds by way of a self-protective instinct seeking to restore its previous integrity, the 'natural' cannot react on its own behalf as if it were an active social agent such as labour. Polanyi notes that classes linked with the land, namely landowners and the peasantry, react in the name of the natural as a second best (Polanyi, 1944, p. 133). Consequently, nature, unlike the 'social', is less than fully represented in the struggle against the vagaries of the market mechanism.

This leads to a further implication: whereas the integrity of the 'social' could in principle be restored in the future, nature is subject to an irreversible process of deterioration. This difference boils down to a differential assessment of the 'time's arrow' with respect to the two foundations. In Polanyi's view, pre-market societies are a kind of 'paradise lost' when remembered in the light of the historical experience of the market society. One might be tempted to think that this characterization of the past as a paradise is exaggerated. Truly, the past was not an absolute paradise, but compared with the hell of satanic mills, it must have been a relative paradise. Nevertheless, the possibilities of industrial society pave the way towards a resurrection of the 'social' from the disgrace it has been exposed to under the so-called 'nineteenth-century civilization'. However, 'paradise lost' cannot be a 'paradise regained', precisely because the effect of 'time's arrow' on nature, unlike its effect on the 'social', is irreversible.

We need further dwell upon the issue of 'time's arrow'. This metaphor is inevitably linked to the dark side of modernity, that is, the dogma of progress, of which Polanyi was loudly critical (Özveren, 1999). In his lengthy discussion of the historical antecedents of the market society in England, Polanyi approaches the question in a different light. He adopts a 'habitation-versus-improvement' perspective. On the whole, Polanyi's position can be summarized as essentially pro-habitation and anti-improvement. Polanyi justifies his claim on the basis of the argument that at certain critical junctures 'the rate of change' can be as important as the 'direction of change' and policies that remain incapable of reversing the direction may nevertheless suffice to alleviate the ills of rapid change:

> As to England, . . . facts suffice to identify the change from arable land to pasture and the accompanying enclosure movement as the *trend of economic progress*. Yet, but for the consistently maintained policy of the Tudor and early Stuart statesmen, the *rate of that progress might have been ruinous, and have turned the process itself into a degenerative instead of a constructive event*. For upon this rate, mainly, depended whether the dispossessed could *adjust* themselves to changed conditions without fatally damaging their substance, human and economic, physical and moral. (Polanyi, 1944, p. 37; emphases added)

This position not only delineates Polanyi from his social scientist contemporaries but also links us back to the 'embeddedness' thesis. It is our contention that this slowdown, so critically important for a readjustment was the *only* way that an economy on the way to enter the orbit of a market would not be entirely disembedded and therefore derailed. In other words, by monitoring rate of change, additional time was provided for the existing institutional frame to catch up with the demands of a nascent market economy, thereby avoiding a full rupture among the rapidly unfolding dynamic market system, on the one side, and the relatively change-resistant institutional setup on the other. It should be noted that for Polanyi, the preservation of the archaic institutional setup was seen as a positive, rather than a negative. Once the problematic is defined in this way, we see that Polanyi takes sides with Joseph A. Schumpeter, who also had a favorable opinion of the leftover of the *ancien régime* as providing the 'protecting strata' of the new economic order. There is therefore here an important rapprochement between the two founding fathers of institutional and evolutionary approaches. In Polanyi's analytical scheme, if the advent of market society could inflict such irreparable damage on nature, this has been so because of the dismantling of the institutional fetters that held it in check.

The disembedding of market economy from its social and natural crust amounted to no less than the invention of 'fictitious commodities'. In a market society, fictitious commodities were land, labour, and money, which were not originally produced for sale with a gain but nevertheless treated as if they were commodities and produced as such; hence the fiction. While this may serve as a useful abstraction for the sake of theorizing, if in reality the market mechanism is made the 'sole director' of the 'natural environment' by way of the commodification of land, consequences would be far-reaching: 'Nature would be reduced to its elements, neighborhoods and landscapes defiled, rivers polluted, military safety jeopardized, the power to produce food and raw materials destroyed' (Polanyi, 1944, p. 73).

The detrimental effects of such a process were very clear to Polanyi, they would threaten man's 'natural habitat with annihilation' (Polanyi, 1944, p. 42). In fact, by replacing the Speenhamland mode of labour regulation, the genesis of the labour market had reversed an important aspect of embeddedness. Man was 'torn from his roots and all meaningful environment' (Polanyi, 1944, p. 83). The nascent working-class was provided with a new surrounding that amounted to much less than a 'meaningful environment':

> The industrial town of the Midlands and the North West was *a cultural wasteland*; its slums merely reflected its lack of tradition and civic self-respect. Dumped into this bleak slough of misery, the immigrant peasant, or even the former yeoman or copyholder was soon transformed into *a nondescript animal of the mire.* It was not that he was paid too little, or even that he labored too long – though either happened often to excess – but that *he was now existing under physical conditions which denied the human shape of life* (Polanyi, 1944, p. 99; emphases added).

If anything, the ongoing process was grinding the environment, in the broadest sense of the term, into a wasteland:

> the destruction of family life, the devastation of neighborhoods, the denudation of forests, the pollution of rivers, the deterioration of craft standards, the disruption of folkways, and the general degradation of existence including housing and arts, as well as the innumerable forms of private and public life. (Polanyi, 1944, p. 133)

Nature could thus make its debut after a very long interval precisely because Polanyi's mode of analysis departed radically from that of the classics. Classical political economy had emphasized the role of labour as the sole factor directly or indirectly responsible for economic growth. By this specification other factors were deprived of their distinguishing attributes. The ultimate formulation was that of Karl Marx himself, where the labour theory of value was almost fetishized to explain man's transformation of nature (Lippi, 1979) within the context of a productionist obsession. By contrast, Polanyi, writing after the Marginalist Revolution and fully aware of the Walrasian scheme of general equilibrium analysis, scaled down labour to being only one of the three fictitious commodities: 'Production is *interaction* of man and nature; if this process is to be organized through a self-regulating mechanism of barter and exchange, then *man and nature* must be brought to its orbit' (Polanyi, 1944, p. 130; emphases added). In this context, nature in the form of land, rather than being a passive recipient, could reassume a novel analytical role and engage with labour to determine the overall course of events within market society.

It was squarely unfortunate that whereas nature had experienced a profound change in status in the transition to the market society, this fact could so easily be overlooked just because the classical political economists set out to pursue a line of inquiry that privileged labour as the sole source of value or the major cost factor. The discounting of nature during the construction of One Big Market was at a parity with that of labour, and yet was so easily overlooked:

> The proposition is as utopian in respect to land as in respect to labor. The economic function is but one of many vital functions of land. It invests man's life with stability; it is the site of his habitation; it is a condition of his physical safety; *it is the landscape and the seasons*. We might as well imagine his being born without hands and feet as carrying on his life without land. And yet to separate land from man and organize society in such a way as to satisfy the requirements of *a real-estate market* was a vital part of the utopian concept of a market economy. (Polanyi, 1944, p. 178; emphases added)

We have thus seen how Polanyi brought nature back in as the partner to labour, as well as how the natural and the social are inextricably linked for Polanyi. However, to think that 'nature' is personified into a kind of 'social', or to put it differently, that 'nature' is entirely 'socially constructed' for Polanyi would be entirely misleading. Polanyi was vehemently critical of the 'natural' when it came to explaining human institutions such as the market. But this does not mean that he would disregard the attributes of the 'natural' when it came to understanding 'natural environment'. As a final note, we should remind ourselves that whereas Polanyi rejected 'scarcity' as *the* point of departure for a substantive science of economic activity, and preferred instead a focus on man's procurement of his livelihood – which brings with it an added emphasis on systemic self-reproduction – this does not mean that he rejected 'scarcity' either (Polanyi, 1957, pp. 246–7). In discussing nineteenth-century American exceptionalism, Polanyi underscored the role of free availability of land; in other words, as long as land had not become 'scarce', it could not function as a 'fictitious commodity' (Polanyi, 1944, p. 201). For a commodity to qualify as 'fictitious', it had to become squarely scarce; scarce as any other commodity and yet even scarcer as it could not be produced to demand. Without concepts such as 'scarcity', 'irreproducibility' and 'irreversibility', we could not possibly dwell upon the implications of 'time's arrow'.

A CONCEPTUAL CONTRIBUTION TO INSTITUTIONAL ENVIRONMENTALISM: 'SOCIAL COST'

There exists one concept in *The Great Transformation* that has so far not attracted much attention, despite the fact that it happens to be one of the very few concepts Polanyi himself placed in inverted commas! Had it not been for Kapp's independent placement of this concept at the centre of his own institutional analytical scheme, its presence in Polanyi's text would have gone entirely unnoticed. This is all the more paradoxical because the idea behind the concept plays a fundamental role in Polanyi's analysis, in fact more fundamental than either 'embeddedness' or 'fictitious commodity'. It was Kapp who characterized the dominant intellectual motive of *The Great Transformation* as the rewriting of economic history from a social costs perspective (Kapp, 1963, p. 45). The whole thrust of Polanyi's overall assessment is that the advent of market society, whatever purely economic improvements it may have brought with it, was bought at such a high social price that it was not actually worth it. However when it came to naming this idea, Polanyi was rather spendthrift. On only one occasion, when discussing the antecedents and consequences of Speenhamland, did he coin the two words 'social' and 'cost' together:

> The burden consisted mainly in two seemingly contradictory effects of manufactures, namely, the increase in pauperism and the rise in wages. But the two were contradictory only if the existence of a competitive labor market was assumed, which would, of course, have tended to diminish unemployment by reducing the wages of the employed. In the absence of such a market – and the Act of Settlement was still in force – pauperism and wages might rise simultaneously. Under such conditions the 'social cost' of urban unemployment was mainly borne by the home village to which the out-of-work would often repair. (Polanyi, 1944, p. 94)

This was a most unfortunate context to introduce the concept of 'social cost'. Whereas the idea behind the concept was virtually present in all of *The Great Transformation*, when introduced in this instance the concept was tied up with a very specific context that had dire implications for its general prospects as an analytical tool. The problem here is that the existence of a 'social cost' is traceable to the absence of a competitive labour market. Had there been a competitive labour market, as Polanyi admits, a reduction in wages would have served to reduce unemployment. One might be tempted to read into this a reduction of 'social cost'. Given the cost-reducing or economizing interpretations of the market process by the NIE adherents, such a misreading can be easily understood. The very idea of a 'social cost' reducing market is, however, against the very spirit of Polanyi-style institutional analysis.

Within the macro-structure of his argument, the very creation of a self-regulating market system was responsible for the enormous 'social cost' incurred. If so, how could the market alleviate social costs, as can by stretch of imagination be deduced from the one place in the text where social cost is explicitly cited? Of course, there is another dimension to the specific case under study. With a competitive labour market, 'social cost' would be placed elsewhere other than the rural community. Urban community would possibly undertake some of it while the rest would fall on the shoulders of the very workers who would be paid less in wages. In retrospect, if anything is involved here, it is not social cost-reducing, but instead 'cost-shifting' in contemporary neoinstitutionalist parlance (Swaney, 1987) – a theme we will return to when we discuss William Kapp's contribution. Be that as it may, given the ambiguity involved in the quoted passage, in order for 'social cost' to be uplifted to an analytically useful status one had to wait for another intervention.

The commonplace economic conception of cost is by definition private and individualistic, if not fully subjective in the Austrian sense. Conventional economic analysis works exclusively with this version of cost. The 'social' in Polanyi's sense defies conceptualization in a similar manner by way of induction. In other words, it is not reducible to the summation of individual 'private costs'. As such, it is also incommensurate, and therefore qualitatively different, from the cost concept of conventional economics that Polanyi knew very well. In this light, to Polanyi, coining 'social' and 'cost' together was an act of construing a contradiction in terms. However, the very concept of 'social cost' could be made analytically useful by recourse to the very distinction between the natures of the two constituent parts. This is precisely what William Kapp did in his *Social Costs of Business Enterprise*.

Whereas for Polanyi 'social cost' as a concept was of limited use except as a contradiction in terms, for Kapp it became the conceptual point of departure. Kapp was well aware of all the limitations inherent in such a concept. He acknowledged that the concept could be criticized for its lack of 'definiteness and precision' (Kapp, 1963, p. 20), and that 'quantification will always remain an important question' (Kapp, 1963, p. 21) as far as social costs are concerned. It is important to emphasize that for Kapp, 'social cost' covered a wide terrain extending from within the domain of the very 'economic' to that of the broadly 'social'. As such it was a concept that cut across conventional disciplinary boundaries and connected, rather than artificially separating:

> The fact that some of these social costs are ultimately reflected in private monetary losses and public expenditures emphasizes their 'economic' character even in the narrow sense in which the term is used in traditional economic analysis. Other social costs, as for example the detrimental effects on esthetic and recreational values and partly also the impairment of human health, are of a less tangible character and cannot be fully evaluated in monetary terms or market prices. (Kapp, 1963, p. 264)

Kapp's ingenious argument transformed step by step the seeming limitations of the concept into positive attributes. So much so, that by the end of this refinement process the concept became indispensable not only for the study of environmental problems in general but also for a devastating critique of neoclassical economics. Ever since the beginning of institutional economics, neoclassics had insisted that, irrespective of the methodological grain of truth they may display, institutional theoretical critiques were actually inferior in achievement to mainstream theory precisely because they could not come up with an alternative value theory. Therefore, according to neoclassical economists, as long as the institutionalists did not have a rival value theory that explained price formation, their criticisms would add up to little and eventually boil down to a kind of empiricism *pace* the German Historical School (Özveren, 1998). Setting aside the legitimacy of whether or not the formulation of a technical value theory in conformity with the metaphor of Newtonian physics constitutes the most important problem of economic inquiry, the fact remained that by the prevailing standards of economic science, there was one domain where institutional economics was outperformed by the dominant orthodoxy. Efforts to catch up with neoclassical theory in this domain so far have proven of limited success, if any:

> Even more significant was the fact that *pure* economic theory began to concern itself more and more with the analysis of an essentially stationary image or model of the market economy . . . Good illustrations of this procedure which tended to eliminate the dynamic and less congenial factors of reality from

> economic analysis can be found in nearly every branch of economic investigation. But nowhere is this tendency more marked than in *the very core of economic analysis: namely, the theory of value and price. Here the concentration on private costs and private wants has been almost complete. In fact, for all practical purposes value theory considers it as axiomatic that entrepreneurial outlays and private returns constitute a theoretically adequate measure of the costs and benefits of productive activities*. (Kapp, 1963, pp. 5–6; emphasis added).

As Kapp demonstrates, the neoclassical practice is in fact erroneous and therefore misleading in terms of its implications. The neoclassical conception of cost is 'incomplete and apparently in need of correction' (Kapp, 1963, p. xii). Mainstream economics works with an 'incomplete system of cost accounting': 'Nothing is more irrational than an incomplete system of cost accounting. An economic calculus that neglects one part of the costs of production can hardly claim to promote social efficiency' (Kapp, 1963, p. 17).

The very foundation of neoclassically idealized rational economic behaviour as the sine qua non of social welfare and economic efficiency is shaken to ground if what is at work is an incomplete cost–benefit analysis. Furthermore: 'As long as it continues to confine itself to *market value* neoclassical economics will fail to assimilate to its reasoning and to its conceptual system many of the costs (and returns) which cannot be expressed in dollars and cents' (Kapp, 1963, p. 11; emphasis added).

Kapp's critique undermines the foundations of neoclassical superiority in this regard. It is only with the way in which Kapp used the concept of 'social cost' that the tables have been definitively turned around. As of this point, the issue is no longer whether or not institutional economics measures up to the standards set by the neoclassical mainstream in putting forward a theory of value and price, but instead, whether or not the neoclassical theory in this respect is fundamentally flawed. Consequently, there remains no standard reference, something that the institutionalists should presumably try to catch up with.

Kapp's elaboration of the concept of 'social cost' requires further commentary. First and foremost, he broadened the scope of the concept. This can best be understood in comparison with Polanyi's use of the term. While discussing the implicit antecedents of social cost analysis, Kapp referred to the tacit presence of social costs in Simonde de Sismondi's and Karl Marx's studies, among others. He situated such works within the 'period of transition following the introduction of the machine method of production' (Kapp, 1963, p. 33); a characterization strongly reminiscent of Polanyi's *The Great Transformation*. He further argued that the kind of social costs that Sismondi brought to the foreground were specifically social costs of technological change, which in turn should be seen as a 'special case of the social costs of transition' (Kapp, 1963, p. 33).

In conformity with Kapp's reasoning, we should further add that 'social costs of transition' are a special case of social costs in general. Now, in this sense, whereas Polanyi concentrated exclusively on the 'social costs of transition', Kapp developed a much broader conception of social costs. This shift had one very important consequence. 'Social costs of transition' refer exclusively to the long term. In the long term, society as a whole faces these costs. There may even be rollovers at work from one generation to the next. However, when we broaden the scope of the concept of 'social costs' *pace* Kapp, not only long-term but also short- and medium-term considerations are introduced into the picture.[6] This makes a major difference. In many instances that Kapp studies in detail, social costs concern a situation where, albeit being members of the same society, some pay in the place of others. As such, social costs have a redistributive effect within the very society involved. It must be for this reason that Kapp insisted on including a 'third party' in his definition of social costs:

> In short, the term 'social costs' refers to all those harmful consequences and damages which other persons or the community sustain as a result of productive processes, and for which private entrepreneurs are not held accountable. This definition of the concept is comprehensive enough to include even certain 'social opportunity costs', which take the form of avoidable wastes and social inefficiencies of various kinds. (Kapp, 1963, p. 14)

According to Kapp, social costs, while possessing a common denominator that served to justify their characterization as a single category, were manifest in a wide range of fields. Furthermore, they were not incidental but systemic in nature:

> [I]t can be shown that the social costs which are shifted to other persons or to society as a whole are not only substantial but that such shifts are *typical and regular* occurrences which can be obviated, if at all, only by an elaborate system of technical regulations and social legislation. (Kapp, 1963, p. 271; emphasis added)

The fact that they were systemic occurrences in a market system where the profit motive dictated the logistic calculus of business enterprises led Kapp to a sweeping conclusion. While institutionalists like Veblen and Polanyi had expressed their discomfort with the Marxian idea of 'exploitation' as an analytical device, it was Kapp who once again came up with not only a critique but also an alternative:

> As soon as one passes beyond the traditional abstractions of neo-classical price analysis and begins to consider the neglected aspects of unpaid social costs it becomes evident that the social efficiency of private investment criteria, and

> hence the alleged beneficial outcome of the allocation process under conditions of private enterprise, is largely an illusion. For, if entrepreneurial outlays fail to measure the actual total costs of production because part of the latter tend to be shifted to the shoulders of the others, then the traditional cost–benefit calculus is not simply misleading but actually serves as an institutionalized cloak for large-scale spoilation which exceeds everything which the early utopian socialists and even their Marxian successors had in mind when they denounced the exploitation of man by man under the emerging system of business enterprise. (Kapp, 1963, p. 271)

Irrespective of in which specific domain they manifested themselves, all social costs were traceable to the operation of the market economy as a whole where production was organized within private business enterprises. In fact, a careful scrutiny of Kapp's study of various types of social costs would indicate that while many of them originate from the market mechanism in a Polanyi-esque manner, others are more immediately connected with the notorious practices of business enterprise in a Veblenian sense. Kapp was well aware of Veblen's earlier statements concerning the 'wasteful' attributes of business enterprise and explicitly mentioned Veblen as a source of inspiration in his second revised edition of *Social Costs of Business Enterprise*. In fact, one of the revisions involved was to replace 'private enterprise' in the title of the first edition in order to affirm his lineage with the institutional analytical tradition (Kapp, 1963, p. x, 43). Kapp's insistence that 'what may be technologically wasteful might still be economical' bears the imprint of an important Veblenian theme (Kapp, 1963, p. 70). Kapp made only two references to works of Polanyi, which look more like last minute footnote insertions to emphasize parallels rather than thematic borrowing (see Kapp, 1963, p. 45, 288), but the strong parallelism among the two scholars is strikingly manifest (Heidenreich, 1998; Swaney and Evers, 1989). It would be appropriate to say that Kapp and Polanyi arrived at similar conclusions somewhat independently of each other. Even so, we should remind ourselves that Polanyi concluded his widely influential article with the following ambitious remark:

> Even in regard to the market system itself, the market as the sole frame of reference is somewhat out of date. Yet, as should be more clearly realized than it has been in the past, the market cannot be superseded as a general frame of reference *unless the social sciences succeed in developing a wider frame of reference to which the market itself is referable.* This indeed is our main intellectual task today in the field of economic studies. (Polanyi, 1957, p. 270; emphasis added)

In the very first chapter of his book, Kapp spelled out his overriding purpose in a way that should make us think that he conceived his own work as a follow up to Karl Polanyi's research agenda:

> The present investigation must thus be understood *as part of a larger inquiry* the purpose of which is twofold: to measure the performance of the system of business enterprise *by yardsticks which transcend those of the market* and lay the foundation for a *reformulation of economic analysis* so as to include those omitted aspects of reality which many economists have been inclined to dismiss or neglect as 'noneconomic'. (Kapp, 1963, pp. 11–12; emphases added)

In short, Kapp provided an enviable early synthesis of the Polanyi and Veblen approaches in his landmark study of social costs.

Kapp probed further into the consequences of the functioning of a market economy. According to him, the market economy has a tendency to lead to spatial polarization by way of the concentration of industry and labour-force in certain localities. This is because the principle of external economies at work exerts a pulling effect. As a consequence, there emerges a cumulative process of environmental deterioration. In fact, Kapp stressed time and again 'the cumulative character and complexity of the causal sequence which gives rise to environmental disruption and social costs' (Kapp, 1970, p. 837), as he called it:

> What appears to be profitable in terms of private costs and private returns is actually a wasteful agglomeration of industries without regard to the social costs caused thereby. Indeed if these industries had to pay the social costs caused by their concentrating in urban centers it might well turn out that at least some of the much-taken-for-granted economies would be partly if not wholly offset by the tangible and intangible diseconomies of over-concentration. (Kapp, 1963, p. 262)

While the spatial manifestation of the spontaneous working of a market economy takes the above form and leads necessarily to eventually rising social costs, further effects of the market process are readily identifiable. Particularly within the range of renewable resources, the price system fails because first, it cannot rationally identify the ideal output position, second, it cannot take into account the equation of social costs and benefits, and third, it has a tendency to accelerate the use of resources sooner rather than later because of the focus on here and now as befits the motive for private gain (Kapp, 1963). As for the utilization of non-renewable resources, competitive logic leads, first, to unnecessary duplication of capital outlays, second, to loss of reserves due to surplus capacity and depressed prices which induce private enterprises to use less efficient methods of production, and third, to premature depletion of resources with a further negative consequence on future generations (Kapp, 1963).

Although Kapp was concerned with the wasteful effects of the 'business enterprise and the competitive market calculus' (Kapp, 1963, p. 263) in general, within this broad context, he did address the more specific question of the 'institutional approach to the study of resource depletion' (Kapp, 1963, p. 114) and pursued a thorough investigation of the environmental question as it takes shape under the various 'institutional arrangements' (Kapp, 1963, p. 98) of an industrial civilization. He saw that 'man must make the necessary adjustments if he is not to destroy the basis of human survival' (Kapp, 1963, p. 73) and he was confident in the coming assertion by man in the industrial world of his 'unalienable right' (Kapp, 1963, p. 72) to a clean environment. While Kapp concentrated his systemic analysis on the role of social costs, he did see beyond the immediate horizon of this relativistic logic and noted the absolute effects of the problem as pertinent to the environment:

> Water and air pollution do *much more than* shift some of the costs of production to people living outside of a given area. They create *a new physical environment* for man. Indeed, instead of the *natural environment* in which man has lived for centuries, the permanent revolution of technology has created *a man-made environment* the full implications of which, for human health and human survival, are far from being fully understood. We are only at the threshold of the realization that this man-made environment may be exceedingly detrimental to all life on this planet. (Kapp, 1963, p. 87; emphases added)

In addressing the environmental question, Kapp was well aware of the inherent problems of using non-renewable resources. He also made use of the concept of 'social limit', beyond which the use of renewable resources would cause various social losses (Kapp, 1963, p. 93). He identified a 'critical zone' in the utilization of renewable resources. A rate of use exceeding this limit would cause an 'economically irreversible depletion which is associated with considerable social losses' (Kapp, 1963, p. 96). Furthermore, Kapp referred to 'ecological balance' as it concerns 'the delicate system of interrelationships between the land and its vegetative cover' (Kapp, 1963, p. 94). However, Kapp was no naive environmentalist, nor was he a neoclassical economist who would uphold the principle of reversibility – far from it. He was well aware of the irreversible time's arrow at work:

> To define the ecological balance is not to suggest that its maintenance must become a norm. There is no need to point out that any *general advance of population makes it increasingly difficult to maintain intact the ecological balance*. Even apart from the general increase of population there may be other overruling reasons why this balance cannot be maintained – as for instance in periods of natural disaster or national emergencies. However, any such disturbance has long-term *cumulative consequences* which man can anticipate to a large extent

> and which it is always imprudent to ignore in the interest of maximizing current returns or minimizing current costs. (Kapp, 1963, p. 95; emphases added)

In retrospect, whereas Polanyi's concept of 'embeddedness' did serve to bring nature back in, unless further elaborated this concept in itself possesses a dualistic quality. In other words, this concept in purely semantic terms relies on the distinction of the 'external' from the 'internal'. The 'external', while surrounding the content, continues to preserve its separate identity. With the concept of 'social costs' as refined by Kapp, we enter a new domain where processes that take place within the 'content' bear a traceable impact upon the 'embedding' container, in a way true to the spirit of Polanyi's work. However, a further step whereby the distinction between the content and the container is violated is now in order. The correct specification of the institutional approach to environment requires this step. Kapp was well aware of this necessity. In his reformulation of institutional economics he brought to the foreground the need to analyse the subject matter as an 'open system', working in conformity with the principle of 'circular and cumulative causation'. Kapp summarized his viewpoint in a way that would inevitably lead to the questioning of conventional disciplinary pigeonholes:

> The relevant boundaries of the limits of social inquiry differ depending upon the problems under discussion. In any event, in view of the cumulative circular interdependencies which link the economy to *the environment and the resource base* and hence to the interests of future generations economic processes cannot be adequately described without reference to a time horizon: that is to say, without reference to the time schedule of inputs in relation to scarce available resources, and the direction of the qualitative changes which *the use of energy and matter as well as the disposal of waste have upon the environment* and hence on economic processes and the well-being of future generations. It is this concern for a longer time horizon and the complex interdependencies of actual social phenomena and processes moving in a definite direction with possible *irreversible* qualitative changes and, last but not least, the rejection and the replacement of the mechanical analogy by the principle of circular causation which gives modern institutionalism, what I venture to call its modern character and its *transdisciplinary* scope. (Kapp, 1976, p. 230; emphases added)

Accordingly, processes characteristic of the content bear the input and therefore the imprint of the container, while the container itself changes shape with the transformations within its content. Put differently, in this mature state of institutional analysis, the 'internal–external' distinction is dissolved in order to make room for a conceptualization of the systemic evolution of the whole along the irreversible trajectory of 'time's arrow'.

ENVIRONMENT AS INSTITUTIONALISTS' FAVOURITE METAPHOR FOR THE SOCIAL

The relationship of the social sciences to the natural sciences has attracted much attention. It is commonplace knowledge that the dominant trend in economic science has aspired to Newtonian physics as its role model. Institutionalist critiques of mainstream economics have, since Veblen, attacked orthodoxy for this obsessive compulsion (Veblen, 1898; Georgescu-Roegen, 1971; Mirowski, 1989). Instead of physics, if economic science were to take Darwinian biology or the then anthropology as a role model, it would become an evolutionary science (Veblen, 1898). It goes without saying that what institutionalists had in common with their rivals was a shared belief in the superiority of the natural sciences to social sciences in general.

A further consequence of this long-held belief has been studies that trace the effects of natural metaphors on social, but especially on economic, thought. For example, one such study identifies in Schumpeter a leading example of how the 'natural' and the 'social' can be conceived as essentially identical in 'metaphorical structure' (Mirowski, 1994, p. 11). Another study that focuses on the theme of evolution in economics concludes that Schumpeter shied away from natural metaphors in general, and the kind of thinking he displayed was 'evolutionary' in a sense other than implied by the post-Darwinian biological metaphors (Hodgson, 1996). While there may be different assessments of his intellectual debt to natural metaphors, a discussion of Schumpeter is of great importance for us here. This is because Schumpeter is an influential evolutionary economist who gave as strong an emphasis, if not more, to institutional factors in his research program as the self-proclaimed institutionalists themselves. In his *Capitalism, Socialism and Democracy* we can identify some of the most mature formulations of otherwise institutional themes.

It is somewhat paradoxical that, of all the institutional or evolutionary economists, Schumpeter, noted for his less-than-average interest in using the explicit lessons of the natural sciences for his theorizing within the domain of economics, should display the most mature deployment of the natural metaphor for the conceptualization of the so-called 'non-economic' or 'social'. For this purpose, Schumpeter exploited the full potential of what we will, for the sake of convenience, name 'social environment'. Interestingly enough, 'social environment' in Schumpeter plays a role strongly reminiscent of the function of environment with respect to the economy as discussed in the institutionalist literature. Implicit in Schumpeter's discussion is a conception that qualifies 'social environment' as a non-renewable resource. It is something that has a given magnitude and is inherited from the pre-capitalist past, and furthermore is subject to depletion as capitalism as an evolutionary process moves ahead in conformity with time's irreversible arrow.

The whole point of Schumpeter's argument in *Capitalism, Socialism and Democracy* is that, while creative in many respects, capitalism is essentially uncreative, and actually destructive when it comes to its 'social environment'. It cannot replace the institutional framework that helps contain it, and furthermore, it fosters critical habits of mind and hostile attitudes. These 'environmental factors', in Schumpeter's terminology, serve to pollute the 'social atmosphere' from within (Schumpeter, 1942, p. 112, 143–55). In the Schumpeterian scenario, it is by destroying its historical heritage from the pre-capitalist era that the economic process undermines itself as a result of its very success. On this point we should note that there exists a strong parallel between Schumpeter and Polanyi. In Polanyi as well we have already encountered how the advent of market system was destructive of the 'social' that was characteristic of the pre-market era.[7] Where Schumpeter and Polanyi stand together, that is, on the conception of the 'social' in the broad sense of the 'non-economic' as subject to erosion, we have grounds for a general conclusion that should help characterize the institutional approach as a whole. Therefore, before making the specific contributions to the study of environment observed in the earlier parts of this work, institutional economics had already possessed a notion of environment as a metaphor it used for the study of the 'social'.

CONCLUSION

In the first part of this work we listed three rival strategies with respect to the existing disciplinary boundaries. The first of these was characteristic of the dominant neoclassical approach noted for its imperialistic transdisciplinary aggression. On the other side, that is on the terrain of opposition, there were two camps. We identified, first, the parasitic strategy of NIE that takes for granted existing disciplinary boundaries in order to traverse them selectively by way of interdisciplinary or multidisciplinary ventures only to score gains vis-à-vis its neoclassical rival. The second camp on the opposition side belonged to the true institutionalists who contested the very logic of specialization and opted instead for a singular transdisciplinary approach.

Of the two opposition strategies, in the short-to-medium term, the second strategy seems to be more rewarding as it can bring immediate benefits at a time when the 'wall' continues to exist. On the other hand, because this strategy occupies a middle ground by opportunistically combining some basic methodological attributes of neoclassical analysis with its periodic interdisciplinary assaults, it can always fall prey to the strength of the dominant neoclassical approach and lose its independence. To remain in place and preserve its autonomy, it needs as much the pulling-effect of a truly original institutionalist economics as it needs the repellent push of the mainstream. Be that as it may, in the medium-to-long term, if and as the 'wall' comes down, because the second strategy's parasitic position will be undermined, the third strategy has greater prospects thanks to its ontological soundness and logical consistency.

With respect to the above spectrum, rapidly increasing contemporary institutionalist contributions to environmental economics coincide with the second strategy. While far from readily embracing NIE, they nevertheless share with it a number of characteristics and their fortunes. First and foremost, these works take for granted the legitimacy of a subdiscipline of environmental economics and therefore succumb to the trappings of disciplinary specialization. Within the constituted domain of environmental economics as derivative of neoclassical economics, it is not surprising that measurement fetishism prevails. A major impasse of institutionalist environmental economists concerns the valuation process. As we have seen, the mainstream economists make a case for the effective valuation process of the market mechanism. Environmental institutional economists react by wavering between natural physical values on the one side, and social valuation by way of a forum-like deliberation process on the other. Either way, they take the centrality of neoclassical valuation by way of market pricing more seriously than they should. By doing so, they provide their rivals with ammunition because their proposed alternatives are not as practical. The whole critique of market valuation we find in Kapp and the concomitant phenomenon of 'exploitation' could provide them with much safer ground to turn the tables around.

To benefit from the support of original institutionalism, however, institutional environmental economists have first to develop a new sense of ontological foundations of the disciplinary ground under their feet. Instead of accomplishing this task, so far whereas neoclassical economists venture into the subdiscipline of environmental economics from one side, these institutionalists arrive from the opposite side in much the same way, yet with the baggage of different piecemeal tools and convictions. Irrespective of which direction they come from, both parties take for granted the constitution of the domain in question. In contrast, from the viewpoint of original institutionalists like Polanyi and Kapp, the very existence of such a separate domain needs to be contested. It should be emphasized here that the adoption of this latter position does not mean that all institutional economists have to study environment together with other strictly economic concerns. It is natural that different institutional economists should have different research foci. However, mere concentration of research foci should neither constitute nor legitimize a subdiscipline. In light of our above discussion of the works of Polanyi and Kapp, it has become obvious that the domain of original institutional economics was broadly defined so as to include at least not only the domain of neoclassical economics but also that of environmental economics.

A comparison of the size of the disciplinary domains of the neoclassical and institutional economics in the above sense would nevertheless not yield the whole truth. Long before environmental economics or the so-called environmental institutionalism were officially born, within its very structure the institutional approach possessed an implicit metaphor of environment that it deployed effectively for the characterization of the 'social', as the seminal works of Polanyi and Schumpeter attest. In this sense, environmental institutional economics should get rid of its self-image as being a simple extension of institutional analysis to just another field of inquiry. If anything it should stand as heir apparent to the heritage of one important tool in the original institutionalist way of thinking that had always been there. We are only now beginning to see what has for long been in front of our eyes. If we can now refer as we did earlier in this chapter to the discussion of the status of environment in Polanyi's work 'as bringing back in nature', this is because we have for a long time been blinded to seeing what has always been in those texts before our very eyes. This may well have to do with the fact that, with the ongoing challenge to the dogmatic practice of disciplinary boundaries, we are regaining our long-lost sight.

NOTES

1. I would like to thank Dr Fikret Adaman of Boğaziçi University and Dr Serap Türüt Aşik of the Middle East Technical University for their valuable comments. The suggestions of the editors of this volume gave this work a new turn for the better. I assume full responsibility for remaining errors.
2. The mainstream study of environment is primarily shared among an older natural resource economics and an environmental economics of more recent vintage. Whereas the former specializes on how nature provides inputs by way of factors into the economy the latter concentrates on the post-production and consumption effects, that is, the flow of waste materials and energy residuals, which bestow upon the environment a sink function (Kneese, 1995, pp. xiii–xv). Genealogically, the two fields of specialization come from different sources (agricultural economics and welfare economics respectively) and epochs (the first is as old as Malthusian classical economics, whereas the latter gained widespread currency as of the 1970s), but because both deal with the relationship of the economy and nature by recourse to similar research tools and techniques, for the sake of convenience they will be treated jointly under the rubric of environmental economics in this study.
3. An institutionalist interpretation of Coase on social costs in tune with the rest of his work on transaction costs would resist the popular function of this seminal article as a basis for

the Property Rights School. According to such an interpretation, Coase indulged himself in the study of a hypothetical special case, which was of little significance but to illustrate how radically the real world differed from this case. However, it so happened that the abstract specification of this special case overlapped with the neoclassical model, thereby serving interests other than its own (Mulberg, 1995, pp. 153–4).
4. This structural affinity of neoclassical and environmental economics is well noted even by adherents of the conventional approach (Pearce, 1998, p. 313).
5. A notable exception (Swaney and Evers, 1989), albeit with restricted focus, deserves mention as a precursor of this study.
6. This does not mean that Kapp overlooked the importance of the long-term. On the contrary, Kapp insisted that 'the time horizon of organized society in all matters related to the resource base must necessarily extend further than that of an individual or a private firm' (Kapp, 1963, p. 124).
7. If anything, the difference between the two leading theorists would boil down to the fact that unlike Schumpeter, who foresees a gradual evolution into socialism with virtually little positive role for 'movements' to play, Polanyi envisages the inevitable growth of a 'self-protective' reaction: a theme that should not concern us here.

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