Chapter 11

Designing Development: cultural consonances in a post-Cold War era

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This chapter uses the comparison of the different development trajectories of Turkey and Japan to set a view of the path-dependence of development against the re-activation of a range of geo-economic alliances suppressed by recent history. The post-Cold War re-emergence of regional and cultural synergies, facilitated by the communication technologies underpinning globalisation, offers the possibility of development pathways based on local understandings. However, planned development policies, whether externally imposed or internally created have not always produced the anticipated results.

The preceding chapter looked at the modernisation attempts of Turkey and Japan as conscious attempts to determine a national path to parity with the pioneer industrialised nations. The notion of a simple continuum with developed countries positioned at one end and developing countries towards the other is challenged by the trajectories and outcomes of the development policies of these two nations. The different outcomes have been determined by cultural and social difference, to the extent that these impact upon the absorptive capacity of each society.

The promotion of a single pathway to development within the current global systems also seems misplaced. The cultural parameters influencing the process of modernisation are equally problematic. This chapter considers whether an individualistic culture is a precondition or a consequence of development. Does industrialisation shift societies from collectivism into individualism?

The nineteen-nineties saw the unequivocal end of the Cold War and the removal of barriers arbitrarily created at the cessation of hostilities in World War II. Subsequent political and economic re-alignments, while difficult, have allowed the re-emergence of geo-historical linkages suppressed for half a century or longer. In the Balkans these re-alignments led to the resurrection of earlier conflicts, placed in stasis by external threats. Chapter 2 described how Darrell Delamaide (1995) has identified

these linkages in terms of what he describes as "super-regions" across Europe. From this perspective we are witnessing the re-emergence of older international alignments. Delamaide invokes the Hanseatic League and the Holy Roman Empire to explain the rte-activation of long dormant trading relationships. The resilience of such links reflects a degree of cultural consonance which is also evident in the relationship between Turkey and the Turkic republics of the former USSR, reflecting linguistic and cultural ties which preceded the displacement of the Ottomans by the Russian empire in the nineteenth century.

Geography is History is Geography

The Cold War concept of "Third World" identified a significant proportion of humanity primarily in terms of its exclusion from superpower confrontation. In the regions where colonialism was succeeded by national development, the end of the Cold War has meant reduced attention from the former protagonists. In some respects this has been beneficial, as major confrontations are less frequently played out over third party resources. In many instances it has reduced the flow of resources and technology, albeit often related to militarisation and its infrastructural requirements. Even now the aftermath of sponsored conflicts from the Cold War era are still being resolved in Southern Africa.

In many countries now seeking sustainable development, the current relative neglect means that the legacy of post-colonial infrastructures must be tackled with little outside support. Transport and communications networks may offer little synergy with current needs or potential regional development. In many cases existing resources reflect an agenda of resource exploitation, not national development. The route of the railway between the Turkish capital Ankara and Istanbul is a good example of this. Being part of the Istanbul-Baghdad line, it was constructed by a German company and completed in 1892. Its 567 kilometre length reflects the advantageous conditions that had to be granted to the company by the ailing Ottoman Empire: According to the contract, the company could search for and exploit all minerals for a distance of twenty kilometres on both sides of the railway. As a result, the railway was constructed at least 100 kilometres in excess of a direct route. This line is still being used and is the busiest line in Turkey. One could estimate the associated waste of fuel and time over more than a century. A similar situation is reported by Nyanchama (1995) in Africa where the colonial railway lines transcend regions and lead to the sea without meaningful internal networking. Such a usage of technology manifests itself also in African telecommunications

where it is usually much easier to call a European city from Africa than it is to call a neighbouring African capital or town in an adjacent region.

Comparable problems in Eastern Europe reflect the dismantling and division of structures which both pre-date and post-date nineteenth century colonialism. The economic complementarity of the Soviet Union may have served both strategic and nation building objectives, as described in relation to military production in Chapter 9. Now, however, it creates difficulties for the emerging independent states seeking economic self-sufficiency in the CIS and beyond. Elsewhere, however, the regional synergies identified by Delamaide (1994) offer an alternative view of available and potential pathways for development.

Delamaide describes a European political geography going back to the Hanseatic League and the Holy Roman Empire. Delamaide's attribution the patterns of potential development across an enlarging European Community to a range of geo-historical connections suggests that the globalising IT slogan *Geography is History* employed some years ago by British Telecom, should be reversed. Enduring cultural links, whether established through trade, migration or colonisation can be identified throughout the emergent global system. The role of ICTs in supporting diasporas and in ensuring the reliable flow of financial remittances was touched on in Part I and will be revisited in the concluding chapter.

The infrastructures which support such re-emerging links are not simply physical but include the institutional legacy of earlier relationships. For example, Nobes and Parker (1981) present a range of taxonomies of variation in accounting practice across the globe. These relate zones of influence both to the initial development of modern accounting in Scotland and England, its subsequent spread though other Anglophone cultures and the effect of alternative models on the emergence of spheres of influence. It has already been noted that the emergence of English as a global language emphasises the existence of both cultural and linguistic barriers and pathways within the world economy (Crystal; 1997).

Significantly, in India the use of English as a *lingua franca* across the southern states undoubtedly assisted in the emergence of a software industry in the Bangalore region and elsewhere. An institutional legacy from derived from a British model also eased collaborations with British and North American companies in which key business process are supported on a real-time basis from southern India. Dhillon, Hackney and Ranchod (1998) argue that the benefits of essentially off-shore participation in the global economy are limited for the economy as a whole. However, by the late nineteen-nineties, Indian engineers had begun acquiring Asian language skills, particularly Japanese, in order to access

these additional markets. The English base has served a stepping stone and exemplar of the approach needed for participation in a globalising IT industry.

The new information infrastructure presents a number of additional challenges in the development and diffusion of technology and associated standards. Barriers to participation in the formation of a global economy in general and the enabling information technologies in particular, exist in relation to character-sets and their support. Innovations in information technology have been most successful where they were mapped on to existing cultural frameworks, whether at the level of national or business culture. Thus the first "killer application" for end-users, the spreadsheet, could readily mimic the twenty column analysis paper already in use in Western economies.

In East Asia computer support for numerical and scientific tasks quickly reached levels comparable with the West, but the lack of support for non-Roman text limited progress in administrative and commercial use. Shepard's (1993) description of the technical complexities of networking in an environment that must move beyond the ASCII standard was noted in Chapter 5. Technologies that do not need to incorporate a specific character set have been adopted, and Castells and Hall (1994) attribute the refinement and promotion of fax technologies by Japanese companies as evidence of their need to support logographic text. Rather than attempting to overcome cultural barriers, such users have applied available technologies to more directly relevant areas of advantage (Kaye and Little, 2000).

Communications technology includes writing systems. The unique Korean *hangul* script, specifically designed to increase literacy, has both reinforced national identity, and delivered the high levels of literacy which underpinned the rapid industrialisation of South Korea. Across the People's Republic of China the Chinese script continues to serve the purpose of providing a single written expression supporting a wide range of regional dialects and languages in a way that a more phonetic script could not. The process of script reform has produced growing variation between the forms used in mainland China, Taiwan or even Japan. Nevertheless, in applying Delamaide's geo-historical perspective to Greater China, it is obvious that this unique common basis of written language contributes to the continuing regional synergy.

Paradoxically, there ultimately may be some advantage in the different learning trajectory imposed by the delay in the emergence of effective support for non-Western characters. The current changes in business and administrative practices can be incorporated in the new systems now being

deployed, and the problem of legacy systems side-stepped. The positive aspects of late adoption were discussed in Part II and this window of opportunity will be re-examined in the concluding chapters.

Societies and Synergies

Synergy is derived from the Greek word *syn-ergos* meaning to work together. In its contemporary usage it is applies to situations where the whole is larger than its parts. It was introduced to social science by Ruth Benedict who was an anthropologist. After her death in 1948 some of her works were published by Abraham Maslow with an introduction of Margaret Mead. (Maslow and Honigman 1970) Benedict's field studies on native tribes, most of which were in North America, led her to categorise them as low synergy and high synergy societies. She argued that each society had a distinct flavour and character which made them dissimilarly functional.

Low synergy societies were anxious, nasty, aggressive, hateful, and insecure. On the opposite side high synergy societies were affectionate, kind, and secure. She also classified the "primitive" societies based on distribution of wealth. In the "funnel system" the wealth created is funnelled into the richest persons of the tribe. This is often accomplished by claiming the labour of others. The rich get richer and the poor get poorer. This results in sustained insecurity for both classes. In the "siphon" system the wealth is constantly channelled away from its greatest concentration and spread to the entire community. This system provides the societies of good will, where murder and suicide are rare or actually unknown. If such societies have periods of great scarcity, all members of the community co-operate to get through these periods as best they can.

Since Benedict's study is based on "primitive" societies with extremely homogenous and small population, one has to exercise caution to apply its findings to today's complex societies of millions. Nevertheless, it is logical that the level of synergy in a society should have some implications for development.

In classical Western economics, Adam Smith's "invisible hand" represents a different form of synergy, where individuals seeking self-interest are guided in such a way that their combined efforts produce wealth for the entire society. In other words, without deliberately pursuing it, individual efforts produce more good than the sum of such efforts. Similar synergy, which is the prerequisite for development, seems to be lacking in many developing countries. Instead, one can argue that efforts of

individuals in many of the developing countries usually resemble a zero-sum game where one's gain is the other's loss and little additional wealth is created in such. Moreover, part of the wealth created with dubious procedures is transferred out of the country finds its way to private accounts in Western banks. Such a practice, advantageous only to the banks and the account holders, is common in almost all developing countries including the much publicised Asian success stories in the last four decades. However, it can be argued that an important difference between the "Asian Tigers" and other developing countries is their comparatively egalitarian societies where usually lower-income holders also benefit from the wealth generated (Stiglitz, 2002).

Both Turkey and Japan retain elements of pre-industrial society in term of the relationship between individuals, families and the state. In the case of Turkey one of the most important factors related to this fact is that individuals tend to identify themselves within the sub-groups more than with the larger society. Responsiveness to one's family, religious group, or fellows from the town of origin is usually more important than responsiveness to the general public. A clannish attitude is further nourished by mass migration from rural areas to cities where individuals must have the support of such sub-groups in order to survive in the jungle-like conditions.

In such an environment people tend to feel free to construct unlicensed homes which constitute more than half of the total dwellings in Istanbul. Most of these homes are constructed on public lands and some of them are equipped with a hook to the nearby pole for free electricity. In this way entire neighbourhoods can appear in a matter of days. This way of life is clearly a collectivist one where people enjoy the support of their community. However, given that a burden is placed on the entire public, it is clearly a corrupt form of collectivism where synergy is created only for the sub-group to the cost of the greater society. When applied to the greater society, this example resembles Ruth Benedict's low synergy society where acts of individuals or groups are mutually opposing and counteractive. On the other side of the picture is the crucial comfort and support along with almost excellent synergy provided to the individual by his or her sub-group.

In industrial Japan, much of the social infrastructure is provided by community-based voluntary organisations (Ben-Ari, 1991). Membership of a family unit defines citizenship and acts as the basic element of society. However, the strong commitment to national identity, built around a myth of national uniqueness, and often translated into loyalty to an employing organisation, prevents the sub-optimisation evident in Turkey. Japan's

industrial organisations still rely on a community sensibility, rather than an economically rational one. Learmount (2002) suggests that this sensibility is the key difference between Japanese and Western corporate governance.

The transformation from the community *(gemeinschaft)* type of social order to society *(gesellschaft)* is one of the aspects of modernisation that comes with industrialisation (Hofstede, 2001). Turkey, still in the process of modernisation, has an important portion of its population in rural areas with backward modes of agricultural production. The majority of the urban population retains strong ties with the rural areas from where they migrated only a few decades ago. Thus, although the majority of the urban population physically lives in urban areas, their behaviour is closer to rural than urban type of conduct.

The natural consequence of the culture shock of semi-industrialisation and frustration stemming from inability to access urban resources is the attachment to an immediate community that provides shelter against the alien rather than the greater society that has little to offer. This mechanism is not particular to Turkey, it is pertinent to other comparable developing countries as well. The concluding chapter will look at aspects of modernisation through information and communication technology which may retain community and identity.

Time, Technology and Time-Frames

Chapter 8 examined the influence of time-frames. on design trajectories and the determination of design outcomes. It concluded with a brief consideration of the difference in time-frames. between Western and developing contexts. Hall (1989) distinguishes societies as monochronic and polychronic depending on their usage of time and space. In monochronic societies individuals tend to perform one job at a time. Except for "birth and death" all important activities are scheduled to be carried out one after the other without interrupting an unfinished task. Northern Europeans and Northern Americans are monochronic people. Conversely, in polychronic societies such as Middle Easterners and Latin Americans tasks tend to be accomplished simultaneously. Perhaps with the exception of tasks which are prerequisite in nature, it is not necessary to finish a task to start another one. What is important is to accomplish the task, whether or not to schedule. This type of behaviour commits less emphasis to time-keeping than monochronic societies. Hall has observed that shopkeepers try to serve all their customers simultaneously in

polychronic societies and the difficulty of adhering to appointments in such societies impacts on cross-cultural working.

An analogy could be made between monochronic societies where time and space are compartmentalised and von Neumann architecture which constitutes the basic principles of computers. According to this concept computers process one task at a time and they have compartmentalised sub-systems which perform different tasks. However, this analogy should not be stretched to argue that computers and information technologies can only be developed and used effectively in monochronic societies. Current massively parallel supercomputers, with their ability to perform tasks simultaneously, bear a closer resemblance to polychronic societies than monochronic ones and the virtual adjacencies created by networked relationships impact on perceptions of both time and space.

Communication and Context

Hall (1989) distinguishes messages conveyed between individuals and groups according to their level of context. According to this taxonomy a low context message or communication is one which carries the mass of the information explicitly. On the other end of the spectrum stand high context messages where the bulk of the information is either in the physical context or already internalised by the participating individuals. Low context communication is direct and explicit whereas high context communication is indirect and implicit. Hall goes on to contend that individual cultures can be positioned in the spectrum of high to low context. Germans and Scandinavians are at the end of low context spectrum and Chinese are at opposite end with proximity to Arabs and some Mediterranean cultures as well as Japan.

Information and communication technologies, by their exact and extremely explicit mode of internal and external interaction, are good examples of low context communication. Although their exactness and explicity can be used to develop applications such as fuzzy logic which is imprecise in nature, there is no room for ambiguity in the message exchange within the computer. Extreme precision and thoroughly explicit coding are the most important characteristics of a computer system. The computer, in its current form, does not need to know the background and context of a message conveyed internally and externally.

Since computers are products of the Western world, industrialised and usually low context in nature, could there be a cause-result relationship among these three concepts? Can it be argued that industrialisation led to diminishing context in the communication among individuals and this in

turn provided a ground for the invention of the computer? To what extent did the industrialisation impose machine-like behaviour on humans? Or should it be argued that the Northern European societies where industrialisation flourished were already low context societies three or more centuries ago? The former is more plausible; the requirements of industrialisation influenced individuals towards more machine-like behaviour, stripping context from communication, and conveying their messages to each other in exact and direct terms. The twentieth century trajectory of scientific management described in Part I certainly fits this model.

Japan, as usual in such cultural comparisons, seems to be an exception which supports this argument. The pressures for institutional change which emanate from Western competitors and trading partners amount to a demand for a move towards a lower context culture. As theory goes, this is also true for countries like Turkey whose modernisation attempts lag Japan.

The second part of the question also awaits an answer. Has the low context behaviour of individuals had a catalysing affect on the development of computer-based information systems? Certainly the key insights into communication theory presented by Shannon and Weaver (1949) are based on a highly disembedded and technical understanding of communication. Even if the answer to this question is yes, one must not overlook the fact that the invention culture that comes with industrialisation is a whole and it affects and is affected by not only the mode of communication, but the entire spectrum of human behaviour. The immediate practical concerns of cryptography and nuclear energy were discussed as catalysts for the invention of the computer in Chapter 3.

Abstraction and Representation

Although seemingly trivial, an important difference between East and West is the employment of perspective in paintings. Quoting Ramos (1981), Sargut (2001) argues that perspective started in Western painting with the Renaissance and its importance extends far beyond art. In the middle of the second millennium Western societies have been through a transformation whereby two important developments occurred. Both of these developments are related with the usage of reason and they have been the keys for the Western societies to understand and interpret nature in such a way that the future industrial revolution and unprecedented steps in civilisation would be realised. Unlike the Eastern individual who

comprehended nature "as is," the Western enlightenment facilitated the encryption and abstraction of concepts and events. Encryption reduced the amount of information to be processed and abstracting provided the information to be processed systematically.

These two concepts seem to be prerequisite not only for analysing, but also for changing the world. The first of them was to get the *real* picture of the world instead of the raw image. To this end, abstraction or encryption was used where necessary. The second was to shape nature according to human will. With perspective, this involves the introduction of some encryption that confers feeling of reality and depth to the paintings. It could be argued that it was an unconscious reflection to the art resulting from the unprecedented changes in the material world.

Apparently content with God's creation "as is" and thus having little motivation for changing the world, Eastern people of the period probably had a lower level of encryption and abstraction for events and objects. Possibly related to this, Eastern miniatures did not have perspective. Orhan Pamuk's (2001) novel *My Name is Red* vividly narrates the tension among the miniaturists of sixteenth century Istanbul, capital of the superpower of the age. Admiring the method of perspective favoured by Venetian masters, some miniaturists tend to import it while some others eagerly defend the traditional ways. Iranian miniatures and Japanese paintings also did not have perspective. It was later introduced to Japan by Dutch painters.

The higher level of encryption and abstraction, probably the most important enablers of the enlightenment, had more tangible consequences in science. The advance of Western science was realised by these two concepts which facilitated application of new methods to sophisticated theoretical and practical problems as well as tool production and usage. Chapter 7 associates the development of clock-based time with the emergence of capitalism in the West. It is striking that Ottomans, who prayed five times at strict and varying times of the day, did not produce nor extensively use clocks until the nineteenth century. In Japan the mechanical clock was probably introduced in 1551 (Morris-Suzuki, 1994). Considerable ingenuity was used to adapt it to the Japanese system in which the daylight hours were divided into six equal periods, followed by six equal periods of darkness, regardless of the season.

The lack of adoption by the Ottomans of such an important and useful tool for the practice of religion cannot go unnoticed, given the very close ties, sometimes hostile and sometimes friendly, with the West. The absence of clocks cannot be explained by the lack of trade either, because there has always been a vibrant trade with the West exchanging all kinds of raw

materials and finished products. The lack of culture of technology and disinterest in technological products except for weaponry and other military needs seems to be the cause. The continued usage of caravans in highway transportation instead of animal powered carts and thereby comparably less usage of wheel can also be placed in this context.

A lower level of abstraction, possibly deeply rooted in the collective psyche, manifests itself in the contemporary Turkish society as the preference of verbal communication as opposed to written communication. Although both speech and writing could both be regarded as abstraction mechanisms, writing clearly involves a higher degree and is a more advanced and enduring form of communication that has a binding effect for parties. According to the Human Development Report of UNDP (2002) 14.9 percent of the Turkish population of 15 years and older is still illiterate. The same report ranks Turkey first in the number of cellular mobile subscribers and fifth in telephone mainlines among eighty-four Medium Human Development countries in the year 2000 (UNDP, 2002). However, the total circulation of daily newspapers is about three million for a population of sixty-seven million and albeit the existence of a narrow but vivid intellectual milieu, a typical book edition does not exceed two thousand copies. These numbers clearly indicate an inclination towards verbal culture which is reinforced by economic difficulties.

In contemporary Turkish society the lower level of abstraction manifests itself frequently in daily life. An example is the usage of spatial direction. Although not inexistent, it is not common to use the terms such as Northern Ankara or Western Istanbul to designate a region or suburb. Instead of using these abstracted terms of direction, it is usually preferred to use the name of the suburbs or regions "as is."

An inclination towards verbal culture has not been an encouraging factor for the development and usage of the information technologies at the centre of the economic development process. By definition, developing a computer program requires an extremely high degree of abstraction that involves symbolising tangible entities and events with intangible codes and program statements.

The implementation of computer applications in an organisational setting involves some degree of substitution of face to face communication with the computer's written interaction and is little supported by the preferred verbal communication habits of some societies. However, these cultural attributes may be less significant that the resistance, open or concealed, in response to poor software and technical support generally, the substitution of computers for jobs, or technophobia as a combined effect of advanced age and computer illiteracy. On the contrary,

computerisation is usually eagerly welcomed by organisational members who perceive it as a must for their career. The reverse effect of verbal culture on the diffusion of IT could better be explained by the fact that it has a slackening and retarding nature on the process, which means that usually a higher degree of effort and more time is required for IT implementation in such cultures.

Verbal versus written culture seems to be related with the industrialisation and "development." Particularly industrialisation, where immense memory requirements are necessary, must have profoundly affected an apparent transformation from verbal to the written culture. In discussing automation and informatisation, Zuboff (1988) quotes Clanchy (1979) who has illustrated the reluctant acceptance of written documentation in place of verbal agreement. This process took place over three centuries of early English history.

Individualism, Collectivism and Virtual Collaboration

Part II looked at culture at the professional, organisational and institutional level. In *Culture's Consequences* Hofstede (2001) distinguished five (four in the previous edition of the book) bi-polar dimensions of national culture. Although that book drew a great deal of debate and criticism some of which are reasonably convincing, (McSweeney 2002) it is still regarded as a classic text in inter-cultural research. According to Hofstede's model the bi-polar dimensions are the measures of individualism versus collectivism (I-C), power distance, uncertainty avoidance, masculinity versus femininity, and long versus short term orientation. In individualistic cultures, the emphasis is on individuals; everyone is regarded as responsible for their own actions and rewarded or punished for what they have done, or not done. Consequently, self-reliance and independence are seen as key values for life. In contrast, collectivist cultures emphasise collective behaviour and values. The I-C measure could be an important key to the evolution of Turkish and Japanese societies over the last one and a half centuries.

Industrialised countries usually have a higher score and non-industrialised ones usually have a lower score in the index. Thus the I-C measure may provide a rough measure of a country's position in relation to its development process. Like almost all Eastern cultures Turkish and Japanese cultures are regarded as collectivist, rather than individualistic. This is more so for Turkish culture which has a score of 37 in the index. Japan's score is 46 which is somewhere between highly collectivist and highly individualistic cultures. This is to be expected, since Japan provides

an example of successful transformation from a traditional society to an industrialised one in a short span of time. Its position in the middle of the I-C measure is expressive, because it reflects both the overwhelming traditional roots which are still so alive in this country as well as its completed industrialisation process. Its middle position is an indication of its late industrialisation.

Like most types of advanced technology, diffusion of IT to developing countries creates some turbulence which results from the fact that different cultural approaches have to co-exist in the same country, same region, and even the same organisation. Some concepts of IT which are regarded so natural in individualistic cultures where information technologies are produced may not be so in some other cultures. During the consultation experience of an ERP implementation in a multinational operating in Turkey, Kirlidog, (1997) observed that the staff in headquarters kept their passwords secret. However, using passwords to log in to the system was an unnecessary nuisance for lower rank and less educated shop floor personnel who wrote their passwords on the notice board "to be used in case they are not around." Contrary to the well educated and thereby relatively individualistic HQ personnel, keeping a password to oneself was regarded as paranoia or arrogance in the collectivist environment of the shop floor personnel. This type of dichotomy, indigenous and exogenous cultures as observed by Kaye and Little (2000), is common in Turkey with deep cultural roots in the East, but a strong commitment to an orientation towards the West.

The concluding chapter moves away from an examination of the pathways of development at the level of the nation state to examine forms of bottom up engagement with the current socio-technical disposition of the global economy. These new forms of engagement suggest the emergence of forms of collaboration which offer a bridge between both locations and cultures.