Reading a Pattern in Sri Lankan Landscape through
Alexander’s Notes on the Synthesis of Form

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Abstract

The common map of Sri Lanka presents the island in the form of a network of large, medium and small towns, connected via major and minor roads upon the assemblage of hydro systems. Although this can be viewed as a social construction of the ‘national space’, only limited scholarly attempts have been made so far to explore the process behind this composition. For present day planning & development purposes the island space is studied more in terms of different sectors and their status-core, rather than as a holistic configuration and as an evolutionary process. Therefore, most of the modern development projects have become impositions with little or no concern about the scale and the phase of their impacts upon the landscape of the island. In this background, this paper is an attempt to explore the mapped configuration of the national space of Sri Lanka, and to read its landscape through Christopher Alexander’s ‘Notes on the Synthesis of Form’ (1964). The paper interprets a pattern, long evolved upon the island’s natural terrain, initiated and complimented by different agents over many generations, through both internal organizations and external interventions, with both deliberate efforts and unconscious responses; building upon the former and extending another’s, and in piece-meal solutions, but with an enormous sense of an overall pattern. The configuration of this pattern demonstrates a series of ‘solutions’ which ‘fits’ best into ‘problems’ which emerged in ‘contexts’ prevalent at different times, in line with the language suggested in Alexander’s work. The need to rethink spatial implications of the present day development projects is emphasized.

Key Words: Problem, Solution, Context, Fit, Configuration

Introduction

According to the Anchor Point Theory (Couclelis et.al., 1987), spatial information is recorded in human cognition as ‘a series of hierarchically organized anchors’, tracing through which the humans, in turn, retrieve specific pieces of information when needed. The ‘anchors’ therefore, are crucial decision points in human cognition, and in each individual’s mind the anchors represent spatial elements, preferred by him or her for different reasons. Yet, in any society, the spatial elements represented at the upper levels of this hierarchy are largely shared by a great majority of members in large scale spaces such as cities and regions (Werner and Schimdt, 1999), and thus, become common elements in cognition. Accordingly, the landscape of Sri Lanka, as we can witness it today, is established in our cognition in the form of a web of main towns that anchor small and medium towns, which in turn anchor thousands of other settlements through national, provincial and local roads, and are placed on a complex mat of natural geographic elements. An important query, but not often asked, is what enabled this composition in our minds.

One may argue that such composition was enabled by the ‘common map’ of Sri Lanka, which presented the landscape of the island in the said manner (Figure 1) and which we usually refer to and use throughout our education. There is no need to say that what is presented in the common map of Sri Lanka is what the administrators, surveyors and planners found important for them, and therefore, is not necessarily an objective reality on ground. Certainly, maps are not autonomous information presenters, static and neutral, but dynamic representations of socially constructed space, through which the
users are compelled to experience and reconstruct space (Crampton, 2001). Besides
the queries on the hegemonies of its composition, this paper argues that the
structure of what is presented in the common map of Sri Lanka is not a mere social
construction. Rather, it is a pattern, systematically configured in space over
several centuries by the inhabitants of the island integrating both natural and human
geographic elements, responding to the appeals surged from the contexts of their
existence. A thorough investigation of this pattern will not only reveal many subtle
characteristics of the island’s geo-space that we have yet to grasp, but also unveil the great
insight of the natives of the island to integrate its geographic elements into their activity
systems to meet the demands of their days. The paper is an attempt to explore the
configuration of that pattern through Christopher Alexander’s ‘Notes on the
Synthesis of Form’ (1964).

For the purpose of the paper, the ‘landscape’ is
understood as the ‘presence of human impact
on land’ and a ‘pattern’ is understood as ‘a
sequential occurrence of complementary
elements or events’. In the process, the
existing landscape of the island is read as a
long-evolved pattern upon its natural
geography, initiated and recreated by different
agents over many generations. The pattern was
enabled through both internal organizations
and external interventions. Its parts are
constructed through both deliberate efforts and
unconscious responses. It has extended in
piece-meal solutions, yet with an enormous
sense of the prevalent overall pattern and the
consequences likely to be there at the end. A
careful examination of its composition
demonstrates a series of ‘solutions’ that best
‘fit’ into ‘problems’ which emerged in
prevalent ‘contexts’. Thus, it sets the best
element to comprehend the synthesis of the
‘form’, which in this case is the landscape of
Sri Lanka. To compose this reading, this
paper will first brief Alexander’s work, and
then will bring in a summarized history of the
island, followed by the interpretive discussion.

Although maps, mapping, landscape analysis,
etc., of Sri Lanka are not scarce by any means,
there has been no scholarly attempts to explore
the said pattern with an adequate emphasis on
its overall configuration and evolution. Even
the few studies available have focused upon
specific aspects such as the hydrological
system (eg: Arumugam, 1969; Basnayake,
1997), vegetation and geography (eg:
Maddumabandara 1998) and urbanizing trends
(Mendis, 1980). As a result, Sri Lanka’s
landscape is mostly known in fragmented
layers, and for contemporary planning
purposes it is understood through the analysis
of these isolated layers. For example, the
national and regional level plans usually
purport a hierarchy of urban activities based
on numerical observations such as present
population, available facility sizes, level of
administration, etc. Moreover, they classify
lands based on their apparent uses such as
agriculture, forest cover, densely built, etc.
These popular methods of interpreting the
land-space may be ‘scientific’ in approach,
and have merits of their own, but do not
necessarily provide a holistic understanding of
the overall configuration of the landscape. The
consequences of this segmented understanding
are witnessed mainly with the impacts of
modern development projects, which are
‘mega’ in scale and proposed as impositions
with little or no understanding of their
compatibility with respective geo-settings.
They virtually serve for only one or a specific
type of purpose and often sit uncomfortably
with local systems and patterns.

In this background, this work may also be seen
as an effort towards a holistic understanding of
Sri Lankan geo-space for physical planning (&
other) purposes. Yet, it may not be seen as
another nostalgic project to hail the past,
derailing present day practices. Further,
the author has no reason to say that traditional
or historically known models need to be re-
adopted, disregarding the contextual realities
of the day. Alternatively, the paper takes the
position that planning strategies and
development projects shall be evaluated in an
overall geo-spatial framework, instead of
presently practiced evaluations against
specific ‘costs’ and ‘benefits’. Spatial
strategies need to be proposed within a long
term spatial scenario and each project could be
‘strategic’ in that sense to achieve a livable,
desired landscape and a truly sustainable
development.
Alexander’s Notes on the Synthesis of Form

Christopher Alexander’s work is well known, not only to architects and planners, but also to many other professionals whose work involves some level of design inputs such as computer architecture, systems design and network communication. Notes on the Synthesis of Form, reportedly, is one of his early published works and the embryo for many of his later classics such as *A Pattern Language* (1977), *Timeless way of Building* (1979) and *A New Theory of Urban Design* (1987).

In his own words at the epilogue, Alexander stated that the purpose of his work was to:

“…… show that there is a deep and important underlying structural correspondence between the pattern of a problem and the process of designing a physical form which answers that problem.”

His position was ‘that the great architect (perhaps, planners, engineers and all other designers) has in the past always been aware of the patterned similarity of problem and process, and that it is only the sense of this similarity of this structure that ever led him to the design of great forms”. Although this statement reflects a somewhat depressive feeling of the present and longing towards an imagined glory in the past (as expressed in many similar works), he logically compared the forms that pleasantly solved problems of early days (as implied, pre-industrial societies) with those of the present day, proposed by professionals, but create countless further problems apart from solving the immediate problem. The dilemma, as he sees, is because the functional problems are becoming less simple nowadays, and are out of the comprehension of the designers. Instead of acknowledging their inability to solve them, mainly because they do not understand the problem clearly enough to find the order it really calls for, the designers fall back on some arbitrarily chosen formal order, and the complexity of the problem remains unsolved.

(p1)

Alexander’s work is not only a critique. His intention was to suggest some way out of the situation. As he suggested, in order to achieve the same level of greatness: “…… before we can ourselves turn a problem into form, because we are self-conscious, we need to make explicit maps of the problem’s structure, and therefore need first to invent a conceptual framework for such maps”. His suggestion was based on the position that in order to achieve physical clarity in a form there must be some programmatic clarity in designer’s mind and action. For that the designer “… must first trace his design problem to its earliest functional origins and be able to find some sort of pattern in them” (p15).

According to Alexander:

“…..every design problem begins with an effort to achieve fitness between the two entities: the form in question and its context. The form is a part of the world over which we have control, and which we decide to shape while leaving the rest of the world as it is. The context is that part of the world which puts demands on this form: anything in the world that makes demands of the form is context. Fitness is a relation of mutual acceptability between these two. In a problem of design we want to satisfy the mutual demands which the two make on one another. We want to put the context and
the form into effortless contact or frictionless coexistence.” (p19). The form is the solution to the problem; the context defines the problem. In other words, when we speak of design, the real object of discussion is not the form alone; but the ensemble comprising the form and its context. Good fit is a desired property of this ensemble which relates to some particular division of the ensemble into form and context.” (p.15-16).

We can extend his argument to say that most of the problems we have today are results of the misfits between the forms suggested as solutions to ill-defined problems, caused by the prevalent context. Misfits occurred due to our inability to comprehend the complexity and the pattern of the context, within which the problem was defined. Such unfortunate circumstance were rarely observed in the past because the designers, be they planners, architects or engineers, had better comprehended the complex patterns that defined the problematic situation and therefore, their responses were formed with an enormous sense of the overall programmatic clarity in their minds. Alexander demonstrated his ‘notes’ taking the form of an ideal Indian village as an example. In the forthcoming sections of this paper our effort is to read the configuration of the Sri Lankan landscape, as it is seen today, with his notes.

The Evolution of the Landscape of Sri Lanka

Natural Geography: The Base

In a simplest form, the natural geography of the island of Sri Lanka can be conceptualized as an downturned bowl that enabled gravity fed gradual flow of water in all directions on its surface. Rains that fell upon it and biological matters born or propagated over it nourished its soils. The central areas at the higher elevations acted as a sponge and regulated the flow of retained water. The waterways that run outwards from these higher elevations towards lower areas in periphery and then to the sea around it, engraved a radial pattern of arteries integrated with the ridges and valleys (Figure 2). This was the base, upon which the human agents interacted with many other forces to form their settlements.

Early Human Settlements: The Initiative

According to many sources of history, the earliest human settlements originated with the emergence of agricultural communities in Neolithic periods. Agriculture requires lands with fertile soils and convenient access to water. The existing pattern in geography provided these requirements in lands in the river banks.

As the settlements grew and agriculture became an organized practice, there emerged a need to control and sustain the flow of water into agro-lands throughout the year. Storing water gained in rainy seasons in large quantities within a close proximity and to regulate its flow was the way to cater to this need. This was realized by building earth bunds across tributaries and forming ‘tanks’.
These tanks retained water and assured the availability of water round the year. In order to capture the natural gravity flow, the lands below the tank were irrigated and cultivated. The highlands around paddy lands were used for ‘chena’ crops, which did not require water to that extent. The lands in the catchment of the tank were kept intact to assure the gradual uncontaminated flow of water, assimilated to the ground. Evading the settlement into this catchment was prevented by placing the temple, which was the most sublime, at the highest elevation towards the catchment. (Figure 3).

After a few centuries, the cascading systems of tanks along with adjacent extents of paddy fields spread along the valleys of radiating water ways, became the prominent feature of the island’s landscape (Figure 4). Unlike ancient dominant civilizations in the Nile Valley, the Euphrates and Tigris Valleys and the Indus Valley, where rivers were the central elements, the ancient civilization in Sri Lanka was based on thus formed irrigation systems (Basnayake, 1997). Hence, at this time, the smallest unit of human settlements, mostly known as the ‘village’, was always associated with a tank. The tanks and the fields could well integrate into the setting, which was offered by the natural geography.

According to historians, these early settlements of Sri Lanka were mostly located in the river basins of North West, North, East and South East plateau of the island, which is now considered as the ‘dry zone’. As per the evidence available, these settlements were generally isolated units and if there was any communication among them, the only known mode of transportation was walking. Therefore, it can be thought that there had been footpaths between settlements across the lands, covered mostly by forest.

Figure 03: Typical Layout of an Early Tank Based Village
Emergence of Cities: 

The Seats of Power: Strategic Central Places

When communication among isolated agricultural settlements developed and as they began to depend on each other, imbalance in power relations among them was inevitable and such imbalances lead to the formation of hierarchies of them. It can be thought that the settlements which were more centrally located among the others could show their prominence and therefore, deserved advantageous positions in power relations and economic gains (Wilson, 2000).

Many historians show that concentration of power was the main factor that gave birth to ‘cities’ in Neolithic farming villages which proliferated in areas endowed with water (Abu-Lughod, 1991). Hence, the settlements that were more centrally located could emerge as the seats of power for a few settlements in their periphery. In the overall setting, the centers, whose centrality was relatively better configured, could administer power relations more effectively than the ones at the fringes and thus, became cities, which were placed at higher levels of the hierarchy of human settlements. Mumford (1961) hypothesized that this system was introduced by the Aryans or a nomadic group who had invaded these agricultural settlements, paralleling the storyline of the dominant history of the Sri Lankan nation. Some of the evident central places in early history are Panduwasnuwara & Upatissagama, which were later succeeded by Anuradhapura, perhaps due to its more central and strategic location than the earlier ones. Parallel to the developments in the northern plateau there had been some central places or cities emerging in Kacharagama in south, Kelaniya in the west, Mahiyangana in the East and Bathulathmewe in the northwest.

According to details given in Thrisinhalaye Kada Im Poth (the historic boundary definitions of three Sinhalese kingdoms: Abayawardane, 1978), Sandesha Kawyas and many other texts of the time, by the fall of 15th century, a number of such cities (mentioned therein as Nuwaras) were located somewhat equidistantly all over the island of Sri Lanka. This presents a well organized hierarchy of settlements, which had gradually emerged from the agro-based civilization embedded into the natural geography (Figure 5). The nucleus of power relations, or the seat of the monarch, as it is generally known, was shifted to different locations at times due to a variety of reasons. What could be observed is that all of these locations, except in special cases such as Sigiriya, had already been regional centers by the time they were selected by the rulers as the seats of the monarch, and preferred as strategic locations under different circumstances.

Even though less frequent, the visits to the centers by the inhabitants in other settlements at the periphery, could establish a network of footpaths between settlements and the regional centers as well as among different centers in the hierarchy. Akin to human behavior these footpaths had taken the most economical route: economical in the way they provided least difficult situations to ascend, cross and pass. Such possibilities are usually gained when a route parallels river banks,
coast lines, valleys and the general contour pattern of the land. Hence, the foot paths between the centers and between villages were highly integrated with the natural pattern offered by the geography.

Sea Ports & Colonial Bases: Points of Internal-External Links

For many centuries, the natives of the land formed settlements and communication links among them, following the patterns set upon hydro systems internal to the island. Yet, there were a few points, through which the external links were connected to the internal systems. The sea ports at Jambukola Pattana, Mantitta, Gokanna, Kirinda, etc, as per indications in Mahawamsa were these few locations. The Moor traders who came into the island through sea routes, initiated a series of new small sea ports, adding another element into island’s geography. The merchants had to reach natives’ settlements for trading of goods and for this purpose they had to arrive at points where permeation into the interiors of the island was possible. As the settlements were located along river valleys, this route could be made conveniently by locating the ports in estuaries of the rivers and other water bodies. Once the port was established, there emerged a settlement associated with it, for the mutual dependence of each other. Although the coastal areas were not preferred by natives of the island for settlements, the descendants of South Indian mercenaries, brought in by King Parakramabahu of Polonnaruwa in 12th Century AC, were given lands on their request in coastal areas as they were also good in fishing (Perera, 1903). Hence, it can be observed that the coastal areas had some settlements from medieval times.

The European invaders started their mission in the island from 16th century, capitalized the potentials of these sea ports, which were already established by then. As the European colonizing project was mainly based on the supremacy of naval activities in the ocean, their bases in colonies were always located in sea ports. It is thus clear that the locations of colonial bases in the island at the estuary ports of the main rivers, were first formed by natives and Moors (Figure 6). The Portuguese, who were the first European colonizers to come to the island, occupied them and the Dutch and British reoccupied these locations at later times.
Construction of Roads: Connecting Centres into a Network

When the British acquired the ruling of the entire island in 1815, they felt the need for decentralizing administrative functions. For administrative purposes, British rulers selected the places that had been there as regional centers in the traditional settlement structure of the island. Thus, the locations which had been the preferred strategic centers for traditional local administrators, such as Kandy, Jaffna, Galle, Ratnapura, Kurunegala, Badulla, Anuradhapura, Matara, etc, were strengthened as centers for British provincial administration. At this instance there emerged the need to link those regional centers with Colombo, which for many reasons was selected as the main centre of British Ceylon. The Public Works Department of Ceylon, which was one of the first government departments established by British rulers, commenced the construction of thoroughfares from the 1820s, between Colombo and these regional centers (Figure 7). At a later stage, the settlements in the peripheral areas of these centers were also linked to them through roads. It is observable that in all of these, except in difficult passes such as Balana, Dumbara, etc and a few other locations, the selected traces were following the foot paths that had already been established by the natives. This is quite logical as the footpaths took the most economical means of movement such as ascending along river banks, following the contours and going parallel with the coast line. The network of roads established during British administration in the island, in this sense, is not entirely a new imposition, but an augmentation of the set of links already established by the natives over many centuries.

Small Towns emerged along the Arteries: Sub-centres in the Network

The first thoroughfares constructed by the Public Works Department were gravel roads. These gravel roads were facilitating the accessibility for administrative purposes as well as for the exchange of commodities between distant areas of the island and Colombo. Bullock carts were the main mode of transportation, as the motor vehicles had yet to be invented. Bullock carts carried commodities collected from inlands to
Colombo and delivered sellable goods on their return journey along the gravel roads to distant areas. Throughout their long journey of several days, the carts needed a stopover at the end of each day. The points of their overnight stay were mainly determined by two factors. The first was the distance the carts could travel in a given day, which did not exceed 15 kilometers. The second was the availability of water in abundance, needed by cart men and cattle at the end of the hectic day. Wherever the carts stopped to stay overnight, there emerged small scale service outlets to serve bullock cart men, perhaps initiated by the inhabitants of the area, exploiting the opportunities availed to them. Subsequently, commodities from interiors were delivered into these places to be traded with goods delivered in carts from Colombo and elsewhere. After a few decades these places had turned into small service centers to the areas around them and, with the construction of local roads to connect them to their locality, they became major nodes along the main road. In this manner, by the turn of the twentieth century, the island’s landscape was added to, with a series of small towns, located equidistant along the major thoroughfares, which linked main cities (Figure 8).

At a later stage, when British rulers wanted to strengthen and further decentralize administrative functions, these towns were also preferred as local administrative centers. This is how many government institutions such as the government agent’s office, rest house, post office, police station and the court house became common elements for all of them. In addition to that, the state services also approached countrymen through these points. Hospitals, power houses, bus and rail stations, etc., are some of the common building types seen in many of these towns. These towns also provided the nuclei for activities of socio-political movements along the late history of Sri Lanka. The Christian missionaries established their institutionalized activities such as churches, schools, convents and youth associations, and parallel to these and also as an opposing force, the Buddhist revival movement has also established its institutions in these towns from the late nineteenth century. The institutional buildings and the memorials (statues and landmarks) still remain as the landmarks of these towns, providing the places with strong identities and reconstructing their inhabitants’ collective memory.

Figure 08: Small Towns Emerged along Main Thoroughfares from the late 19th Century.

Today’s Landscape of Sri Lanka: Network of Cities and Towns

At the dawn of the twenty-first century, the landscape of the island of Sri Lanka was characterized by the composition of elements which came in, as discussed above. A few main cities, dominated by Colombo, surrounded by a constellation of small towns, along with the road links among them in the form of a complex network, formed the island’s landscape and this in turn constructed our cognition of Sri Lanka’s national space. It is this information that the common map of Sri Lanka poses into our reading. What is simulated by the map can be explained with the metaphor of a hierarchically organized set of anchors, as described at the beginning of this paper. Yet, this arrangement is mostly taken for granted and we do least care for the ubiquitous pattern underneath. As discussed up to now, what we experience today is a result of a long process that has been
configuring the island’s landscape. The process was driven with the initiatives and compliments of many different agents at different times, and went over many generations. It has processed into its present state by means of building upon the former and extending another’s; and in piece-meal solutions. The realization of its different stages was through both internal organizations and external interventions with both deliberate efforts and unconscious responses. Yet, the important thing that we need to see is that all of these acts pronounced an enormous sense of an overall pattern in the landscape. What is intended in the forthcoming section is to interpret the process of configuration of this pattern with the theory that Christopher Alexander propounded in his notes on the Synthesis of Form.

Reading the landscape through Alexander’s Notes

The interpretation of the above process and its pattern, explored in this section are premised on three main notions associated with Alexander’s notes: the ‘form-context’ relationship, the ‘problem-solution’ transverse and achieving ‘fitness’.

“.....every design problem begins with an effort to achieve fitness between the two entities: the form in question and its context. “The form is a part of the world over which we have control, and which we decide to shape while leaving the rest of the world as it is. The context is that part of the world which puts demands on this form: anything in the world that makes demands of the form is context. Fitness is a relation of mutual acceptability between these two. In a problem of design we want to satisfy the mutual demands which the two make on one another. We want to put the context and the form into effortless contact or frictionless coexistence.” (Alexander, 1964, P6)

Our observations commenced from the state that the natural geographic setting might not have had any organized human settlements. With its own processes of matching and mismatching there had been a state of balance, within which it offered places for natives—both human and animal—to form their habitats. As the human habitats became formal settlements, crop growing became an organized activity and there arose the need to manage water resources to support that purpose. The ‘problem’ at this instance was the inability to sustain the flow as the rains were seasonal and the natural flows were taking the lowest elevations in the valley. Hence, the needy ‘solution’ was to have a substantially large quantity of water, stored in a higher elevation within a close proximity to farm lands and to regulate the flows as required. The ‘context’ that defined the problem consisted of several units. They included: the geographic setting where the tributary was feeding the river in natural gravity fed flow during rainy seasons; the fields that are located on the banks of the tributary; the catchment covered with forest that enabled the gradual flow of water; etc. The ‘form’ realized at the end was not only the tank that formed by building an earth bunt across the valley at an elevation higher than the fields, and the set of canals that directed that tank’s water into fields under gravity, but also the tank-based village (Wewgama), organized within a specific conceptual frame of land uses, locations and practices. The tank retained water and enabled the continuous supply round the year for agriculture and for other purposes, and therefore, was the life of the settlement. In such a ‘context’ the sustenance of the village was problematized and the ‘solution’ for that came in the form of some normative practices such as placing the temple at the highest elevation in order to prevent any construction beyond that. In this manner these settlement units harmoniously integrated the inhabitants and their activities into the overall pattern of the island that had been established by the natural geography. Undoubtedly, by the time that Aryans arrived in 6th century BC, such tank based villages had been the dominant feature that endowed the landscape of the island.

When the settlements grew in number, and augmented relationships among them, the settlements at more central locations were assigned with power, perhaps as a matter of natural order. The ‘context’ presented by the increased numbers of settlements was a one with competition to own and share resources, and maintaining multiple relationships. The
‘problem’ defined by this circumstance was the likely failure to maintain power relations among different settlements. The ‘solution’ was to have some agreed system of sharing power and mitigating the misfits in the system. Designating a few strategic central locations—those who have more accessibility from others as seats of power was the ‘form’ that had resulted from this situation. In that sense, it can be argued that the *Nuwaras* built by different rulers, such as Anuradhapura, Pulathisigrama and Magama, were not arbitrary selections. Rather they were well thought and long emerged strategic locations in the hierarchy of human settlements. What is important to note here is that these location decisions, however political they could be, were establishing a pattern that had been emerging in the geography.

Inability to approach the natives living in the interior of the island from outside, was the ‘problem’ of Moor traders in a ‘context’ that the island was surrounded by the sea and the human settlements were located in interiors in the river valleys. The ‘form’ of the solution suggested by the prevalent setting was the formation of sea ports at the estuaries of rivers, through which the penetration into the interiors was easiest. The sea ports along the coast, formed in this manner, in a way, anchored the settlements spread over river basins in to the perimeter of the island. The Portuguese and the succeeding colonial nations capitalized upon what these previous groups established, rather than finding new locations for their bastions. To carry out trading and administrative matters in an unknown ‘context’, these port locations provided the solution for all European colonial nations who invaded the island from the fifteenth century. However, one could note that these port convert-colonial bases added another set of centers to the already established network of *Nuwaras* at the interior of the island.

As the British acquired the sole authority on land, the ‘problem’ of not being able to control the entire island from their main base in Colombo was defined by the ‘context’ of having only a series of sea port bases for them and not having access to the natives in the interior of the country. The ‘solution’ was to establish regional centers for their administration. At this instance, the ‘form’ of the solution resorted by the British rulers was to adopt the spatial structure of administration that was established by the natives, with regional and sub-regional centers to serve the entire island. Hence, the traditionally established *Nuwaras* were re-established and reformed to suite new requirements.

Although the structure was quite robust, colonial rulers had many ‘problems’ with the type of links it had, which were not more than foot paths. The ‘solutions’ was to have a set of thoroughfares to facilitate accessibility among the cities. The network of thoroughfares found their appropriate trace on already existed footpaths, carved by the natives taking the most economical path. The thoroughfare network anchored locations of the traditional centers to Colombo. Hence, although the contemporary urban structure of Sri Lanka has many virtues gifted by British in the nineteenth century, the pivotal points, with which it was integrated to the landscape of the island, were essentially pre-existed. Noteworthy here is that what we refer to today as regional capital cities in Sri Lanka, have been regional centers throughout; they have emerged from the pattern of the landscape, and given emphasis by different agents: the local leaders, traditional rulers, colonial and post colonial administrators. The thoroughfares between them are not newly introduced links, but mostly an augmentation of the paths which existed for centuries before the colonial rulers came in.

The bullock carts found a ‘solution’ to their ‘problem’ of wanting to have a rest with needy facilities, at river crossings, in a ‘context’ that the speed of movement was no more than 12-15 kilometers a day and the natural geography with water bodies in matching distances on gravel roads. Each of these resting places formulated a context, in which the inhabitants in the area found a ‘solution’ to their ‘problem’ of exchanging their commodities and information with the other parts of the island. This was realized in the ‘form’ of a series of spontaneously evolved trade and service points along main arteries. They added yet another element into the overall pattern of the landscape by punctuations at equal distances along thoroughfares. The governors unanimously
selected them as points to delegate decentralized administration functions. The rulers used them as bases to divulge control over oppressive forces. The Christian church and other institutions found them the centers of their missions in the locality. The nationalists and other opposing groups found them grounds to contest the activities of foreign missions. For each of these agents these towns had formed the ‘solution’ to their ‘problem’ of wanting to have most appropriate centers for their activities. These towns thus, have marked not merely the points of trading along main roads, but also bases of socio-political missions, points of oppression and contestation, modules of making the whole landscape. The interesting finding here is that all different agents have been both directly and indirectly reinforcing the existence of these units in the overall pattern by congregating their activities into them, rather than finding alternative locations.

In this process, what one can clearly observe is that each consecutive development was a hitch-hiking on the previous development, for, which that was introduced was mutually accepted by what had been there, in terms of scale, timing, and intensity. The form satisfied the mutual demand of the context, and the two benefited one another, for which we can witness an effortless contact or frictionless coexistence between the two. Although these projects came in as piece-meal solutions, they all were framed within a broader framework for which the agents had a holistic understanding. The configuration of the pattern demonstrates a series of ‘solutions’ that best ‘fit’ into ‘problems’ which emerged in ‘contexts’ prevalent at different times, in line with the language suggested in Alexander’s notes.

**Conclusion**

As stated at the beginning, this paper should not be mistaken as another nostalgic attempt to undermine modern development projects. It does not insist the supremacy of old practices or traditional methods over new technology and today’s knowledge. Still, it aims to raise some concerns over planning and design approaches of present day development projects vis-à-vis the landscape evolution process explored in this study. In order to express these concerns, this paper emphasized an overall pattern in the landscape that had been complied by all development projects in the past, starting from the tank based human settlements to the structured urban network which had emerged by the early twentieth century. The argument profound here is that the overall configuration in the landscape so far have been harmoniously enslaving all human activities into a pattern of its own. The sanity of the natives in this pattern had been the guide to continue and extend such activities, which in turn reconstructed the same pattern in the overall landscape. The question at this juncture, then, is whether the present developments, especially mega projects such as expressways, reservoirs, etc, are planned and designed with that holistic understanding of a pattern, and could they be enslaved by that overall pattern. We immediately need to have two types of concerns on these projects. The first is the scale of developments that are purported to be ‘international’ in apparent size of the imposed structures and in terms of impact. Is the scale of these new projects compatible with the configuration of the other elements in the pattern? As all projects until recent times exhibited a right ‘fit’ into the existing pattern and were naturalized into the landscape, they could nurture the prevalent pattern by sitting comfortably within that and enabling its evolution in favorable directions. Yet, some of the present day projects are truly ‘mega’ in scale and try to be par with ‘global’ trends, rather than with ‘national’ and ‘local’ patterns. The consequences are evident and need no detailed discussions here. The second is the phase at which they are imposed on the landscape. The projects in the past were implemented over many decades or sometimes over centuries, for which their impacts could be well absorbed into the landscape and patterned in a reasonable phase. As Alexander said they came ‘not in a single-swoop’, but, in piece-meal projects as combined efforts of several agents over many generations. The trend nowadays is to have accelerated projects looking for fast delivered returns. Rather than sustaining the pattern of the landscape in a smooth evolution, these projects quite often lead to a chaotic outlook and a disruption in many of the land’s
inherent characteristics. Accelerated projects usually show problematic situations in any landscape, not only in Sri Lanka.

This paper, in its discussion on the sequential progress of the landscape, did not discuss on a few projects such as the introduction of railway, the introduction of tea, rubber and other plantations, agricultural colonies in the 1940s, the Mahaweli development project and other recent additions. This was particularly because I have mixed feelings and am not fully convinced of the compatibility of these projects with the overall pattern identified in this study.

However, it is appropriate to conclude with a modest suggestion, if we need to get back to the pattern that we were suggested to have had in the past. There is no argument that the situations that we deal with today are far more complex than in the past, and demand a lot more inputs, well and above the capacities of an individual. Yet, the remedy is not that unrealizable as Alexander mentions “the forms produced in such a system are not the work of individuals, and their success does not depend on any one man’s artistry, but on the artist’s place within the process”. (p 58-59). Today, we planners, architects, engineers, surveyors and the myriad of all other professionals are specialists and seem to boast of the artistry and knowledge in our possession, which we are not ready to compromise. We are not ready to confess the inabilities of such constrained artistry and limited knowledge. What we do not realize is that each one of us has only a module of the true artist, who will realize the pattern in great detail and put forward the form that suits the context. Hence, it’s high time we assemble the modules and formulate the artist back with the right composition of skills and talents in individual disciplines into one domain rather than struggling in our isolated compartments. Such effort is needed in order to sustain this unique pattern in the landscape of this island, if not forever, at least for a few more centuries.
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