Developing Country Studies
ISSN 2224-607X (Paper) ISSN 2225-0565 (Online)
Vol.14, No.1, 2024

Appraising Appropriate Urban Design Models in Developing Countries: An Integrated Builtscape Approach and the Case of Secondary Cities in Ghana

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The research is financed by Central University, Ghana under its Book & Research Allowance, 2021-2023 Allocations.

Abstract
Urban design is increasingly becoming important in urban regeneration, development and beautification transformations in the global South, as it has been in the North. However, while urban design is an established and explicit part of the planning systems in the latter, it is far less so in the former. And a real difficulty is the tendency to apply urban design models developed in the global North in the South. While this is an inertia of colonial urbanisation and Westernism, generally, these approaches tend not to be appropriate, en masse, in the context of developing countries. This study, therefore, aimed to explore and appraise an appropriate urban design model by reviewing selected existing ones and proposing an approach considered more relevant to the built environment in a developing country like Ghana: the Integrated Builtscape model. And this was applied to appraise the impact of urban regeneration and development programmes on urban design in the two secondary cities of Cape Coast and Elmina in Ghana. Results of the routscaping, buildscaping, plantscaping, formscaping, varietyscaping, personalisascaping and legibilityscaping modeled demonstrated a basis for making relevant and respective recommendations for improving urban design, within the planning system, in Ghana and the global South generally.
Keywords: Urban design approaches, Integrated Builtscape design model, urban regeneration and development, beautification, urban policy and planning, development control, secondary cities
DOI: 10.7176/DCS/14-1-04
Publication date: January 31st 2024

1. Introduction

Invariably, urban design, globally, tends to be undertaken on its own or as part of urban regeneration, beautification and development initiatives. For example, there is a virtually explosive practice of beautification on its own or as part of urban design, especially, in North American cities (Linovski and Loukaitou-Sideris, 2012; George and Royal, 2018). Urban beautification, itself, tends to be focused partly on urban design or an integration of aspects of it and landscape design (Ofori, 1998; Republic of Ghana, 2010, 2014; Moulaert et al., 2002; Espuche et al., 2007; George and Royal, 2018). However, the focus of this study is not urban beautification, per se. It is addressed only to the extent that it may be involved in urban regeneration and development. In whatever context, however, urban design is increasingly an important strategy in urban transformation processes, especially promoting the spatial and functional structuring of economic activity, creating liveable and pleasant neighbourhoods and communities and attracting urban tourists. In all these, urban design, including beautification is also highly valued in the making of global cities, especially under the trends of economic globalisation and as a strategy for attracting international companies, businesses and investment to locate there. Many developing country governments have embarked on the construction of world city models in their national capitals or secondary cities for this purpose (Adama, 2020). Some of these are meant to be urban regeneration and renewal projects, including slum upgrading (Khaoya, 2011; Republic of Ghana, 2012; African Planning Association and UN-HABITAT, 2013; Koech, 2020) or completely new cities, examples in Kenya, Nigeria and Uganda (Bakama, 2011; Daily Monitor, 2018; Konza Technopolis Development Authority, 2020; Tatucity.com, 2021; Eko Atlantic.com, undated). Indeed, in all these and for all purposes, urban design has become highly valued and prioritised in the urban transformation interventions of many developing countries.

In Ghana, the former Department of Parks and Gardens, now integrated with the Physical Planning Department, aimed 'to provide landscape beautification of the built and natural environments and collaborate with' Local Authorities 'to develop programmes for floral beautification of cities and towns' (Ministry of Local Government and Rural Development, 2019). Another objective was to pursue actions to combating the effects of global warming through tree-planting, for instance, which is now an annual national initiative (Mensah, 2022). In this way, Government of Ghana also indicated an initiative to beautify major roads in Accra, then as part of the 50th Independence anniversary celebration (Modern Ghana, 2000). And in 2017, Accra Metropolitan Assembly

(AMA) announced 'major plans to beautify the capital through some projects' (Citifmonline.com, 2017). AMA aimed to 'lay out plans for promoting studies of architectural designs, urban landscaping, beautification of open spaces and tree planting actions, among others' (Citifmonline.com, 2017).

However, a challenge to the study and practice of urban design is the lack of a universally accepted definition of it. One reason is the global cultural diversity and value systems and for which reasons, there are also as many models of or approaches to urban design as there are definitions of it (Cuthbert, 2006, 2011). Third, a majority, if not all, of these tend to relate to the built environments in the global North than the developing countries. Of course, the application of such models in the latter only produces foreign models in the latter. For instance, this is one of the contemporary trends, under the new town/city construction programmes of a number of African countries, indicated previously (African Planning Association and UN-HABITAT, 2013; Adama, 2020).

The objective of this study is to explore the meaning of urban design and selected existing models and appraise, generally, the relevance of these to the context of developing countries. Another objective is to propose a model of urban design that is considered, in this study, more suitable to the context of developing country cities. Third, to test, assess and illustrate the proposed approach in the experience of two secondary cities in the Central Region of Ghana: Cape Coast and Elmina. While the case study reflects the experience of secondary cities, generally, it also reflects processes and practices in primary cities. Methods of the study involved secondary and primary approaches. One secondary method covered a review of published literature, mostly books, reports, current media output on the ideas, concepts, definitions and meanings or urban design. Another secondary method was a conceptual structure partly related to the literature reviewed and partly to a structured observation (Bell, 2010) of real built environments, in which case this was also part of the materials for the study. Primary approaches consisted of in-depth face-to-face field interviews with key planning officers in the Planning Co-ordinating Units of Cape Coast Metropolitan Assembly (CCMA) and Komenda-Edina-Eguafo-Abrem Municipal Assembly, apart from a Local Councilor and the Works and Engineering Officer of the latter. Field interactions related to general planning practices and specific experiences under particular regeneration projects and impacts of these on urban design. Material derived from these interviews consisted almost entirely of qualitative data. Fieldwork for the study was undertaken in the 2018-2021 periods.

2. Understanding Urban Design

2.1 Problems of definitive knowledge of urban design

Many urban design and planning researchers and practitioners agree on the fact that there is hardly a universal definition of urban design (Ofori, 1998; Linovski and Loukaitou-Sideris, 2012: 66). While a universal and 'ontological definition' hardly exists, some writers tend to concentrate on the practical relevance of urban design (Linovski and Loukaitou-Sideris, 2012: 66). Therefore, some have argued that a way out of the problem of defining urban design and comprehending it lies in examining the 'scope, content and goals of urban design plans' (Linovski and Loukaitou-Sideris, 2012: 66). But it is pointed out that this approach has not attracted much attention, yet. However, it is indicated that plans provide a broad approach and guidance to the regulation and "quality of urban space" (Linovski and Loukaitou-Sideris, 2012: 66). In essence, the plans are 'road maps for a place's future physical development', apart from providing 'significant insights into how a particular physical environment is conceptualised and formulated' (Linovski and Loukaitou-Sideris, 2012: 66).

Urban design plans are also seen as either having distinctive policies as part of wider town/city plans (Linovski and Loukaitou-Sideris, 2012: 66; Lang, 2017). While these are also essentially part of public policy, they definitely guide and regulate private actions and activities. Indeed, urban design plans can be made for smaller areas, including neighbourhoods, wider areas and sectors of towns and cities or scaled-up nationwide. Whether independently targeted or as part of a whole urban plan, design has often been generally focused on the inner-city areas and/or the historic districts of the town/city, which also tend to contain many more built/cultural heritage and assets (UNEP, 2003; Montgomery, 2003, 2004; Jodidio, 2011; Amado and Rodrigues, 2019; De Leon et al., 2020; Ahokpe and Serdoroglu Sag, 2021). However, new developments, including higher education institution campuses and premises of industrial organisations in the outer parts of the city are also attracting significant urban design initiatives, globally (Lang, 2017). Because of such definitive difficulties, however, Lang (2017) argued that many urban design professions and writers prefer not to define it. In this case, each can make their own claim as to what it means and involves. However, Lang (2017: 2) pointed out that such an attitude tends to generate its own confusion and is both 'unnecessary and unhelpful', if the various designers 'are to make a positive contribution to the development of cities and other human settlements'.

A related issue to defining urban design is where urban design belongs: whether it is and can be understood as a stand-alone subject or is part and parcel of other subjects like urban planning and architecture. Linovski and Loukaitou-Sideris (2012: 66) argued that some people see it as a 'self-standing discipline', others see it as a no-mans's land, between architecture and town/urban planning. Still, others see it as an essential part of the built environment professions, including urban planning, architecture, civil engineering, landscape design and building surveying (Linovski and Loukaitou-Sideris, 2012; Lang, 2017). Some higher education institutions, globally, offer

substantive post-graduate programmes in urban design, urban design in combination with regeneration or architecture and urban design education tends to be based in departments of architecture, joint planning and architecture centres, apart from mainstream planning schools.

Obviously, several problems stand in the way of defining urban design within the global North, as between there and the developing countries, where the noted challenges tend to be greater. First, many towns and cities in the global South, Africa in particular, were unplanned. Second, this has contributed to creating highly deprived, disadvantaged urban communities, including under-served, non-served areas in terms of services, and slums. Third, contemporary urbanisation trends and patterns produce a state of growing informal settlements with an equally informal economy, dualised against the planned and formal parts of the primary, secondary cities or other city therein. In itself, such informality results from rapid urbanisation and increasing urban growth, unsustained investment in urban development, while social-economic and living conditions worsen in the migrant origins. And despite the informal sector constituting some 85 per cent or more of the total economy in many African countries, it is hardly planned for (Republic of Ghana, 2012). Fourth, development control regulations and enforcement are weak, generally, reflected in unco-ordinated, unregulated and unpermitted developments (UN-HABITAT, 2009; African Planning Association and UN-HABITAT, 2013). In context, such problems constitute a challenge to the application of foreign urban design models to the development and transformation of the built environment in developing countries.

2.2 Public participation in urban design initiatives

A critical issue related to urban design is whose values, perceptions and intentions, inclinations and motivations enter into the design process and, therefore, the finished product: the built environment (Linovski and Loukaitou-Sideris, 2012; Lang, 2017). If these are those of urban designers only or of property developers, who tend to be mostly private companies, the designed and built product does not represent the interest of everybody who lives there (De Leon et al., 2020). For instance, Moulaert et al. (2002) critically questioned the regeneration and beautification of run-down housing neighbourhoods in Bruges, Belgium and the trend of promoting these as the upper-class high profitability investment. Another critique was whether this would not contribute to the exclusion of groups in the city's social fabric. Moulaert et al. (2002) argued that beautification can be and work for all social groups or can be unfairly hijacked for the interest of the rich and well-to-do only. In either context, however, beautification and related urban design remains a value and strategy to improving and managing the built environment. Certainly, urban design is a collaborative undertaking and the vital need for a participatory approach to achieving its aims and objectives have been emphasised (Moulaert et al., 2002; Linovski and Loukaitou-Sideris, 2012; Lang, 2017; De Leon et al., 2020). Linovski and Loukaitou-Sideris (2012) identified forms of public participation in their study in Canada and the US. These included citizen commission and advisory committees - professionals and citizens - other public departments, public input; professional input and general stakeholder consultation. Processes of participation included public meetings; information meetings and open-house sessions; charrettes and workshops; stakeholder outreach; special interest meetings; online surveys, use of comment forms and phone surveys.

Ghana's planning system does not include explicit urban design plans. However, under its spatial planning system, the Structure and Local Plans contain elements of urban design (Republic of Ghana, 2011, 2015). Second, elements of urban design occur in the Land Use and Spatial Planning Act, 2016 (Act 925) (Republic of Ghana, 2016a). Third, in the Local Governance Act, 2016 (Act 936), item 19 in the Fifth Schedule relates to section 104, sub-subsection (1), paragraph (e) on building bylaws provides for 'The preservation of trees and other natural amenities, the taking of steps to enhance the scenic beauty of the neighbourhood, the regulation of gardening and the care and conservation of open spaces' (Republic of Ghana, 2016b). Similar provisions exist in the National Building Regulations, 1996 (Legislative Instrument 1630) (Republic of Ghana, 1996). Act 936, section 40-48 also provides for local participation in the planning process. And the National Urban Policy Framework and Action Plan also contains some elements of urban design, especially in Action Area 2, 3, 4, 5, and 6 (Republic of Ghana, 2012). However, it has been observed that real participation in the local planning process, generally, is less effective, generally (Gyampo, 2015).

2.3 Indicators in urban design plans

Following the suggestions of Linovski and Loukaitou-Sideris (2012) and Lang (2017) on what urban design does, an attempt is made to present indicators, mostly suggested by the former on the constitution of urban design, generally. Evaluating urban design plan instruments of 42 cities sampled from the US and Canada, of which 21 were actual design plans, Linovski and Loukaitou-Sideris (2012) identified the physical, social, economic, cultural and environmental dimensions, apart from other indicators (Table 1). They also identified the goals and objectives, methods, implementation control and participation performance aspects of the plans. And they emphasised the environmental and economic sustainability in the design plans. The two writers found out that over 50 per cent of the 21 urban design plans they studied were linked to economic development and revitalisation or regeneration.

This underlined the usual deployment of urban design in the promotion of local economic development, including revitalisation or reinvigoration forms of urban regeneration, Freflecting the tendency for the economic aspect to be dominant, generally, in urban regeneration interventions.

2.4 Defining urban design

Despite the definitive problems noted previously, reference is made to the views of Cuthbert (2006) to elaborate on the essence of urban design. According to Cuthbert (2006: 1), 'Urban design is the study of how cities have achieved their physical form and the processes that go into renewing them; it is the art of designing cities and the knowledge of how cities grow and change'; 'urban design is the transmission of urban meaning to specific urban forms'. These ideas are captured in the views indicated, so far. Although it somewhat appears to beg the question about the elements of urban development it reflects general applicability. Undoubtedly, Cuthbert (2006: 12) identified some 40 definitions of urban design. However, like other writers, the view in this study is that urban design is both a process and a product (e.g., Lang, 2017). The latter is the quality and type of built environment created through the former. In terms of the former and in relation to the built environmental challenges in developing countries noted previously, urban design is seen in this study as: a process of guiding the structuring of the layout and formatting the creation of the fabric of the form and related functions of a town or city, including its built and non-built spaces, subject to any future changes, in a visionary, co-ordinated, integrated and sustainable way. This is elaborated further later in the study.

3. Reviewing Selected Existing Models of Urban Design

Some selected existing urban design models are reviewed in this section for the further purpose of exploring and deriving any relevant ideas and conceptual knowledge that have general or global application and contribute to the development of an approach that is considered more directly appropriate to the context of a developing country like Ghana. The selected models are also some of the classic ones in urban design.

3.1 Stein: Urban design as an art of structural relationships

Perhaps, Clarence Stein can be said to be the father and founder of modern urban design. Lang (2017: 1) presented the original and central ideas of Stein (1955, cited in Lang, 2017) in which the latter defined urban design as "the art of relating STRUCTURES to one another and to their NATURAL SETTING to serve CONTEMPORARY LIVING". As Lang (2017) indicated, Stein's definition covered both the concern of urban design and what it aims to achieve. Stein also emphasised the relationship between built structures, between these and the natural environment and consistently applied this to his professional urban design and town planning projects. (The Cultural Landscape Foundation, 2020). The UK Department of Communities and Environment (1997) provided a similar definition: 'Urban design should be taken to mean the relationship between the buildings and streets, squares, parks and waterways and other spaces that make up the public realm … and the pattern of movement and activity that are hereby established', emphasis on the public realm. This also harps out the essential ribs of the ideas of Gordon Cullen.

3.2 Cullen: An art of environmental relationship and Serial Vision

Cullen wrote *Townscape* in 1961 and *The Concise Townscape* in 1971 but, basically, made the same argument in both works, presenting urban design as an art of relationship and inter-relationship in the built environment. He argued that urban design was about, simply, manipulating what was pliable and tolerated within essential values and standards, rather than dictating the shape of the built environment. These relationships are between the elements and aspects of building, including materials, texture, colour, technology and components of the building, at whatever scale, between the building and other buildings; and between all these and the wider environment in which the building is constructed. Wider environment is characterised by such features as roads, streets, utility infrastructure, natural and man-made water and green features and open spaces. However, it is almost entirely by *vision* that we capture and understand the built environment but what we see at any time is part and parcel of other elements that we either did not intend or wish to see. And scenery of the built environment is revealed through series of jerks/surprises and revelations as we walk through built space. Cullen (1971) called this 'serial vision' - series of bits and elements of built space and how these come together to make meaning to us as we see these in our movement through the town or city, at any time. In the process of designing serial vision, the objective is to manipulate and manage the elements of built space, with the intent to making an impact on the human emotion.

Cullen (1961, 1971) identified two types of serial vision: 'existing vision' and 'emerging vision'. By understanding both, one can understand the relationship between what really exists and what the perceiving person wants to see or actually sees throughout the built environment. Serial vision includes how one feels about places or about the expectation/what one expects in relation to the built space and how one relates/reacts to these. And serial vision encompasses the fabric of the built space, consisting of elements like colour, texture, scale, style, character, personality and uniqueness, depending on the timescale/age of the place. Cullen protested against the

contemporary practice of demolition planning that tended to erase all existing historic heritage, creating a modern context of conformity.

3.3 Lynch: Determining the 'Imageability' of the city

Kevin Lynch (1960) struck a similar accord in his book, *Image of the city*, in a more spatialised way. He evaluated city/urban space, based on his study of Los Angeles, Boston and Jersey City in America and identified what the city form meant to the various residents of these. Lynch pondered and posed the issue as to what planners could do to make the city's image more vivid and memorable to its inhabitants. He identified and expressed the popular image as 'imageability', recognising the built environment into five components: 'paths', 'nodes', 'district', 'landmarks' and 'edges', characterising its essential spatial structure. Paths refer to routes, including roads, streets, lanes, and walkways, etc. Districts are the various suburbs, neighbourhoods and sub-areas in the city. Landmarks are the strategic and prominent features like famous bridges, iconoclastic buildings, major public art forms, historic features, including parks and gardens and heritage structures. Nodes are the activity centres, points/centroids, including route intersections and islets/roundabouts. Edges are the boundaries of smaller and wider parts, districts, plots throughout the townscape. As markers/delineations, edges have become increasingly important in an era when boundaries between the urban, peri-urban and rural territories is fading, these components amalgamating, in many parts of both the global North and developing world (van der Valk and van Dijk, 2009). Lynch demonstrated the potential value of imageability for the building and rebuilding of cities as well as a method/model for evaluating urban/city form. Imageability, therefore, informs urban design thinking and connects it with urban regeneration and re-development. It also alerts planners, urban designers and policy makers to ensuring the sustainability of the built environment by maintaining a balance among the five criteria Lynch (1960) identified.

3.4 Llewelyn-Davis and Lang: Vision for a place/area

Llewelyn-Davis (2000: 12) architectural and planning firm, in the *Urban Design Compendium*, proposed that 'Urban design is about creating a vision for an area and the deploying of skills and resources to realise that vision'. Upon this, Lang (2017: 2) formulated his own definition that: 'Urban design is about designing a four-dimensional socio-physical vision for a city or more likely a precinct within it or a number of blocks within a precinct and designing the incentives and controls to achieve that vision given the financial and political resources available.' Vision, an operative focus, ties in with urban regeneration and development/redevelopment interventions and ensures properly thought-out strategies, schemes, plans and projects to creating long-lasting, liveable and sustainable built environments and communities. Vision also promotes cost effectiveness and financial efficiency in urban development and regeneration processes. Political resources include the values, political economy, decisions and actions of city political actors.

3.5 Cuthbert: Urban design as political economy of cities

Based on extensive reviews and long philosophical arguments, Cuthbert (2011) identified urban design as being about or the product of the political economy of cities. Political economy is the social, institutional and other ways that economic and political actors choose to allocate scarce productive resources in their own interest and of the wider population/community. So, it is the interaction between politics and economics that is spatially expressed. In terms of urban design, it means that every city has an evolving design, at any time, resulting from 'many unself-conscious and self-conscious acts made within a socio-political and economic environment that indicate how individuals and institutions make decisions' (Lang, 2017: 2). These decisions flow from the ' "capital net" of investment processes' and the 'the "invisible web" of laws' (Lang, 2019: 2). And at any stage of a city's life, its design and state of development is 'a collage of bits and pieces' in this way (Lang, 2017: 2). Cuthbert's views underline the fact that no two towns/cities are the same, each the product of its own history. Therefore, it is important to maintain and sustain the uniqueness and distinctiveness of each town/city. It also strikes at the need to make the urban design process inclusive and participatory, especially involving the local community and promoting political sustainability of the city.

3.6 Bentley et al.: Responsive environments

In a more structured model, Bentley et al. (1985) aimed to create 'responsive environments' that offer choice for users in a democratic setting. They criticised modern architecture and design in the global North for being repressive and inhuman in not giving due consideration to the form implications of their designs. Bentley et al. (1985) also argued that although the designers valued social and political ideals, they failed to realise that these were expressible in the functions and user preferences of their designs/products. Like Cuthbert (2011), Bentley et al. (1985) emphasised the view that a man-made environment was primarily a political system. However, failure to realise this reality made most architects self-centred and defensive of their own techniques and methods (Moughtin, 2003). Bentley et al. (1985) and Cullen (1971), therefore, argued that when the built environment offered users a clearly due democratic setting, it created quality opportunities for them through maximising the

degree of choice available to them. Such spaces constituted the responsive environment.

So, Bentley et al. (1985) posed a question as to how design affected user choice. And they argued that design affected the choices people make at many levels and identified 7 main ways. First, design affected the places people can go and where they cannot, that is how the built environment is permeable to them. They this called Permeability, an expression of the alternative routes through the built environment and its navigability. Second, design also affected the range of uses available to users, which they called Variety, choice of user experiences, preferred places and activities. Third, design affected how easily users could understand, read and interpret the opportunities that the built environment offered, i.e., Legibility of following through the city layout. Fourth, design affected the extent, including the frequency and magnitude people can use a place for different purposes, expressed as Robustness. Fifth, design affected the detailed quality of the built environment and how these enhanced and promoted people's awareness of the user choices available; this they called Visual Appropriateness. Sixth, design affected how delighted and delightful people were in places, attracting them through their sensory experience, as Cullen (1971) also argued; this Bentley et al. (1985) called Richness. Seventh, design further affected the way and degree to which people could or like to put their own stamp on their place or define their own place through certain decorations, art forms, fences, hedges or walls, etc., which they called Personalisation.

4. Proposing the Integrated Builtscape Model of Urban Design

Although several aspects of the reviewed models relate more to the built environments of the global North, some of these reflect the situation in the developing countries, generally. But these must be seen in the particular context of the nature of the developing country's built environment as indicated previously. At this juncture, however, further emphasis is made on the challenge of spatial integration and co-ordination in the developing countries and in terms of a sustainable balance (Sorensen and Ausler, 1989). A number of factors may be identified, which further depict the condition of the particular built environment in a developing country like Ghana. First, effective linkages between the structural components of the towns and cities, including the links between the formal and informal sectors of the urban space economy are quite weak, non-existent in vast areas. Examples include links between road and utility infrastructure and economic spaces and activities or between residential and non-residential areas. Second, the need not to overload any one dimension or component of the built environment, to the disadvantage of the others and impair sustainability. Effects of lopsidedness would have been transmitted across the remaining sectors; e.g., focus on residential development without same consideration for the routescape/permeability in the area. Third, the intra-action among the elements within a particular dimension of the built environment; e,g., within the buildings of the residential sector, where buildings may not be related to each other, or elements of particular buildings being out of balance or residential-related infrastructure being less, under-served or non-existent. Fourth, effective co-ordination between built environment interventions and wider urban policy, between the former and effective development control and planning enforcement; co-ordination of the various interests and preferences in the area, to the extent that heterogeneity of these is valued. In effect, the approach to urban design proposed in this study, in the context of developing countries, is the emphasis on the effective and efficient integration and co-ordination of the built environment, herein, and its sustainability.

4.1 Structure of the Integrated Builtscape urban design model

Basically, the Integrated Builtscape design model, based on the definition provided previously and the arguments made, is depicted as an octagonal chart, representing the built environment and constituted of 8 main segments or dimensions (Figure 1). The bigger straight arrow in each component represents an intra-action among the various indicators which compose it and is aimed at finding a sustainable balance within. This arrow also connects with with the inner core of the model, which will be explained in a moment. Second, there is a regular interaction between any two and among the 8 components, represented by the smaller arrows at the inter-component boundaries and in response to any positive or negative changes of decline and/or growth and development, respectively. At the centre of the model is a smaller octagon, like the feedback or system control mechanism in the structure of the planning system proposed by Chadwick (1979). This represents the core of the Integrated Builtscape model, containing a set of planning, design and development instruments, acting as controls on the functioning of the built environment.

Integrated Builtscape model is also based on the reasoning that every built environment consists of a number of components, depending on its identified dimensions, in this case 8 (Figure 1). Each component is characterised by its specific '-scape' and the corresponding indicators of each are indicated in Table 2. First, every builtscape contains routes in terms of roads, streets, highways, lanes, paths, etc. So, this is referred to as the *Routescape*. Second, it contains buildings, both public and private and this sector is called *Buildscape*. Third, a town/city would have some planted and natural vegetation, defining its *Plantscape*. Fourth, the built environment includes views, especially out of the arrangement of routescape, buildscape and plantscape, representing its *Viewscape*. Fifth, the first five components, together, also mark out a variety of places, spaces, activities and interaction between and among these, all of which express different values, preferences, interests and choices of users, constituting the

Varietyscape. Sixth, the courts, squares, neighbourhoods, open spaces all define the *Formscape* of the built environment. Seventh, the town/city would contain private places and properties and these may be produced and decorated according to the particular preferences and values of the owners, composing the *Personalisationscape*. Eighth, everybody would like to be able to recognise their places and in the context of their town/city and neighbourhoods. So, people, including visitors and residents value the legibility of the built environment, i.e., *Legibilityscape*.

4.2 Control core criteria and indicators

The inner and control core of the Integrated Builtscape model contains 6 main factors or instruments (Figure 1). These are urban policy, plan and project, public participation, public realm, quality and standard, and regulations, each with its specific indicators (Table 3). How does the control core exercise effect on the Integrated Builtscape? Relevant policies ensure that urban design initiatives are undertaken within formally contested, agreed actions and acceptable framework, according to the preferences, interests and values of stakeholders, apart from legitimate and lawful delivery. Certainly, urban design interventions need to be presented in plans and project instruments or made into these as approved by the legitimate stakeholders. Equally, it is through legitimate and democratic participation that all stakeholders deliberate on all necessary processes and activities of the projects involved. All urban design actions, processes and products should be focused on preserving and conserving the public realm to which everybody has open access (Lang, 2017). In creating or remaking the designed space, it is absolutely essential to ensure that only permitted quality materials and operational technologies are used; and all developments must be up to the permitted standards and product specifications in every detail. All spatial design interventions must take place under the permitted and prevailing building and development control regulations. Inner core indicators also define the power and political framework, e.g., by which policies and plans are made, participation and consultation conducted, quality and standard ensured and regulations enforced to produce the built environment, including the public realm and as reflected in some of the ideas of other writers like Cullen (1961, 1971), Cuthbert (2006, 2011), Bentley et al. (1985), Llewelyn-Davis (2000) and Lang (2017). The proposed model also clarifies the potential for integrated, co-ordinated, comprehensive and sustainable urban development,

5. Exploring and Interpreting the Integrated Builtscape Design Model in Cape Coast and Elmina in the Central Region of Ghana

Cape Coast metropolis, regional capital of the Central Region and Elmina, municipal capital of the Komenda-Edina-Eguafo-Abrem District in the same region, (Figure 2), are used to represent the built environment, generally, in Ghana and other developing countries, especially in Africa. Although both are secondary cities, Cape Coast has the advantage of being a metropolitan city. Both Cape Coast and Elmina are also historic urban settlements, particularly due to their being the bases of various Ethiopian colonists, evidenced in the existence of Cape Coast Castle, with St George's/Elmina Castle and Fort St Jago in Elmina, because of which all three fortifications are World Heritage Sites (Anquandah, 1999; KIT Publishers and Government of Ghana, 2008; Ofori, 2021). Another distinctive aspect of Cape Coast and Elmina is that both cities have implemented exemplary and innovative urban regeneration initiatives, which are of instruction to other towns and cities in Ghana and global South. In Cape Coast, the regeneration interventions were based on the proposed *Conservation and Tourism Development Plan for Cape Coast* (United States Committee of the International Council on Monuments and Sites (US/ICOMOS, 2000) and the Kotokuraba Market Redevelopment Project (Government of Ghana and Cape Coast Metropolitan Assembly, 2013). The former included the regeneration of Cape Coast Castle, historic residential properties, routescape and natural environment in the metropolis. Although it was not implemented as a whole package, Cape Coast Metropolitan Assembly (CCMA) managed to undertake parts of the plan (Ofori, 2021). The latter intervention is quite popular in the towns and cities of many developing countries, especially African and Asian countries where city life tends to be focused on open-air markets of various scales and structure (Asante, 2020a, 2020b).

In the case of Elmina, the main intervention was the Elmina 2015 Strategy, also called Elmina Cultural Heritage Project or Cultural Heritage and Local Economic Development Project in Elmina (KIT Publishers and Government of Ghana, 2008). Initiated in about 2002-2003 periods, it was meant to be completed by 2015, hence the title. It was funded by the European Commission and the Netherlands Embassy, latter under their Dutch Culture Fund. Originally, the whole project included some 80 projects but actual initial implementation focused on 10 of these (KIT Publishers and Government of Ghana, 2008: 11). But the overall programme was focused on 5 priority areas: Tourism and Local Economic Development, Fishing and Fishing Harbour, Waste Management and Drainage, Education and Health Sectors. So, it is the impact of the 10 targeted projects on urban design that is explored and interpreted in this study.

5.1 Main components of the Integrated Builtscape in practice

5.1.1 Routescapes

What was the impact of the urban regeneration and renewal initiatives on the routescape of Cape Coast metropolis and Elmina and to what extent did these reflect urban design practices and beautification? Development Planning Officer of Cape Coast Metropolitan Assembly (CCMA)'s Planning Co-ordinating Unit indicated that 'collectively', the impact of the regeneration initiatives undertaken on the routescape of Cape Coast 'is good' (Interview, January 2019). He explained however, that Cape Coast is a colonial city and so its roads and streets are generally narrow, with its 'development having been ahead of its planning' and as reflected in the case of Accra (UN-HABITAT, 2009) and, indeed, most towns and cities across the global South. For instance, in the context of historical geography and urban history of Ghana, Dickson (1969, 1971) expounded on the dualism of the traditional Ghanaian town in having its own spatial structure and morphology, on which the colonial Europeans superimposed theirs. Nevertheless, the latter design and spatial structure, anyhow, has prevailed and is part of the foundation of contemporary local and spatial planning. In Ghana, this model of town and city planning and design took off under the Towns Ordinance, 1892 (No. 13 of 1892), which became the Towns Act, 1892 (Cap. 86), the first town planning legislation introduced by the British colonial government, now repealed and consolidated in the contemporary Land Use and Spatial Act, 2016 (Act 925). However, the Local Governance Act, 2016 (Act 936) and the National Building Regulations (1996) (Legislative Instrument 1630) include provisions on the regulation of streets, buildings, walls, etc. and should apply to the improvement of the urban routescape, e,g,, in terms of the improvement in road/street width, etc. Respondent indicated that with a 'dramatic escalation in the metropolis's population', 'roads should have been wide enough to contain the population' but 'roads are still narrow' (Interview) and that 'In the modern era', there is 'need to widen the roads' (Interview), In the Kotokuraba Market area and neighbourhood, for example, respondent believed that CCMA 'needs to put in measures to widen the roads, creating parking areas, creating one-way routes' (Interview). He also pointed out that narrow roads seriously limited pedestrian accesses, contributing to pedestrian-vehicular conflicts.

In terms of surface quality, a significant part of the main roads and streets in the historic and Central Business District (CBD) of Cape Coast were improved with asphalt. However, others like the section of Aboom Wells Street and particularly Nana Mbra VII Street were still heavily potholed and yet to be re-surfaced. Generally, isolated regeneration initiatives were also undertaken over the 2012-2016 periods, notably on the routescape of Cape Coast metropolis. First, Ghana Heritage Conservation Trust (GHCT) was involved with the erstwhile Cape Coast Development Association (CCMA) in the paving/"pathing" of some of the walkways in the historic district. Second, there was a re-surfacing of the main streets in the area with asphalt and this sealed off many of the hitherto pot-holed sections. Third, a street-naming project was carried out throughout the historic district and wider metropolis, as part of a national project, however. Street names were either inscribed on metal plates fixed to metal poles or other material and hoisted at street corners, otherwise, visibly inscribed on walls along the route. Many of the hoisted metal plates have, however, broken off or been vandalised and not replaced. Fourth, GHCT agreed with CCMA to make over some of the previously exposed culverts or "gutters" as popularly called in local parlance. Uncovered culverts had posed a danger to the public and local community, generally. Street-lighting was also provided in a number of towns and cities, as part of a national initiative but many of the pylons have since broken down. This was not covered under Cape Coast's own regeneration interventions.

For Elmina, the Municipal Development Planning Officer - Komenda-Edina-Eguafo-Abrem Municipal Assembly (KEEAMA) - observed that 'Generally, Elmina Roads not so good, the only good one is the road to the Castle', i.e. Liverpool Street; 'rest still in bad shape'. And, 'from the Elmina Urban Health Centre to Nana Kobina Gyan Square is also slightly improved.' Compared with Cape Coast, regeneration initiatives in Elmina rarely included the routescape, generally. Comparatively, therefore, the routescape in Cape Coast is better in quality than that of Elmina, even with the rather poor conditions of sections of the former's. Nevertheless, CCMA, like KEEAMA, recognised the strategic need for further improvement. In Cape Coast, impacts of the Urban Conservation Project focused on the Castle and its precincts as well as the Kotokuraba Market area. And owing to its political and administrative status, the metropolis relatively benefited more from Central Government's initiative of asphalting most of its city centre and CBD routes.

In terms of the asphalting in both Cape Coast and Elimna, covering of culverts, sealing up pot-holes, street-naming and street-lighting, generally, these also impacted positively on beautification. On the other hand, the narrow streets, in the historic districts of both towns, congestion of human traffic, especially in the CBDs, limited parking space, broken down street name plates and some street-lighting pylons and exclusion of any significant tree-planting did not reflect beautification.

5.1.2 Buildscapes

Parts of Cape Coast's Conservation Plan that were implemented included the regeneration and improvement of many old buildings, including historic family properties. Some of these were adapted to new uses. According to CCMA's Development Planning Officer, apart from the Castle, Heritage House and Emintsimadze Palace, a number of other strategic properties were brought back into use, through regeneration and renewal. He, however,

indicated that there was 'need to upgrade some of the buildings, especially in the city centre' (Interview, January 2019). In the private realm, those house-owners who did not participate in home-owner property improvement initiatives, however, learned on their own by, observation of the initiative, to improve their properties. Urban regeneration and renewal processes, therefore, set off a learning curve for the non-participant home-owners. Under the general impact of regeneration and renewal projects, new buildings were also actually being built in places within Cape Coast and Elmina, like many other towns and cities across Ghana, especially the regional capitals and opportunities were being created for more building developments. Metropolitan Development Planning Officer of Cape Coast intimated that by 'controlling coastal erosion', under the Coastal Management Project, 'a lot of land has been redeemed for development that would have been lost to the sea' (Interview, January 2019). This made an interesting impact of the environmental regeneration in the south-western stretch of the metropolis, for instance.

Another impact of regeneration and renewal on the local buildscape was the significant growth of hotels and other lodges in both Cape Coast and Elmina, especially under the regional development programmes implemented by the Central Regional Co-ordinating Council and its technical wing, Central Region Development Commission (CEDECOM) during the 1991-2001 periods (Ofori, 2021). In the present study, only a valid deduction is made from these. However, KEEAMA was more explicit in indicating that 'tourism is attracting new property development, e.g., new buildings in and around Elmina, including new hotels' and 'a lot of private developments' (Interview with Municipal Development Planning Officer, January 2018). Specific buildings such as hotels and lodges and other buildings, including those regenerated along Liverpool Street and Nana Ato Quarshie Street, Nana Kobina Gyan Square all brightened up much of the Elmina buildscape as well as viewscape. Indeed, observations and logical deductions indicated a number of changes in the buildscape of Cape Coast and Elmina. First, there was increasing building density with the sheer growth in the number of properties, generally. Second, there was change in the texture of buildings, becoming less coarse and finer. Third, a number of streets and precincts were lifted into a lit-up, brighter and fresher colourscape. Fourth, many new buildings were built to new different styles, including a significant amount of glass, for example, and with this, introduction of new building technologies. Some of the regenerated buildings also included reconstructed parts and units. Fifth, the building scene in totality typified a new scale of properties, ranging from small-sized to very large ones. Such buildscapes also displaying a change in the building rhythm, due much to the variety and scale of new properties. In terms of these developments, beautification was also lifted up in both cities. On the other hand, the were persisting cases of unpermitted building due to the less effective system of development control.

5.1.3 Plantscapes

Cape Coast aimed at reversing its limited or diminished vegetation cover, under its environmental regeneration project. CCMA's Development Planning Officer indicated that 'generally, Cape Coast is not forested' but 'with the Bonn Street development, the place is so green and rather cool, cools the Fosu Lagoon', i.e., to the south-western littoral of the city (Interview, January 2019). He emphasised that 'if this is replicated throughout Cape Coast, it would be a Garden of Eden, probably' (Respondent). The environmental regeneration project involved some reclamation of the Fosu Lagoon, tree-planing and general greening in the part of the city and the banning of sand-winning along the banks of the Kakum River, north of the city. However, plantscaping was not carried out throughout the metropolis.

Like the Coastal Management initiative, GHCT collaborated with CCMA and a former civic society organisation, Cape Coast Development Association, in the greening of parts of Cape Coast, including the historic district, by planting trees along some streets. However, neither the Executive Director of GHCT nor CCMA's Development Planning Officer were able to indicate the number of trees planted or the ecological details like type of species, structure and shading qualities. Moreover, it was unknown how many of these trees survived. Nor was it indicated whether any Tree Preservation Orders (TPOs) were applied and in existence, including the management of these (Republic of Ghana, 1996).

In Elmina, the Municipal Development Planning Officer indicated that trees were planted along roads and river banks, generally, and this was very successful in greening the town. On the other hand, the Assemblyman and leading member of the Assembly's Sub-committee on Tourism and Environment was emphatic that no trees were planted under the 2015 Strategy/Elmina Cultural Project. He added that efforts may have been made in the past to green the town, yet hardly much evidence of this could be traced at the time. Trees were meant to be planted as part of the erosion control measures at the beaches and hills but it did not happen and the erosion actively continued. Naturally, plantscaping contributed to beautification of the built environment, especially where this was combined with landscaping strategy (Republic of Ghana, 1996). Apart from Cape Coast's Bonn Street Project, however, not much of plantscaping and its impact on beautification was promoted. Beautification would also depend on the quality of management of planted surviving trees. Without the trees, however, need for any such management would not arise.

5.1.4 Viewscapes

In a large measure, viewscaping was denoted in or brought about through other dimensions of the builtscape and specific strategies of regeneration and renewal. For instance, much of the roadscaping and streetscaping appraised

included the making of viewscapes. GHCT, for example, contributed to the 'demolishing and removal of unpermitted structures, including kiosks and other shop-lets or sheds along the route and streets', as its Executive Director indicated (Interview, November, 2016). Under the Urban Conservation Project as part of regional development interventions of the Regional Co-ordinating Council, GHCT also built a fence around the historic cemetery at Bakaano to the south-western corner of the historic district, which among other effects, improved the viewscape in the area. CCMA's Development Planning Officer indicated that the tree-planting along Bonn Street also improved the viewscape of the neighbourhood and precincts. Second, the Kotokuraba Market area was beautified, following the de-congestion of the place, for instance. However, the respondent indicated that 'not all obstructions have been cleared' and this was the reason for bringing in the Road Safety Commission (RSC) to assist with decongestion of the routescape. Work of the RSC was not assessed as part of the study, to determine its effectiveness.

Similarly, Elmina's Municipal Development Planning Officer indicated that the situation in Elmina was 'better than, say 5 years ago' because there were still some 'unauthorised structures'. He added that 'in terms of refuse, mainly cleared along the main roads but less so away from these, i.e. views cleared around roads/streets' (Interview, January 2018). Variously, the instances of viewscaping also indicated the variety of sources of its making and illustrated the inter-connectedness and inter-relationships between components of the Integrated Builtscape design model. Nevertheless, the virtually widespread cases of remaining refuse dumps and uncleared obstruction could not qualify any place or area for beautification. In this regard, the effectiveness of viewscaping was also limited. Positively considered, however, some obstructions were cleared and certain views improved. Indeed, by considerable decongestion of the Kotokuraba Market area and part of the CBD, some beautification was achieved in inner Cape Coast metropolis.

5.1.5 Formscapes

In Cape Coast metropolis, open spaces which constituted part of the public realm were all occupied or taken over by persons encroaching on these. Thus the Development Planning Officer of CCMA's Metropolitan Planning Co-ordinating Unit indicated that 'so, not the best'. This also raised the issue of the effectiveness of development control in protecting and preserving the spaces, whether required for any development or not. However, under the Coastal Management Project, 'open spaces' along Bonn Street were 'greened and freed from pollution, especially plastic waste' (Interview, January 2019). In other formscaping, the historic district of Cape Coast metropolis was generally well route-connected, breaking up the built-up parts and facilitating accesses within the area. Morphology of the district was, therefore, loosened up than being homogeneously monolithic. Most of the achievement, in this regard, was made over the history of the local planning and design in the metropolis, generally, and under the 4-yearly Metropolitan Medium-Term Development Plans (MTMDPs). Some of the initiatives under the *Conservation and Tourism Development Plan* were also aimed at promoting the improvement of this formscape. Other initiatives, under the Urban Conservation Project, for instance, also contributed to the development of spatial forms like Chapel Square, which was decongested; its floorscape mended and painting of the enclosing buildings also lit up the square. There was also the Ato Austin Memorial Garden in the front yard of Heritage House, which freshened up the area.

CCMA and its partners made an effort to develop some statues and monuments as part of the formscape of the metropolis. These included the roundabout at the junction of Bakaano with Cardinal Appiah Turkson Boulevard; the 'Gye Nyame' symbol - i.e. Except God - roundabout at Tantri and most strategic of all, the Oguaa Okoto or Crab Statue, totemic emblem of the Oguaa people, at the junction of Asante Street with John Evans Atta Mills Avenue. In the frontcourt of CCMA offices also stands mounted 'busts of eminent Cape Coasters' (GHCT, 2002, p. 12). GHCT was a leading agent of the creation of these. Previously, under the UCP-NRCHPP, which ended in 2001, GHCT substantially contributed to the rehabilitation of seven Asafo or community Shrines in Cape Coast by providing the necessary building materials for the project.

Komenda-Edina-Eguafo-Abrem Municipal Assembly (KEEAMA) was similarly happy about its regenerated and restored Posubans. Elmina also derived pride from the regeneration and restoration of its equally famous Nana Kobina Gyan Square, almost entirely enclosed by historic family properties which have also been done. With the new bridge over Benya Lagoon, a new strategic and imposing formscape has emerged: a robust connection of both banks of the lagoon and with precincts of Elmina Castle. Private home-owners were expected, generally, to renovate their properties to brighten up the formscape and as a way of making the town attractive to tourists (Interview with Municipal Development Planning Officer, January 2018). However, neither KEEAMA nor any of its partners was providing any particular incentives or support for these other private homeowners. Otherwise, it would have been an explicit evidence for the private realm, as well. The pockets of formscaping like public squares, art forms, statues and other monuments represented a variety of beautification elements, occurring only at the particular nodes/points where the formscaping took place

5.1.6 Varietyscapes

Respondents of both CCMA and KEEAMA agreed on mixed-use developments as an expression of varietyscape. In Cape Coast metropolis, the Kotokuraba Market Redevelopment Project was more of a mixed-use development,

including commercial, residential, eateries, religious, educational and public office uses. Under the Coastal Management Project, the varietyscape was enriched with the establishment of offices of various institutions, restaurants and other leisure and catering centres along the littoral corridor. However, the variety of scale included some interference such as the occurrence of government establishments within the heart of a commercial zone. Apparently, the offices were not in harmony with the commercial uses. Second, there was generally, noise pollution in the Kotokuraba Market area. Third, there were security threats in the regenerated parts, much due to poor lighting in these places. Where lighting was being provided, the fixtures were not managed in a sustainable way. Otherwise, many parts in the towns and cities lacked these.

In Elmina, 'most residential buildings' were 'being converted into commercial and mixed-use', which also contributed to the promotion of its varietyscape (Interview with Municipal Development Planning Officer, January 2018). However, such development was denoted in 'a reduction in the size of undeveloped land' because the 'built-up area increased' (Respondent). An interesting impact was the development of vertical and horizontal varietyscape. The former was expressed in the increasing height of buildings and with more high-rises 'because of limited land or space' (Respondent). Apparently, these high-rises were becoming mixed-use buildings, promoting the varietyscape. In terms of the variety of developments, uses and changing forms like the high-rises, the varietyscape contributed, even minimally, to the emergence of beautification. And both horizontal and vertical varietyscape expressed horizontal and vertical forms of beautification.

5.1.7 Personalisationscapes

Owing to the increasing built-up area in the historic district of Elmina, there were 'hardly any privately-owned spaces' (Interview with Municipal Development Planning Officer, January 2018). Nonetheless, some of the existing properties and new ones included surrounding walls and fences. Probably due to a relatively more challenged security situation, these features of personalisation were increasingly becoming more important. Other 'existing buildings', however, 'lack space for these' (Respondent). In terms of decorations, some of the existing buildings portrayed these, unlike most new buildings. Decorations included statues or animal-forms and various scales of human-forms, with examples of the former usually taking the form of lions; others were encrustations or embellishments on façades of the private properties, especially in the historic districts of both Cape Coast and Elmina. General shortage of space was also reflected in the historic core of Cape Coast. In environmental regeneration initiatives like Bonn Street development, however, tree-planting contributed to screening off a number of properties (Respondent) and both private and public properties were 'sharing in the positive impacts of the plantings', the plantscape created. Personalisationscaping indicators like fences and walls were generally more recent features of property development, much as a result of the increasing need for security of these places, by private developers. Indirect personalisationscape, by public agents, was rather an exception. However, both contributed to isolated cases of beautification, especially where walls as well as other decorative features were painted.

5.1.8 Legibilityscapes

Ghanaian towns and cities, generally, keep to the chime of intense, hustling and bustling activities with any level of human or vehicular congestion during the day and virtual or absolute 'ghost' or deserted environment during the night. Apart from a few principal cities, 'the night market culture' is very low-keyed or non-existent, generally. Cape Coast metropolis typified these conditions of legibilityscape. Thus 'within the day, it gets very busy but by nine pm, the place is dead silent; people there during the day come from elsewhere and all go back by night, moving by 6 am, life there again' (Interview with Metropolitan Development Planning Officer, January 2019). Respondent cited the particular instance of Bonn Street that the 'place is extremely quite at night, also quiet during the day' but 'security there not the best' (Interview). Such insecurity might be reason why this littoral stretch is rather quiet especially with a diversity of communities abutting it. This character of the part of the metropolis, therefore, was not necessarily one of the typicality of the Ghanaian town or city. In other parts of Cape Coast, however, 'it is quiet because part of the population' consisted of elderly people (Respondent). Thus age may have tended to influence the character of an urban area in this way because the elderly tended to be less noisy, generally. However, quietness along the beach was more related to the insecurity around the area than elderly age-related conditions. Altogether, Cape Coasters were not challenged in reading and interpreting their metropolis. Despite the historic nature of the metropolis, it was still less complex and people remembered the place in terms of the suburbs and neighbourhoods, especially with the vivid and memorable names of these areas. Apparently, tourists also had less difficulty in reading and navigating the metropolis.

In the case of Elmina, the Municipal Development Planning Officer believed that 'The people/residents would bring about such changes' (Interview, January 2018). He saw these in terms of the changing local economy, with 'most of the people shifting from purely fishing to commerce', including 'drinking spots', 'restaurants', 'petty trading' and 'carpentry' (Interview), all of which were increasingly growing. In terms of the character of the town, the first two trades run into most of the night, all the others closing by end of day. It also meant that the general proliferation of such activities was contributing to changing the urbanscape in terms of the location and siting of

these, whether permitted or non-permitted. As far as reading and navigation of the town goes, it was less difficult for the indigents and residents than tourist visitors.

In the case of both Cape Coast and Elmina, however, it depended much on where one resided. In the former, the morphology of town varied much between North and South Cape Coast, for instance. In the latter, it tended to be between the eastern and western parts of town, generally. Legibility also tended to vary with the historic nature of the part of town. Apparently, less historic areas tended to be less legible, navigable and recognisable than the more historic districts. Generally, the limited complexity, itself, of the towns and cities promoted legibilityscaping. Limited complexity, in morphological and functional terms, and names or naming of suburban areas and neighbourhoods - visibility of the formscape - contributed to the beautification of the towns and cities, better reflected where decongestion and control of overcrowding are effective.

5.2. Control core functions of the Integrated Builtscape

5.2.1 Urban policy

The Metropolitan Development Planning Officer in Cape Coast critically pointed out that 'effectiveness in controlling development and springing up of infrastructure not the best' and that 'compared to other cities in Africa or other parts of the world, ours is poor' (Interview, January 2019) Relatively, the rather coarse quality of local urban policy and worst, its weak enforcement thus limited the making and promotion of the main components of the built environment, its design and beautification. Respondent gave a number of reasons for this historic policy ineffectiveness. First, one that he almost consistently and emphatically pointed out was 'political interference' in the local planning and development processes. Depending on any political party in power, political leaders of the Metropolitan, Municipal and District Assemblies (MMDAs) tended to interfere in the approved policies and plans of the Local Planning Authority (Respondent). They liked to manipulate the policies and programmes to suit their own values, interests and preferences (Respondent). Virtually, such cases are equal to contexts in which there is hardly any planning. And the respondent added that 'development will always exceed planning' in such situations. An instance was 'outskirts that were zoned and planned before, virtually properties have their own access roads, i.e. outskirts are better planned that the city centre' (Respondent). However, the 'access roads' were not approved or meant to be there. This only illustrated the experiential lesson that development tended to 'exceed planning', when the latter was not executed. Such political interference in urban policy and planning processes is not limited to the developed country context (Flyvbjerg,1998, 2003; Drazen, 2002; Frieden, 2020). Indeed, other political economists in the global South have made the same outpourings (Ajulor, 2006; Adetoye, 2016; Ahdikari, 2021). Of course, this is reflected in the arguments of the urban design writers noted previously (Bentley et al., 1985; Cuthbert, 2011; Lang, 2017). In these situations, political actors tend to focus on the political economy of their decisions and actions.

A second factor was the lack of necessary logistics to undertake planning activities, transport facilities always cited, which also limited monitoring, site visits and inspection of the Assembly's own initiatives and encouraged unpermitted private developments. Third, the virtually consistent lack of funding for development planning activities of the Metropolitan Assembly limited effectiveness of the control and governance of the built environment. Apparently, this was seen in targeted terms because in the case of Kotokuraba Market project, the development cost less than the total direct funding of US$30m available, with a surplus. In the case of the Coastal Management Project, available funding was just about adequate but CCMA wished it had more to scale up its environmental regeneration projects. Fourth, historic factors also contributed to undermining urban policy effectiveness, as the Metropolitan Development Planning Officer indicated. Historic environment, especially in the southern part of the metropolis, was virtually cast in most parts that these could not be remoulded without private properties being demolished. As indicated previously, some roads and streets are rather narrow with residential and commercial buildings tightly abutting these and making it impossible to widen the routes.

5.2.2 Plans and projects

Issues of the limited effectiveness of plans and projects, generally, flowed from those of urban policy. In the experience of CCMA, if all the local plans were made according to 'the guidelines of the national level, these would have the best chance of being effective' (Interview with Metropolitan Development Planning Officer, January 2019). However, 'implementation is other issue' because the 'guidelines' 'that best address the community are' not 'used or adopted for implementation' (Respondent). So, plan and project implementation were still susceptible to some of the factors of ineffectiveness indicated.

5.2.3 Public participation

In both Cape Coast and Elmina, respondents agreed that without public participation in their development planning initiatives, the effectiveness of these would be much more limited. Indeed, in Cape Coast, it was reported that there used to be times when public participation was less and this limited implementation effectiveness (Interview with Metropolitan Development Planning Officer, January 2019). It is a statutory requirement, under provisions of the Local Governance Act, 2016 (Act 936) to hold public hearings on proposed development plans and to include reports of these as part of the submission to the National Development Planning Commission (NDPC) for approval,

for instance. According to Cape Coast's Development Planning Officer, 'Recently, there was high public participation in Town Hall meetings and other citizen engagement platforms. The people need to be engaged in order to solve the problems' (Respondent). He also observed that there was 'increasing performance in participation of citizens' and further underlined the importance of participation that: 'planning with the people; once there is the national policy, consult the people, solicit their views, put the proposals before them and agree interventions with them. After all, need to go back to them and tell them the success stories' (Respondent). Although there was an improvement in public interest and participation in local planning matters, it appears that the challenge was that they were not really listened to by decision makers, apart from political interference in formal implementation of decisions, policies and plans (Gyampo, 2015); their attendance at public meeting was as important as listening to them and effectively acting on their problems.

5.2.4 Public realm

In the experience of Elmina, the Municipal Planning Co-ordinating Officer indicated that:

> 'To professionals, yes the making of the public realm. But to the people, it does not appear so. They don't see the need for public space - not seen as economic venture. They want open spaces where they just want to go and sit' (Interview, January 2018).

Although the valorisation of regenerated and designed spaces is important, this indicated a conflict of values between planners and the community and as De Leon et al. (2020) observed in the case of inner Dar es Salaam, Tanzania. People want to enjoy the designed space in social and cultural way as relates to places like Nana Kobina Gyan Square where the community can hold various gatherings. Therefore, the local community and general public value the public realm to the extent that it directly benefits them, in both social and economic ways. But in the case of places like Elmina, community emphasis was on the economic use of public space. Otherwise, they did not see themselves as being part of the public space users.

In Cape Coast metropolis, only a few public spaces were developed in relation to Fosu Lagoon. For the rest of the city, it was 'still a challenge', due to the acute shortage of spaces and the rapid development of private property: the private realm (Interview with Metropolitan Development Planning Officer, January 2021). Nevertheless, at the time of the field study in January 2019, CCMA had proposed a project to re-develop the frontage of its Offices along Johnston's Street and facing the Zongo community for public meetings and other gatherings. The Metropolitan Planning Co-ordinating Officer indicated that: 'Contacts have been made with the Ministry of Special Development Initiatives, under the 1 Constituency 1 Million Dollars' initiative; the request has been granted, so contract is yet to be made' (Respondent); the Ministry has since been re-designated as the Special Development Secretariat. Previously, the space to be developed was clumsy with pieces of structures eroded and deep gullies in parts on the incline of the hill. The project has been completed since 2021 as the latest public realm to be developed in the historic district of the metropolis. But it is used as a car park during office hours.

Experiences of developing Nana Kobina Gyan Square in Elmina and the proposal to re-develop the hilly front court of CCMA indicated the huge cost of promoting the public realm, especially when these are in isolation. The lack of funding contributed to limiting urban policy initiatives, generally. The situation also indicated that as much as possible, every public realm should be developed and valued as an integral part of the whole town or city in order to enhance its functional value. Indeed, herein is embedded an essence of the Integrated Builtscape design model.

5.2.5 Quality and standard

In terms of the quality and standard of urban regeneration and development, generally, Cape Coast's Metropolitan Development Planning Officer indicated that 'On a scale of zero to five, I would say three, not so embraced' (Interview with Metropolitan Development Planning Officer, January 2021). This related to approved developments, worst in the case of unpermitted ones. He elaborated that 'three years back people were not compliant but now they are; the Technical Committee Meetings which approves the permit started meeting only two years ago, depending on the number of applications' (Respondent). Therefore, delays in properly instituting the development control system and planning administration procedures contributed to limiting quality and standard in the design and regeneration of the built space. In the view of Elmina's Municipal Development Planning Officer, 'quality is hard to define but standard, not much up to standard' (Interview, January 2018); anyway, quality relates to product specification, mostly provided in the National Building Regulations, 1996 (Republic of Ghana, 1996). Respondent added that 'There has been a lot of haphazard development and unauthorised structures' and this also affected the viewscape of town. Limited quality and standard of urban regeneration initiatives and development programmes further limited the effectiveness of sustainability in the towns and cities. So, developments tended to require more frequent maintenance and repair of the built environment than would have been necessary, without which these tend to break down more rapidly.

5.2.6 Regulations

Local development planners in Elmina indicated that 'society not relating well to regulations, in general'. They cited three instances of this situation. First, building without permit. Second, the 'poor waste management'

practices. Third, concerning the 'attitudes to the public realm'. In Cape Coast, the Metropolitan Development Planning Officer pointed out that 'generally, regulations not effective', explaining further that 'by-laws were funded from the Cape Coast-Bonn Association projects' and 'all by-laws gazetted but are not biting' (Interview, January 2019). There was a city-twinning relationship between the City of Bonn in Germany and Cape Coast and some projects were funded by the Association. Once again, respondent was emphatic that the 'main reason is the political interference, it is just too much.' Like the issues of development control or management, and project funding, for instance, those of "political interference" keep recurring in this study and as emphasised by other writers, including Cuthbert (2006, 2011) and Bentley et al. (1985). Especially so, as indeed, results in the setting aside or ignoring of regulations and programmatic processes, generally, by some members of the public and local community, mostly, political actors.

6. Conclusions

Like many aspects of or entire systems of urban policy, planning and regeneration processes and practices, urban design models in the global North tend to be inappropriate for contexts of the South. So, the study aimed to explore and appraise an approach that is appropriate to the developing countries as demonstrated in the secondary cities of Cape Coast and Elmina in Ghana. Nevertheless, some lessons were learned from the global North models and most relevant ideas included in the proposed approach. While the study indicated the importance of urban design in emergent city transformations, it underlined the need to provide explicit statutory provisions or directions on it in substantive terms or as part of urban regeneration and development initiatives. Another outcome of the study was the need to ensure effective participation in urban design interventions as part of the regeneration and redevelopment processes. The *Integrated Builtscape* model of urban design in both conceptual and practical terms, especially in the context of a developing country, was also reflected in the structure and internal relationships within it. But it also demonstrated the relationships between and among the 8 components, which were vividly described and portrayed in the routscaping, buildscaping, plantscaping, formscaping, varietyscaping, viewscap;ing, personalisationscaping and legibilityscaping. The model also facilitated and simplified understanding of urban design processes and practices. Another advantage was its relationship with the planning systems, especially its inner core control and monitoring mechanism. However, the model also reflected elements of the reviewed classic ones, especially in terms of indicators, built environmental relationships and the idea of structure or structuring of the built environment, especially as depicted in Bentley et al. (2015). And the inner core indicators also defined the model's context of power and political enactments, which were the real drivers and enablers of the urban transformation process.

Application of the *Integrated Builtscape* model enabled an audit and appraisal of the developments in the 8 components of Cape Coast metropolis and Elmina town. Cape Coast and Elmina had similar routescapes, with narrow roads and streets in their historic districts. Although the critical interventions impacted the removal of obstructions in both cities, the routescape was relatively better in Cape Coast than Elmina. But the narrow routescape tended to limit pedestrian access and created pedestrian-vehicular conflicts in Cape Coast, where some routes were, after all, also potholed. So, there was need to improve route widths, surface quality, street name labeling, visibility and street lighting in both cities. Additionally, effective tree-planting in the built and non-built areas would also create beautification effects.

In Cape Coast metropolis, some buildings were being adapted to new uses in the regenerated spaces but other buildings needed upgrading and new ones were also under construction. There was also a significant growth of hospitality uses, out of both property conversions and new constructions. Buildings that needed upgrading were mostly public ones and the challenge was lack of funding. Equally, in Elmina, there was a significant growth in hospitality properties, apart from many more private construction developments. Generally, there was a phenomenal growth of the hospitality sector, under the regional development programmes implemented by the Central Regional Co-ordinating Council and its Central Region Development Commission (CEDECOM) during the 1990/1991 to 2001 periods. And this also created land shortages and price increases, especially in the inner-city areas and CBDs. Indeed, Elmina's builtscape provided a vivid illustration, with increasing building density, texture, style, scale, rhythm, variety and use of materials, especially glass. In both cases, however, the builtscape lifted up beautification in the areas.

Cape Coast managed to develop its plantscape, especially in the southwestern neighbourhood, around Bonn Street and the Fosu Lagoon, which helped to bring temperatures down in the area, demonstrating the real effect of a sustained green environment on climate change. However, Cape Coast and particularly Elmina failed to do so in the inner city, which had some of the highest temperatures. Further, in Elmina the plan to plant trees along its beaches and hills to check erosion in these parts did not materialise, so the erosion prevailed. But it was to check such erosion along the banks of Kakum River that CCMA banned sand-winning there. Therefore, it is absolutely essential to intensively encourage tree-planting in both city centres. Where trees were planted, it was equally important to ensure effective enforcement of Tree Preservation Orders.

The levels of achievement in routescaping, buildscaping and plantscaping also contributed to improving viewscaping, especially in south-western Cape Coast, promoting beautification. Both cities also improved their viewscapes by removal of obstructive structures along the routescapes, including the demolition of unpermitted structures in the case of Cape Coast. In Elmina, waste management was still a problem, especially along secondary roads and streets, negatively impacting viewscapes and any levels of beautification. Effective waste management, generally, and particularly to improve viewscapes is a must.

Cases of encroachment on public space were occurring in Cape Coast and this needed effective enforcement and control actions to protect and preserve such open spaces. However, some open spaces, still to the south-western quarter of the city were greened and pollutants, especially plastic waste cleared, creating some beautification effects. Morphology was also improved in both cities, especially in the CBD and city squares, including, in the case of Cape Coast, decongestion, floorscape improvement and painting and in Elmina, the reconstruction of an old town square. A most significant formscape development was the construction of new and rehabilitation of existing monuments and statues, improving the cultural environment, with totemic emblems, Posubans/community shrines and cast busts of some personalities. In the case of Elmina, the construction of a new bridge over the Benya Lagoon, linking the northern to southern sections of town, also phenomenally improved the formscape, as did, recently the completion and commissioning of the long-awaited Elmina Fishing Harbour. The sections and nodes of formscape improvement also impacted beautification in these areas.

Varietyscaping in Cape Coast saw mixed developments, including commercial, residential, eateries, religious and office uses, especially under the Kotokuraba Market Redevelopment Project but these created increase in noise pollution in the areas. In view of residential properties being converted into commercial uses in Elmina, the town was likely to experience similar noise pollution levels. Critically, therefore, there was need to enforce noise pollution controls. Despite demand for such mixed developments, some buildings were being inappropriately located, a challenge to effective development control. But one effect of the emergent varietyscape was still land/space shortages, especially in Elmina, which resulted, however, in the development of high-rises. Interestingly, this created a vertical varietyscape in these, added to the more common horizontal varietyscape. However, both forms and the mixed-use developments minimally impacted beautification in the two cities.

Although an extension in the public realm was taking up much of the available space, there was significant private development and with it, forms of personalisationscape in both cities. Some properties were fenced or walled for security purposes and some decorative forms in existing buildings in Elmina. In Bonn Street in Cape Coast, route-lined trees helped to screen off private properties along the areas. Such features of personalisation also contributed minimally to the beautification of the areas.

Because both cities are, generally, less complex, legibility was not a real challenge to the residents, probably it was to visitors. However, it was observed in both cities that the less historic parts were more legible, navigable and recognisable because of the relative stability of the areas. And in the experience of Elmina, the changing local economy from the predominantly fishing to commerce, pubs, eateries, petty trading and artisan activities was contributing to creating an unregulated, uncontrolled, less legible space, especially in the less historic areas. However, the limited complexity, street-naming and improved formscape also contributed to beautification, especially where there was effective decongestion and control of over-crowding in both cities.

Core control instruments reflected similar trends and processes. Urban policy implementation was challenged by the poor development control and weak enforcement practices in both cities. Other challenges included lack of logistics for local planners which limited site visits and inspections and policy monitoring and all these were due to the outstanding funding limitation. Policy related to further developments was also limited by the shortage of space in the historic districts of both cities but lack of routescape infrastructure further outward tended to limit the location of public uses away from the inner-city and CBDs. Of all, however, was political interference in public policy processes, due to the political economy and values of political actors, a challenge that runs through most of the control instruments. Thus it was rightly observed in Cape Coast that plan and project design and implementation were not following national guidelines, still due to the problem of political interference. Plan and projects that were formally approved were not implemented as such but done according to the whims, values and interests of political actors in both cities. But there was a trend of renewed interest, especially in Cape Coast, where residents showed improved attendance at public meetings. However, the other problem was that residents were not really being listened to, still the interests and aspirations of political actors and economic elites remained dominant.

While public officials valued public space for facility development, the community in Elmina only did so in terms of economic functions of such spaces. This was a bit unusual because both communities have a tradition of high cultural attachment to public spaces for meeting uses, including funerals, marriage ceremonies, social gatherings, performances, etc. However, land shortages and limited funding were challenges to developing the public realms, especially in the historic districts of both cities, against the rather growing development of the private realm, part of which included encroachment on public land, still a challenge to effective development control and enforcement practices. Nevertheless, Elmina managed to redevelop and beautify Nana Kobina Gyan

Square but could not sustain its maintenance. And Cape Coast also developed the square fronting offices of the CCMA and redeveloped Chapel Square.

Such challenges as noted also tended to limit the quality and standard of developments. It was observed that the communities did not really "embrace" these, especially with the ineffective development control practices, including unpermitted development. Additionally, in Elmina, there was a delay in establishing the development control system and planning administration processes, limiting effectiveness of ensuring quality and standard of development interventions. Such constraints, therefore, tended to limit the sustainability of urban regeneration, development and design initiatives. This created the need for more frequent facility maintenance, which was, however, unsustained. Society, therefore, did not comply with regulations, both statutory provisions and local by-laws, as reflected, especially in the case of Elmina, with more instances of unpermitted developments, waste management problems and attitudes to the public realm. And overall, there was the outstanding political interference and challenge to programmatic processes. These challenges further justify the context of the *Integrated Builtscape* model in the planning and development control systems.

References

Adama, O. (2020). Slum upgrading in the era of World-Class city construction: the case of Lagos, Nigeria. *International Journal of Sustainable Development,* Vol. 13, No. 2, 219-235.

Adetoye, D. (2016). The Political Economy of State Creation and Socioeconomic Development in Nigeria. *European Journal of Research and Social Sciences*. Vol 4, No. 2, 36-44.

Adhikary, U. (2021). Political Economy: Definition, History, Characteristics, Importance. Available: https://www.sociologygroup.com/political-economy/ (Friday 22 October 2021).

African Planning Association and UN-HABITAT (2013). *The State of Planning in Africa; An Overview*. Nairobi: African Planning Association and UN-HABITAT, Nairobi.

Ahokpe, K. W. and Serdoroglu Sag, N. (2021). Urban Regeneration in Cultural Quarters: Example of Porto Novo(Benin). *Eksen Journal of Dokuz Eylul University Faculty of Architecture*, 2(1), 1-33.

Ajulor, O. V. (2006). The Concept, Nature and Scope of Political Economy. In Ndukwu, P. N. and Nnaubani, O. O. (eds.) *Readings In General Studies Education, Vol. 1 (Humanities and Social Sciences)*, Lagos: Optimal Infortech, 76-92.

Amado, M. and Rodriguese, E. (2019). A Heritage-Based method to Urban Regeneration in Developing Countries: The Case of Luanda. *Sustainability,* 11, 4105, 1-20.

Anquandah, K. J. (1999). *Castles and Forts of Ghana.* Atlante, Paris.

Asante, L. A. (2020a). *The Politics and Activism of Urban Governance in Ghana: Analysing the Processes of market Redevelopment in Kumasi and Cape Coast.* PhD Dissertation (Geography). Department of Geography. Humboldt Universitat zu Berlin.

Asante, L. A. (2020b). Urban governance in Ghana: the participation of traders in the redevelopment of Kotokuraba Market in Cape Coast. *African Geographical Review*. Volume 39, 2020, Issue 4, 361-378.

Bakama, J. (2011). 'Kakugulu Satellite City. Available: https://www.skyscrapercity.com/threats/kakungulu-kakungulu-satellite-city.1370567 (Monday 23 July 2021).

Bell, J. (2010). *Doing Your Research Project; A guide for first-time researchers in education, health and social science.* Fifth Edition. Maidenhead: McGraw-Hill and Open University Press.

Bentley, I., McGlynn, S., Smith, G., Alcock, A. and Murrain, P. (1985). *Responsive Environments: A manual for designers.* London: Butterworth-Architecture.

Chadwick, G. F. (1978). *A Systems View of Planning*: *Towards a Theory of Urban and Regional Planning.* Oxford: Pergamon Press.

Citifmonline (2017). 'Boniface Saddique outlines vision to address challenges in Zongos'. Available: citifmonline.com/2017/06/12/boniface-saddique-outlines-vision-to-address-challenges-in-zongos (Monday 14 May 2018).

Cullen, G. (1961). *Townscape.* London: Architectural Press.

Cullen, G. (1961). *The Concise Townscape.* London: Architectural Press.

Cuthbert, A. (2006). *The Form of Cities, Political Economy and Urban Design.* Oxford: Blackwell.

Cuthbert, A. (2011). *Understanding Cities: Method in urban design.* Oxford: Routledge.

Daily Monitor (2018). Government partners with Malaysians to build satellite city in Wakiso. Available: https://www:monitor:co.us/uganda/news/national/government-partners-with-malaysians-to-build-satellite-city-in-wakiso-1745354 (Friday 23 July 2021).

De Leon, R. M. F., Babere, N. J. and Swai, O. (2020). *Implications of Cultural heritage in urban regeneration: The CBD of Dar-es-Salaam.* Revue Internationale Economique (Papers in Political Economy). 63, 2020, Paris: Association de'Economie Politique.

Dickson, K. B. (1969). *A Historical Geography of Ghana.* Cambridge: Cambridge University Press.

Dickson, K. B. (1971). *The Ghanaian Town: Its Nature and Function*, Inaugural Lecture, Accra: Universities of

Ghana.
Drazen, A. (2002). *Political Economy in Macroeconomics*. New Jersey, USA: Princeton University Press.
Eko Atlantic.com (undated). About Eko Atlantic. Available: https://www.ekoatlantic.com/about/us. (Friday 23 July 2021).
Espuche, A. G., Guardia, M., Monclus, F. J. and Oyon, J. L. (2007). Modernization and urban beautification: The 1888 Barcelona world's fair. *Planning Perspectives.* Vol. 6, 1991 (Online, May 2007). Available: https://www.tandfonline.com/doi/abs/10.1080/0266.5439108725724 (Monday 11 February 2019).
Flyvbjerg, B. (1998). *Rationality and Power: Democracy in Practice*. Chicago: University of Chicago Press.
Flyvbjerg, B. (2003). Rationality and Power. In Campbell, S. and Fainstein, S. S. (eds). *Readings in Planning Theory*. Second edition. Oxford: Blackwell, 318-329.
Frieden, J. (2020). The Political Economy of Economic Policy. *Finance and Development*. June, 4-9.
George, J. and Royal, C. (2018). Establishing Neighbourhood Beautification Programs. Section 10. chapter 26. community Tool Box. Available: https://ctbku.edu/en/table-of-contents/implement/physical-social-environment/neighbourhood-beautiofication-programms/main (Monday 11 February 2019).
Ghana Heritage Conservation Trust (2002). *Ghana Heritage Conservation Trust*: *Submission of information on Ghana Heritage Conservation Trust.* Cape Coast.
Government of Ghana and Cape Coast Metropolitan Assembly (CCMA) (2013). *On-Lending Credit Agreement (Kotokuraba Market Redevelopment Project).* Accra: Government of Ghana and CCMA
Gyampo, R. (2015). Dealing with Winner-takes-all politics in Ghana. Available: D://VRG-POLITICS/Gyampo-2015.pdf.
Jodidio, P. (2011). *Strategies for Urban Regeneration. The Aga Khan Historic Cities Programme*. Munich: Prestel.
Koech, G. (2020). Nairobi, regeneration a tall order, lack of funds blamed. Available: http://www.the-star.co.ke/countries/nairobi/2020-02-19-nairobi-regeneration… (Tuesday 27 July 2021).
Khaoya, C. M. (2011). *Challenges of Inner City Redevelopment in Nairobi: The case of Ngara*. Master of Urban Management Thesis. Department of Architecture and Building Science. School of the Built Environment, University of Nairobi.
KIT Publishers and Government of Ghana (2008). *Elmina: Building on the past to create a better future.* Amsterdam: KIT Publishers BV.
Konza Technopolis Development Authority (2020). Konza Technology City Approved as Kenya's Vision 2030 Flagship Project. Available: https://konza.go.ke/timeline/konza.technology-city-approaches-kenya's-vision-2030-flagship-project (Friday July 2021).
Lang, J. (2017). *Urban Design*: *A Typology of Procedures and Products.* Second Edition. Routledge, New York and London.
Llewelyn-Davis (2000). *Urban Design Compendium.* London: English Partnership and Housing Cooperation.
Linovski, O. and Loukaitou-Sideris, A. (2012). Evolution of Urban Design Plans in the United States and Canada: What Do the Plans Tell Us about Urban Design Practice?. *Journal of Planning Education and Research.* 33(1), 66-82.
Lynch, K. (1964). *The Image of The City.* Cambridge, US: MIT Press.
Mensah, K. (2022). Ghana Aims to Plan Millions of New Trees in Single Day. Available: https://www.voanews.com/a/ghana-aims-to-plant-millions-of-new-trees-in-single-day-/66 (Friday 21 April 2023).
Ministry of Local Government and Rural Development (2019). Department of Parks and Gardens. Available; *www.mlgrd.gov.gh/posts/department/59-department-of-parks-gardens/?plugin=100*, (Tuesday 12 Feb 2019).
Modern Ghana (2000). ₵230m to be spent on beautification of major ceremonial roads. Available: *https://www.moderngahan.com/news/120291/230m-to-be-spent-on-beautification-of-major-ceremonial-road.html* (Tuesday 12 Feb 2019).
Montgomery, J. (2003). Cultural quarters as Mechanisms for Urban Regeneration. Part 1: Conceptualising Cultural Quarters. *Planning, Practice & Research*. Vol. 18, No. 4, November 2003, 293-306.
Montgomery, J. (2004). Cultural quarters as Mechanisms for Urban Regeneration. Part 2: a review of four cultural quarters in the UK, Ireland and Australia. *Planning, Practice & Research*. Vol. 19, No. 1, February 2004, 3-31.
Moughtin, C. (2003). *Urban Design: Street and Square.* Oxford: Architectural Press.
Moulaert, F., Demuyck, H. and Nussbaumer, J. (2002). Urban renaissance; from physical beautification to social empowerment: Lessons from Bruge-Cultural Capital of Europe 2002. *City: analysis of urban trends, culture, theory, policy, action.* Vol. 8, 2004, Issue 2, 229-235.
Ofori, S. C. (1998). *Remaking place in the inner city*: *Urban design, development and planning processes in Glasgow.* Working Paper Series no. 67. School of Planning and Housing. Faculty of the Built Environment, Birmingham City University (Formerly University of Central England), Birmingham, UK.
Ofori, S. C. M. (2021). *Endogenous Regional Policy and Development Planning in Ghana.* London: Routledge.

Phantom_Urbanism.com (2017). Nova Cidade de Kilamba, Luanda, Angola. Available: phantom-urbanism.com/nova-cidade-de-kilamba.html (Monday 26 July 2021).
Republic of Ghana (1996). *National Building Regulations, 1996 (Legislative Instrument (LI) 1630).* Accra: Ghana Publishing Corporation.
Republic of Ghana (2010). *Medium-Term National Development Policy Framework*: *Ghana Shared Growth and Development Agenda (GSGDA) I, 2010-201.* Accra: National Development Planning Commission (NDPC).
Republic of Ghana (2011). *Manual For The Preparation of Spatial Plans.* Ministry of Environment, Science and Technology. Accra: Town and Country Planning Department (now Land Use and Spatial Planning Authority).
Republic of Ghana (2012). *Ghana National Urban Policy Action Plan*. Accra: Ministry of Local Government, Decentralisation and Rural Development.
Republic of Ghana (2014). *Medium-Term National Development Policy Framework*: *Ghana Shared Growth and Development Agenda (GSGDA) II, 2014-2017*, *Volume 1: Policy Framework*, Accra: National Development Planning Commission (NDPC).
Republic of Ghana (2015). *Habitat III National Report; Third United Nations Conference on Housing and Sustainable Urban Developmen*t. Accra: Ministry of Local Government, Decentralisation and Rural Development.
Republic of Ghana (2016a). *Land Use and Spatial Planning Act, 2016 (Act 925).* Accra: Assembly Press.
Republic of Ghana (2016b). *Local Governance Act, 2016 (Act 936)*. Accra: Assembly Press.
Sorensen, A. D. and Ausler, M. L. (1989). Fatal remedies: The sources of ineffectiveness in planning. *Town Planning Review.*Vol. 60, no. 1, pp. 23-46.
Tatu city.com (2021). Tatu: A Place Designed for Live, Work and Play. Available: https: //www.tatu.city.com/ (Friday 23 July 2024).
The Cultural Landscape Fundation (2020). Clarence Stein. Available: https://tdf.org/pioneer/clarnce-stein (Thursday 18 June 2020).
UN-HABITAT (2009). *Ghana: Accra Urban Profile. Nairobi:* UN-HABITAT.
UNEP (2003). *Synthesis Report on Urban Regeneration.* Workshop on Urban regeneration in the Mediterranean Region. Split, Croatia, July 21-22, 2003, 1-28. Available: https://www.pcp.the coastcentric.org/razne/urban%20Regeneration-Synthesis (Wednesday 178 April 2019).
United Kingdom (UK) Department of Communities and Environment (1997). *Meaning of Urban Design.* London: UK Department of Communities and Environment.
US/ICOMOS (2000). *Conservation and Tourism Development Plan for Cape Coast*, US/ICOMOS, Washington.
van der Valk, A. and van Dijk, T. (2009). *Regional Planning for Open Space.* London: Routledge.

Table 1. Urban design indicators by sector

Main Sector	*Specific Indicators*
Physical	Public realm; density; aesthetics; streetscape improvements; building heights; massing; architectural diversity/building variety; landscape quality; unique character of area, etc.
Social	Displacement or gentrification; affordable housing; likely negative outcomes; cultural diversity.
Economic	Economic impacts; plan costs; impact on local businesses; impact on land values and rent.
Cultural	Historic preservation; diversity of historic preservation; place history.
Environmental	Wind/sun exposure; topography; drainage/storm water management; climate and sustainability.
Other Indicators:	
Urban form	Streets/streetscape; street wall; street-building relationship; signage; landscaping; lighting; street furniture; views, vistas and visual access; parking and curbs;; density; public art; public space/realm; urban structure; urban structure; infrastructure and utilities; skyline.
Walkability and bikeability	Pedestrian mobility; cyclist and general movement.
Building form	Architectural form; building character & details; façades; scale and massing; doors and entries; fenestration; material and height.
Accessibility and access	Transit/mass transit; pedestrian, cycling modes for disabled and elderly people, e.g., motorised wheel chairs, etc.
Legibility	Character; identity, sense of place; navigation, way-finding and signage; gateways; landmarks.
Comfort and convenience	Amenities, climate and weather.
Health and safety	Safety by design, pedestrian access and cycling.

Source: Author's re-tabulation from Linovski and Loukaitou-Sideris, 2012: 70-71, 78.

Table 2. Components and indicators the Integrated Builtscape urban design model

Components of The Integrated Builtscape Model	*Criteria/Indicators of the Components of Integrated Builtscape Model*
Routescape	Roads; streets; lanes; paths/walkways; route width; route length; route intersections; vehicular control rumps and bumps; railway; tramway; route surface quality; route scale; route-side drainage; roundabouts/islets; street/road lighting; street name; avenues; promenades; route/areal accessibility; building and route relationship; street furniture; major and minor entry & exit points; bike lanes; pedestrian routes, etc.
Buildscape	Building systems; building density; building line; building scale; building rhythm; building texture; building colour; building materials; building technology; building orientation; building type/form & massing; buildscape-routescape relationships; accessibility to and within buildings; building height; architectural quality; fenestration; doors/doorways and other entries; building-drainage relationships, Plot-Area Ratio; Floor Area Ratio, etc.
Plantscape	Plant types and variety; route-planted trees; trees/wooded areas/urban forests; open spaces; public gardens; Areas of Outstanding Natural Beauty (AONBs); natural beauty/scenery; plant-water relationships; public parks; private parks; grassed areas; green belts; green wedges; related wildlife; plant-water relationships; water bodies; Sites of Special Scientific Interest (SSSIs); beaches, etc.
Viewsscape	Vistas; obstructions; skyline; route orientations; areal/spatial transparency; aesthetics; topography; avenues; promenades; T-junctions & street corners, etc.
Formscape	Urban spatial structure/morphology; public squares; public courts; public arena; public/private parks; precincts; areal uniqueness; urban-peri-urban-rural land relationships; neighbourhoods; squares, plazas, suburbs; nodes; areal zones/zoning; monuments, etc.
Varietyscape	Street neighbourhoods; residential neighbourhoods; suburbs; building systems; building scale; building range/types; use of colour and other decor; serial views; areal functions and activities; leisure spaces/forms/types; mixed-use developments; place/areal adaptability; residential population mix.
Personalisationscape	Residential frontcourt; residential backcourt; residential fences; residential walls; residential hedges/hedgerows; property-related decorations and art forms; property-related open spaces; property names; residential signage; private monuments, etc.
Legibilityscape	Areal/place signage; areal/place character; area/place personality; land marks; use of colour; real/functional zoning; street names/naming and addresses; Geographical Positioning Systems (GPS) codes; planting; hard-and-soft features; property names/naming; real/functional zoning, etc.

Source: Author's tabulation.

Table 3. Control core criteria of The Integrated Builtscape design model.

Control Factor/Instrument	*Indicators/Criteria of Control Factors*
Policy	Urban physical development policy; urban spatial planning policy; urban regeneration policy; urban design policy; building location and site policy; areal zoning policy; building code; urban land use planning policy, etc.
Plan and Project	Urban development strategies; urban development plans; urban design plans; urban development projects; structure plans; local plans; sub-district or local action plans; neighbourhood development/redevelopment projects, etc.
Public Participation	*Stakeholder groups:* Civil Society Organisations (CSOs); Community Based Organisations; Faith Based Organisations (FBOs); Non-Governmental Organisations (NGOs); Professional Associations and Groups; Trade Unions, etc.; *Consultation/Collaborative Participation Sessions:* Technical meetings; Examination-in-Public meetings; public hearing; advertising campaign; radio and TV; daily newspaper; on-line information; information leaflets, etc.
Public Realm	Public buildings and spaces: 'those places to which everybody has access' (Lang, 2017, p. 11); public outdoor and indoor spaces (e.g.: streets, squares, courts, parks, waterways, shopping malls (public) and arcades etc.; activities and other undertakings that these places and spaces generate.

Control Factor/Instrument	*Indicators/Criteria of Control Factors*
Quality and Standard	*Quality*: material type/brand; appropriateness or suitability of material, etc.; *Standard*: specified measurements; assembling or construction technology; effective application of building code, etc.
Regulations	Existing legislative provisions, including Acts, Legislative Instruments; orders; directives; administrative instructions; notices; effective enforcement of these, etc.

Source: Author's tabulation.

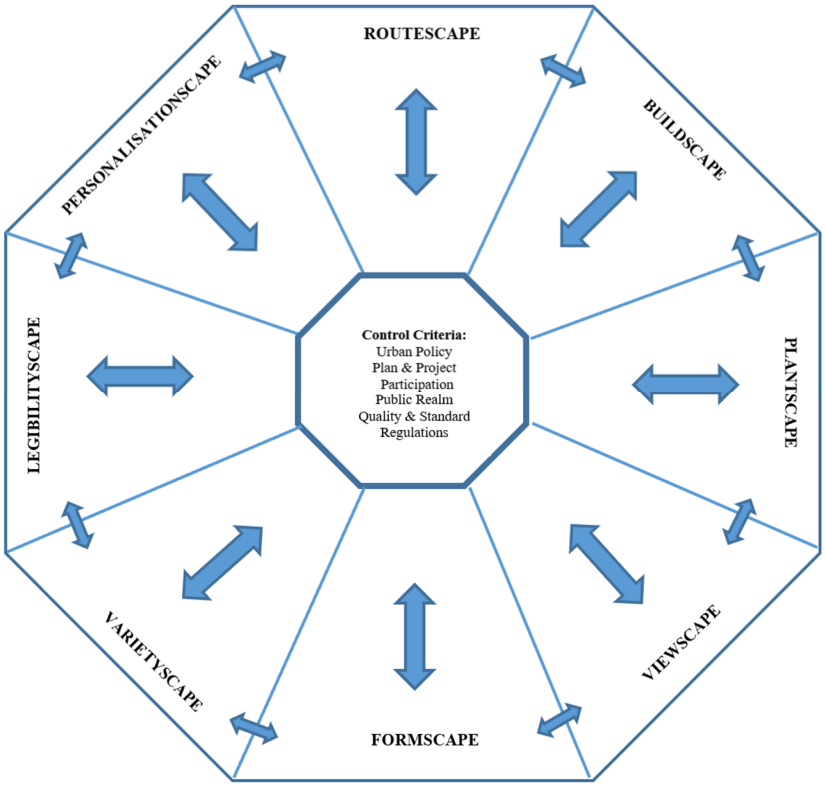

Figure 1. Illustration of the Integrated Builtscape design model.
Source: Personal artwork
Legend:
Inter-component Interaction
Intra-component Interaction

Figure 2. Map of Ghana showing administrative regions and major towns and cities.
Source: Ontheworldmap; google.com, 2021