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Practice in theory, and the theory of practice

Examining the place of climate and modernity in postcolonial architectural mediation in Ghana since the 1940s

Allan Stephen Balaara

Abstract

The need to mediate architectural practices by expropriating knowledge concepts between cultures in contact remains a twenty-first century concern globally but is especially so in developing former colonies. This interest is raised in the Cultural Policy of Ghana (2004). In the larger African context, the Contemporary African Philosophy (CAP) expresses similar sentiments. The boundaries of mediation, however, depends on influences sketched by several factors including naturally occurring geographies such as the climate, and the notion and appropriation of modernity. The ideas of the climate and modernity seem disparate themes and are typically considered as independent narratives. In the present study, they are considered together as dependent narratives with a postcolonial relevance relative to architectural development in Ghana. For example, while the climate and modernity are central to discourse on mediation in Ghana's architecture, the climate and notion of modernity is also relied upon to denounce especially colonial interventions as architectures of mediation mainly because of authorship. Thus, rethinking the place of architectural responses in Ghana from a contemporary African perspective represents new openings that can positively impact twenty-first century practices. This study therefore seeks to contextualise architectural responses in Ghana from the perspective of the CAP to reveals its place for twenty-first century approach to architectural mediation. Specifically, the thesis seeks to answer the questions: how have the responses, and theory of the responses to climate and modernity in Ghanaian architecture been shaped by the postcolonial theoretical concern of mediation, and how has this unfolded in twenty-first century practices? Three methods are adopted in this study. Firstly, the thesis situates two frameworks based on the climate and CAP for rethinking the postcolonial place of architectural practice in Ghana by theoretical reviews. Furthermore, the thesis critically reviews the significant body of knowledge on architecture in Ghana (preccolonial-1960s) based on the climate idea and CAP through thematic discourse. Secondly, interviews with practicing architects and academics on the place of climate, modernity and mediation in twenty-first century practices account for the marginal reports on within this period. Thirdly, case studies demonstrate the postcolonial place of architectural practice in Ghana. The thesis reveals that modern twenty-first century practices are largely driven by that described as fashionable/new, rather than by necessity. The expression of modernity therefore undermines climates place in twenty-first century practices. Further, the study notes the disconnection in the expropriation of knowledge concepts from Ghana's architectural past in twenty-century responses. Interventions by J. Max Bond Jr., Joe Osae Addo,
John Owusu Addo, Mario Cucinella, Patrick Wakely, and others as case studies, are discussed in lieu of the failings of practice today, and in terms of CAP. The study concludes that, while the adherence to positive postcolonial practice remains difficult to discern in the twenty-first century, an understanding of firstly, climate as a passive dual aesthetic response to the science of human comfort, and the resultant climatically inflicted socio-cultures, and secondly, of the role or place of the vernacular/local context in contemporary practice as existing in both concrete and abstracted terms, is plausible. This kind of approach to practice is potentially inclusive, reflects CAP and advances on architectural mediation. The study therefore intervenes between binary narratives on architectural mediation by expanding on climate, hybridity and modern architecture as themes in Ghana's architecture based on CAP. Furthermore, while a significant body of knowledge on architecture in Ghana (precolonial-early 1960s) exists, this study extends the discussion to twenty-first century responses. The study thus introduces new ways for rethinking African architecture beyond basic mud forms and their transformational developmental outlooks.
Dedication

The journey through the thesis has been a total life experience. Newly married five months prior to commencing my doctoral studies, this was a special and custom experience managing two worlds – my studies in a foreign land and my ties back home in Ghana. Nevertheless, the good Lord saw me through. Idem Gloria! – to God be the glory.

I dedicate this work to the memories of my Dad (Mr. Jude Balaara) and my cousin (Mr. Bonny Raymond Saayeng), both of whom saw potential in me, and nurtured and supported me this far. Unfortunately, they are not with me to share in this great achievement.

This work also belongs to my two shadow ministers – my dear mum (Madam Cecilia Batuu) and my lovely wife (Maybel Yankasa Mahama). I thank my mum for the constant reminders to pursue my PhD while young. Knowing I will be away from her for three to four years and yet being so supportive baffled me at times. My wife has been patient, loving and supportive of my ambitions to pursue a doctoral career at a time our marriage was in its early days. They have been kind and I appreciate their role in this journey.

My elder siblings (Augustine and Augustina Balaara) have been supportive throughout our lives growing up together. God has brought me this far through your prayers and encouragement.

This achievement is shared with my mentors at KNUST – School of Architecture who directly supervised my thesis or examined my thesis at the Master's and Bachelor's level, Prof. G.W.K Intsiful, Dr. Victor Quagraine and Prof. Rexford Assasie Oppong.
Acknowledgements

I am indebted to my supervisor Prof. Errol Haarhoff who accepted to supervise this work. His open-door relationship helped me settle in quickly as an international student. His expertise and regular short and concise yet engaging critiques have particularly transformed this thesis. The thesis also benefited from the expertise of Dr. Paola Boarin and Dr. Alessandro Melis, both of whom co-supervised this work.

This thesis would not have been possible without the support and time accorded me by the Ghana Institute of Architects and the Architects Registration Council of Ghana. I benefitted immensely from my direct engagements with Joe Osae Addo, Prof. John Owusu Addo, and Prof. G.W.K. Intsiful. Contacts with Patrick Wakely and Mario Cucinella Architects (MCA) were pivotal in the development of this work. There are many others whose invaluable contributions to this work I cannot quantify. I say a big thank you to them all.

I take the opportunity to thank Daniel Talesnik, who was engaged as a research assistant during the thesis to consult J. Max. Bond Jr.’s Collections at the Avery Library, Columbia University. My appreciation goes to Elizabeth Ardley and Bib Hughes who painstakingly proof read this manuscript.

Finally, I acknowledge the important role of the School of Architecture and Planning, The University of Auckland, in the completion of this work. I am grateful for the conducive learning conditions and financial support, which made the completion of this manuscript possible.
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Part I. THE RESEARCH AND ITS PROCESSES
1.1 Background and motivation for the study

Ghana, formerly the Gold Coast is an amalgamation of diverse ethnic groups with distinct cultures. This complexity is compounded by outcomes of colonisation. Ghana was a former British colony from the early part of the nineteenth century until 1957 when it gained independence. Prior to this, Ghana had been home to several of the major European powers since the fifteenth century and this accounts for a significant number of forts and castles. Ghana's precolonial and colonial conditions, much like other former colonies, have shaped their postcolonial national architectural agendas.

In these societies, mutual appropriation takes a centre position in postcolonial architectural discourse. The historical trajectory in these countries shows significant colonial presence that makes the pursuit of mediation quite plausible. In this regard, Ghana's Cultural Policy, 2004, encourages architects to design based on appropriated concepts from precolonial and colonial architectural traditions as well as from current global practices. In the larger African context, the Contemporary African Philosophy (CAP) maintains that postcolonial development in Africa should be driven by necessity considering Africa's trio heritage and within the context of present circumstances (Serequeherhan, 1993). Thus, the way architectural responses in the twenty-first century positively mediate Ghana's architectural traditions based on necessity is worthy of academic interest.

Moreover, the growing interest in mediation seems to predicate the evolving idea of globalisation. Globalisation is believed to be subtly covert but not in its essence. The transnational consequences of globalisation are known to permeate territories formerly unknown within the community of nations. The architecture of these marginalised territories appears to be the first victim of the physical manifestation of globalisation. This shaped various interest in what architecture ought to be, or individual and collective architectural taste. The scope of these influences is especially common to informal architectural interventions in former colonies. However, globalisation also impacts the way professional architects tend to fabricate formal architectures with the knowledge of clients' taste, context, and the architect's distinct theoretical leaning. Thus, the architect, acting as arbiter between clients' taste and their professional judgement, is well positioned to reconstruct taste through effective dialogue. In other words, the

1 The term marginalise is used in a contextual sense of one of the two poles in postcolonial discourse.
architectures of a region are a mere reflection of the architect's appreciation of context, theory, and practice. The theory-practice nexus is critical to the development of positive mediated responses, or otherwise, and in the context of the former colonies, three concerns variously attract research interest.

Firstly, Ricoeur's (2007) paradox of taking part in universal civilisation while remaining rooted to traditions is worthy of theoretical interest. Rudofsky's (1964, p. 6) position on "humanness [...] of how to live and let live "through keeping" peace with one's neighbours, both in the parochial and universal sense" expresses similar sentiments. Accounts on regionalism, critical regionalism, and hybridisation extend specificity to these general intents of Ricoeur (2007) and Rudofsky (1964). The unresolved concern indicates the challenge in advancing the role of the vernacular/ local context in contemporary practice. Rapoport (1969) and others (Oliver & Lloyd, 1969; Prussin, 1969; Rudofsky, 1964) have established the sociologic, building technique and climatic strategies of the vernacular architecture of the world in times past. The sustainability and developmental place of the vernacular represent the scope of current research interest (Afshar & Norton, 1997; Correia et al., 2015; Vellinga, 2006).

However, it is frameworks such as the vernacular as a model system by Rapoport (2006) and Pavlides (2007) "four approaches to regionalism in architecture" that bring better clarity to the appropriation of vernacular concepts and local context in contemporary practice as the prelude to positive and inclusive mediation. Pavlides' (2007) framework, for example, follows a three-phase approach for expropriating vernacular. First, he delineates four approaches to identifying vernacular concepts. Secondly, he suggests how these concepts may be appropriated. Thirdly, through case studies, he convinces the reader of the actualisation of vernacular concepts in contemporary practice. The inclusive approach adopted maintains that, in both passive and active terms, concrete and abstracted traditionalism is especially tenable in terms of the positive mediation of architecture.

The second concern borders the growing preoccupation with basic mud forms and their transformational newness as architecture that is typical African or defines African architecture. This is relevant for a developmental discourse and promotes rural industry and empowerment (Afshar & Norton, 1997; Lewcock, 1980). However, a non-traditional view of 'Africanness' in contemporary architecture merits practical and theoretical reconsideration. The liminal developmental approach to discourse on African architecture has been questioned in recent

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2 These are the folkloric, ideological, experiential, and anthropological approaches to regionalism.
times by alternate studies focusing on colonial architecture in former colonies. For example, d'Auria (2014; 2016) demonstrates the critical place of indigenous lived experiences in 'hybrid' modern housing concepts developed for the Volta River Resettlement Project in Ghana. Similarly, Jackson and Holland (2014) recalls the 'reductive' place of Fry and Drew's modern practices in Ghana that appropriates local symbols, the courtyards and responded to climate based on an understanding of the vernacular knowledge.

The third concern, therefore, is the challenge of theories as the interpretive outcomes of architectural responses; and, vice versa, the challenge in the interpretation of theories of mediation in actual practice. This relationship explains the opening of the thesis: practice in theory and the theory of practice. The perceived distance between the interpreters of theories and practices in former colonies receives fair attention. This exists in consonance with the entrenched oppositional culture that focuses on the political and economic implications of colonial architecture in the colony to denounce their contextual place. For example, Chang (2011) and Le Roux (2003; 2004a) demonstrate how colonial architecture in the colonies appeared mechanistic because of a centre-periphery, power-distance relationship. There are likewise concerns with the way theories of mediation are currently taught in Schools of Architecture in former colonies and what impact this has, especially on twenty-first century practice. The Commonwealth Association of Architects (CAA) is a leading critic through the appraisal and re-accreditation process for Schools of Architecture in member countries.

The concerns in theory are not too far off the researcher's direct experience as a student of architecture, which informs the motivation for the study. The researcher was tasked to design a compelling facility for the National House of Chiefs (NHC) for his professional Master of Architecture thesis at the Kwame Nkrumah University of Science and Technology (KNUST). Chiefs are traditional rulers in Ghana and were a means to colonial indirect rule. The various national constitutions since then acknowledge the importance of this institution to national development. The current Fourth Republican Constitution, 1992, carries on with this tradition by recognising the NHC in article 271. It is even suggested that the NHC could function in an elevated capacity as a second house of parliament with the right structures and policy framework (Ray, 1996). From the stance of the researcher's master's thesis, the NHC could be described as the equivalent of a gathering of parliamentarians as representative of their constituents to deliberate on issues of national relevance; but in this instance, they are traditional rulers. The proposed NHC building is therefore a traditional parliament house for Chiefs.
The design output, though largely a success, resulted in concerns from jurors that mostly reflected the kind of constraints that exist between theory and practice, which the present study evaluates. Chiefs, as traditional rulers, embody Ghanaian culture. However, the chieftaincy institution is a colonial creation in most societies, especially in northern Ghana (Brukum, 2003). The NHC, as a constitutional creation, could arguably be extended as a colonial structure. The complex nature of cultures between the diverse traditional areas raises the question of the scope and representation of culture in the proposed building. Specifically, what culture and whose culture? This is compounded by the non-existence of similar precedence within age-old indigenous settings beyond the known open-air gatherings under shade. In the context of the foregoing, the researcher resolved and adopted an abstracted eclectic approach that employed general concepts through planning to mediate the great diversity. In the view of the researcher, within this quagmire, the NHC is a space that exists between the coloniser and the colonised. The design proposal did not especially meet the expectations of the representation of culture through architecture. The bothering question that engaged the mind of the researcher was, do abstracted translations by planning effectively translate culture in architecture? What became apparent is the lack of exhaustion on concepts of mediation in its great diversity, or at least its clarity, in formerly colonized societies, beyond simply expressing the need for cultural representation.

Thus, this thesis is motivated by concerns reflected in three related questions: How can the architecture of sub-Saharan Africa be looked at beyond the confines of simple mud houses or direct and symbolic cultural translations, and how does colonial architectural responses in the colony position itself in terms of an African postcolonial approach to discourse? Are former colonies worthy of their own crystal palaces in the twenty-first century, and if so, how could these be made particularly regional? What means to architectural mediation therefore constitutes an appropriate reflection on positive practice from an African perspective? These questions anticipate Ricoeur’s (2007) and Rudolfsky’s (1964) articulations on participating in global practice while looking to context, in living and let live, through negotiating the in-betweens of the local and the universal.

The concerns expressed above also reflect postcolonial positions on architecture. The thesis therefore considers the theory-practice relationship relative to architecture in Ghana from the broader postcolonial lens based on CAP. CAP brings specificity to postcolonial thoughts relative
to conditions in former African colonies with a better place for twenty-first, twenty-second centuries' reflections on the new Africa³.

1.2 The climate and modernity assumptions in the study

Initially, it could be regarded as difficult to establish a connection between climate and modernity in a single study. Yet the exigency of the current research resides in a notion of modernity that situates varying climate intervention strategies within the domain of aesthetic modernity. It goes without saying that climate sensitive design is an instance of the expression of modernity and underlines the term climate-modernity(ies) in this thesis. The notion and response to modernity also tends to impact climate's place in modern architectural practices. Both the climate and modernity are relevant to a postcolonial view on architectural mediation and in the development of architecture in Ghana overtime.

The architecture of Ghana consists of precolonial vernacular traditions, and colonial tradition consisting of the forts and castles, as well as colonial styled buildings, which served as residences or official colonial offices. The late colonial to early postcolonial period witnessed the development of Modern architecture. Through these periods, the climate played a central role in the development of architecture and in architectural mediation. Precolonial architectural traditions indicate that building forms are determined through a dual socio-climatic response to comfort and related socio-cultural needs (Kultermann, 1969). This underlines their unique regional distributions over Ghana (Prussin, 1969). The colonial traditions exhibit climate characteristic based on form and comfort mainly (Le Roux, 2004a; King, 1973) and in these terms retain a performative/ technoscientific significance (Chang, 2011). These are represented as the adaption of colonial styled buildings to Ghana's climate (Crinson, 2003). The late colonial and postcolonial modernist architectural tradition appropriate climate both in terms of form and comfort, as well as form, comfort and the socio-cultural. This merely depended on the nature of the commission and the architect (Balaara, Haarhoff & Alessandro, 2018). The latter indicates the emerging approach of modernist responses preceded by publications on tropical conditions that emphasised, beside climatic comfort, the socio-cultural and economic role of architecture in the colonies (Lefaivre & Tzonis, 2001). For example, the 1954 Conference on Tropical architecture initiated by a Nigerian student- Adedokun Adeyemi because of his concern that their

³ While postcolonial theory tends to be limited to specific moments in history especially on developments in former colonies since 1940s into the immediate postcolonial, CAP considers these moments in Africa’s history in the contexts of happenings in the twenty-first century and beyond.
training abroad did not equip them to design for the specific conditions in Africa, was a forum where ideas on the economic and sociocultural role of architecture were shared.

Moreover, climate change, and ecological concerns are at the centre of a growing interest in the role of architecture towards a climate sensitive future in recent times (Sbci, 2009). The impact of climate change is known to likely impact countries in the developing world much more than in the developed world, although the former contributes the lowest to global CO$_2$ emissions. Yet, it is leaders of the developed world who are spearheading a future of climate sensitive practices while those of the developing world appear passive. Mitigating climate change requires collective action from across the divide and in architecture favourable passive responses to the distinct climates of regions remains an area of interest.

While the climate seems to be a medium for architectural mediation including interventions by both the coloniser and the colonised, its place in the discourse on mediation in Ghana's architecture is often contested between them based on parallel radical readings (Le Roux, 2004a). Especially, the technoscientific role of the climate in the development of colonial and early postcolonial practices while being the basis for their alien outlook (Chang, 2011), its role an appropriate means in postcolonial mediation today is questioned.

Beside climate, the notion and appropriation of modernity is pivotal to development of architecture in Ghana and underlines the integration of Islamic and indigenous African forms in precolonial times (Blier, 2004; Prussin, 1974), the indigenous appropriation of colonial built forms (Schreckenbach & Abankwa, 1990), and the appropriation of modern architecture as the dominant style of the 1940s in late tropical practices (Stanek, 2015). Modernity is also the source of contestation between the colonised and the coloniser in colonial times and forms the basis for the critical view of colonial architectural interventions in former colonies from a radically colonised position to be unrelated to context, and therefore an inappropriate means to mediation. Thus, rethinking the place of colonial architectural interventions in the colony based on CAP represents new openings that potentially reveals their place for a positive twenty-first century approach to architectural mediation.

1.3 The research objective and question

This thesis therefore seeks to contextualise architectural responses in Ghana from the perspective of CAP to reveal their place for a positive twenty-first century approach to architectural mediation.
Thus, the thesis raises the question:

- How have the responses and theory of the responses to climate and modernity in Ghanaian architecture been shaped by the postcolonial theoretical concerns of mediation, and how has this unfolded in twenty-first century practices?

Additionally, the thesis considered four related sub questions:

- What is the place of climate and modernity in postcolonial theory and architecture?
- What is the place of CAP as an idea in architectural mediation?
- What is the place of climate and modernity in twenty-first century practices, and how have these appropriated knowledge concepts from Ghana's architectural past?
- How have architectural practices in Ghana respond positively to the postcolonial theoretical concern of mediation based on CAP?

1.4 Contributions of the research

This thesis intervenes between binary narratives on architectural development in Ghana considered from CAP that introduces an African contemporary dimension for rethinking the place of especially, colonial architecture in postcolonial mediation and their place for positive twenty-century responses. While a significant body on architecture in Ghana (precolonial-1960s) are accounted for, the study extends discourse since then to twenty-first century responses.

1.5 The research methodology

This section accounts for the research methodology and introduces the rationale for gathering, evaluating and developing an understanding of postcolonial architecture in Ghana in theory and in practice. The research methodology represented in figure 1.1, adopts the four-layered structure suggested by Groat and Wang (2013). The structure follows sequentially from broader to more specific frameworks. These are the research paradigm/ system of inquiry, the research's school of thought, the research strategy, and the research tactics. Groat and Wang (2013, p.

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4 This is also known as the research philosophy.
5 This refers to the theoretical context or framework.
6 The research strategy as suggested is synonymous with the research design.
7 The research tactics are the specific methods adopted.
10) argue that the research strategy and tactics are "framed by broader systems of inquiry and schools of thought" and these are not independent of the research question.

Figure 1.1. The research conceptual plan

1.5.1  **The research as an interpretive paradigm/philosophy**

The research is rationalised through an interpretive philosophical paradigm. A research philosophy is the researcher's prior views or assumptions in the process of developing knowledge. This reflects specifically the "beliefs about the development of knowledge"

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8 Interpretive research is founded on the belief that reality is shaped by social context and individual experiences. Thus, reality is not one, but multiple. Therefore, determining reality requires the interpretation of experiential accounts in the context of the social setting.
1.5.2 Postcolonial theory and the research

A detailed perspective on postcolonial theory and architecture is developed in part II of the research. This section justifies why the research is tied to this school of thought. Primarily, the thesis draws on postcolonial theory relative to former colonies because it represents thoughts on mediation (Esra, 2014), which is the preoccupation of the study. Furthermore, postcolonialism is an actual condition of former colonies in Africa with many realities necessitating positions such as CAP. With reference to Ghana, three perspectives account for the inclination to postcolonial mediation. These perspectives are the historical context, the global happenings, the significance of the timeline of the study and the implied reading of postcolonialism through architectural practice in Ghana.

Firstly, the complex internal cultures, and the infiltration by colonial cultures over time, shapes the discourse on mediation, especially in the immediate post-independence drive towards nationalism. The competing internal cultural interests, and the presence, at times, of dominant colonial cultures, informs a more pragmatic mediating approach to the formation of nationhood.
Secondly, globalisation as a phenomenon with an increasingly penetrating impact on culture and architecture in present times contributes to the discourse on architectural mediation. Transnational borders have been broken by the proliferation of mass media outlets that tend to bring information of both good and bad taste to the remotest ends of the world. This impact of globalisation has attempted to appropriate architecture in Ghana in both formal and informal practices. Globalisation also ensures the increasing participation in former colonial territories of international architects through partnerships and international competitions. The scope of such practices is the subject of discussions on mediation and context, within the pursuit of internationalism.

Thirdly, the timeline of the study focusing on developments since the 1940s reflects the emergence of postcolonialism in former colonies. Postcolonialism and its theory represent a condition - an ambivalent situation that necessitates the negotiation of the in-between. With respect to Ghana, it can be said that postcolonialism began in the 1940s when a real resistance to colonial domination coincided with a significant change in colonial government policies, which eventually culminated in independence in 1957 (Jackson & Holland, 2014). Within this time horizon, the modern architecture that developed is also the subject of much postcolonial theoretical contestation (Balaara, Harrhoff & Alessandro, 2018) that concerns this thesis.

1.5.3 The research design/ strategy, tactics, and analysis techniques

The overall conceptual plan of the study reflects the research design or strategy. This involves a series of logical steps concomitant with the specific scope of inquiry. Groat and Wang (2013, p. 11) regard the research design as a strategic plan for negotiating between the research question and "the knowledge derived from the research". On the other hand, they regard research tactics as the adoption of specific data collection methods and analysis techniques (Groat & Wang, 2013).

The research questions reflect two concerns that are complementary: the theoretical aspects and the empirical aspects. Thus, the research design in figure 1.1 adopts multi-tactics relying on theoretical reviews, interviews, and case studies with each addressing various aspects of the research concerns.
1.5.3.1 The theoretical aspects: the literature review as a tactic

The theoretical aspects suggest two approaches. Firstly, the thesis establishes two frameworks for rethinking the place of postcolonial architectural responses in Ghana, namely- by situating positive postcolonial responses to modernity within the remit of a dual climate responses strategy; and by establishing the relationship between CAP and architectural mediation. Further, the thesis critically reviews the significant body of knowledge on architecture in Ghana (precolonial-1960s) through a thematic discourse.

1.5.3.2 The empirical aspects: interviews and case studies

Interviews and case studies account for the empirical aspects of the study. Interviews are used to determine the context of twenty-first century architectural responses in relation to the research concern, while case studies demonstrate the postcolonial place of architectural responses in terms of CAP.

The research employed semi-structured\(^9\) interviews with practising architects and academics as participants, who represent distinguished practice and expertise in theory\(^10\). Mason (2010) argues that PhD theses that employ interviews tend to rely on premeditatedly large sample sizes to escape from potential critiques than is necessary for attaining research saturation. This thesis used interviews to complement other tactics, and such instances typically require fewer participants (Lee, Woo, & Mackenzie, 2002). Besides, were participants have expertise in an area of inquiry as is the case for this study, a relatively small sample size is adequate (Jette, Grover, & Keck, 2003). This follows Romney, Batchelder, and Weller's (1986) earlier consensus theory, which was founded on the assumption that small sample sizes may be enough in instances where the participants in a research have expertise in the scope of inquiry. Thus, experts are more likely to agree than novices. Guest, Bunce, and Johnson (2006) therefore argues that, in studies with a high degree of homogeneity, a sample size of six may be adequate.

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\(^9\) The thesis uses semi-structured interviews because of their flexibility in navigating between potentially pre-field closed research outcomes (in this instance, the theoretical context) and an open-ended account during the interview process. Drawing up a preliminary list of interview questions guides the interview process and aids in the preparation for the interview by the interviewee. This does not limit the direction and scope of the actual research process.

\(^{10}\) The selection of participants was purposive. Several of the participants are global icons based on their design awards, their advocacy, and their writings. This category was drawn up prior to undertaking the fieldwork. Other participants were considered as the research proceeded based on recommendations and further research on them by the researcher.
for the development of useful themes. A total of sixteen participants were interviewed with the intention of emphasising depth rather than breadth. To conduct these interviews, ethics approval was obtained from The University of Auckland Human Participants Ethics Committee (UAHPEC). The presentation of interviews, described in detail in Chapter 4, follows a constructionist thematic procedure, which is consistent with the approach to the interviews and the general framework of interpretivism.

According to Yin (2014), the selection of cases should be done meticulously to reflect the specific research scope. In other words, the objective must be to enhance the validity of the research outcomes and explain a phenomenon or theory (Groat & Wang, 2013). Because of this, case studies in this research are intended as practical reflections of the research framework as its objective. The case studies selected consist of a range of built and experimental concepts that are then unbuilt but are theoretically and practically relevant to the scope of inquiry. Thus, case studies with the possibility for onsite research were considered for this study alongside largely theoretical concepts. However, the availability and accessibility of relevant documentations was considered across the range of cases. The case studies also cut across interventions by both indigenous and international practices, as well as late colonial and twenty-first century practices in Ghana.

Overall, four case studies were evaluated based on five approaches (namely—the folkloric, experiential, ideological, anthropological and performative) to regionalism established through CAP. While interventions by better known practitioners such Maxwell Fry, Jane Drew, and Harry Weese in Ghana are mentioned and placed in context to advance general arguments, those by J. Max Bond Jr., Joe Osae Addo, John Owusu Addo, Patrick Wakely and Mario Cucinella form the scope of detailed case studies in this thesis. For example, Joe Osae Addo’s residence (2007), and John Owusu Addo’s Abuakwa SNNIT flats concepts (1971) are relied upon to demonstrate the folkloric, and anthropological approaches to architectural mediation. J. Max Bonds Jr.’s approach to the Bolgatanga Regional Library (1965) reveals the ideological as well as the experiential perspective of postcolonial architectural mediation. Finally, Mario Cucinella’s One Airport Square (2015) architecture together with Patrick Wakely’s school building concepts (1966; 1969) for Ghana express positive mediation through performative regionalism. These case studies demonstrate both related and distinguishing strategies to the work of pioneers such as Drew and Fry because of the background of the architect, project type, cultural and climatic...

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11 The approval document is attached as an appendix to this thesis. The protocol number is 017424; approved on 25th August 2016; and ends on 25th August 2019.
settings. For example, while Bond's library concept, which appropriates the vernacular, is closely associated with Drew and Fry's interest and practice in Ghana (Balaara, Haarhoff & Alessandro, 2018), the location of the library in a hot dry climate and in a unique cultural setting that had not witnessed pioneer modernist developments, influenced this case study choice. Bond's background as an African-American architect intervening in a postcolonial African state interested this research.

Moreover, four tactics facilitated the case study process. First, publications on architectures in Ghana were explored in an open-ended manner to identify potentially appropriate cases in the offing. The field interviews with practising architects and academics proved useful in the final selection of the case studies. Secondly, in the instance of built and existing projects, onsite observations, site notes, and photographs proved useful to the study. The unbuilt projects mainly focused on the critical reading of published texts considering theory. Thirdly, interviews with the design architects for these projects constituted the other means to the case study approach. Except for Mario Cucinella and Patrick Wakely, who were inaccessible to the researcher through funding challenges, and J. Max Bond Jr., who has died, the others were interviewed. These architects, their views, and their projects are mostly known to the public. Thus, ethics approval obtained from UAHPEC permits the direct mention and association of these architects to the projects and their expressed opinions on the projects. Finally, archival research facilitated an in-depth content analysis on available collections on the case studies. The research engaged a research assistant (Daniel Talesnik) who retrieved the collections on J. Max Bond Jr from the Drawings & Archives Department at the Avery Library, Columbia University. In the instance of Mario Cucinella, digitised copies of a volume of project information were mailed to the researcher upon request. Similarly, the design collections of Construct LLC in respect of Joe Osae Addo's residence were made available to the researcher for consultation. Design information of John Owusu Addo's Abuakwa SSNIT residential flat concepts were obtained from the Project Unit of the Social Security and National Insurance Trust (SSNIT) with permission. Finally, in respect of Patrick Wakely's school building concepts for Ghana, information was published and accessible (Wakely & Mumtaz, 1966; Wakely, 1969). The school building concepts are actively discussed in terms of cost-effective solutions to school building delivery in Ghana, but passively in many other aspects including the climate, despite climate being an active theme. The critical reading of these projects as published collections, considering theory, focuses particularly on their climate dimension.

The systematic content analysis from the interviews, archival studies, and onsite observations focused on information of evidential value and relevance for a competent interpretive discourse.
Thus, the triangulation of outcomes from the interviews with practising architects, academics, and case studies, in respect of theory, are constructed through thematic discourses reflected in part III; Chapters 4 to 8 of the research.

1.6 Limitations

The limitation of the case study sample is foremost. Ghana has witnessed many positive interventions by architects of diverse backgrounds, a discussion of which would have further enhanced the thesis. However, considering the rather broad nature of the research interest, only a few and accessible case studies that enhanced the arguments of the thesis were considered. The project architects of selected case studies whose oral accounts could have further enhanced the research’s discourse were inaccessible due to funding challenges (in respect of Patrick Wakely and Mario Cucinella), or had passed away (in the case of J. Max Bond Jnr.), adding to the limitation of the study. The inability to access archives on the CAA recommendations for re-accreditations of Schools of Architecture in Ghana represented a second major challenge to the study. These were deemed confidential and classified.

1.7 The research structure

The research is structured in four parts, with nine chapters as outlined in figure 1.2. Part I of the study highlights the background to the research and the research process and consist of Chapter 1.

Part II of the research looks further into the theoretical frameworks of the study and has two main chapters (Chapters 2 and 3). In Chapter 2, the research advances on the intersection of climate and modernity in postcolonial theory and architecture. The chapter argues, the place of modernity relative to former colonies as the amalgamation of dynamic socio-cultures, while mediating human wellbeing for spatial conquest (Baudrillard, 1987) resides in the notion and appropriation of the climate as a dual aesthetic response to comfort needs and related climatically inflicted socio-cultures. This sets in motion the specific location of contemporary African philosophy as an idea for postcolonial architectural mediation in Chapter 3. Based on the two regional architectural concerns namely- the place of the local context in contemporary practice, and concerns of climate change and architecture, chapter 3, situates five approaches to architectural mediation in terms of CAP. These are the folkloric, the ideological, experiential, anthropological and the performative approaches.
The theoretical stance of part II of the research, together with empirical interview outcomes, is relevant to the ensuing discussions in part III. Part III of the research has five chapters overall. Chapter 4 reports on the interviews, which is based on the place of climate and modernity in twenty-first century responses, as well as the expropriation of knowledge concepts from Ghana’s architectural past in twenty-first century responses. This chapter finds that modern twenty-first century practices in Ghana are driven primarily by that which is fashionable rather than by necessity. The appropriation of modernity therefore undermines climates place in practice. Further, the chapter finds a disconnection between the expropriation of knowledge concepts from Ghana’s architectural past in twenty-first century responses such as the practice of modern architecture, and the translation of hybrid responses.

Chapter 5 therefore contextualises the practice of modern architecture in the twenty-first century in a related discourse on the theory and practice of modern architecture relative to former colonies. The chapter argues, while the return of modern architecture is common place in the twenty-first century, the approach does not account for the place centred concepts known
modernist practices of the 19th century in Ghana, that appropriated the climate and vernacular knowledge. Based on this concern, Chapter 6 accounts for the appropriation of modernism in 19th century practice in Ghana by considering the work of J. Max Bond Jnr.

Chapter 7 accounts for the practice and theory of hybrid architecture in postcolonial Ghana as direct responses to concerns of mediation. The chapter distinguishes latent from semantic hybrids in formal and informal practices, as those driven by necessity and reflects the African traditional notion of development by integration. In architectural terms, this recalls positive responses to local technology, economic and socio-cultural conditions, as well as of the climate. Two case study projects by Joe Osae Addo and John Owusu Addo, which reflect these dimensions, are discussed in this chapter. Chapter 8 extends the discussion on hybridity by considering climate and comfort in terms of their role in architectural identity at the level of the building, city and regional scales; and contributes to mitigating concerns of climate change and architecture.

Part IV concludes the research. Chapter 9: Conclusions and Recommendations is its only chapter. This section advances key conclusions, and makes recommendations for future research, practice, and policy.
Part II. THE RESEARCH FRAMEWORKS
Chapter 2  THE INTERSECTION OF CLIMATE AND MODERNITY IN POSTCOLONIAL THEORY AND ARCHITECTURE: A REVIEW

2.1  Introduction

Mediating climate for human comfort plays an important role in determining built forms globally (Olgyay, 2015). This accounts for unique regional architectural distributions that is typical of autochthonous architectures (Oliver, 1997). However, complimenting comfort needs are related climatically inflicted socio-cultures (Frampton, 2007a). This dual mediating role of the climate while contributing to the development of alternate architectural modernities, also maintains a positive place in postcolonial mediation.

For example, while the projection of responses to the climate as a technoscientific endeavour is the basis for a binary approach to climate discourse between indigenous and colonial architectural practices (Chang, 2011), climates place as dual discourse of comfort and related socio-cultural negotiations highlights how colonial and indigenous spaces appear to merge (Jackson & Holland, 2014). This chapter draws upon Baudrillard’s (1987) considered view on modernity relative to postcolonial third world societies, as a positive amalgamation of socio-cultural conditions as well as a direct response to human wellbeing for the conquest of space, to introduce a related climate discourse towards postcolonial architectural mediation.

2.2  Postcolonial theory as an idea in architecture

The evolution of postcolonial theory has distinct historical implications in different contexts that defines its scope\(^\text{12}\) (Ahmad, 1995). The postcolonial condition is therefore trans-historical and, at any time in history, there was once a coloniser and the colonised, and the colonised might have enjoyed the privilege of being a coloniser (Goonetilleke, 1999).

However, homogeneities exist in postcolonial conditions and these inclusive conditions represent the collective view of postcolonial theory (Ahmad, 1995). Any attempt to engage postcolonial perspectives should, therefore, be contextualised. Relative to Africa, the impact of

\(^{12}\text{For example, the early Inca, Ottoman, and Chinese dominance, or the much later European imperialist strategies in the Americas, Middle East, Africa, and Asia, or intra-cultural segregation tendencies within marginalised societies without external influences, are commonplace in history.}\)
colonisation spanning at least five centuries greatly changed the existing structures of the
colonial African society. Cultural contact meant cultural diffusion at least up until the days of
independence. Since attaining independence among African States, demands for an alternate
response to nationhood was critical to the process of self-determination. The desire to fabricate
an alternate culture of statehood, however, raised tensions between native precolonial traditions
and colonial traditions. The conundrum of traditions in this regard provokes the concept of
postcolonial theory and architecture. Postcolonial theory therefore represents a period, a
condition, and a response strategy.

As a period, the fifteenth century constitutes the historical initiation of postcolonial discourse
relative to European colonisation in former colonies in Africa. In Slemon's (1993, p. 3) view,
postcolonial discourse began the "moment that colonial power inscribed itself onto the body and
space of its other". Essentially, the foothold upon which colonialism thrived is the pejorative
contextualisation of the other by writers and officials of the colonial state prior to colonisation and
during colonisation. Notwithstanding, the actualisation of the postcolonial, according to Esra
(2014), is the period after World War II when previously colonised states gained independence
one at a time.13

Furthermore, Ashcroft, Griffiths and Tiffin (2006) underscores that the postcolonial era covers
cultures afflicted by events from the period of European imperialist colonisation to the present
day. Slemon (1993) therefore also associates postcolonial thoughts with neocolonial
internationalism. This implies that the postcolonial period has a somewhat indefinite beginning
and future possibilities. The continuous preoccupation with European imperialist activities well
into the present century suggests that postcolonial is a space characterised by changing
phenomena. This elevates postcolonial incisions from the question of a period to identifiable
conditions, which frames firstly the context of dominance, and secondly, the resulting concern

13 With reference to developments in Ghana for example, the 1940s is considered the beginning of its postcolonial
era for various reasons. The 1940s in Ghana witnessed a change in colonial government policy from internal colony
funding to direct substantial funding by the metropolitan government. The change culminated in an unprecedented
infrastructure drive intended for peace-making at the time of the intensification of the independence struggles in the
colonies (Jackson & Holland, 2014). The colonial welfare policies of the 1940s put the interest of the colonies first, as
opposed to earlier policy interventions, which were primarily designed to address the precarious unemployment
conditions back home in the metropole (Wicker, 1958). The architectural interventions made possible by the policy
shift and founded on climate, were significant in heralding the new era of metropole-colony relationships (Chang,
2011).
of collective mediation coming by way of equal partnership (Childs & Williams, 2014; Griffiths & Tiffin, 2002).

As a strategy, Esra (2014) indicates that it is a new way of understanding and representing non-Western subjects or the marginalised. This involves the process of self-reflective re-examination of the existing hegemonies following colonisation that served to distinguish civilised societies from uncivilised ones. It re-engages the knowledge spectrum, of distortions, half-truths, and inequities upon which colonialism and its contemporary realism (neocolonialism) thrives by developing paradigms through which the colonised or marginalised in current discourses culturally and artistically stake a claim in a globalised world.

In this regard, three principles, namely- Orientalism, poststructuralism and humanism express ideas on collective representation with a place for architectural discourse. Said’s (1978/2003) book, Orientalism, is a ground-breaking piece of work on collective representation. Orientalism underscores how the Western conception of the Orient in scholarly and artistic forms, of imagined geographies and presumptive representations, delineates the boundaries between East and West, whereby the West prides itself to have civilised the Orient from barbarism, irrationalism, and primitivism through Western means (Said, 1978/2003). Thus, according to Said (1978/2003, p. 2), "Orientalism is a style of thought based upon an ontological and epistemological distinction made between the Orient and Occident". Because of this, the dialectical relationship of power and domination between the Occident and the Orient therefore denies the Orient the possibility of self-civilisation and a place in the larger society. While this introduces ideas on Orientalism, Said (1978/2003), establishes his discourse on Orientalism based on the critical contribution of Oriental knowledge in development of global knowledge.

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14 In architecture, the interest to distinguish Oriental architecture from Western archetypes has produced some of the most remarkable books to date, yet these accounts may be questioned within a humanist view of Orientalism. For example, in A History of Architecture on the Comparative Method: For Students, Craftsmen & Amateurs by Fletcher (1967), the parallelism drawn in the tree of architecture reflects Orientalism. Fletcher conceives European architecture as historical and progressive in the course of time from a Greek and Roman trunk of development. However, he contends that Peruvian, Mexican, Egyptian, Assyrian, Indian, Chinese, and Japanese architectures represent ahistorical epochs consisting of stunted branches without growth (Esra, 2014; Fletcher, 1967; James-Chakraborty, 2014). Sub-Sahara African architecture did not merit a space in this global classification of architecture. Similarly, Crinson (1996), in his book Empire Building, Orientalism, and Victorian Architecture, locates and comments on Orientalism at the height of the intersection of colonial accounts of the architecture of the Near East. He conceptualises the paralysis in the relationship between racial theory, Western dominance, and the development of British architectural culture in Oriental societies (Crinson, 1996).
While Said's discourse accounts for the place of oriental knowledge, poststructuralism appears to confront the specific strategies of mediation towards mitigating concerns of dominance. Poststructuralism establishes the need to represent the marginalised while at the same time offering a self-introspection of how the other may truly be represented. It is therefore concerned with how the voiceless ensembles of the peripheries of world history may be amplified in global discourse through mediation. It stands in opposition to structuralism, which reinforces the binary through the layering of society, culture, and architecture. Two main strategies for recognising the other, namely through assimilation into Western culture or resisting Western canons entirely, are framed (Esra, 2014). These framework possibilities serve to either enhance cultural diversity, difference, or both\textsuperscript{15}, and may further promote structural layering of plural cultures or otherwise (Baydar & Nalbantoğlu, 1998). Thus, poststructuralists, whose bane is to contest Western cannons, rely on cultural difference. In the view of Esra (2014), such a radical approach is anti-poststructuralist. In this fashion, Esra (2014) denounces instances of radical regionalism in architecture as architectural poststructuralism because it reinforces the culture of architectural exclusion. The major challenge to poststructuralist theory of representation is forging postcolonial mediation of the otherness without standing accused of cultural exclusion.

Cross-cultural relationships are therefore emphasised with more clarity through humanism. Humanism responds more positively to the obstinate and potentially exclusive stance of poststructuralism and abhors the culture that often results in cultural exclusion (Esra, 2014). The humanist perspective of postcolonial theory therefore mirrors the idiosyncrasies of globalisation in a positive sense. Jackson and Holland (2014) situates the modernist practices of Drew and Fry in Ghana, which appropriated local symbols for the design of balustrades and screen walls as humanist.

2.3 The plural notion of modernity in postcolonial discourse

The conflicting and distant notion of the modern or modernity between cultures/ societies in contact is pivotal to the postcolonial concerns expressed through Orientalism, poststructuralism, and humanism.

\textsuperscript{15}Bhabha (1994/2012) distinguishes between cultural diversity and cultural difference in 'The commitment to theory'. He defines cultural diversity as a liberal/humanist embrace of multiculturalism or cultural exchange. However, cultural difference is premised on cultural supremacy characterised by an animated effort towards cultural dominance through emphasising cultural contrast (Bhabha, 1994/2012).
Modernity is a concept that transcends geographies and periods in human history. It is conceptualised in three phases with varied but related interpretations (Heynen, 1999). The first relates to the Middle Ages' (fifth-fifteenth century) understanding of modernity as the current or now, as opposed to that which existed before (Heynen, 1999). The specific notion of modernity at that time was a collective inclination to prevailing conditions as modern in contrast to the antique, old times and the moment, and the past and present (Jameson, 2002). It is about this period that Cassiodorus is credited to have first used the word modernus in reference to his age (Prickett, 2009). The period is further marked by a distinction between paganism and Christianity (Heynen, 1999). Following was the association of modernity with that which is new in contrast to that which is old. This emerging understanding of the modern dominated the interpretation of modernity from the fifteenth century up until the nineteenth century. Modernity referred to anything that was new, thus making a distinction from earlier conditions. It transitions from the collective (singular) view of the moment as modernity, to a reductive association with specific emerging characteristics of the moment (Heynen, 1999). Thus, modernity is not necessarily defined by time, of the now and then, but the tangible or apparent manifestations of newness or of fashion (Jameson, 2002).

Thirdly, there is a nineteenth century meaning of modernity as transitory. The notion of modernity here is conceptualised not in terms of the past or old, and the fashionable, but rather that which

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16 This period may be grouped into two eras with specific defining moments (fifteenth-seventeenth century & seventeenth -eighteenth century). The fifteenth-seventeenth centuries were characterised by great discoveries, for example, the discovery of America by Christopher Columbus and the invention of printing. The period also witnessed the opposition between the ancient and the modern in the arts and literature. It was also marked by the reformation in religion led by Martin Luther King. However, between the seventeenth and eighteenth centuries, the philosophical and political notions of modernity were increasingly apparent. The rationalisation of individualism, the enlightenment philosophy, and the transitions from a feudal system to centralised monarchical systems were echoed. The enlightenment reason (eighteenth century), for example, situated modernity within the frame of scientific thought and the foundation of physical and natural sciences, which led to applied technology. Reason, rather than truth, became the legitimate source of authority. The period advanced the ideals of liberty, progress, and constitutional governance as opposed to monarchism and entrenched religiosity (See Baudrillard, 1987).

17 The actualisation of enlightenment philosophy took shape during this period. The industrial revolution came with the establishment of the centralised modern democratic state. Nation states with constitutional governance were the obligation of the day. The change in political structure from the composite (where the state and the people are considered as composite), to the binary (where the state backed by bureaucratic institutions emphasises individualism) had its own constraints. However, this was the political reflection of the modern (See Marx & Engels, 1967 published earlier in 1848).

The period also witnessed the rational division of industrial work and further scientific progress. A range of these factors dramatically changed social life. The social division of labour created a structural crisis, a source of conflict
is transient as determined by the *flaneur*18 (Baudelaire, 1863/1964). Thus, the modern is the consciously determined and observable characteristic through the ages (Monatschrift, 1984). Walter Benjamin explores the transcendence of transient modernity in his arcade project through the concept of the *flaneur* (Benjamin, 1999). The concept of *flaneur*, explored in detail by Benjamin (1999), is an extension to initial works by Baudelaire (1863/1964). Baudelaire (1863/1964) is critical of a pastoral view of modernity as an exclusive project at this point. The structural crisis during the industrial revolution was compelling not only in the context of Europe against itself, but Europeans and in the geographies of others. Thus, Baudelaire (1863/1964) describes modernity inclusively, as an intelligibly observed and appropriated phenomenon that surmounts time.

All three views together, namely, the current, the new, and the transient, reflect time, echo a state of presentness, and fabricate the future (particularly in the case of the transient). Time as a linear phenomenon is perhaps associated with the current and the new. However, the transient may be argued as the vessel, which re-engages and conveys the compelling potentials of the then, the current, and the new, into the future. Through the collective theory of modernity, advances by Baudrillard (1987) and Baudelaire (1863/1964) appear to merge. Baudrillard (1987), for example, acknowledges that there is no definitive modernity in any manner, which recollects the fleeting notion of modernity as argued by Baudelaire (1863/1964). Both views tend to be plural in conception. What is modern today is therefore the logical representation of modernity from the abundant and thoughtful traits of all that is modern in time. According to Heynen (1999, p. 9), modernity is thus “what gives the present the specific quality that makes it different from the past and points the way towards the future”. In the context of all progressive societies of the world in which a non-progressive society may be difficult to locate, the conception of modernity as the current, new, and the transient reflects most societies in world history notwithstanding the designations of other societies as primitive or static ends of world history.

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18 Baudelaire (1863/1964) refers to the flaneur as a conscious wanderer who critically engages the moment and builds up a pool of transcending but informative knowledge out of which to construct the modern, in contrast to the man of modernity whose focus is on that which is simply fashionable, or the observed pattern without reason.
2.3.1 The manifestation of modernity

Modernity throughout the centuries has largely been an intellectual engagement localised to the intelligentsia. In the nineteenth century, however, with industrialisation and rapid urbanisation, it became acceptable to locate modernity with specific attributes. With a rapidly changing urban environment, improved living conditions, and the changing physical attributes of the urban fabric, modernity confirmed the arrival of a new era largely at variance with earlier known trends (Berman, 1983). The result was the association of modernity with modernisation (intangible) and modernism (tangible).

These two concepts reflect both the process of actual socio-economic and political transformation (modernisation) and the largely subjective manifestations of cultural and aesthetic modernism spearheaded by the modernist discourse (Bell, 1976; Gaonkar, 1999; Heynen, 1999). The distinctions between these two forms of modernity are significant as they have an impact on the notion of modernity in former colonies.

The relationship between societal socio-economic and political progress (modernisation) and the resulting frameworks of aesthetic modernism is pivotal. Calinescu (1987) draws a fine line between them when he states,

> At some point during the first half of the nineteenth century, an irreversible split occurred between modernity as a stage in the history of Western civilisation – a product of scientific and technological progress, of the industrial revolution, of the sweeping economic and social changes brought about by capitalism – and modernity as an aesthetic concept. Since then, the relations between the two modernities have been irreducibly hostile, but not without allowing and even stimulating a variety of mutual influences in their range for each other’s destruction (Calinescu, 1987, p. 41).

Although there have been attempts to distinguish between these two forms of modernity, that is, modernisation (characterised by bourgeois capitalism), and the modernist aesthetic of modernism, the two are intrinsically related. The development of architecture and therefore modernity in architecture is invariably connected to the world of capitalism (wealth and power). Thus, economic modernisation (capitalism), in Europe for example, became the catalyst for a stratification of taste (i.e., the bourgeois and the peasantry) in an expansive form including architecture. The direct exportation through colonisation of European forms of modernisation into new territories therefore gives currency to a comparative view. Today, with improving economic prosperity in former colonies, a corresponding taste becomes inevitable because of globalisation and the mass media, which have become the main anchors of cultural diffusion (Intsiful, 2008).
2.3.2 Mapping modernity as a global postcolonial project: the intersection of two theoretical disconnects

The challenge of a global view of modernity between the West and their colonised subjects’ rests on the differences in the conception of time: time as linear\(^\text{19}\) and as cyclic\(^\text{20}\). This underlines the problematised (emancipatory and pastoral) and the unproblematised (transient and counter pastoral) approach to modernity discourse.

The emancipatory theorist perceives modernity as the exclusive project for civilising/ salvaging the entire human society and especially its colonial other. This category of theorist view modernity as liberating, as an emancipatory project, especially the Western or bourgeois model, depending on the angle and context from which it is perceived. Jurgen Habermas immediately reflects this domain of reason. In "Modernity: an incomplete project", Habermas (1993, p. 9) is of the opinion that modernity is first characterised by enlightenment ideals, namely, scientific knowledge and "universal morality and law". At the same time, these symbols of enlightenment progress formed the backbone of the enlightenment project of enriching the culture of everyday life globally. Habermas (1993) seems to corroborate Weber's (2009) assessment of modernity in the frame of a historical project. The historical commodification of modernity reaches beyond liberation as the first objective, to echo the strategy for colonisation, indoctrination, and architectural or spatial conquest.

\(^{19}\) In Western dialectics, time, particularly following the post medieval era, is considered or viewed as linear and progressive. The Renaissance in Europe advanced its place as a civilised society and marked the beginning of the European notion of modernity as linear and progressive. The Renaissance thinking caused a change in the view of humanism by offering the possibility to alter the course or direction of human history. This era officially undermines the aggregation of human history before it and ushers in a new era of human dominion over nature. Emerging in Europe, it underpins the conception of modernity as a European phenomenon. In place of a cyclical model, which had earlier been the norm, the Renaissance thinkers embraced a progressive model by viewing their age of reason as distinct from the past period and practices.

\(^{20}\) In contrast, other societies/ civilisations in former colonies regarded time as cyclical/ timeless, where the past, as a product of time, is largely a model system for the present. Indeed, all of humanity prior to the post medieval era embraced religiosity. The preoccupation at the time was with the concept of eternity, of truth, of nature as the determinant of time. All other human concerns beyond the Godly were considered secondary (Heynen, 1999). This is significant as it not only underlines the difference in the conception of modernity between the West and other societies, but it occasions a potential rationalisation of a linear notion of modernity in former colonies especially in recent times because of direct colonisation and indirect virtual contacts.
In contrast, the conception of modernity simply as the current, the new, and the transient is perhaps unproblematic. It has space to accommodate trends or the unparalleled developments in other societies in time beyond the context of the Western conception or within the localised structures of Western societies. Baudelaire's (1863/1964) thoughts on modernity as earlier suggested are central to an unproblematic view of modernity. For example, Baudelaire (1863/1964) associates' modernity with the transitory aesthetics of metropolitan Paris. He notes, for example, that modernity is,

the ephemeral, the fugitive, the contingent, the half of art whose other is the eternal and the immutable. Every old master has had his own modernity; the great majority of time portraits that have come down to us from former generations are clothed in the customs of their own period…. This transitory, fugitive element, whose metamorphoses are so rapid, must on no account be despised or dispensed with. By neglecting it, you cannot fail to tumble into the abyss of an abstract and indeterminate beauty […] if for the necessary and inevitable costume of the age you substitute another, you will be guilty of a mistranslation only to be excused in the case of a masquerade prescribed by fashion. […] It is doubtless an excellent thing to study the old masters in order to learn how to paint (Baudelaire, 1863/1964, p. 13).

An unproblematised global conception of modernity reflects the interpretation of modernity as the transient. As is evident in many societies of the world, there has been more than one phase of internal human development. The global perspective on modernity is also significant in that the emphasis on the plurality of modernity (i.e., "every old master has had his own modernity"), and the inevitability of traditions, the old/ past in the determination of the current modernity (i.e., "This transitory, fugitive element, whose metamorphoses are so rapid, must on no account be despised or dispensed with"), in turn advances the collective view. By that, one is excused from the accusation of mistranslation of modernity.

The transience between modernities, between the old and the new as inevitable ends for fabricating the future, is at times contested. It is here a distinction is drawn between Baudelaire (1863/1964) and Baudrillard (1987). Whereas Baudelaire (1863/1964) acknowledged the inevitability of the old in the framing of modernity, in other words, learning from the old master painter to become a good painter, Baudrillard (1987) holds briefly a contrary view, noting that modernity as a form of civilisation is in opposition to tradition. For Baudrillard (1987), modernity "gives rise to an aesthetic of rupture, of individual creativity, of innovation marked by the sociological phenomena of the avant-garde and by the always more extensive destruction of traditional forms" (Baudrillard, 1987, p. 68). Thus, Baudrillard (1987), in this instance, radicalises the conception of modernity as autonomous with the reference made to the avant-garde philosophy. Baudrillard's (1987) autonomous modernity resonates with views suggesting an end to modernity, which perhaps necessitates the beginning of other forms of modernity including a
postmodern view. However, Baudrillard (1987) arrives conclusively at an inclusive view of modernity, admitting there is no definitive modernity.

The second and other contrasting view on modernity within the problematised and unproblematised orientations exists as pastoral and counter-pastoral conceptions. Marshal Berman (1983, p. 134) gives it prominence in "Pastoral and Counter-Pastoral Modernism" in *All That Is Solid Melts Into Air: The Experience of Modernity*.

The fundamental bourgeois motive here is the desire for infinite human progress not just in the economy, but universally, in the spheres of politics and culture as well. Baudelaire's faith in the bourgeois neglects all the darker potentialities of its economic and political drive – that is why I call it a pastoral vision. (Berman, 1983, p. 135)

Berman's (1983) critique is centred on *The Salon of 1846* and *The Painter of Modern Life* by Baudelaire (1845/1982; 1863/1964). According to Berman (1983), Baudelaire often presented as an ardent critic of bourgeois culture, adopts a rather uncharacteristically subtle attitude towards this culture. While acknowledging the class status of the bourgeoisie and the desire to enhance the future in all its diverse ways, and concurrently concerned by the plight of the working class and peasantry, Baudelaire promotes instead, at the expense of working-class interests, what he regards as the fundamental motives of the bourgeois enterprise: the desire for infinite human progress (Berman, 1983). Baudelaire's (1863/1964, 1845/1982) account reflects both exultations, especially of the ultimate bourgeois motive, and the undermining of working-class and peasant interests. It is these views that Berman (1983) considers as the pastoral vision and counter-pastoral vision of modernity respectively.

A pastoral vision of modernity thus overlooks the context of other interests arising from the differing perspectives on modernity. It emphasises a more autonomous and emancipatory outlook focusing only on the efforts and taste of the upper class or being dominant as the fundamental driver of human progress. Thus, the question of the old in the new, of aesthetic or societal socio-cultural modernity, is the prerogative of bourgeois taste. Human progress as a primary focus and exclusively that is determined by bourgeois taste suggests that the pastoral vision of modernity reflects homogeneity and is applicable across the divide. Context is inconsequential and so are the innovations that may emerge from within marginalised societies.

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21 The culture of postmodernism is essentially just another mode of modernity, especially if Baudelaire's (1863/1964) conception of modernity holds true. Postmodernism is intrinsically connected to the values of modernism. The appropriation of postmodernism in architecture perhaps appears a mistranslation of the concerns of its time; concerns that are embedded in postcolonial discourse on architecture in former colonies.
The pastoral vision is, therefore, potentially exclusionary as it fails to question the context and universality of the fundamental bourgeois quest. Importantly, it undermines efforts emerging from within the margins. By extension, and in the context of former colonies, a pastoral vision of Western values and practices as the ultimate source of civilisation clouds the very possibilities of modernity emerging within the milieu of the colonised other. The pastoral vision of modernity puts the scoping of globalisation between cultures and the positive pursuit of cultural difference and diversity as postcolonial objectives under the spotlight.

A counter-pastoral view emerges in opposition to the pastoral vision on modernity. It addresses the fundamental challenges of the pastoral conception of modernity by emphasising the inherent variations on modernity and the need for an inclusive evaluation of what is modern between societies. Contrary to the assumptions advanced by Baudelaire (1845/1982), the counter-pastoral view maintains that it is factually inexact and fundamentally problematic to believe that once the bourgeoisie become enterprising and dynamic, they are open to a better conception of an ideal future of creativity for all of humanity. On the other hand, the counter-pastoral vision on modernity accommodates the beauties and intricacies of all of society, irrespective of whether this relates to the proletariat or the bourgeoisie in Europe, or the equivalent condition in former colonies between the coloniser and the colonised. It is on this sound footing that a counter-pastoral vision is projected here as positivist and humanistic, as opposed to a pastoral vision on modernity. The counter-pastoral dimension further advances a need for mediation, which is also the preoccupation of postcolonial concerns.

2.4 The place of modernity in postcolonial African and for architecture

The locus of modernity today in the architecture of former colonies is complex because of the challenge in reconciling the tradition and modernity divide. However, Gyekye (1997, p. 2) contends that "modernity is not entirely antithetical to or irreconcilable with tradition" since it borrows from the cultural traditions of the past and because its goal is to enhance our common humanity. In this regard, Gyekye (1997) proposes that positive responses to modernity in Africa should emerge from the abundance of its cultural difference and diversity.

However, Baudrillard (1987) exposition on modernity relative to Third World African colonies is perhaps the closest in terms of architecture because of the specific reference to space and human wellbeing. In his deliberations in "Tradition and modernity in third world societies", Baudrillard (1987, p. 69) underscores firstly, that a direction towards modernity as a "dynamic of
amalgamation" of socio-cultural conditions, and second as "an activism of wellbeing" (Baudrillard, p. 70, 72) is critical to the "conquest of space" (Baudrillard, 1987, p. 71). Essentially, the culture of wellbeing is not necessarily the advancement in science and technology, but the effect of that on human comfort in their private and social lives within space.

Mediating between socio-cultural conditions and human comfort needs, in architectural terms, recalls the idea of the climate as a dual aesthetic response strategy.

2.5 Climate as a dual discourse and its role in the development of architecture.

Hill (2012) argues in *Weather Architecture* that the weather is the creative other, which in dialogue with the intuitive mind of an architect and the end user distinctively fabricates architecture in time. This is done by looking to weather and its relationship to changing socio-cultural conditions in the production of spaces in architecture. Thus, a parallel historicism of climate related response in architecture is not then a concern of either the poetic or the practical but rather a merged discourse (Hill, 2012).

Hill (2012) emphasizes the dual approach to climate discourse, which has a global applicability in former colonies. For example, this mix contributed to Prussin's (1969) dilemma on *Architecture in Northern Ghana*, which Goldschmidt conceptualises in the foreword of the book.

A dwelling that satisfies physical comforts may also create social discomfort. If architecture - particularly the mass architecture of the future - is to serve the former and avoid the latter, it must take cognizance of the significant social relationships in the lives of those who inhabit the spaces it provides. (Goldschmidt, 1969, p. ix)

Prussin (1969) observes that precolonial vernacular built forms in Ghana were determined based consideration of human comfort needs and related socio-cultural negotiations between the seasons. This accounts for the alternate appropriation of compact forms (thick mud composition with limited or no windows), and light spaces such as the courtyards and flat roof terraces (Balaara, Haarhoff & Alessandro, 2018). Similarly, Correa (1983) denotes that the ventilated screened balconies of the indigenous airy palaces (Hawal Mahal) in India are so designed for the comfort of the queen, while affording royal privacy.

While colonial architectural interventions appropriated the climate based on form and comfort mainly (Chang, 2011), the postcolonial period occasioned the rethinking of colonial architectural practices that emphasised the socio-cultural place of climate practices (Lefaivre & Tzonis, 2001).
Responding to comfort and related socio-cultural conditions was a means to decolonising architectural practice in the colony. This interest manifested in the form of the developmental planning approach to practice (Jackson & Holland, 2014) also considered as socio-climatic (Balaara, Haarhoff & Alessandro, 2018). The developmental planning approach appropriates the lived socio-cultural experiences with comfort considerations in indigenous architecture, for contemporary practice. Drew and Fry's housing concepts for the new town- Tema Manhean in Ghana, for example, appropriates the indigenous courtyards as well as the socio-logics of indigenous spatial configurations that also support passive climate response strategies (Jackson & Oppong, 2014).

2.6 Chapter summary

While the climate as a technoscientific idea (Chang, 2011; Le Roux, 2003) is the basis for a binary approach to discourse relative to architectural interventions in former colonies between the colonised and the coloniser, the dual consideration of comfort and related socio-cultures in climate responses indicates its mediating postcolonial place. The manifestation of this approach engenders the development of unique mediated practices across geographical divide with the potential to mitigate concerns of climate change and the role of architecture in recent times. Moreover, the distinguishing responses emanating from climate responses represent instances of positive alternate modernities in architecture. The chapter therefore argues that the place of modernity in positive postcolonial responses resides with the knowledge and appropriation of the climate as a dual aesthetic.

However, the concern of postcolonial mediation extends beyond climate discourse. The next chapter introduces strategies for postcolonial mediation based on CAP.
Chapter 3 CONTEMPORARY AFRICAN PHILOSOPHY AS AN IDEA FOR ARCHITECTURAL MEDIATION: A FIVE POINT APPROACH

3.1 Introduction

Mediating between the local and global heralded postcolonial architectural discourse in the past century (Rudofsky, 1964) and remains a concern in the present century with the growing impact of globalisation (Intsiful, 2008; Ricoeur, 2007). In Ghana, this interest is reported in the Cultural Policy of Ghana (CPG), 2004. CPG acknowledges, in section 2.1, that culture is a dynamic process that is linked to a collective history:

Culture is a dynamic phenomenon. This is established by our concept of “Sankofa”, which establishes linkages with the positive aspects of our past and the present. The concepts affirm the co-existence of the past and the future in the present. It, therefore, embodies the attitude of our people to the interaction between traditional values and the demands of modern technology within the contemporary international cultural milieu. (National Commission on Culture, 2004, p. 9)

Elsewhere in section 5.4.1, the policy indicates that,

Architects, Planners and Designers of Civil Works and Engineers shall be encouraged through workshops and seminars to incorporate indigenous ideas and aesthetics in the design of settlements, public facilities and buildings to give Ghanaian cities, towns and villages a distinct character. (National Commission on Culture, 2004, p. 19)

While section 5.4.1 admits a lack and concern for regional identity in contemporary Ghanaian practices, together with section 2.1, these expositions reflect the position of Contemporary African Philosophy (CAP) in terms of Africans postcolonial development (Serequeherhan, 1993).

However, the discourse on mediation in architectural theory considers different regional and architectural interest such as the climate and socio-cultural conditions, towards framing specific strategies of mediation (d’Auria, 2015). This chapter frames CAP as an idea for architectural mediation considering two main regional architectural concerns in Ghana, and Africa in general. These border on the transcending place of the local context/ vernacular in contemporary practice, and the mitigating role of architecture in ecological and climate change discourse. CAP represents new directions in Africa's postcolonial re-Africanisation agenda that is driven by necessity (Serequeherhan, 1993) and departs from earlier national ideological positions that were radically opposed to Western value systems (Nkrumah, 1964; Senghor, 1974). Cap therefore supports positive integration and reflects the African traditional notion of development.
by integration, which in the view of Cassiman (2012) is a seamless process that embodies new systems within existing indigenous knowledge practices.

3.2 CAP as an idea

CAP is a developing postcolonial concept on mediation and its extension to architecture in the current study constitutes a milestone in the development of localised, polemical frameworks for localising architectural practice in Ghana, and formerly colonised societies. CAP is deeply connected to the African experience over the years occasioning the need for a new direction in African progress. The tri-periodisation of African history and experience saw several philosophical dispositions emerge from within the precolonial indigenous frames, through the era of colonisation and in the postcolonial era. The late colonial and immediate postcolonial eras were characterised by nationalist ideological philosophies (Nkrumah, 1964; Senghor, 1974). The nationalist ideological views were largely antagonistic to Western values, and obviously emerging from a period of intense socio-political struggle with the coloniser, this was to be expected. Independence at the time meant resistance to everything colonisation brought to bear. Driven by necessity, the goal in seeking political independence now, became the lead song of political freedom fighters. The radical opposition had intended to lay the footing for the process of re-Africanisation.

The postcolonial era, however, presented a compelling challenge, perhaps, something which was least envisaged or overlooked at the time. The realities of the heterogenous structure of the African society, which brought upon newly independent states through colonisation, meant a change in the philosophy of development (Keita, 1985). After many centuries of stagnation in the growth of Africanised culture because of colonisation and, consequently, Western cultural assimilation, fabricating the image of an independent state had to confront the transcending crises of cultures (Cabral, 1969). The physical translations of ideology in architecture also needed new directions. The process and direction of re-Africanisation occasioned CAP. Philosophically, the process of re-Africanisation can be characterised by two perspectives: restitution and syncretism. Syncretism constitutes what Serequeherhan (1993) proposes towards a Contemporary African Philosophy. CAP has a more contemporary dimension in that it considers events of the moment of neo-colonisation. In terms of the practical essence of CAP, it is not an entirely new concept; rather, it is one that can be traced to the fundamental African
developmentality of cultural integration in the manner of Cassiman (2012) who, for example, situates the culturally supported worldview of the Kasena\(^{22}\) in northern Ghana.

CAP is therefore, the "reflective exploration of the possible out of the barren actuality of the present" [...] aimed at "reclaiming and re-instating the historicity of existence" (Serequeherhan, 1993, p.103). Consequently, CAP is a means for articulating the "meditative concerns" (Serequeherhan, 1993, p.100) that confronts the African society today and in the context of this thesis, in architecture.

Concerns about architecture in the present and past centuries in Africa, border on two concerns, namely— human welfare, climate change and the role of architecture (Roaf, Roaf, Crichton & Nicol, 2009); and the continuous preoccupation with the localisation/mediation of practice in an increasingly globalised world (Adam, 2012).

African countries are more vulnerable to social, economic and ecological impacts due to climate change despite being the least contributors (Adger & Kelly, 1999). This is evident in Africa with drought related low agricultural productivity (Jones & Thornton, 2003; Roudier, Sultan, Quirion, & Berg, 2011) and heatwave induced disease (Patz, Campbell-Lendrum, Holloway & Foley, 2005). While Africa's contribution to global warming is less due partly to lack of productive industries, rapid urbanisation and population growth has infrastructure contributing significantly to climate change outcomes rather than mitigating it (Kithiia, 2011). Globally, buildings contribute some fifty percent to ecological and climate change through unsustainable design-construction process and decisions including reliance on active energy systems for operating buildings (Nicol & Roaf, 2005). This calls for a concerted response through both adaption, and mitigation (Collier, Conway & Venables, 2008; IPCC, 2014a). African has a predominant rural population despite rapid urbanisation. The indigenous architecture of these rural societies is sustainable, being responsive to climate and supporting development from within through local technology (Balaara, Haarhoff & Alessandro, 2018). While indigenous architecture has witnessed unsustainable transformation through rural-urban migration (Intsiful, 2008), indigenous forms represent appropriate adaptive responses to climate change at the rural level (Asquith & Vellinga, 2006). The knowledge concepts of the vernacular are, consequently, critical to formulating passive mitigating responses to climate change in contemporary architectural practice, especially in the area of performative practice.

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\(^{22}\) The Kasena are a culturally rich ethnic group in the Upper East Region of Ghana.
A performative approach based on how to design to suit climate is pivotal to the broader concern for architectural mediation globally, and in former colonies of which this chapter seeks to rethink the strategies for positive mediation based on CAP.

3.3 Strategies of mediation in theory

The idea of mediation in architectural practice and theory approaches the mechanism of regionalism and critical regionalism. With reference to former colonies, the idea of hybridisation and architecture may also have significance. This subsection reviews these mechanisms towards a discussion of the specific strategies of architectural mediation relative to Ghana and based on CAP.

3.3.1 Regionalism or its critical other and architectural mediation

Regionalism and critical regionalism are polemical accounts of mediation between international and local practices, or among the diversities of internal architectural practices between regions. The mechanisms of mediation advanced through regionalism and critical regionalism in turn forges a constructed relationship with CAP.

A clear understanding of regionalism lends itself towards appreciating critical regionalism as a concept of mediation. There is, however, a correlation between the two concepts in architecture. They are both conscious approaches towards localising architectural concepts within the context of modernisation/modernity and necessity with a fine line between them. Regionalism is a familiar concept ever since humans sought to modify their surroundings within the fringes of society to suit their immediate needs. The notion of the modern through time only gives a varied interpretation to the concepts according to their trans-historical context. For example, Vitruvius' *Ten Books on Architecture* illustrates many regional variants of architecture through time and space. Similarly, Tzonis and Lefaivre (1990) introduced other variants as romantic, picturesque, and emblematic renaissance regionalism according to their time. Interest in regionalism also follows the intense hegemony between traditions and modernity. Regionalism therefore addresses concerns on how indigenous architectural traditions, and the general contextual character of a setting, can be re-invigorated in contemporary practices to sustain regional identity. This situates regionalism as an open concept only limited to various local interest.

Consequently, a clear definition of regionalism is yet to be articulated, except that the referential indication of the specificities of a region, be it cultural or climatic or both; are common to
regionalism discourse. In this regard, thoughts on regionalism are first associated with less enterprising architectures or with the "fringes" or "interstitial" architectures in society, and secondly, on how the cultural traditions of these societies are reconstituted in contemporary times (Frampton, 2007a, pp. 376, 385; Pallasmaa, 2007, p. 128). Depending on one's stance, regionalism is a "communal art" by people of a common identity (Belluschi, 2007, p. 321). Furthermore, it is the form of architecture that "upholds the individual and local architectonic features against more universal and abstract ones" (Tzonis & Lefaivre, 1981, p. 178). This suggests that regional architectures are primarily founded on local conditions, namely local materials, local craftsmanship, local art, local construction methods, the local climate, and the general pattern of life in a region or its intrinsic values. By example, this disposition from a distance indicates a subtle confrontation with the post-World War II modernist interventions, which took place in former colonies. From this perspective, regionalism is regarded as a new reaction to the challenges of internationalism. The disconnection between modernism and regionalism locates the limited conception of modernism based on the idea of a style; and by that, emphasis is placed on the looks (Frampton, 1993; Lefaivre & Tzonis, 2001). Regionalism does not radically reject internationalism; instead, it acknowledges the innovations of modernism and its mediation role in many respects, which can be traced to the works of contemporary regionalists such as Frank Lloyd Wright (1867-1959), Le Corbusier (1887-1965), Alvar Alto (1898-1976), Lucio Costa (1902-1998), Oscar Niemeyer (1907-2012) and Charles Correa (1930-2015). Regionalism is not a style: it is quite simply a self-conscious approach especially connected to the perceived failings of internationalism. This new attitude initially resulted in a new traditionalism of architectural scenography23 (postmodernism) or a familiarisation approach that often overlooked the social task of architecture (Tzonis & Lefaivre, 1990; Walker, 2008).

Following the challenges of regionalism, Tzonis and Lefaivre (1981) coined critical regionalism in the "Grid and Pathway" to give some clarity to the idea and its scenography other. Tzonis and Lefaivre (1981) were influenced by the writings of Lewis Mumford in the 1940s, which were oppositional to the symbolic monumentalism of internationalism or postmodernism (Tzonis & Lefaivre, 1990). Critical regionalism as a new approach therefore follows a "defamiliarization" approach based on interstitial responses (Crawford, 1984, p. 209). It is opposed to the scenographic and dishonest tendencies of postmodernism. Attaining a defamiliarisation

23 Although many variants of regionalism adopt a familiarisation approach, a few examples focusing on the climate and context, such as the concrete regionalism of tropical architecture or modernism, are acknowledged as existing as parallel practices.
dimension implies a confrontation with the existing forms of regionalism. Hence, the idea of critical was born to distinguish between direct and abstracted regionalism. Tzonis and Lefaivre (1990) indicate that critical regionalism is confrontational, not only against other forms of regionalism, but unto itself as well. Thus, critical regionalism is "self-examining, self-questioning, self-evaluating and relies on regional elements for their potential to act as support, physical or conceptual, of human contact and community, what we may call place-defining elements and incorporates them strangely rather than familiarly" (Tzonis & Lefaivre, 1990, p. 178).

This suggests critical regionalism requires a critical cognitive interpretation of the collective elements of context, and the constraints as well as the potentials it offers abstractly, rather than a reactionary approach of direct symbolism. This critical evaluative place of critical regionalism connects it to CAP and its position on exploring the actualities of meditative concerns confronting Africa today, in this case architecture and concern of mediation.

It is Frampton's (2007a) speculative manifestos that explicates on the strategies of critical regionalism. Through critical theory, Frampton (2007a) first designed a six-point strategy of resistance, later modified to a 10-point speculative manifesto towards critical regionalism, which are briefly considered here. Frampton's (2007a) speculative manifesto cautions that critical regionalism is explanatory, suggestive, but also instructive. The 10-point speculative manifesto is uniquely structured with an opening that suggests the need for critical regionalism and the important role of the vernacular. Frampton (2007a, p. 378) attempts a definition of critical regionalism to include a "recuperative, self-conscious critical endeavour" marked by a non-sentimental appropriation of the vernacular; a theoretical orientation in which a dichotomy is drawn between critical regionalism and regionalism of which the latter is largely sentimental. In this regard, he underscores, the essence of the vernacular as an unavoidable necessity towards critical regionalism (Frampton, 2007a).

In the second theme on the modern movement, Frampton (2007a) highlights the not so distant relationship between modernism and critical regionalism. The theory of critical regionalism forges an ideological cohesion with modernism. He argues that the digest of the modern movement has had a remarkable imprint on the built environment over time. Relying on the Usonian houses by Frank Lloyd Wright, Frampton (2007a, p.378) emphasises the "liberative and poetic" dialectics of modernism to which any break from the wisdom of modernism in the search for an ideal architecture for a region may represent an architectural tragedy. Notwithstanding, he criticised modernism for being overly functional. Within the framework of "culture politics", modernism remains culturally significant and is deeply intertwined within the fabric of architecture now and in the future and especially in former colonies (Frampton, 2007a, p. 380).
myths\textsuperscript{26}, which he defines in terms of schools of thought and well-informed and committed patrons. At this point, Frampton (2007a) cautions against the proclivity of the mass media to misinform, which could perhaps eventuate as the myth or its realities of a region\textsuperscript{27}.

While the first four advances by Frampton (2007a) could be considered introductory, the actual mechanism of mediation on both the building and urban scales begins to show from there onwards. First, Frampton (2007a) emphasises the primacy of context through his play with space and place. For Frampton (2007a), architecture is not only an isolated undertaking limited to internal spatial considerations but is also a linkage endeavour woven around the larger community tectonics. Thus, the boundaries of a regional architecture subtend isolated compositions to those that emphasise the larger community tectonics to which buildings belong. Therefore, spatial considerations founded on local principles must also assume an equivalent place dynamic in the process of place making. Frampton's (2007a, p. 382) prescription is seen as a cure to the "universal, privatised, placeless" enthusiasm of urban areas. Frampton's (2007a) proposition for harmonising new architectures, especially in urbanised regions, with the existing culture of the place initially comes as an over generalisation without questioning the extent of change the region must have been subjected to. For example, within the Ghanaian context, it is known that architectural developments in urban areas are largely hybridised over time, which puts the authenticity of the character of urban areas into the spotlight. Under the circumstances, critical regionalism should recognise the cause and effect of the changing dynamics of the urban character and its place in the critical production of architecture (Frampton, 2007a).

\textsuperscript{26} The myth and realities of the region are also central in Frampton's (2007a) manifesto. The climate and locality readily come to mind. Frampton (2007a) goes further in his "speculative manifesto" to indicate two more requirements for establishing the constitution of a region from an institutional purview. There must be a thriving school of thought on local culture, which he categorised as a 'pedagogical and cultural institution' (Frampton, 2007a, p. 380) to prosecute the agenda of critical regionalism. Perhaps Frampton (2007a) sought to emphasise a regionalist conscious architectural organisation, namely the philosophical orientation of a school of architecture, an architect's institute or forum, fixated in its knowledge, or design, or typological/ pedagogical orientation, civil society, or the myths of society itself. A philosophical school may provide a band of critical mass to nurture and develop critical regionalism as ideology until its maturity; however, it has limited patronage at inception. Following on from this, Frampton (2007a, p. 380) suggests, there must therefore be a group of "committed clients" without whom any such endeavour shall occasion a pathological decay.

\textsuperscript{27} Frampton (2007a) cautions against the negative influence of the mediate in the development of place-centred practices, which account for the commodification of architecture. He suggests a fine balance between distant information and actual experiences towards positive practice.
Also critical to Frampton (2007a) as a mechanism of mediation is the relationship between typology and topography. Frampton (2007a) outlines the eminence of typology and topography in the development of architecture specific to a region. He relies first on the Ecole des Beaux-Art and the Art and Craft Movement as architectural typologies, to distinguish between universal and place specific architecture respectively. While suggesting that the universal principles of Ecole des Beaux-Art in practice were limited in their non-responsiveness to the peculiarities of place, Frampton (2007a, p. 382) connects with the great values of the place-specific characteristics of the Art and Craft Movement as "typifiable" and "culturally handed down". Secondly, Frampton (2007a, p. 382) emphasises topography as a site-specific condition by which the spirit of the site can determine the character of the architecture and thus limit the tendency whereby architecture comes across as "free standing aesthetic objects". By this architecture one should seek to mediate between typology and topology.

The rootedness of a piece of architecture to a place resides as much in the techniques through which it is fabricated. Frampton (2007a) thus distinguishes between the architectonic and scenographic as respectively authentic and superficial constructs to emphasise the importance of appropriating known construction techniques within a region to advance the essence of placeness.

One of the important techniques of building design across regions, especially of vernacular architecture, is its response to nature. Frampton (2007a) demonstrates great empathy to passive responses in architecture looking to nature as opposed to the artificial. The idea of topography is highlighted earlier, but here, Frampton (2007a) focuses on the local climate and natural lighting scenarios as mediating mechanisms with a potential to occasion distinct regional practices. The proclivity for artificial and active systems should only come as supplementary additions. He notes, "rather than being an anti-air-conditioning polemic, this approach indicates the need for balancing the techniques of universal civilisation with the rooted forms of climatically inflected culture" (Frampton, 2007a, p. 384).

In furtherance of his concern with reducing architecture to scenography, Frampton (2007a) admonishes a consciously determined drive beyond the commercial visualisation of architecture, which is facilitated by the mass media. Instead, he argues, emphasis should be placed on the experiential. Thus, the entanglement between the visual and the tactile takes centre stage in his manifesto. In this, Frampton (2007a) advocates, attention should be given to the tactile expression of the locality/ context in architecture. Architecture subtends the visual and
uncoordinatedly relates the sensory responses to space. The experiential is critical in the expression of the architecture of a region (Frampton, 2007a).

Finally, Frampton (2007a) sums up his ideas of mediation from the foregoing focus on three mechanisms. An architecture of resistance must be "free from fashionable stylistic conventions", approach "an architecture of place rather than space" and must be "a way of building sensitivities to the vicissitudes of time and climate" (Frampton, 2007a, p. 385).

Whereas Frampton's (2007a) polemic account highlights the important role of the vernacular and local context for architectural mediation, it does not directly locate spaces from the knowledge of the vernacular for the advancement of such mediation. From the perspective of this thesis, Pavlides (2007) methodological explication on "Four approaches to regionalism in architecture" locates, to some extent, the potential and specific role of the vernacular/local context towards an integrated contemporary practice discussed under section 3.4.4 of the thesis.

Having said that, there are meeting points in Frampton's (2007a) idea of critical regionalism and CAP. First, there is the mediation concern of the misdirected commodification of architecture generally in Africa (Instful, 2008), which could be extended as the growing myth and realities of practice today. Secondly, there are concerns with the role of the vernacular and local context in contemporary practice, which is a goal shared between CPG (connected to CAP) and Frampton's (2007a) advances. Frampton's (2007a) accentuation of the role of passive climate responses towards architectural mediation echoes today, the global concern with climate change and the role of architecture as an arbiter.

While the responses to the physical conditions of topography and climate may be particularly easy to locate concerning critical regionalism, it is apparently challenging in terms of the experiential, including the concern with the expression of culture through design. The idea of culture and mediation in former colonies appeals to the theory of hybrids, which is fundamental to Bhabha's (1994/2012) concepts. In architecture, however, the mechanism of hybrid practices encompasses the collective strategies of mediation through critical regionalism. The theory of hybrids is important towards understanding the idea of architectural mediation.

### 3.3.2 Hybridity and mediation in architecture

Hybridisation is not too remote from the postcolonial concepts of humanism and poststructuralism already discussed. It is a discourse that very often dovetails into the binary
view of knowledge in which Said (1978/2003), Fanon (2008), and Spivak (1985/2010) have been prominent figures. Bhabha's (2008, 1994/2012) writings are particularly important for a discussion on architectural hybridity because he uses terms such as space and hybridity directly and convincingly. It is also Bhabha's (2008, 1994/2012) attempt at situating the intersection of culture as a hybrid space, and the larger implications for a theoretically inclusive reading of culture, and architectural practice, that is particularly engaging. The core of Bhabha's (1994/2012, 1996) argument can be discussed in terms of the ambivalence that arises from the intermingling of cultures, and the subsequent development of hybrid cultures, which are not homogenous, but diverse through the integration of different cultures.

Bhabha (1994/2012) acknowledges that culture is a complex system. Therefore, hybridisation is not a simple process of homogenization, but rather the intelligible, spontaneous or otherwise, mixing of cultures. On this score, Hernández (2009) agrees that hybridity attracts many dispositions in meaning. First, it refers to the site in the margins of history where hybrid cultural production between the dominant and the suppressed is apparent. It is the effect of direct colonisation, or globalisation, or intra-regionalisation between cultures in contact. What is more, it is a continuous process of rearticulating and reconstituting cultural elements in relation to other cultures within and without. It is a never-ending process, which cannot simply be described by the current, but rather by the continual process of change through the appropriation of cultural difference. In the context of former colonies, hybridity is an important concept that deconstructs the structured view of cultures. It underscores the thinking that cultures are dynamic systems and therefore not homogenous. According to Bhabha (1994/2012), the persistence and perpetuation of cultural difference as hybrids resists the authority accorded specific cultures, particularly the perceived dominant cultures (Hernández, 2009).

Two important thoughts emerge from Bhabha's (1994/2012) attempt to define hybridity through his writings, namely, the entanglements of cultural difference and the subsequent views of the hybrid as resistant to, and of, a higher authority to the cultural production of the coloniser. First, Bhabha (1994/2012) accentuates the significance of cultural difference as opposed to cultural diversity as the better means to denounce the binary distinctions between cultures. He indicates, for example, that "colonial mimicry is the desire for a reformed, recognisably other, as a subject of difference that is almost the same, but not quite" (Bhabha, 1994/2012, p. 122). Bhabha (1994/2012) is critical of the homogenous view of culture when it assumes a collective form, such as the Indian, the British or perhaps the Ghanaian, because it erases differences of intra-cultural distinctions. The essence of cultural difference is to highlight the inherent difference between cultures unlike multiculturalism (Hernández, 2009). Whereas multiculturalism is often promoted
in the culture of today, on the one hand, Bhabha (1994/2012) argues that it is a regulated practice, which further entrenches the binary stratification of cultures. Thus, culture is still viewed holistically as the space between the colonised and the coloniser. For example, foreign cultures are only allowed into other countries if they comply with the regulations of the host country. On the other hand, cultural difference brings to the fore the internal differences, and their place in the formation of hybrid cultures as the dominant force emerging from the space between the coloniser and the colonised.

This leads to Bhabha's (1994/2012) second thesis of hybridisation as resistance to the binary structures that define colonised societies. In "Signs taken as wonders", Bhabha (1994/2012, p. 159) indicates,

> Hybridity is the sign of the productivity of colonial power, its shifting forces and fixities; it is the name for the strategic reversal of the process of domination through disavowal (that is, the production of discriminatory identities that secure the 'pure' and original identity of authority). Hybridity is the revaluation of the assumption of colonial identity through the repetition of discriminatory identity effects. It displays the necessary deformation and displacement of all sites of discrimination and domination. It unsettles the narcissistic demands of colonial power but re-implicates its identifications in strategies of subversion that turn the gaze of the discriminated back upon the eye of power.

Bhabha (1994/2012) seeks to contest the subservient role of hybridised subjects as inferior to the original and pure. Anything hybridised is considered subordinate to the original. However, here, Bhabha (1994/2012) situates the hybrid as the authority, which undermines the original and the pure. The intelligible negotiation of cultural difference through exploring the interstitial spaces between cultures presents the hybrid as the new and enhanced authority from the original.

Thus, Bhabha's (1994/2012) exposition on hybridity is seen from a post-structural lens given that he is divergently opposed to the binary layering of subjects in relationship to dominance. He seeks to construct the hybrid as a unique culture that cannot be described in homogeneous terms in relation to other cultures; rather, it is connected to them.

3.3.3 **Bhabha and the actualisation of hybridity in architecture**

Bhabha has never specifically made direct references to hybridity in architecture. Nonetheless, he has given indications of terms, which are considered by other critics to be potentially translatable in architecture. Bhabha (2008) gives his clearest indication yet with the use of terms
such as interstitial, buildings, and the third space. The first two terminologies together give meaning to a tangible appropriation of the third space in architecture.

More significant, it commits our understanding of the past, and our reinterpretation of the future, to an ethics of ‘survival’ that allows us to work through the present. And such a working through, or working out, frees us from the determinism of historical inevitability repetition without a difference. It makes it possible for us to confront that difficult borderline, the interstitial experience between what we take to be the image of the past and what is in fact involved in the passing of time and the passage of meaning (Bhabha, 1996, pp. 59-60).

In "Architecture and thought", Bhabha (2008) extends his concept of hybridity with emphasis on difference, to the telling details of the specificity of locality in the ensuing dialogue between change and traditions. This constitutes the bridge between the hegemonic and the harmonious, what he originally considers in theoretical terms as the interstitial and the third space. Bhabha's (2008) overall emphasis about difference is not a focus on the whole, but the sum of its parts.

Scale is not merely a problem internal to architectural knowledge or practice; the scale of the contemporary umma reveals profound differences in sites and localities – rural communities, small towns, industrial cities, private homes, public institutions – that demand design-imagination and material, practical interventions. Scale is, indeed, an architectural intervention that both responds to site-specificity while, at the same time, creating or constructing a sense of locality (which is never simply a given, a priori reality). In that sense, scale is also an issue of the ethics of architecture – what one chooses to build, who one chooses to build for, and the values that the building represents in-itself and in relation to others […] Sustainability is about creating environments committed to survival and well-being – to shared expressions of neighbourhood and solidarity that are intolerant of assumptions of cultural supremacy. (Bhabha, 2008, p. 11)

In the current space of global architectural practice, pursuing difference defined by specificities of context, generally of sustainable practices as Bhabha (2008) advances, potentially mediates the presumptions of dominance in architectural practice. Bhabha's (2008) view on hybridity in architecture echoes Frampton's (2007a, 1993) speculative strategies of mediation through critical regionalism.

3.3.4 Interpreting hybrid concepts in architectural theory

The theoretical understanding of hybridity in architecture often approaches the tacit meaning of hybridisation. However, hybridity is, at times, taken to mean the simple process of mixing two or more elements that form new cultures or practices. With reference to architecture, it could take on the direct mixture of materials in use, forms, styles, or it may be abstracted. Hybridity is also theorised in terms of the actualisation of authority in architecture between the colonised and the coloniser. The latter sets out to distinguish hybridised architectures as inferior to the pure and
original. Suppressed is the knowledge of the roles in mediation between spaces of the colonised and the coloniser in the narrative sense. The notion and reading of hybridity ought to relate to the systematic mediation and reflect a superior outcome to the subject of difference. The multiplication of difference in hybrids is therefore inconsequential in relation to not who defines it but what defines it. This position is supported through a critical view of hybrid architectures in specific studies (Abel, 1997/2017; Hernández, 2009; Morton, 2000).

In *Architecture and Identity: Responses to Cultural and Technological Changes*, Abel (1997/2017, p.239) advances on concepts of hybrid architecture in the chapter "Living in a hybrid world". Abel (1997/2017) first develops an understanding of indigenous Malay house concepts through cultural and sociological focus, and the environmental responsive strategies that define them. Following this, he evaluates the context of three buildings of European lineage in relationship to indigenous Malay architecture or its context. First, he situates as hybrids the British colonial villas that had Italian origins and were adapted to the local climate through strategies inherent in indigenous Malay architecture. The plan form and composition remained British/ Italian, however, certain features saw transformation to respond specifically to the local climatic conditions. He argues, these hybrid buildings were no longer purely British/ Italian, but belonged to tropical Malaysia. Secondly, in his consideration of the "Chinese-built shophouses" (Abel, 1997/2017, p. 243), Abel (2017) examines the spaces that permits the adaption of European ornamentations defined by classical orders to tropical conditions and, especially, the urban commercial life of Malaysia. In the third, he evaluates how colonial government buildings combine classical forms with Islamic architectures to develop new hybrid forms in Malaysia.

For Hernández (2009), Abel's (1997/2017) account of the new tropical Malaysian architecture is distant to the idea of the hybrid. In his critique of Abel's (1997/2017) position on hybridity, Hernández (2009) makes the following two observations. Firstly, he is critical that Abel's (1997/2017) approach to the theory of hybrids is represented exclusively by the localisation of European models to the Malaysian context. He maintains that the reverse scenario of non-western hybrids is not considered at all. The overlooking of precolonial traditions signals a "historical erasure", only to reinforce the linear historicity of progress of the European conception (Hernández, 2009, p. 81). Hernández (2009, p. 81) observes that, "Abel's way of constructing an identity of Malaysia architecture – as if they could not construct their own – perpetuates the hierarchical system that grants authority to European architectural discourses and practices".

According to Hernández (2009), the context of the development of precolonial Malaysian hybrid traditions, which do not feature in Abel's (1997/2017) rationalisation, in turn undermines the idea
of the hybrid as the demonstration of difference. Instead, Abel's (1997/2017, p. 246) narrative echoes diversity as he describes the buildings as the “interaction between diverse architectural forms” or the “crossing of architectural styles”. Secondly, Hernández (2009) is further concerned by the narrative that situates Abel's (1997/2017) new Malaysian architecture as secondary or inferior to the pure British traditions and the Italian Palladian concepts.

From the perspectives of the thesis, the disparate thoughts between Hernández (2009) and Abel (1997/2017) are simply a matter of the emphasis of narratives rather than the content of such narratives. Situating the context of the New Malaysian architecture through the abstracted knowledge of the indigenous Malay house and its responses to human comfort conditions does not appear engaging to Hernández. The reverse scenario, which projects precolonial traditions considering the spontaneous adaption of features of colonial architectures within their fabric, as Hernández (2009) advances, only amounts to equalisation. Hybridisation, however, is not a matter of equalisation, neither is it a direct translation; rather, it is the intelligent appropriation of concepts across the divide as an advancement of known practices. Thus, Hernández (2009) is right with his critique that the hybrid is ultimately the superior other.

Morton (2000) similarly identifies three scenarios of hybrids from the Paris exposition of 1931, in Hybrid Modernities: Architecture and Representation at the 1931 Colonial Exposition, Paris. First, she considers as hybrid the design of native pavilions by French architects with an external outlook conveying the architectural characteristics of their colonised other and an internal design reminiscent of French civilisation. Beyond the building scale, Morton (2000) reflects on hybridisation at the exposition level by indicating the contrast between the native pavilions of precolonial oriental traditions, and metropolitan pavilions that were designed in the manner of the Art Deco. The third came by way of the need to re-scale native pavilions in their truest sense within the confines of the existing building techniques of French civilisation (Morton, 2000).

Morton's (2000) critique of these forms of hybridisation, also shared by Hernández (2009), is perhaps the emphasis on a binary structure of representation that served to promote the authority of one civilisation, in this case French civilisation, over their colonised other. This emerges particularly in the subsequent reading of meaning, and the impact of the exposition on spontaneous eclectic proliferation in architecture by ordinary French citizens. These were described as unintelligent, whereas those established formally and exclusively by the authority of French architects at the exposition were applauded. For Morton (2000), these spontaneous responses represented honest hybrids by the ordinary French, as they broke down all instances

3.3.5 Theorising the third space in architecture

Perhaps, Lefebvre's (1991) *The Production of Space* first published in 1974 may have brought to the fore the thought of a third dimension to space. He argues that social spaces are produced at three interconnected levels: the practice of space, representations of spaces, and representational spaces. These encompass both abstract and tacit reflections of space (Lefebvre, 1991). He never really used third space, but his attempt to establish space in three dimensions has been significant. Soja's (1996) earlier conception of *Third Space; Journeys to Los Angeles and Other Real-and-Imaginary Places* directly appropriates the term. Bhabha (1994/2012) highlights the third space as a critical theme in his theory of hybridisation. He locates the third space as a space of ambivalence, of the in-between, yet not homogenous, which surmounts the representational challenge. The term is also appropriated in architecture to denote the mediation of space. Both Bhabha (2008; 1994/2012) and Soja (1996) concur on the location of the third space as the in-between space without privilege of dominance, between the marginalised and their more dominant or colonised other. The appropriation of the concept in practical terms in architecture and urban design from the perspective of Hernández (2009) is entangled between negotiations by the architect, the developer's interest, and regulatory frameworks. The sort of scenario that may constitute the meditative concerns in contextualised formal building design is,

that area where culture is at its most productive, because buildings (and cities) are always metaphorically in the middle between architects' interests, developers' economic expectations and planning laws, while also being continually re-signified by users. Certainly, buildings provide the physical spaces where people perform and negotiate their differences (Hernández, 2009, p. 21).

Furthermore, Hernández (2009) indicates that the physical space for the negotiation of difference are the slums located within urban areas where its inhabitants balance the demands of an urban economy and life style that ordinarily has no place for the marginalised. Hernández (2009) draws on the logic of the spatial gap subtending the urban rich and urban poor and the production of spaces by the urban poor as the zone that gives meaning to the theorisation of the third space in architecture. However, going by the same representational logic, the third space may be appropriated as the space between internationalism, and the localisation of international concepts in former colonies exclusively by practitioners of these societies. However, so as not
to stand accused of exclusion, the appropriation of the third space and hybridity should be a matter guided by inclusive content analysis. As has been supported in history, some of the more provoking hybrids have been done by critically minded practitioners from dominant cultures for the marginalised. Thus, Bhabha’s (2008) extension of hybridity and the third space to signs of specificity and locality, and to the interstitial, entices a broader discussion of the appropriated third space in architecture between subjects of difference.

Between Morton’s (2000) spontaneous hybrids and Hernández idea of the third space, one may be tempted into thinking hybrids are the spontaneous mediation between cultures. Morton’s (2000) spontaneous account of the hybrid as well as Hernández’s (2009) accounts on the third space constitutes informal dimensions of the practice of architectural mediation. While that may have space in the current reading, the hybrid is also the consciously determined; that which is not limited by who mediates but the content and context of such spatial mediation. The formal mediation of spaces by professionals with agreeable thought-provoking creativity therefore represents the other. However, arriving at a positive theorisation of formal hybrid strategies is necessarily an attempt at decapitating the binary reading of practice from perspectives, which seeks to draw authority unto either the colonised or the coloniser. The hybrid space constitutes an enhancement to the dominant and the marginalised and therefore is a matter of systematic mixing.

3.4 CAP and the vernacular: theorising the place of vernacular architecture in contemporary architectural mediation

While the theories of critical regionalism and hybridity highlight the important role of indigenousness in the making of architectures of the in-between, none explicitly addresses the place of the vernacular in this regard. Thus, it raises methodological concerns. This section considers the role of the vernacular in attaining positive architectural mediation as a contemporary African or Ghanaian concern.

Recent studies tend to question the fundamentality of categories such as the vernacular around the globe (Vellinga, 2006; Rapoport, 2006; Oliver, 2003; Correia et al., 2015). ‘Vernacular’ is a term that, in the past, was associated with a pejorative view of traditions in contrast to modernity, with an implication that these two conditions are irreconcilable opposites. In the African context,
this reflects the problem of Western ideational theorisation, typical of the banality of binary categories subtending spaces of the colonised and the coloniser. Yet, the vernacular is pivotal in the formulation of in-between spaces, especially through the knowledge of climate. Postcolonial mediation strategies through concrete modernism in former colonies appear to be one such example (Gutschow, 2009; d’Auria, 2016; Liscombe, 2006; Jackson & Holland, 2014; Moravanszky, 2012).

Thus, the term ‘vernacular’ is used here rather reluctantly, perhaps, because it is somewhat of a conventional representation. What is vernacular, however, requires an in-depth reflection. It is argued that the African vernacular is both externalised by outlook and internalised through its

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28 Despite the emphasis on Africa architecture as being also the architecture of the interstices, it is commonly categorised as the architecture of mud huts (Prussin, 1974). Maxwell Fry, in *Art in a Machine Age* (1969), indicates that, upon his arrival in West Africa, there was nothing worthy of note as architecture and this is echoed by many Western accounts on Africa generally (Fry, 1969; Whyte, 2010). These views were formed following pictorial accounts of architecture in the area known as the Sudan by three European explorers who illustrated their experiences in different parts of West Africa through a homogenous reading of indigenous African architectures, despite inherent differences (Skertchly, 2004). Consequently, Prussin (1974) indicates that it is this unity of imagining that constitutes the problem of architectural history in Africa. However, it forms part of a bigger exclusion theorisation in architecture. The architecture of sub-Sahara Africa was divorced from the world of Western architecture and human progress and accounts of African architecture were characterized by inaccuracies. The Darwinian theory of evolution influenced similar methodologies in theory in other disciplines including architecture and viewed life from racial a lens. In architecture, this approach was likely to have begun with Viollet Le Duc’s *The Habitation of Man in All Ages*, as well as the *Exposition Universelle of 1889* by Rousselet, Banister and Fletcher’s *A History of Architecture on the Comparative Method*, and *Evolving House* by Bemis and Burchard (Bemis & Burchard, 1936; Fletcher, 1967; Prussin, 1974; Viollet-Le-Duc, 1971).

29 Consequently, the European account of indigenous African architecture was based on a fallacy of selective representation. It also represented the liminal account of what the eye can see at specific points in history. European activities were mostly along the coast of Africa and the absence of viable transportation between inland savannah areas and the coast compounded the skewed account of vernacular architecture in Africa which was mostly based on epistles of coastal architecture for several centuries. In 1893, Europeans could not correctly locate the city of Djenne in Mali on any map and were unable to do so until its conquest by the French (Prussin, 1974). This constituted a crisis of representation, which confined indigenous African architecture to the value of a shelter (Oliver & Lloyd, 1969; Vellinga, 2011). It was not until the twentieth century that the search for new theories in artistic forms engendered a reconsideration of African art and architecture. This time, interest shifted from the monumental to that which reconnected with an understanding of man's relationship to his environment, what he builds, and the interstices of cultural expression (Alexander, 1964; Allsopp, 1970; Jencks & Baird, 1970; Norberg-Schulz, 1971; Prussin, 1974; Rapoport, 1969; Rudofsky, 1972).

30 The latter reflects a moment of ecumenism, but also of the future of the vernacular in contemporary practices. Furthermore, it represents the binary structural categorisation of architecture, whose outcome informs the view of the vernacular as primitive, archaic, old, and unmodern.
knowledge spaces. Through the discerning internalised knowledge spaces, the vernacular could arguably be described as the fundamental knowledge of architecture, of human's socio-cultural relationship to climate, and therefore crucial to reflective referential and inferential modern responses in architecture today.

However, one of the critical challenges to the promotion of the knowledge of the vernacular is the question of how to obtain such knowledge and whether there might be anything worthy of it sought for an advanced world of practice (Asquith & Vellinga, 2006; Oliver, 1997; Upton, 1990). For many centuries the vernacular was confined to nostalgic references around the world and sustained mainly through documentation, listing, and conservation interventions over the years. There has been growing evidence of its role in contemporary practice since the mid-twentieth century (Prussin, 1969; Rapoport, 1969). However, it is in the twenty-first century that the vernacular has taken a central place in architectural discourse (Correia et al., 2015; Vellinga, 2006; AlSayyad, 2006). It has become relevant following the need for an integrated dynamic building culture, concerns of empowerment through rural developmental evolutions, and the challenge of climate insensitive practices (Lewcock, 1980; Afshar & Norton, 1997; Meir & Roaf, 2005; Oliver & Lloyd, 1969). The vernacular is now considered within the general lens of sustainability with several emerging theoretical frameworks towards appropriating vernacular concepts in contemporary design or within its developmental nucleus.

There are many other aspects to the knowledge of the vernacular beyond the generally known suitability as a model for sustainable practices. In the next section, some aspects of the African vernacular are considered as a background before explications are presented on two methodological approaches for appropriating the vernacular in contemporary practice.

### 3.4.1 Some aspects of indigenous African architecture

While the European conception of Africa as primitive may not exactly have been overly conscious, it underlines the knowledge gaps and deficient depths in the comprehension of African art, modernity and architecture. For Prussin (1974) in her "An introduction to indigenous African architecture", the concern with the undervaluation of African architecture is that it has never been considered beyond the lens of building technology, and this consequently limits the understanding of African architecture to the basic need and function as shelter (Oliver & Lloyd, 1969; Prussin, 1974). However, this represents a critical dimension to indigenous architecture, which is linked with its climate responsive adaptability (Prussin, 1969; Rapoport, 2007; Vellinga et al., 2007).
A study of indigenous African architecture reveals not only the numeracy of space and occupants, but also aspects related to the hierarchy and governance of space. It is an entire "sociogram" (Prussin, 1974, p. 191), which generates several meanings of the occupant's relationship to their environment. The layout of micro compounds not only indicates the relationship between members of that compound, but largely, it subtends the boundaries of individual compounds to an interrelationship of members of a lineage, reflected in the interlacing of compounds (Eustace & Ophuis, 2002; Faculty of Architecture-KNUST, 1978; Gabriolopoulos, Mather, & Apentiik, 2002; Oliver & Lloyd, 1969; Prussin, 1969). The compounds likewise reflect the dynamics of incremental growth because of growth in family sizes (Prussin, 1974). In these terms, the layout is sociological.

Other aspects of indigenous African architecture are abstracted experiential and interstitial concepts. For example, the myth of the centre, which has transcended civilisations since time immemorial, is fundamental to indigenous African architecture. The centre signals not only the point of birth or of origin; it is also a moment of initiation and consecration. It is the source of man's dominion and conquest of space (Eliade, 1969). In Africa, these beliefs are widespread, and the centre space is usually marked by an important tree or pillar as the reference axis for the performance of many activities within. For example, the courtyards of the indigenous housing of the people in South-Eastern Nigeria and Southern Cameroon are marked in the centre by two vertical wooden posts tied together and is reminiscent of the union of ways since the beginning of time (Prussin, 1974). Similar scenarios exist in the architecture of the Dogon in Mali, and the Tallensi in Northern Ghana (Firth, 1951; Griaule & Dieterlen, 1954; Talbot, 1969; Von Grunebaum, 2010). Other interstitial aspects of indigenous African architecture relate to the concept of boundaries and verticality that explain the importance attached to the prominence of earthen pillars, which define the existence of a compound and ancestral lineage31 (Prussin, 1974).

Indigenous African architecture are embedded with deep-structured socio-cultural qualities that require a critical attention to detail to establish their place for contemporary architectural mediation. The challenge in locating these qualities is the reason for their underrepresented role in contemporary practice. The other challenges relate to what aspects of indigenous African

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31 The immediate space from the approach, which is a compound, is a zone for the negotiation of important activities of life such as welcoming a new born baby. It is also the commemorative space for departed souls. These earthen pillars also symbolise both continuity and fertility. They are foundation pillars of the ancestral lineage (as exists among the Dogon), or grave markers (as exists among the Tallensi). Among the Kasena of Northern Ghana, however, they symbolise the viability of farming units and mediate the transition between the known and unknown, the sacred and profane.
architecture can be considered in the evaluation of mediated practices in theory. These concerns border first on methodology, and second, on the relationship between methodology and generated typologies of mediation.

3.4.2  The methodological approach

There are several mechanisms suggested for locating potential spaces of mediation from the knowledge of the vernacular for positive contemporary practice. This section relates to two mechanisms, namely, Rapoport's (2006) strategy of the model system\(^{32}\) and Pavlides' (2007) four approaches to architectural mediation. The two concepts aid one another. From the perspectives of the thesis, Pavlides' (2007) emphasis on the methodological process of delivering concepts from the vernacular is considered an extension of Rapoport's more generic approach.

3.4.2.1  The vernacular as a model system

The vernacular as a model system reflects current thinking on the localisation of architecture in the twenty-first century. It also represents a formal and reductive actualization of the articulation of CAP for architectural practice in Ghana and Africa today. In addition, the speculative mediation frameworks of critical regionalism and hybridity in architecture can be applied within the theoretical model of the vernacular as a model system.

Rapoport (2006) first suggested the concept following the publication of the *Encyclopedia of Vernacular Architecture of the World* (EVAW), which he considers the first stage in vernacular architecture studies. The vernacular as a model system constitutes the next stage in the development of vernacular knowledge, which he regards as a “problem-oriented, comparative, integrative and more conceptual/theoretical stage” (Rapoport, 2006, p. 179). The concept is one of the progressive steps taken towards reinterpreting vernacular principles in contemporary architecture beyond descriptive accounts in theory. From the perspective of Rapoport (2006),

\(^{32}\) A model system is “the use of one system to study phenomena in another, apparently, very different system” (Rapoport, 2006, p. 184). The concept is more profound in biological and biomedical research using organisms to study phenomena such as the fruit fly Drosophila as a basis for genetic research and the caenorhabditis elegans for understanding Alzheimers and Parkinsons disease etc. (Syntichaki, Xu, Driscoll, & Tavernarakis, 2002; Tamura, Subramanian, & Kumar, 2004).
the processes of a model system are cyclical and may involve an integration of natural history with theoretical and/or empirical conceptions. These processes have the advantage of versatility and can be used to test a theory or hypothesis, develop theories, and are excellent for integrating concepts from varied disciplines.

The appropriation of vernacular concepts for contemporary design applications may be derived through the lens of Environmental Behaviour Studies (EBS), which is a mechanism for evaluating Environmental Behaviour Relations (EBR) (Rapoport, 2006) (see figure 3.1). Understanding EBR and deriving concepts towards positive responses in practice requires a comprehensive study of groups' characteristics within an environment over the short and long term. Demarcating how these characteristics affects both the constant and variable expressions in architecture is central.

In the view of Rapoport (2006), these environmental behaviour characteristics may be found at different levels and among various interests' group. Rapoport (2006) devised a three-level methodology for determining EBR mechanisms, involving how the biosocial, cultural, and psychological characteristics of humans or groups of people affects the built environment characteristics. The next step is to consider how the built environment affects humans. These are found with the expression of environmental choices, and the prominence of a particular built aesthetic. Processing choice is influenced by a multitude of factors including urbanization, modernization, and cultural contact. The third and final strategy is engaging the mechanisms that connect humans to their environment, which is made up of choice, physiological, perceptive, cognitive, and meaning elements, as well as the expression of culture. Of these mechanisms, the perception, meaning, and translation of culture in practice exists in several layers and appears too generic in EBS (Rapoport, 2006). Thus, Rapoport (2006, p. 193) suggests a mechanism for dismantling the various layers of culture, whose relationship to the build environment is also important.
Viewing the vernacular in this way provides a means for synthesizing vernacular knowledge spaces and their relationship to people in contemporary practices. Furthermore, it provides key directions for estimating the intrinsic values of concepts from the vernacular for positive practice. Rapoport's (2006) theoretical model responds to the concern of the postcolonial and of CAP, which is the need and role of indigenous architecture in contemporary practice.

3.4.2.2 Eleftherios Pavlides' four approaches to mediation through the knowledge of the vernacular

Pavlides' (2007) four approaches (the folkloric, ideological, experiential, and anthropological) to the theory of mediation in architecture through the knowledge of the vernacular set out a more detailed and clear methodological approach to EBS. Pavlides (2007) goes further to establish a relationship between each approach and the concepts derived from the vernacular, with a corresponding application in contemporary practices using some examples. Thus, his study explicates on methods, concepts, and applications in mediated practices.

The folkloric approach follows an ethnographic study, which basically documents the timeless and consistent patterns of folk architecture in a specific region. The approach is neither theoretical nor philosophical but a direct search for popular and consistent styles, typologies, or architypes (Glassie, 1975). The attempt to recreate these timeless traditions in practices today is illustrated by Pavlides' (2007) revivalist or folkloric regionalism. He argues that responses to the past through the revivalist approach may vary in design, materials, and building technology, but must be consistent with the "regional architype" (Pavlides, 2007, p. 160). New materials and technologies may be used in exceptional circumstances but are concealed by a false façade. From the perspective of the thesis, this approach largely echoes Fathy's (1973) exploits with New Gourma.

The second approach, according to Pavlides (2007), is the modernist approach to the study and appropriation of the vernacular. Ideological regionalism is subjective and does not appear systematic; instead, it is simply in search of elements that confirm "ideological positions" (Pavlides, 2007, p. 162). It searches for aspects of environmental design that are either "typical or unique" (Pavlides, 2007, p. 160), with a primary focus on the local architectural response to climate, the rhythms of massing (but not decorations), and elements such as flat roofs. The vernacular is studied as a dynamic system vis-à-vis the cosmos, and in relationship to other
buildings, to create an architecture that is modern, yet incorporates aspects emanating from the vernacular (Pavlides, 2007). Considering how Le Corbusier's architectural interventions opportunistically recall the vernacular, he is cited as a protagonist in this approach (Pavlides, 2007).

Thirdly, Pavlides (2007) advances the mechanism of experiential regionalism as a detailed extension of the opportunistic studies of the vernacular by the ideological regionalist and the typological approach of the folkloric. Experiential regionalism, just as the ideological, is based on the architect's own estimation of the experiential qualities of the vernacular. It assumes a top-down approach intended to bring some humanness to the development of new forms (Pavlides, 2007, p. 164). The approach conveys the psychological value of the vernacular from the visual, social, textual, and decorative concepts, as well as a wellbeing related response, for their repetitiveness or primary nature to the contemporary. Practitioners including Robert Venturi, Charles Moore, and others (Pavlides, 2007) discuss this considering post-modern interventions. Drew and Fry appropriation of local Adinkra symbols in Ghana as patterns for balustrades and screen walls (Liscombe, 2006), demonstrates the psychological place of experiential regionalism.

The top-down folkloric, ideological and experiential approaches are limited in terms of user perspectives in a design user relationship. As Pavlides (2007, p. 166) observes, "A purely visual approach to vernacular architecture will never reveal the richness of information that inhabitants read in their visual environment". Thus, the anthropological approach studies the vernacular as a dynamic phenomenon from user perceptions and their lived experiences (Prussin, 1969; Rapoport, 1969). Based on the understanding of this thesis, anthropological regionalism echoes the developmental planning strategies adopted to transform the indigenous lived experiences into contemporary building design (Gutschow, 2009). This is typical of the late tropical practices that mark a changing response to both climate and the importance placed on translating the socio-logics of indigenous architecture in contemporary practice. Drew and Fry pioneered this in Ghana through the housing schemes developed for Tema Manhean in Ghana in 1952 (Jackson & Oppong, 2014).

For Pavlides (2007), experiential and anthropological regionalism are latent, and sufficiently address the concerns of memory and mediation in architecture, although the folkloric and ideological also contribute to this process of mediation.
3.4.2.3 The four approaches to regionalism in the context of the vernacular as a model system

Rapoport's (2006) model for appropriating the vernacular in contemporary practices is further enhanced by the succinct methods developed by Pavlides (2007). The integrated model is presented in figure 3.2 with the introduction of a clear method section to EBS with a corresponding implication in design (shaded). Individually, each of the four methods addresses the concerns of CAP for twenty-first century mediation in architecture. Collectively, they respond directly to issues of regionalism, hybridisation, and the question of the place of the vernacular. The integrated model therefore brings some clarity to the idea of mediation. Mediating the concerns of a changing climate and modernity through the integrated model engenders the potential development of alternate hybrid modernities.

Figure 3.2. Strategies for appropriating vernacular concepts in contemporary practice and related forms of regionalism. The figure extends Rapaport's (2006) model with the addition of a clear method section for the study of vernacular forms, and a corresponding typological outcome based on the approach to architectural mediation (see shaded sections).

3.5 The developmental approach of vernacular architecture and CAP

Whereas the role of the vernacular in contemporary practice is theorised in terms of adopting vernacular strategies for contemporary practice, the development of the vernacular within its limits is a concern of practice and policy in time. It is borne out of the need to enhance the living standards of the marginalised whose health and economic wellbeing are often challenged. Noting the vernacular still accommodates a significant proportion of the world's population (Oliver, 1997), and observing the vernacular is not sufficiently effective in all areas of welfare
mediation, the developmental approach sees a reversed approach that looks to favourable, perhaps, contemporary concepts, towards arresting its own internal developmental challenges.

Lewcock (1980) underscores the need for a developmental response to the challenges of vernacular architecture while simultaneously improving the social and economic wellbeing of the marginalised through empowerment. As people's aspirations change, yet cannot be fully supported economically, there is a need for some level of intervention by means of developmental strategies (Lewcock, 1980). Lewcock (1980) identifies two mitigating strategies that underpin the concerns of architecture in former colonies that includes the need to,

> bring local prosperity from the soil of each country [...] for the architects, the practical effects seems [...] to study means of utilising indigenous resources in building and to attempt to comprehend those values which are reassuring and binding in local societies, so that responding to them in design may leave room for them to grow (Lewcock, 1980, p.26)

The developmental approach thus seeks to offer economically viable and cost-effective solutions to the challenges of vernacular buildings based on the changing needs and aspirations of people in time, by assuring a process of self-development of local technology, skill sets, and improved local material use. The development mediates between the changing community aspirations, a declining socio-economic situation, and the failures of physical forms to mitigate these concerns over time. Practically, the works of Hassan Fathy in New Gourma, as stated earlier, are often cited (Fathy, 1973). Other interventions include Laurie Baker's architecture for the poor in India and, more recently, Francis Kéré's exploits in Burkina Faso (Kéré, 2012; Spence, 1980).

The developmental approach echoes the folkloric. It is not founded on typological necessities; rather, it is involved in the developmental concerns with the objective of promoting local initiatives. It may take on the folkloric approach to regionalism but not always. However, in this study, it is considered in view of the folkloric in that it attempts to construct a neo-vernacular founded on perceived needs for improvement in specific areas of autochthonous practices and for nationalist agendas, such as the promotion of national architecture or its industry. Therefore, a developmental regionalism can be highlighted considering folkloric regionalism.

### 3.6 Five approaches to regionalism in the context of CAP

Considering the earlier constructed relationship between CAP, climate change, and architecture, a performative approach to regionalism looking at the distinct climate of Ghana is theorised
together with the folkloric/developmental, ideological, experiential, and anthropological regionalism to creating positive twenty-first century postcolonial mediation in architecture in Ghana and elsewhere in other former colonies.

Conceptually, the relationship between CAP and architecture (outlined in figure 3.3) borders the exploration of vernacular concepts (with the potential for practice in the manner advanced by Pavlides (2007)) and the exclusive consideration of climate (especially of architectures whose boundaries are typically alien to vernacular settings in former colonies such as those of purely capitalist imagining).

Figure 3.3. The constructed relationship between CAP and architecture indicates five mechanisms of architectural mediation (shaded) emanating from the appropriation of vernacular concepts and the prioritisation of climate.

3.7 Chapter summary

The chapter structures the discourse of mediation at several levels, each with the potential to drive alternate forms of mediation in architecture. The idea of regionalism (or critical regionalism) and hybridisation as responsive mechanisms aligned with CAP embraces climate, socio-cultures, materiality, technology and psychological dimensions as mediation strategies for architecture.

By relating the approaches to mediation advanced by Rapoport (2006), Pavlides (2007), and performative climate regionalism, an important dimension to the study develops on how these frameworks confront current theories of architecture in Ghana and contributes to new perspectives for positive architectural practice. Although Rapoport (2006) and Pavlides (2007)
wrote for a twenty-first century audience, their concepts are significant for re-evaluating the architectural practices before them in former colonies. For example, from these frameworks, the re-reading of modern architecture in places like Ghana could present new dimensions on the theory of modern architecture understood from an African perspective such as CAP. What role and in what ways the vernacular has influenced the conception of tropical practices generally, and in postcolonial sense in Ghana, represents an opportunity for this thesis.

Part III of the thesis considers the frameworks of mediation based on CAP, in the context of interviews responses based on the place of climate, modernity and mediation in twenty-first century practices in Ghana.
Part III. THE THEORY AND PRACTICE OF ARCHITECTURE IN GHANA SINCE THE 1940s: FROM EMPIRICAL TO THEMATIC THEORETICAL ACCOUNTS
Chapter 4 CLARIFYING THE PLACE OF CLIMATE, MODERNITY AND POSTCOLONIAL MEDIATION IN TWENTY-FIRST CENTURY ARCHITECTURAL PRACTICES IN GHANA

4.1 Introduction

While a significant body of knowledge on architecture in Ghana from the precolonial to the late 1960s exists, there is marginal architectural account since then. Using semi-structured interviews, this chapter examines the place of climate, modernity and postcolonial mediation in Ghana’s architecture since the 1970s with a focus on twenty-first century practices. The chapter also accounts for the challenges to positive twenty-first century architectural responses in Ghana and the way forward. The notion and appropriation of climate, modernity and postcolonial mediation are critical aspects in the development of architecture in Ghana since precolonial times and retain a twenty-first century place. The chapter reports—modern twenty-first century responses are driven by that which is new, fashionable and vogue rather than by necessity. The expression of modernity in this manner—often a status symbol, undermines climates place in passive twenty-first century responses. Furthermore, a disconnection is established between the expropriation of knowledge concepts from Ghana's architectural past in twenty-first century mediation attempts.

The chapter concludes that a positive twenty-first century response to modernity based on materiality and landscape, and socio-climatic considerations has a place for positive mediation outcomes.

4.2 Theoretical background: The development of architecture in Ghana and the role of climate, modernity and architectural mediation (Precolonial-1960s)

Architecture in Ghana is shaped by several factors embedded within climate, modernity and architectural mediation/hybridisation discourse. The place of these three factors in the development of architecture in Ghana cannot be understated. Their positive role lies in the appropriation of architectural responses based on passive climate strategies that are also socio-culturally driven. The theoretical context of climate, modernity and mediation (Precolonial-1960s) are introduced in this section as a background to understand the context of these factors in twenty-first century architectural responses in Ghana.
4.2.1 Climate context

Climate is foremost because of its universal role in the development of architecture globally. Ghana’s precolonial indigenous architecture are a reflection on how human comfort considerations influenced unique built forms based on the various local climates (Prussin, 1969). For example, whereas indigenous architecture in Ghana’s humid climate are typically open for ventilation, in the hot-dry conditions further north, the buildings are compact to reduce excessive heat gain (Balaara, Haarhoff & Alessandro, 2018). The advent of colonisation (fifteenth century-nineteenth century) witnessed the adaptation of European styled buildings to the local climates (Micots, 2015; Oppong, Marful & Sarbeng, 2018). These colonial developments were mostly confined to the humid climate in coastal regions because of the concentration of European trading activities there (Wellington & Oppong, 2018). Few developments occurred further inland, in the humid rainforest regions (Schreckenbach & Abankwa, 1990). The penetration of European built culture to the hot-dry climate in the Northern Territory did not happen until the late nineteenth-twentieth century primarily because it was considered economically unviable (Bening, 1971). Unlike the humid climate—featuring buildings such as the forts and castles which retained a strong colonial ‘style’ presence, interventions in the hot-dry climate appeared to be localised using local materials (Cardinall, January 1929). The departure from strict colonial styled building traditions was based on economic considerations (Cardinall, January 1929). There was the practical need to improve hygiene conditions in the colony also (Jackson & Holland, 2014). This involved research into improved building technology, and design with a focus on climate and comfort. Initial pioneer work by the Royal Engineers Regiment and the Public Works Department (PWD) were meant to address housing conditions for colonial officials mainly (see figure 4.1) (PWD, 12th June 1945). Colonial interventions in indigenous housing conditions were mostly due to emergencies. For example, in 1924, 684 housing units were constructed in communities in Kumasi following the outbreak of the bubonic plague (Jackson & Oppong, 2014). The provision of healthcare infrastructure however, were accessible to inhabitants of colonial territories. These interventions prioritised the climate and issues of ventilation.

The establishment of building institutes such as the Building Research Station (BRS) at Acton in 1921 (later moved to Garston), West London, actualised the coordination of building research across British colonies with a focus on climate. However, the appointment in 1948, of G. A. Atkinson by the BRS as Colonial Liaison Officer of the Colonial Liaison Unit (CLU) (Chang, 2011), facilitated building research in West African colonies in the late colonial period. The CLU advised architects on how to design to suit climate. In addition, they intervened through research into economic building solutions, as well as emphasised the social place of practice to architects.
practicing or intending to practice in West Africa (Jackson & Holland, 2014). The outputs of the CLU published "as Colonial Building Notes and later as Overseas Building Notes […] covered topics such as thermal comfort" (Le Roux, 2003, p. 344). By 1952, it was necessary to establish the West African Building Research Institute (WABRI), which was head quartered in Accra to perform more local functions. WABRI transitioned to the Building and Road Research Institute following Ghana's independence in 1957. Buildings designed within this period showed "cohesive attitude towards design, specifically in their response to climatic conditions" (Le Roux, 2003, p. 338).

Beside these institutions, there were parallel undertakings by colonial officials, minded making inroads into building design through their individual capacities, as well as by colonial support systems. The writings and practice of Drew and Fry upon the appointment of latter as Town
Planning Advisor in 1944, contributed to the development of architecture in Ghana in climate terms (Liscombe, 2006). Their efforts resulted in two publications (see Drew & Fry, 1947/2013; 1956), that served as useful guide to architects practicing in the tropics in passive climate design, as well as on the social and economic place of practice (Le Roux, 2003).

Furthermore, the School of Architecture (in Kumasi) established in 1958 at the Kwame Nkrumah University of Science and Technology as a centre for the training of indigenous Ghanaian architects expected to contribute to Ghana's postcolonial architectural development. The history of the School is linked to the 1953 Conference on Tropical Architecture that gave birth to the Department of Tropical Architecture at the AA established in 1954 (Uduku, 2006). The conference is noted for presentations on how to design for the hot and humid climates in the tropics (Atkinson, 1953b). The AA School of Architecture therefore focused initially, “almost exclusively with the teaching of climatic design” (Le Roux, 2003, p. 343) and this formed one of three pillars (including culture and construction) for the training of architects in Ghana.

The climate therefore played a critical role in the development of architecture in Ghana. However, the appropriation of climate practice indicates some distinguishing features through time and space. For example, while precolonial indigenous traditions appropriate the climate based on comfort and related socio-cultural needs described as socio-climate (Prussin, 1969), the colonial traditions modified climate mainly in terms of comfort (Chang, 2011). However, the late colonial and early postcolonial tropical modernist practices (1940-70's) appropriated climate both in terms of comfort, as well as comfort and related socio-cultural (Jackson & Holland, 2014) depending on the nature of the commissions and the architect (Balaara, Haarhoff & Alessandro, 2018). The appropriation of climate in terms of the socio-climate underlines the mediating role of the climate between tropical modernist practices, and indigenous Ghanaian architecture. For example, the lived experiences of indigenous coastal architecture and how these related to comfort considerations, influenced the modern housing schemes developed by Drew and Fry in Ghana for the new township Tema Manhean in the 1950s (Jackson & Oppong, 2014). The climate, through its dual role, is considered a neutral space for decolonising architectural practice (Le Roux, 2004a). The passive response to climate at the time was sustainable and created surplus energy for critical industrial development (Kultermann, 1969; Uduku, 2008).
4.2.2 Mediation context

Beside climate, architectural mediation based on the expropriation of knowledge concepts between: cultures in contact; across precolonial, colonial and postcolonial practice; and the local and the global in the contemporary sense—remains a twenty-first century concern especially, in architectural identity (see Adam, 2012) and hybridisation (see Hernández, 2009) discourse. In Ghana, the significance of mediation captured by the Cultural Policy of Ghana (CPG), 2004, admonishes architects to design buildings integrating aspects of indigenous Ghanaian culture while participating in contemporary global practice. While CPG does not account for specific strategies of mediation, recounting the context of architectural development in Ghana (precolonial-1960s) understood from an Africa perspective, highlights the meaning and implications of hybrid practices then, for twenty-first century approach to positive mediation.

For example, precolonial traditions in Africa demonstrates mediation especially, between indigenous and Islamic forms (Prussin, 1974). The presence of Islamic appropriated architectures south of the Sahara was the result of—largely, peaceful trade with Arabians during the Trans-Sahara trade, conquest by invading Arabian armies, or self-Islamisation of ancient West Africa Empires beginning with the political elites who adopted Islamic culture as the official religion of their Kingdoms through interactions with the Arabians (Dumbe, 2013; Elleh, 1997). Both natural and forced migration induced by the weakening of these empires stimulated movement further south by inhabitants of these Empires. Particularly, the demise of the Songhai Empire, the last of the Western Sudanic Empires, explains the presence of Islamic architecture in mainly the northern part of Ghana (Ghana Museums & Monuments Board, 2017; Nelson, 2014).

In Ghana therefore, the indigenous traditions predated the Islamic and vary in style and design amongst the various settler groups (Prussin, 1969). Schreckenbach and Abankwa (1990), for example, classify the indigenous traditions into three main zones, which also partially reflect the distinct climatic zones, namely the Northern33, Middle and Southern34 zones with varied

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33 In the northern half, however, the house plan consisted of rectilinear buildings of interlinked spaces built of flat mud roofs mainly in the north-western part. In the Lobi area, posts, beams, and rafters supported these roofs and thus the mud walls were non-load bearing structures. In the north-eastern half, the buildings were circular and arranged as cells around an inner courtyard (Prussin, 1969). The construction method of rammed earth and sun-dried bricks continues to be the predominant means of home construction in rural areas in northern Ghana.

34 In the southern sector of Ghana, the house plan was mainly rectangular and the indigenous building methods consisted of a timber framework with wattle and daub construction, the Atakpame method or walls of stones, sun-
characteristics and construction techniques, although similarities exist. The classification also reflects the cultural similarities and historical interrelationships amongst the various zones (Schreckenbach & Abankwa, 1990). The Indigenous practices therefore represent unique responses to the spirit of their environment and the material and social cultures of their respective societies (Prussin, 1969).

The cultural contact between indigenous and Islamic cultures and architecture raises two theoretical suppositions on mediation. Firstly, the arrival of Islam seamlessly transformed the urban fabric through the infusion of indigenous and Islamic forms, with a notable example being the Great Mosque of Djenne in Mali (Prussin, 1974). This fusion was possible by the seeming unity in the conception of spaces and visual forms. The conical form, which symbolises the sacred, royalty, and divinity, is prominent in both indigenous and Islamic civilisations (Blier, 2004). Although the Hausa dome features in some studies as an Islamic contribution to indigenous architecture, Prussin (1974) argues, however, that the domes are indigenous and can be traced to the tent-like structures of the nomadic Fulani. Another notable trace attributed to Islamic architecture was the transition in building techniques from circular to cubic forms using bricks. Such buildings were well integrated into indigenous spatial morphology without ruptures by the exploring socio-cultural conditions, landscape and materiality (Steyn, 2007).

The fusion, therefore, generated new forms that were a continuum of indigenous traditions. This constitutes the second theoretical supposition: the concept of continuity amid change, change through adaptation. This demonstrates that Africans are not inimical to change; Africans accepted change within the milieu of cultural interactions with Arabians in the interest of their physical, environmental, and political needs founded on their core belief systems (Steyn, 2007; Tauxier, 1927). Tauxier (1927) notes, for example, that the development of political systems in precolonial Africa generated a new conception of space. What made this possible was the extension of traditions from the sacred into the political realm. As the ancestors or divinity determined rulership, the development of a political system was therefore tied to beliefs, through the projection of the sacred into the political realm. This permitted the transition from the association of earthen pillars with ancestral lineage to their translation as the heritage of the traditional authority (Tauxier, 1927).

The mediation concept is also common to colonial and immediate postcolonial practices and between colonial and indigenous appropriated spaces. The adaption of colonial styled buildings dried bricks from laterite soils, and burnt bricks, with thatch roofs and, in isolated cases, flat roofs of bamboo from split bamboo (Faculty of Architecture-KNUST, 1978; UNESCO, 1992).
to the local climate in colonial times were instances of mediation (Chang, 2011). The late colonial and immediate postcolonial tropical practice of mediation that looked beyond climate, to integrate the socio-cultural and economic place of practices (d'Auria, 2016), draws from the socio-cultural logics of indigenous architecture in Ghana, and within the limits of Western styled practices (Jackson & Holland, 2014). This approach to mediation is integral to the development of housing schemes in the Volta River Resettlement Program that was premised on occupants lived experiences, while accounting for their comfort needs through appropriate passive responses to the climate (d'Auria, 2016). The late tropical practices also explored landscape and materiality as a mean to mediation. The former United States Embassy building by Harry Weese, for example, relates to the context of using louvred timber façades adopted from coastal vernacular architecture (Bruegmann & Skolnik, 2010).

However, the adaption of colonial strategies within the limits of indigenous practices in colonial times constitutes perhaps the most extensive study on mediation link to postcolonial discourse. This follows Micots' (2015) study, where she argues that the hybridisation of architecture by African colonial elites in Anomabo in Ghana was a form of resistance to colonisation. Micots' (2015) position is founded on Bhabha's (1994/2012) thesis on hybridisation as a form of resistance to dominance. Micots (2015) focusses on the literal translation of hybrids by African colonial elites to advance her position on hybridity. In the phase of its semantic meaning, an emerging concern with Micots' explications on colonial mimicry in architecture is the structure of her narrative that emphasises the dominant presence of European models even though these were appropriations by indigenes. In this regard, the indigenous spaces of mediation appear stunted in her narrative. The focus on colonial African elites further challenges an inclusive view of the theory of hybrids from an African perspective, as it is known that these African elites, in many instances, were more European than they were African (Brukum, 2003). On the contrary, Cassiman (2012) maintains that, through the study of the hybrid architecture among indigenous Kasena settlement in northern Ghana, the mimicry of contemporary architectural practices reflects upon the Kasena traditional notion of development by integration. This position confirms the precolonial indigenous strategy of seamless integration without ruptures that Prussin (1974) situates earlier.

4.2.3 *Modernity as a bridge*

The meaning of modernity tends to impact peoples taste in architecture over the years (Intsiful, 2008). In the context of the discourse on climate and mediation, the positive expression of
modernity (precolonial–1960s) hinged on necessity—integrating climate, materiality and socio-cultures in architectural practice.

Baudrillard (1987) suggest that positive responses to modernity in postcolonial African should emerge from responses to dynamic socio-cultures and human welfare conditions for the conquest of space. In architectural sense, this implies responding to welfare conditions of comfort as well as the socio-cultures that are the basis for the form and spatial planning logics of indigenous settlements.

This chapter therefore seeks to clarify the place of climate, modernity and mediation in twenty-first century responses in Ghana using interviews.

4.3 Interview approach and analysis strategy

Interviews were conducted with a focus on twenty-first century architectural development in Ghana based on the place of climate, modernity and postcolonial mediation in practice. The study considered two categories of interviewees—namely, practising architects and academics. Academic participants were initially selected based on a pre-fieldwork evaluation of publications on architecture in Ghana. While administering interviews, additional participants were drawn up and contacted based on suggestions of potentially useful contributors to the research who did not form part of the pre-field interview list. Distinguished practitioners based on the annual award scheme by the Ghana Institute of Architects (GIA) were contacted and interviewed. The list of practitioners also accounts for regional distribution, which enhances the national outlook of the interview outcomes.

Sixteen participants—consisting of six academics and ten practitioners were interviewed. The transcribed interviews were categorised into data items from T1-T16. The use of pseudonyms ensured the required level of confidentiality was adhered to as a condition of ethics approval.

The interview data was analysed through a thematic-constructionist strategy (see figure 4.2). Thematic Analysis (TA) is a process that involves identifying, analysing, and reporting on themes derived from a data set (Braun & Clarke, 2006). TA is a flexible analytic tool that has a broad-

35 Ethics approval for conducting interviews was granted by the UAHPEC. The protocol number is 017424; approved on 25th August, 2016 and ending on 25th August, 2019.

36 These mainly have an architectural history and theory background and, in few cases, have architectural practices of their own.
based application in most theory building researches (Braun & Clarke, 2006). At the same time, TA is considered inappropriate for rigorous qualitative interview analysis (Roulston, 2001). However, the potential of TA as a rigorous analytic tool is intrinsic to delineating a clear structure of analysis established from the relationship between the research framework and interest (Holloway & Todres, 2003).

Figure 4.2. Interview analysis structure.

The account on the place of climate, modernity, and postcolonial mediation in Ghana, provoked several interrelated narratives and broad themes. It was important in this study to do cross-comparison from the spectrum of interviews, which situated thematic analysis within the purview of the stated objective (see Wiles, Rosenberg, & Kearns, 2005).

Furthermore, the report is driven by the researcher's analytic or theoretical interest founded on the development of architecture in Ghana considering climate, modernity and mediation (precolonial-1960s) vis-à-vis twenty-first century responses. The generation of themes is laden with latent meanings derived from the consideration of the underlying conceptual responses from participants. The development of meaning from the data adopts a constructionist epistemology. The derivation of meaning focuses on how individual experiences and observations of a phenomenon become a socially constructed reality.
4.4 Findings and discussions

Findings and discussions reflect four data sets – namely, the place of climate, modernity, and architectural mediation in twenty-first century practices, as well as the challenges and recommendations towards positive practices in the twenty-first century.

4.4.1 The place of climate in twenty-first century practice

The local climatic context has implications for positive practice. Yet, evidence indicates there has been limited or no conscious examples of appropriate passive responses to the climate in Ghana in recent times. Participants' views on the climate and practice are dissected at three levels – namely, the context of the climate of Ghana, implications for practice and the challenges to positive climate responses. The three-level structure shown in figure 4.3 reflects the summarised interview data accordingly.

The most commonly discussed theme in the indigenous architectures of Ghana is the peculiar response to the humid and hot dry climates (Prussin, 1969). The climate is also pivotal to the inception of the modern architecture of Ghana (Kultermann, 1969) that demonstrates unique responses between the humid and hot dry zones (Balaara, Haarhoff & Alessandro, 2018). So critical is the climate that it forms one of the three pillars around which the training of architects in the premier School of Architecture at the Kwame Nkrumah University of Science and Technology (KNUST) is based. According to accounts by one participant, "If you look at the ethos of architecture, we have here in the KNUST School of Architecture the three Cs: climate, culture, and construction' (T1, personal communication, October 11, 2016).

37 The climate is pivotal in the education of architects in Ghana. However, there is a disconnection between practice and training. Particularly, there is disregard of the climate in practice in terms of the general and the specific. The outcomes are the physical manifestations of climate insensitive architecture. The development of climate insensitive architecture is the result of a lack of understanding of climate change issues and the role of the built environment, the consequences of clients' taste, lack of reference standards, limitations in technology, and the absence of an operational national framework on the built environment. As a first principle strategy alongside the institutionalisation of a policy framework, participants suggested a reconsideration of vernacular techniques as a primary step towards climate sensitive practices and contemporary practices.
Yet, design to suit the microclimates of Ghana has been challenging in recent times. Interview participants indicated that intra-regional architectural responses in Ghana overlook the climate. The views of participants consequently merge as suggested in the following interview extracts:
Ghana is divided into three main climatic zones. The hot dry Savannah, the hot humid and the Coastal Savannah. The Coastal Savannah is close in climatic conditions to the warm humid so basically, we talk of the South and North. With these in mind, climatic context is essential even in Ghana. It is not acceptable to put a glass building in the North where temperatures at times are up to 40 degrees, (T1, personal communication, October 11, 2016)

I stood on the first floor of the University for Development Studies Tamale and the Vice Chancellor invited me to interview candidates for appointment of Director of Development and I was there for some time. When you stand there, the glare from the sky causes so much discomfort and when you are near, the radiated heat from the ground, it’s so intense, so why do we have large window? It is terribly uncomfortable. My verandah here will not be suitable in Tamale or Bolgatanga because of the heat from the sky; it is so unbearable that you must find ways or plant around it if you want comfort […] The Max Bond project, for example, is very appropriate for the climate there. Why would you have large glass openings there? (T12, personal communication, November 1, 2016)

The reality is that the development of climate insensitive practices and several factors are adduced. For example, it was suggested in the interviews that many practitioners are not abreast with issues of climate change and its impact on society. Thus, evidence gathered also indicates climate change seems a loose concept used by everyone but with no commitment in actual practice, as suggested by participant T5 below:

It is against this background that you are seeing very few projects responding to climate and climate change. I have been involved in advocating for energy efficient buildings and green buildings over the past seven years in Ghana and I can tell you that when I started the advocacy, it was news even to professionals. Some did not even know what it was about, so, if they did not know, how will they design it? (T5, personal communication, November 21, 2016)

Further, interview responses recounted that architects in Ghana are constrained by the lack of climate specific standards as a guide to design. It is suggested, therefore, that institutions like the Building and Road Research Institute (BRI) must rise and fill this gap. The following interview extract from participant T4 confirms these aspects:

I feel our research base is very weak. We talk about these things, what is the ideal overhang/length in different latitudes in this country for shading? We are all guessing. We try a few and hence we are not confident. We need to pick a reference made for Ghana. […] The world is getting hotter and any architecture or practice that is going to be carried over has got to be sensitive to these things and so we need thoughtful leaders to revive within the concepts of design styles, technology, materials, or building modelling systems that goes with managing the heat controls. I have tried, for instance, how to build cooler concrete slabs. But it is dangerous to experiment as a professional because you can harm clients and therefore your reputation. So, you go to these companies, some insulation materials, and they have very little idea of the science of it, it is just selling product. I wish the BRI or somebody will step in and close that gap, ventilation requirements,
sizing your openings, etc. I think that it is not fair to let the clients suffer the experimentation. (T4, personal communication, October 14, 2016)

However, it seems, the extensive climatic studies on the tropical climate by individuals (see for example, Drew & Fry, 1964; Koenigsberger, 1974; Langer, 1944) and colonial establishments such as the Public Works Department, Building Research Station and the Commonwealth Experimental Building stations cross British colonies, have not been relied upon to impact positively on climate response today.

The other challenge mentioned by participants emanates from the negotiations between clients' taste and the architects' professional training. Evidence from the accounts indicates that designers generally do not approach practice from first principles, which consider orientation and material choices in the context of the climate. For some participants, the perceived lack of a climate-literate client base to drive positive development complements the weaknesses of architectural designs in Ghana:

I think that people don't just know. Wind direction, how do I turn such that the most openings are in the shaded side in the north or south or where there is little incidence of the sun? So, they just make basic mistakes from the beginning, just not knowing. We now have great nice windows, double glazed and so on but we have no power. And most of the time it turns out that louvres would have been better. And things like that. So, you must really think what the building is supposed to do, is it a residential building or not? Residence buildings I often prefer more louvres than this full glazing stuff because of air-conditioning which has become the norm. It's like we are just looking at what's in Europe, seeing some pictures there and want it here and it doesn't work for us. It's like finding an easy way to do things, I don't know. (T8, personal communication, January 26, 2017)

The first challenge is, when you have a group of people whose priority is not about climate, their priority is not climate. The guy wants a house he can live in and then you are worried about carbon foot prints and all that, it becomes a challenge. The second one has to do with the inability to sustain the interest in pursuing climate sensitive designs. When your clientele is not interested, even though you may be passionate about, you must be real. For instance, you can say I want to design using eco-friendly techniques, but your clients' do not want eco-friendly designs because of the funding implications. So, the reality is that you may not be able to sustain that interest, it would just be on paper that you are keen about it. (T6, personal communication, October 21, 2016)

Unfortunately, what is seen in places like Accra and Kumasi tends to expose the tangents, architecture as a nation is going. There are too many glass facades in our city centres, too many buildings with full glass facades not just partly glassed but full. And most often the building orientation is very poor. (T6, personal communication, October 21, 2016)

The challenge, therefore, to a climate sensitive practice from the perspective of select participants is the lack of an operational national policy on architecture that responds directly to
concerns of climate change and, as indicated above, initial funding and cost. The Green Building Council is still in first gear and its impact will take time to realise. Participant T5 made this clear:

\[\text{[I]}\text{t took the government a longer time even though they had signed onto the climate change accord. The government had only prepared scoping reports for the green economy for Ghana and this scoping report was prepared. I think they started talks from 2003 and it has taken them a longer time to understand what they are doing. So, I should say it has now taken off so with time we will see because people are now becoming more sensitive to the environment and talking about green buildings, but practice remains key [...]. Apart from the scoping report as part of the long-term development plan, they are doing the National Infrastructure Plan and as part of the infrastructure plan there was some element on green economic development of which I’m doing the green economic development but there are other reports [...] the Ghana Green Building Council is developing it’s written tool which is specific to Ghana and it will come out very soon. (T5, personal communication, November 21, 2016)}\]

The other major threat to a climate sensitive practice perceived from the interview accounts is the lack of local industry to support positive developments. Besides the first principles of climate-driven design, other technologically driven strategies support green practices. The drive for this is limited by what technology offers in the built environment in Ghana, as suggested by participant T6 in the account below:

\[\text{The other challenge has to do with lack of industry for us here. It is a developing country, so if industries were well developed, practice of architecture with regards to climate will be much easier. […] We need to go into technology. Technology will advance climate-driven architecture. We also need to find new ways of approaching corporate projects with that incorporation of climate-driven techniques. (T6, personal communication, October 21, 2016)}\]

In view of the challenges, interview participants recommended the return to basic principles derived from the knowledge of vernacular responses to climate across the distinct regions of Ghana. These are mostly overlooked in the search for climate sensitive solutions in architecture. The misguided notion of modernity that tends to undermine vernacular practices, also critically challenges the drive towards climate sensitive practices in Ghana. This was strongly echoed by most interview participants as illustrated below:

\[\text{Recent times so much is being said about climate change and architecture. To me, the vernacular architectural principles if adapted and employed well in respect to building design, they can accommodate whichever impact climate change will bring in. I have personally done some analysis, climatic data 30 years and all that. It is not significant, but then if you translate into say energy use, that is when you begin to appreciate it, energy use in terms of air conditioning and all that. A well thought through building employing vernacular principles will even eliminate the need for these mechanical systems that draw the energy. If you look at the difference, to me its marginal, therefore, with the vernacular principle. It should be able to withstand and maintain an acceptable level of indoor condition, mainly thermal, for we to be able to eliminate}\]

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the need for mechanical systems. But once it is not followed in that notion of modernity, you put in elements that become a huge challenge that we need a mechanical system. That is when the energy consumption becomes appreciable. So, it easily kind of links with the climate change, but if we should adopt what the vernacular theory presents, I think there will be minimal need for these mechanical systems. But climate change is been there for centuries. It is only recent time that we are monitoring. And some of these vernacular buildings have been there close to a century or more and they still perform. (T7, personal communication, October 24, 2016)

According to some participants, technology is a complement to vernacular knowledge. This should begin with a national and professional orientation towards climate sensitive practices. A climate-literate society would them mean that clients’ taste in architecture was focused in a positive way with architects acting as mediators. According to participant T3,

I see a building in Zimbabwe, a shopping mall by Mick Pearce, designed without air condition but was very conducive. Because, he used some channels and flow of water. That building can be compared to the Commerzbank building in Germany. I am saying this because we can do it here. For example, when we have the dumsor, people could not stay in the office. Our buildings were unconducive because the design is like glass boxes. The buildings were designed to rely on only air condition. That's not a good design. (T3, personal communication, October 31, 2016).

4.4.2 The place of mediation in twenty-first century practice

The postcolonial period, and architectural practice in Ghana is characterised by the conundrum of modernity and traditions (Gyekye, 1977). At the intersection of these conflicts is the inevitable, at times natural, process of hybridisation. This need for mediation has a place in contemporary society in Ghana and in a world of transnational practice, it is a global concern. This section presents structured discourse on the notion and place of hybridisation/ mediation in twenty-first century architectural practice.

4.4.2.1 The knowledge and appropriation of hybrids in postcolonial practice

The postcolonial space advances the concept of hybridity as the in-between space mediating plural cultures. In the context of Ghana, there are many perspectives to this that emanate from precolonial intra-African contacts, through to the era of direct contact with Europeans and the

38 Dumsor is the local Ghanaian term for erratic power supply. Literally, it means erratic electricity supply.
complex and dynamic interactive space that has come to define the postcolonial eras. From the interview accounts summarised in figure 4.4, there are two main positions – namely, the worldview\textsuperscript{39} perspective and the political\textsuperscript{40} praxis perspective, which characterise the scope and context of hybridisation. These views emerged mostly from colonial times but retain similar connotation in the twenty-first century. Where these notions stand considering twenty-first century appropriation of hybridised architecture is a matter of interest. In summary, however, as indicated in figure 4.4, the notion of hybridisation, according to the interviews, is that concrete or direct architectural homogenization is semantic. The abstraction/ intellectualisation\textsuperscript{41} of hybridisation constitutes the future possibility that is largely overlooked in practice.

\subsection*{4.4.2.2 Worldview phenomenon and political context}

Participants generally agreed that hybridity is a global concept underpinned by cultural conditions as wells of necessity and do not reflect notions of resistance. According to participants T1 and T3,

\begin{quote}
It is a worldview phenomenon [...], which is underpinned by Pierre Bourdieu's theory of habitus and cultural capitals (T1, personal communication, October 11, 2016).
\end{quote}

\begin{quote}
Some people want to show they have arrived, keeping up with the Jones' and others out of necessity. [...] We did not know nails but now we use it because it's easier, better and stronger. It boils down to what is available currently and how useful it is in many respects. (T3, personal communication, October 31, 2016)
\end{quote}

\textsuperscript{39} A worldview phenomenon constitutes a single narrative on the role of cultural capital in the appropriation of architecture in all societies of the world. In the context of colonial architecture in Ghana, some participants suggested that the indigenous appropriation of European built forms was the consequence of economic, social, and political leanings. These tendencies persist today. Participant T1 (personal communication, October 11, 2016) indicated that such appropriation is an embedded cultural phenomenon and these collective expositions are underpinned by Pierre Bourdieu's cultural capital and habitus thesis. See Bourdieu (2011).

\textsuperscript{40} In contrast to a worldview phenomenon is the politically compelling narratives on hybridised architecture, especially colonial architecture. This forms the liberating stance of the coloniser and the grand agenda of systematic cultural infiltration beginning with their colonial allies as a way of introducing Western practices as a predetermined standard for enhancing the primitive built forms of their colonial other.

\textsuperscript{41} Evidence of hybrids in current practices is largely semantic. The negative homogenization tendencies therefore sharply contrast the intellectualisation of hybridised practices. The intellectualisation of hybrids represents the future place of hybrid development in postcolonial Ghana, which should be largely interstitial according to some participants.
In contrast, some interview accounts emphasised the political impact of colonisation and architectural hybridity. These accounts suggest a systematic strategy of indoctrination by the colonial master with its attendant impacts. Cultural contact engenders cultural change. However, the hybridised architectures of coastal regions of Ghana, which were mostly owned by merchants and offspring of the colonial master, for example, were highlighted to demonstrate this process of strategic acculturation. The actions of these Europeanised indigenes as associates and go-betweener between Europeans and the locals were instrumental in the process and realisation of colonisation in Ghana. They also benefited immensely with their hybrid housing as examples. According to participant T3,

"It is common to say that the West should pay reparation to Africa due to the slave trade. When you look at it critically, our own people contributed to it. Hardy did the Whites ever go to the bush to catch slaves. The Ashanti Empire, for example, was particularly notorious for going into war and capturing people. They even have a saying in Akan that if you don't know your worth, someone will catch and sell you for a price he thinks is your worth. It is ironic that with all the condemnation by people who felt they had a right, they wanted to express their built forms in the same style as that of the slave master that they condemned. Of course, at
that time, I don’t think those who built houses in that manner condemned slavery or the slave trade because
they benefitted a lot. If you go to Elmina, the houses near the castles were built for offspring of women who
had children with the Whites. Because these children could not be allowed to live in the castle, they wanted
them to be as close as possible to the castle. There is a recent policy to restore such buildings. The imperialist
always believed that the European way of life is the best. (T3, personal communication, October 31, 2016)

4.4.2.3 The nature and forms of hybrids in twenty-first century practice

According to the respondents, there are no good examples of hybrid architecture in Ghana,
although it is still worth a discussion with reference to the postcolonial era. It is not a matter of
simply choosing or elemental borrowing. For example, it has been noted in some accounts that
the quest to hybridise has generated negative responses in the built environment in Ghana today
with the imprudent development of glass boxes without recourse to the climate and this
engenders a lack of regional identity. Instead, the kind of hybrids that are needed emanate from
a conscious effort, looking at what pertains in the environment and bringing them to bear as
equal partners, perhaps superior partners, in the space of architecture. While the postcolonial
space demands contextualised responses, in Ghana, the emphasis is mostly on edifies inspired
by virtual contact through the internet. Thus, one interview participant suggested that the most
obvious spaces for the localisation of architecture in the Ghanaian context exists in the spaces
between buildings where nature and humanity engage. However, this requires detailed research
to bring it to life. Accordingly, therefore, design should be research led as the surest way to locate
contextualised narratives in architecture in Ghana. Participant T2 focused on the nature of such
narratives as follows:

I am deeply immersed in Jamestown. I sit here and watch the people, watch opportunities, watch the rhythm
of the old city, listen to the heart beat of its people and then you induct them into it. Who would have thought
that we could have something like this in the heart of Ussher Town where people like these gather to eat
kelewelle. It used to happen post-independence but not anymore. We don’t need science as we know it in
the West for us to interpret findings. That is my point about the narratives and mythologies and the folklore,
which really is the intuitive part of this dialogue that the West rejects. (T2, personal communication, January
09, 2017)

One of the ways to achieve this, according to Rapoport and El Sayegh (2005), is the effective
translation of culture. Thus, the place of culture and its translation in architecture and hybridity
discourse was considered during interview sessions.
4.4.2.3  **Culture and its place in architecture today**

The translation of culture in practice is important to the latent positivist meaning ascribed to hybridisation in architecture (King, 1990b). Much more than symbolic representation, cultural production in architecture is located by observing the living and activity patterns of the society, which is often connected to the cosmos (Hernandez, 2009). It resides in the myths and folklore that are fundamental traditions of African society (Oppong & Solomon-Ayeh, 2014). Therefore, according to interview participants, the translation of culture in contemporary practice relates much more to planning than to anything else, a position that conforms with late tropical developmental planning approach pioneer in Ghana especially by Drew and Fry (Jackson & Holland, 2014). For example, participant T12 observed that,

Culture you see has more to do with planning than anything else because of our climate and our way of living. I always tell my students that when you go to a house, let’s say in the village, and you see somebody in the room in the afternoon then the person is not well. Rooms are meant for sleeping in and that is why we use the courtyards and the verandas extensively. Now with the modern living in the cities you have your sitting room, now there is a lot of noise, which we are disadvantaged by. But we are noisy by nature, so it does not worry anybody. So, when you are designing for us, you have got to bear this in mind that is why we always have verandas and courtyards, but they are very expensive. I always told my students a six-foot verandah is not a veranda because you cannot live there. You see, you have to make it a room that will have walls, so you can use it as a sitting room and you will use it most of the time. But if it is only a small veranda, nobody sits there. So, as I said, when you see anybody in the room in the day time then he/ she is not well. If he is well, he is out there most of the time under a tree or on the veranda or in the courtyard and even women in my village or in towns they use the sun to start cooking. It is very interesting and because of the smoke most of the cooking is done in the courtyards. A typical traditional kitchen has no front wall, it is just a low balustrade, but the rest is open, and it functions well. This is our living and then also the courtyards and verandas were also for naming ceremonies, funerals, community meets, family gatherings, and elders discuss issues very often on the veranda or courtyards, and our rooms are not very large consequently. (T12, personal communication, November 1, 2016)

Nonetheless, participants acknowledged that the representation of culture in architecture as literal symbolism in Ghana is artistically visible yet intellectually bankrupt. For example, the following participant responses emphasise these dimensions:

For example, a building that was commissioned, the Universal Merchant Bank, is there and they advertised that it is a space shuttle. It is literal symbolism. […] Well, I also use the word concept but interestingly several people here do not even seem to understand what concept means. They think concept is equal to symbolism; you design something for Cape Coast, the symbol of Cape Coast is the crab, so you have to use the crab that is symbolism. It has been used by some people in architecture but then when you consider the site, the design brief, materials available, and all those things, that symbol may change, and it does not have to be literal symbolism as some people try to do. (T3, personal communication, October 31, 2016)
There are a few architects who did well, but others tried, and they said I want to design a building to look like a crocodile. Is that modernism? So, I said, at what height would you appreciate the shape of a crocodile and turn it into a building? Is it when it is about to swallow you or is it the shape? That’s symbolism. (T14, personal communication, October 25, 2016)

However, symbolism is not entirely bankrupt as an approach to integrating cultural art forms. An appropriate and coherent development of patterns based on art forms in architecture tends to convey a psychological sense of placeness that retains a positive place in the process of mediation. Drew and Fry use of Adinkra symbols of the Ashanti’s as patterns for screen walls and balustrade designs for the School Projects in Ghana (Liscombe, 2006) demonstrates the place of culture through art in contemporary practice.

4.4.2.4 Modern architecture as a form of hybrid practice in Ghana

The discussion on climate, modernity, and architecture in postcolonial Ghana will seem incomplete without a focus on modern architecture. Within the postcolonial period, ranging from the 1940s-1970s, modernism was the most consistent form of practice among architects in Ghana (Stanek, 2015). With parallel developments also taking place global, modernism was arguably the dominant practice in new territories and third world societies post World War II (Lu, 2011). The modernism practiced in Ghana often relied upon knowledge concepts from the vernacular and the climate for developing hybrid responses (Le Roux, 2004b). This, however, depended on the architect and the nature of their commission (Balaara, Haarhoff & Alessandro, 2018). While modernism demised in the 1970s, the return of modernism is apparent in recent times associated with a new younger generation of Ghanaian architects. For these reasons, participants’ views were sought on the context of the modernist renaissance today and its association with the principles of the modern architecture of old (1940-1970) in Ghana. Interviews revealed the disconnection between the intellectual side of modernism and its literal interpretation, which has since caught up with practices that are more recent. Figure 4.5 is a

42 Figure 4.5 contextualises the interview discourse on modern architecture in Ghana. Interview accounts suggest a contestation in interpretation between recent practitioners and their older counterparts, between academics and practising architects. The non-existence of a sound philosophical underpinning stands in contrast to views that situate modern architecture as the localisation of global modernism. The perception of the demise of modernism in the 1970s also courted two contrasting views amongst participants. Some participants felt that modernism had failed because of practical concerns of leakages, which followed a transformation of roofscape from flat concrete roofing to exposed long span pitch roofs. In contrast, other participants intimated such an exposition is bankrupt because modernism
summary of interview outcomes from the discussion on modern architecture in Ghana. This is followed by a discussion on various aspects of figure 4.5.

Figure 4.5. Thematic map showing the emerging issues expressed in interview accounts related to the context of modern architecture in architectural discourse and practice in Ghana.

Two contested positions on the contextualisation of modernism in Ghanaian architecture emerged from the interview accounts. For example, participant T1 observed that there is no philosophical foundation for Ghana's modernism, despite being the base of the structure of the School of Architecture at KNUST:

[if you go back into history, you notice that the idea was to train architects to design houses or buildings. So, there was no strong or a very definite philosophical direction for this school, that we are a tropical school never dies for serious practices. For them, the boundaries of modernism extend beyond confines of a style characterised by the geometrical fine lines. Modernist practitioners are constantly revisiting and engaging the deep structure principles of modernism. A modernist renaissance characterised by a narrow reflection on modernism is common, especially among recent practitioners. Emerging from these confictions, the place of modern architecture today stands to be questioned in terms of its positive practices.}
and we are producing architects as such. I chanced on a document in the British Archives, you know we are doing some research on tropical West Africa, it's a British Academy award and I was trying to trace, which I am working on a paper very soon, why as a School we are in what we are. We cannot say that this School (KNUST) is a tropical School training architects to produce climate responsive architecture. At the time there was the need for housing and because it was expensive to bring architects here, they felt that setting up this school to train architects which more or less became the bastion for 'glorified draughtsmen', just drawing and producing buildings. So, it was more of solving a technical need in terms of human resource for architectural production than having a philosophical foundation for the training of architects. (T1, personal communication, October 11, 2016)

Related to the former, it emerged that the failure of modernism to affect the development of vernacular architecture in its most primitive form, undermines its place as the localisation of modernity. Further, its relevance in addressing the larger societal needs in architecture appear absent. For example, participant T1 noted that "modernism at the time should have focused on the materiality as well as the social need at the time" (T1, personal communication, October 11, 2016).

Others suggested that the endurance of modernism is the direct result of importation of the curriculum from the Architecture Association (AA) in London, and more broadly the modern architecture of Europe into Ghana, which advances a distant view between modernism and the local context. For example, participant T3 observed that, during that time, modernism was in vogue, "Everything was brought down hook, nail, and sinker to the department" (T3, personal communication, October 31, 2016).

Over time, with a conscious study of the vernacular, it was acknowledged by some participants that modernism revolutionised, to some extent, the localisation of internationalism in Ghana. According to them, the introduction of new courses in the curriculum at KNUST, such as West African Studies, ushered in a new era of modernist thinking in Ghana. Earlier in this chapter, it has been noted that most architects who attended the KNUST School of Architecture in the early days were trained to design as modernists, especially as a style. But for some participants, the question of a style was the antithesis to the survival of modernism. According to participant T2,

The style is the problem, that word style is what has killed contemporary modernist architecture. Everybody is teaching style, what is style? What does style really mean based on what? If it's a style based on an understanding of the abstract relation between the loom weaving kente and the final product and a style emanates out of that, at least it's a home-grown style. But it's not based on imagery and symbolism. And that difference in architecture is pastiche. It is only face deep, what happens on the scene has nothing to do with what happens inside. And that is my explanation of the architecture we have today. (T2, personal communication, January 09, 2017)
In this regard, few participants acknowledged that modernism in Ghana was something more than a style. The appropriation of modernism in Ghana and other tropical regions is distinct in many respects and emanates at times from vernacular knowledge (Jackson & Holland, 2014). Participants advanced the place of vernacular knowledge as the base for the development of techno-scientific, contemporary tropical architectural practices in Ghana. For example,

Jane Drew and Maxwell Fry when they came to Ghana after graduating in the UK, they experimented with so many things that became known or formalised as tropical architecture. They never formally studied anything like tropical architecture in the UK, despite being regarded as pioneers. Their strategies deployed at Opoku Ware, Prempeh College, Bechem Training College, the University of Ibadan has connections to vernacular strategies. Their buildings were known for these prefabricated blocks to allow through breeze (T3, personal communication, October 31, 2016).

Modern architecture is underestimated. People's appreciation of what constitutes modernism is mostly lost. Frank Lloyd Wright, for example, appropriated modernism with a clear sense of climate, so his form of modernism is more organic. But I look around and people want to do modern houses and immediately they think of the basics of flat concrete roofing or building form. Essentially, I disagree. (T9, personal communication, November 01, 2016)

Notwithstanding, there was a consensus among participants interviewed that the 1970s marked the end/ death of modernism in Ghana. The death of modernism, according to these accounts, was occasioned by the practical concerns of building leakages:

Most of the buildings that were done with concrete roofing were reroofed since they leaked badly. It could be used to justify that the modernist approach of the flat roof did not work here. (T3, personal communication, October 31, 2016)

When we started the estate at ACP, basically they wanted to start a roof tile as well and the question was will people accept the pitch roof again because it looks colonial. But there were so many leaking flat roofs from the Corbusier style ones of the 60s that it was not difficult to convince people and so we moved away from it. Technologically, our people are not good at the crafts that handle water in construction and you have got to have a different sense about it if you are going to go modernist in those styles and the detailing needed to maintain it. So, it is not easy to do. (T4, personal communication, October 14, 2016)

There was poor detailing, construction wise. The buildings became a huge challenge to maintain after 30-40 years, coupled with the poor maintenance regime in the country. The appropriation of these modernist styled structures as hybrids, however, caught up with the informal building sector in Ghana in the form of parapet and concealment of traditionally exposed roofs. These are also poorly detailed and most leak profusely. (T7, personal communication, October 24, 2016)
For other participants, modernism never truly ended in Ghana. However, the notion of its demise is shared by those who do not appreciate the theory of modernism that maintains that serious practitioners are revisiting modernist intervention strategies beyond the idea of a style, and responding to the specific concerns of social, energy, and climatic needs that modernism previously addressed. To some participants these needs are today even greater than when modernism was first introduced and promoted. Participant T12 expressed this:

It hasn't come to an end. In fact, if anything we have the Akan proverb Sankofa, which means go back for it and it's happening for serious practices. All these principles initiated by Leonardo da Vinci, Michelangelo, and all the great architects and artists, proportion is the same. If you go to Mies Van der Rohe and Frank Lloyd Wright buildings, you can't say they are out of date at all. A human being's life, the only thing is when you are lazy you say it's all air-condition but if you want to design seriously, how many of our population can live in an air condition space even if you can afford it? My wife doesn't like air-conditioning. I designed Manhyia Palace for Nana Opokuware and he said I don't like air conditioning. So, it is not everybody who can live in an air-conditioned environment. Even when I went to America and all the houses were air conditioned, I sometimes said Yaw, I miss the breeze outside. It is the ability to design for the tropics and it's very difficult to design for the tropics. (T12, personal communication, November 1, 2016)

Thus, participants suggested that the demise of modernism is the failure to carry forward the intellectual side of modernism into the twenty-first and twenty-second centuries. According to participant T2,

There was not really a rejection of the modernist. However, because we did not research this properly and then create hybrids out of this, we were in the 70s under siege globally by what they called the post-modernist movement. The postmodernist movement was anti international style. In London, New York, there were all these arches referencing historicism. It was reactionary, but the international style was seen as an intellectual kind of architecture. Countries like the Brazil of Oscar Niemeyer took the international style and made it Brazilian. If you see those buildings in Brazil, they could only exist in Brazil. But in Africa, Ghana, we never took that next step to buffer the postmodernist style, so postmodernism took control of us. So, all the buildings that you see from the 70s, 80s with the arches and all is a direct influence of postmodernism and now there is what I will call not post but intra-modernist movement because we are copying all these things that you see in magazines. It's like a series of backtracking to create architecture which is populist. I will say populism is not bad in architecture as the Cubans did, but it must be backed by integrity, honesty, and context. But that is not what we are doing. Look at these glass towers in the Airport City, all over the city, all those tall buildings, that's the effect of postmodernism at its best. (T2, personal communication, January 09, 2017)

The world had the same post Second World War contemporary [...] buildings like the children's library in Ghana; you had similar buildings everywhere in the world depending on the colonial influence. The French had their version, the English, Belgians, and so forth. You find these similar buildings which became known as the tropical architecture because what they did successfully was they contextualised it so well for us. The KNUST is a classic case of beautiful architecture, buildings that work with our climate. What did not happen
in West Africa but for which the Cubans did so well was, you inherit something. What do you do with it, you evolve that with your own influence to make it specially yours. That's why you travel across Africa. There is no building you see and go like, wow, this is about Africa or buildings that spiritually speak to you. Kwame Nkrumah took architecture to a whole new level with the realisation of these classic modernist buildings. But he was also strategic, so he created the Building and Road Research Institute where the materials were supposed to influence the architecture. But after him everything collapsed, so there was no fusion of local materials and design. But the Cubans did the complete opposite. I was in Cuba and I saw the Music School. A Young Fidel Castro and Che Guevara decide that the revolution had to have physicality. It is one thing talking socialism, it had to be represented physically where people can interact. They put together great young architects in Cuba and from Spain and they began to design buildings that spoke of the revolution and the famous one of them is the Music School in Havana made of bricks, arches and the bricks are self-supporting. It's amazing, they went back to their roots and created a language that spoke of the revolution and books have been written about these buildings to date. (T2, personal communication, January 09, 2017)

At the intersection of the practical estimation of the demise of modernism and a counter rationalisation, is the divide that occasions a modernist renaissance mostly between the older and younger generation of architects. It is noted that modernism has caught up with mostly the younger generation; however, the concern for most interview participants was whether they understood the essence of modernism. For some interview participants, modernism is especially defined using concealed/ flat roofs and this is its undoing. However, the socio-cultural inclusiveness pioneered through developmental planning and responses to the climate should be explored more. According to participant T4,

I hear people talking about modernist renaissance more recently, but for instance we left the modernist style and a lot of people followed us. In the last ten years, people have started doing the modernist brutally around town. I expect a rain to start, hearing the same complaints cropping up again because they have not solved the technology. […] And the aspect of climate too more or less suppressed I believe in these so-called modernist renaissance practice. (T4, personal communication, October 14, 2016)

4.4.3 The place of modernity in twenty-first century practice

The responses of participants suggest instances of a narrowed notion of modernity with reflections in architectural responses. Thus, in figure 4.6, interviewed participants indicated the need for rethinking the scope and responses to modernity in the twenty-first century following the diagnoses of many instances of misconception. Particularly, it became evident from these accounts that the understanding of modernity as anything new and fashionable manifesting in the form of the unguided use of perceived new materials is a major challenge to positive development, especially in passive climate practices. The responses to architecture in this
manner are indicated to be a psychological expression of status within the society. The mass media and internet act as agents of these realities.

Figure 4.6. Thematic map showing the emerging issues expressed in interview accounts related to the conception of modernity and its physical manifestation in Ghanaian architecture.

43 Figure 4.6 traces the consequences of a constrained notion of modernity through its physical manifestations in architecture in Ghana. First, there is the general misconception of the modern founded on that which is fashionable or in vogue without any specific and intellectually engaging critique. This personifies philosophical misinterpretation, which has largely constituted the framework from which modernity is viewed between cultures. In the Ghanaian context, much as it is habitual and cultural, the Ghanaian always seeks to engage the current as a symbol of progress,
In contrast, responses from academics advanced that the fundamental relevance of all forms of modernity must be the attempt to address specific societal concerns. These needs are limited across regions by context, culture, and the climate. For example, participant T1 acknowledged that,

The philosophical dimension or the conceptual understanding of modernity is different from how we use it today. If you dig into the history of modern architecture, the proponents being Le Corbusier, Walter Gropius, and the others, it was basically an attempt at solving societal needs or concerns…modernity was not necessarily about fashion or style, it was more about addressing present conditions for the good of humanity. (T1, personal communication, October 11, 2016)

Thus, according to them, the expression of modernity today largely demonstrated materially with the extensive use of glass and alucobond\textsuperscript{44}, and the superficial use of columns for aesthetic needs, is an affront to the conception of modernity as addressing specific societal needs or concerns. The conception of modernity defined by its material nature is not concept driven but reinforces the idea of elemental borrowing to which participants were opposed. Many participants alluded to this assertion as the mainstay of a sinking postcolonial practice in Ghana in general:

We define modernity as anything new, anything that we haven't seen or is different from what we use to build as modern and this plays into our notion of the modern in the built environment (T1, personal communication, October 11, 2016).

The use of glass and alucobond is just off track, it is just done because that is how modern styles happen. I admit that there are technological breakthroughs in glass, particularly how to use it without the limitations of our previous design approaches. There is glass that can cut heat tremendously and you do not need to be afraid to put it out without shelter or shade, but it is expensive. (T4, personal communication, October 14, 2016)

affluence, and stature. It is fundamentally psychological founded on the permanent belief that everything good comes from the West without ever seeking to question the appropriateness to the local context. The reduction of cultural contact through mediums such as the internet and the mass media exacerbate the negative physical manifestations of modernity in architecture in Ghana. Architectures are mainly material based with a rather incongruous use of new materials such as glass and alucobond and the superfluous addition of columns as defining elements of current practices. These reflect the second and practical manifestation of modernity following the theoretical. Participants' views sought to merge in the third, which focuses on charting a new direction for architectural practice and responses to modernity. Under the circumstances, participants suggested a rethinking of modernity as a means to re-evaluating its place in contemporary architectural practice.

\textsuperscript{44} Brand name for aluminium cladding system
The other thing I see is the extensive use of glass without thinking about how best they can use the climatic conditions to design and specify the glass. Some are dictated by the client. (T5, personal communication, November 21, 2016)

The major role glass plays in the north is in windows and that has been the biggest so-called modern challenge because people come to ask for designs and they insist that they want glassed windows, then you ask them, why do you want glassed windows? They would say we are running away from louvre blades, so I also want to be part. I want my house to be modern. (T6, personal communication, October 21, 2016)

Somebody was telling me that if any young man had done the Bank of Ghana building in Kumasi, he would have put columns outside. […] I think structurally the face of the Ghanaian architect, especially the ones in Kumasi, there are too many columns, look at Movenpick in Accra or look at Golden Tulip in Accra and Golden Tulip in Kumasi. The Golden Tulip in Kumasi was designed by a professor at the university, Prof. Christian. We were there when they laid the foundation, there were no columns, beautiful building. Even when they remodelled it. So now, when a Ghanaian was asked to do the out-house at the Kumasi Novotel, you see the structure he has put up there. […] I wouldn't mention his name, he was asked to do an extension and he messed it up, but the actual core of the building is beautiful. So, the modern face of architecture in Ghana is not the same standard as before. (T14, personal communication, October 25, 2016)

The development of architecture in this manner is the outcome of a number of factors including intra and international influences. Much as it is psychological, according to participants' views, it also has embedded social, cultural, and economic underlays. According to some advances, the psychological dimension resides in the notion that all good things come from the West. According to participant T8,

We are aspiring to be like the Europeans. We see a glass house in Europe and we like it, glass is trendy, in vogue, so we must also have glass houses here. As our taste originates from there, it inhabits our responses to our climate. It goes back to the client's taste. There are instances where we used glass with provisions for shading but by the time the client had finished construction, that was conspicuously missing, saying the contractor advised actually we don't need that because it involves the use of more money. (T8, personal communication, January 26, 2017)

However, semblances of this psychological dimension exist between the urban and rural contacts in Ghana. Interviewed participants also regarded these psychological aspects as being typical of urban dwellers with roots in rural communities, as indicated by participant T4:

Clients who come from the village into the city do not want plants around their building, you will find it interesting. It is psychologically, taking them back to the forest. They want environments in which there is concrete everywhere, so they want you to concrete the yard and you have two trees or no trees at all. The escape from the poverty and low development of rural areas has an impact on people wanting to copy modernism without understanding the issues involved. (T4, personal communication, October 14, 2016)
In addition, participants indicated that the misapplication of modernity in architectural responses is a status symbol with social and economic significance at the community level. It is also a statement of capitalism, wealth, and economic growth in the city and urban context. Thus, these accounts suggest that the style and architecture of commercial high-rises in cities in particular, such as Kumasi and Accra, are expressions of capitalist imagining. According to participants T1 and T2,

Architecture has a lot to do with civilisation. There is a saying that if you want to appreciate a nation's civilisation or how far a nation had developed look at its architecture […] it is to demonstrate wealth or capitalism. If you look at the Accra Airport City, there is a concept; it is a known international hub for businesses, so you want to do an architecture that will attract these businesses. So perhaps what could they have done better in terms of climate? (T1, personal communication, October 11, 2016)

Regarding the Airport City, the audience is the international investor who sees these glass boxes as a sign of progress and, in that regard, they have been successful because it gives us this apparent sense of modernity and progress. Of course, these foreigners don’t care about culture, so superficially it works. On the flip side you have the masses who think this is wonderful architecture too. We do not have the innate love of self, of culture, identity. What is needed here is training and mentorship. So, we must be in a space where we can help young people to get that kind of training no matter where it is. We do not leave it to the schools; mentorship is a big part of what we must do. (T2, personal communication, January 09, 2017)

The negative response to modernity in architecture is also not helped by the following three factors. Firstly, it is the case that there is limited or no critically minded clientele base. According to select academics, architecture thrives with an informed client base, which explains, in part, the origin of “Medici” in the fourteenth and fifteenth centuries in Italy (T2, personal communication, January 09, 2017). Secondly, interviewed participants indicated that the internet and mass media are a major challenge as well. This emanates from the predetermined limits of the clients due to their exposure to designs that are totally alien to their individual needs and disregarding of the local context. For example, participant T4 acknowledged that,

There is the issue of internet references. The modern version of it is on the internet. This is the type of house I want. So how to move a client along to look at who they really are, what their purpose is and to build a design brief around that, I think is challenging. (T4, personal communication, October 14, 2016)

Thirdly, participants faulted some architects and building designers. According to them, there is a great deal of copying and architectural dishonesty by practising architects who rely on concepts emanating from the internet. These designs, accordingly, lack the character of the specific context they are sited for and do not merit being called architecture, but buildings. Several of the participants commented on this issue:
It is interesting how the style of buildings over the last 12 years has shifted from more colonial traditions to what we see around today. You see very bad versions of foreign architecture but obviously, everybody is copying from the internet, so I call it internet architecture. I am happy that just like people who lead singing, these simple room architects/designers will begin to understand and actually write the music, store it, and produce it and sing it. It can happen, but it starts from the schools of architecture. If we can train young minds to be producers of this, an honest producer of things and not imitators of style. (T2, personal communication, January 09, 2017)

There is a lot of copying, cut, and paste and internet derived models. I do not know that if it is so true in all the work, so it is not a judgment as such, but it is just that people need to go to first principles more often. Solve the client’s need for the site and climate you are dealing with and develop it, so it has character of its own. There is a lot of internationalism of architecture, but these buildings could be anywhere. (T4, personal communication, October 14, 2016)

The tangent of our architecture is embracing without conviction. Architects are embracing without conviction, but I do not want to blame the practising architects that much because in Ghana, to a large extent, most of our clients redefine the limits to which we, as architects, are supposed to work. So, when you finish your drawings or design documentation and you submit, the client can decide that even though you have spent hours unending creating windows design which are tropical, suitable, and useful, he decides that he has seen his neighbour’s building that has windows and hence he wants to get better windows. (T6, personal communication, October 21, 2016)

In the context of these developments, interviewed participants agreed on the need to rethink modernity and architectural practice in Ghana. As indicated by participant T3, modernity and its effects on the appropriation of spaces has come to stay. It is not a recent phenomenon, but at times in history, it has been driven largely by necessity. Perhaps, the critical concern is how to take charge of history and the development of architecture today.

The conundrum of traditions and the modern is a complex one in Ghana. Because Ghana is a nation state, several conditions need to be factored into the equation. Governance, for example, has met the introduction of what we now call Ministries. That has necessitated the construction of buildings for which one cannot insist these buildings must in principle keep to the traditional way of building. New demands have arisen mainly because Ghana is now a nation state. Even prior to the attainment of nationhood, the British had been introducing, for example, accommodation for expatriates, colonial government offices, harbours, and so forth. The type of governance put in place by the British necessitated the provision of some facilities and the reality meant that new things had to be done so we could not say why we don't keep to our own system and grow with it because there was a new political order […] whether we like it all not the, after the attainment of nationhood, the fusion in architectural practice have come out of our history and also of necessity. (T3, personal communication, October 31, 2016)

The propositions in this regard are somewhat related to a positive theorisation of hybridised architecture. For example, participant T1 (personal communication, October 11, 2016) suggested an "eclectic approach to practice" because society is dynamic. However, for
participant T2, it begins with a serious rethinking of the meaning of architecture in the African context. It is the only means to develop meaningful modernities in contextualised architecture.

I question what the word architecture means within the African context. This is a word which has been handed for centuries from Greek traditions and then more recently through European traditions. It has been defined by others and we have lock, stock, and barrel adopted it. I have been 12 years on the continent trying to define what African response in architecture is and not what African architecture could be. I think everybody is chasing the tail and looking for a magic rendition of contextual responses that people can name whatever they want. But I think using that word African architecture is creating more problems than solutions. By that it implies that it is a look, a style, but for me it's a condition. I think often we are looking at who we aren't, what we do and the symbolism being who we are but based on Western parameters and we cannot blame ourselves because we are trained to think that way. I think it is high time we need to reset the parameters and try to define a certain language in architecture. For me the language comes out of the context, the climate, availability of materials, the skill set, and so on. We need people to look at different facets of this interest, cultural, climate, and material based. (T2, personal communication, January 09, 2017)

Rethinking architecture in the African or Ghanaian context from a cultural/ social perspective emerges from the rhythms of every community, place, or occupants' needs. Thus, participants suggested that the response to interstitial spaces might constitute a way towards de-commodification of spaces. According to participant T2,

The notion of fishing among my people is a conversation or dialogue between humanity and nature in its most expansive form. It's that direct, spiritual conversation. And when you remove that spirituality, then you get all these issues of over fishing. The sea as a deity, the Ghanaian always in communication with the deity, constantly and I think architecture needs to respond to this notion of the spirituality of space. We are too caught up in creating rooms and buildings at the expense of spaces and architecture. It is an experiential thing. It's not static, its dynamic like who we are. So, spaces don't mean in our context confined spaces. It's the least important. The interstitial spaces like the space between these two buildings here is more important than the art gallery located within. This is where the soul of Jamestown resides. You see them sitting there, having a chat, washing there, that's where we should move to explore the perceived interest and consequential as we see it. That nebulous space, if you can't define it in architecture, it doesn't make sense in our context. (T2, personal communication, January 09, 2017)

4.4.4 The challenges to practice and the strategies for positive practice and architectural education

Several factors impede the mediation of postcolonial practices in Ghana. Besides the threat to climate sensitive and culturally reflexive practices, a major obstacle, according to interview participants, seems to be a deficient construction sector. Further, a major obstacle to intelligible responses is the lack of strong institutional backing at the level of policy. In addition, participants suggested that the limitation of an informed client-base to drive practice hinders positive
responses. It was also suggested that the Ghana Institute of Architects and the Architects Registration Council do not have the powers to stem the negative development of architecture in the country. Other related institutions tasked with regulating physical development such as the Town and Country Planning Department (TCPD) are besieged with several challenges. For example, the interview accounts indicate that the requirements at the TCPD for building permits are not rigorous; the department requires only superficial details with no drawings backing them. The lack of reference standards, according to interview accounts, compounds the challenges to positive practice. The regulatory guidelines are therefore not comprehensive enough to challenge practice. It was further suggested by interview participants that staff capacity at the TCPD seems deficient. This is compounded by reliance on technicians who lack the edge to critically review projects prior to actual development. Participant T1 had the following suggestions:

In Ghana we don't have the kind of institutional backing for the practice of architecture [...] it is extremely difficult to direct how people should build. Even though the Ghana Institute of Architects is established by an Act of Parliament, it doesn't have the kind of power to drive architecture in the country. I indicate there should be what I call an Architectural Audit Commission and the idea being, just as accountants are audited by their peers, architects should have their buildings audited (T1, personal communication, October 11, 2016).

Regarding strategies for positive practice, one clear opinion expressed in the interviews is that revolutionising architectural practice in the former colonies (including Ghana) starts with the Schools of Architecture. The Schools of Architecture needs to develop primarily the architectural theory aspect of teaching. This was a view shared by most interview participants:

One thing that has also not helped the School (KNUST) is the issue of theory. We really did not take architectural theory seriously because if we did, I'm sure we would have carved out a niche for ourselves and follow through. Because we develop our own theories and based on what we have, develop upon it. (T1, personal communication, October 11, 2016)

The design theory could really help us. It is the breakthrough to understand what Ghanaian architecture is, what constitutes it. The way the world is now is probably an unfair geographical limitation, you could stretch it West Africa. In Africa, there are too many cultures involved in making that statement, but there would be some elements. I have had several conversations, but nobody has been able to put some brain power into that question. A few people tried, the Bolgatanga catering rest house is a crocodile but nobody will see it unless you are in the air, so it does not relate. People in the 80s started putting Adinkras symbols on the facet, it does not relate because it is pasted lip stick. What can we do that will speak to this? And its relevance is not just philosophical, but also when people are in a building that suits them, I believe that they will do their other functions and development better. (T4, personal communication, October 14, 2016)
It's generally sad. I don't think that we don't have the people, or we don't have the creativity in the country. I think they are just not motivated to think out of the box. Everyone is more focused on making money and putting in less effort. I must blame a little bit the Architectural School. You see that they don't get the most out of them. It's still too technical. And in Europe if I compare it, we hardly waste any time on how the details work. Our main focus was on ideas, views, creating experiential spaces, trying to get new ideas to work on. But here they are forced to draw so many details – details you can always solve with expert advice. (T8, personal communication, January 26, 2017)

In line with this, the interviews with academics revealed that the Commonwealth Association of Architects (CAA) has made several cogent inputs. According to these accounts, the CAA believes that climate and culture should form the focal point for context-based practices and design teaching in Schools of Architecture. According to participant T1,

This is one of the things the CAA has not been too happy about, because they think that looking at our climate, culture, we can rely on them and produce buildings that suit us instead of going for extensive glazing. But it's quite a difficult thing, because some of the students we have in the School now, they don't understand anything about tradition because most of them are urbanised. […] If you talk to them about the courtyard, how many of them really appreciate it, they have a different perspective of what modernity is. (T1, personal communication, October 11, 2016)

In addition, it is suggested by the CAA that building construction needs to be tailored to reflect local technology. Similarly, the CAA has observed that the impact of history on building design, especially in the schools, appears to be missing and this is a major setback for contextualising architecture. Participant T3 commented on this issue:

I introduced the programme ‘in the manner of’ in the fourth year to bring back the element of history to students’ work. The last time the CAA team visited in 2013, a Professor from Australia who was part of the team said in her experience, when students know they had to work on drones, they can't blow their minds. The Department had the opportunity to respond if they understood the essence of the programme, but it never happened. (T3, personal communication, October 31, 2016)

Besides the CAA recommendations, interview participants expressed strongly that the practice of architecture in Ghana should be tailored towards the production of experiential spaces rooted in history and that the spiritual component/ interstitial responses should take precedence over the commodification of architecture. Architects must strive to put best practices at the forefront of practice generally. Participants T4 and T6 expressed the following:

When you get architects to the stature of David Adjaye, Issah Diabate, and people like that, the clients begin to listen to them. We need their leadership perhaps in this regionalisation of architecture more and to help young people feel comfortable using those models to develop. (T4, personal communication, October 14, 2016)
There are a lot of design elements in our local architecture than the science of architecture we have learnt that we can translate to make the architecture better but still carry the value of architecture. Because modernity can make you lose value, the same modernity can make you improve value. So, what is happening with our high-rise buildings in Accra is that value has been thrown out of the window. It is all about monetary value. But the psychology of space, the heritage of our architecture is missing. It has been gone for a very long time. (T6, personal communication, October 21, 2016)

Moreover, participants also commented that the regionalisation of architecture in Ghana must address areas of climate responsiveness and a culturally backed theoretical context. The development of climate reference standards for building design is a first step and the Ghana Green Building Council should demonstrate leadership in this regard. According to participant T4,

There is no question about it that climate is one. You have got to be sensitive to it, so the elements that give pragmatic comforts to the building should be there. The second thing is the plan form, over again and again, the courtyard has proved so strong, not just as an open void space but as an enclosure at the same time. So, I think because we are social people, we relate very well to that cultural concept. It can be theoretical or philosophical in some other places but here we relate to it. The third area has to do with the fact that we are very symbolic people. The Adinkra symbols, they express people, a certain way of thinking that I think should have its visual expressions, should embellish our architecture. So, if we can combine these three things, we should be able to regionalise our architecture sufficiently. (T4, personal communication, October 14, 2016)

It is also noted that, whereas there are structures in place to some degree to regulate practice, their capacities need to be enhanced. These include expanding regulations to include other aspects including energy efficient and sustainable practices. Participant T5 commented,

Within the practice in Ghana it is known that the local councils are supposed to pass drawings before they are constructed but they don't really have the capacity. So, it is beefing up the capacity and this can be done through a third-party system. If post-occupancy evaluation is done on buildings which I think that should be the norm. There are by-laws which require them to issue a certificate of occupation, which they just started issuing recently and is not even on all buildings that they give, but if you insist then they will issue it. But besides that, there should be something that should be forced on every project including climate design considerations. (T5, personal communication, November 21, 2016)

Participants further expressed that the development of local techniques is essential for positive architectural practice, namely that, with an advanced industrial setup, the commercialisation of local materials provides options to a wider client base and, with economy of scale, they can be affordable, which is what institutions like the BRI should be preoccupied with.

Above all, as indicated in the following comments by participants T6 and T2, through their associations, architects should engage the public and policy makers on specific prioritised areas
of architectural development. For them, public education is an invaluable component towards positive and mediated practices.

I think it is important we as architects engage the public. I attended an induction in Accra for young architects in 2013, the chairman at the time spoke to the effect that the proportion of Ghana's population to the architect population was 1:33,000. We were about 800 registered architects as that time. (T6, personal communication, October 21, 2016)

I think positive architectural development will emanate from positive cultural and research-based development structure. You cannot have good architecture without the ingredients. It is not only educating the new generation of architects or the existing, but the people because they are the client base and I think that is what the leadership can do. (T2, personal communication, January 09, 2017)

4.5 Chapter summary

The interview report indicates several contested positions on the intersection of climate, modernity and postcolonial mediation relative to twenty-first century practice in Ghana. The chapter finds that modern practices in Ghana today are driven primarily by that which is new or in vogue rather than by necessity. The expression of modernity based on these factors therefore undermines climates place in positive twenty-first century practices. Furthermore, the chapter finds a disconnection between the expropriation of knowledge concepts from Ghana's architectural past for twenty-first century mediation responses at two main levels. First, while the return of modernism is commonplace, the response strategies do not reflect the place centred approach of the modern architecture of old that often took into consideration the local climate and the vernacular. The modernist renaissance is therefore only but a skin-deep reflection on modularity, linearity and plane surface expressions. This, according to participants, reflects the manner the history of modern architecture is currently taught in Schools of Architecture in Ghana. Secondly, while practitioners indicate that mediation retains a place in the twenty-first century context, the hybrid responses appear to be semantic because they are neither climatically nor are they socio-culturally supported. Therefore, although the regionalisation of architecture exists in theory, in practice, however, the process of creating multiple modernities in Ghanaian architecture in the twenty-first century is without purpose, although a few exceptions exist. The notion of modernity that is at variance with the primary positivist conception of modernity affects the superficial nature of architectural responses. The chapter concludes that positive twenty-first century response to modernity based on materiality and landscape, and socio-climatic considerations, has a place for positive mediation outcomes.
Finally, the chapter highlights new directions for rethinking the place of architectural responses in Ghana considered in subsequent chapters. Namely—what is the relationship between the theory on modernism and the modernist renaissance in Ghana today; what is the theoretical place of hybrids in the development of architecture in Ghana; and finally, how has the knowledge of the climate of Ghana engendered positive and multiple modernities in architectural responses over time and in the context of twenty-first century practices?
5.1 Introduction

The notion of modernism in late colonial and postcolonial architecture in Ghana (1940s-1970s), has attracted many theoretical suppositions. The period is known for the intensification of independence struggles, actualisation of independence, and the commitment to chart new directions of nationhood thereof. The coincidence of the development of modernism during this period raises fundamental questions regarding its place in a postcolonial State. For example, the reading of modernist interventions as the wholesale appropriation of Western modernism intentioned as a subtle and succeeding means to the neo-colonisation of architecture is apparent (Le Roux, 2003; King, 1990a). This view is founded on a linear structure of influence originating from the centre (metropole) to the periphery (colony) (Chang, 2011; Le Roux, 2004a). The transactional consequences of economic benefits to the centre through the importation of building materials and prefabricated components also influences its place in neo-colonialism (see: Atkinson, 1953c). Further, the challenge of modernism as a place-centred epoch seems to be the more global pastoral reading established on universal principles, and its place as the liberating non-conformist epoch. The emphasis on the style and material form (in concrete) appears more prominent. Modernism's place in exploring and appropriating the meaning of architecture in a different context (further indicating modernism as the epoch of many unique contributions) is consequently understated.

The chapter establishes how the understanding of modernism as an absolute style, reflects in the liminal scope of the twenty-first century modernist renaissance in Ghana. From an interpretive theoretical standpoint, utilising interview accounts and referencing the specific intervention strategies pioneered by early modernist practices, the chapter suggests that the context of early modernism in Ghana is the effective localisation of internationalism in contrast to the sterile form of modernism today. These early interventions reflect positive postcolonial architectural mediation. The chapter denotes developmental planning and climate responsive strategies as a critical mediating mechanism that link early modernist interventions with vernacular knowledge spaces. The chapter thus indicates that the emphasis on the style rather than the style, defined by the limits of these mediating strategies, constitutes a misappropriation of the concept in
Ghana's modernist renaissance. The chapter therefore maintains that the teaching of modernism in Schools of Architecture in Ghana should proceed as a dual inclusive discourse. If the essence of the knowledge of the vernacular as a specific postcolonial concern is its place in contemporary practice, the hybrid responses of Ghana's early modernism express this idea of postcolonial mediation.

For the sake of clarity, it is important to distinguish between the meanings of the following terms. The terms modernism, modernist, and modern architecture are respectively used in the following senses: an evolving concept founded on appropriating the meaning of architecture in a different context; the actors contributing to this knowledge development; and the plural architectures that reflect the actions of these modernist practitioners. The modernist in this matter is not exclusive to the ideal of absolute style. The idea of a style, although central to modernist interventions globally, is only skin-deep. In this regard, the distinction is draw between the consistent use of the style as an absolute expression, and the style as emotive. In addition, it is also necessary to relate to the larger context of former colonies. However, while former colonies are referred to at times, Ghana receives the most emphasis.

5.2 Deconstructing modernism as a binary – the inclusive factor

International modernism is perhaps the most widely discussed philosophy of architecture with a global reach both in theory and physically and has been an everyday reality since the post-World War II years. Modernism appears to be a closed concept, yet open to varied interpretations in practice. The concept is considered absolute and fixed, yet it is particular in that it is mostly place-centred. Thus, determining the specific scope and meaning of modernism is important towards understanding its translation in Ghana in early colonial times and in recent developments. As Paden (2010, p. 229) observes, “the common understanding of 'Modern Architecture' as it stands, requires serious revisions.

In unpacking the context of modernism relative to Ghana, it is important to revisit the theory of modernism as it emanates in the West, before its many shades since then, as an evolving concept. Inviting theoretical perspectives exist. However, it is known that what is common to the theory of modernism, whether within the West or in former colonies, is the fine line between absolutism and relativism, exclusivism and inclusivism, and pastoralism and counter-pastoralism (see figure 5.1). The fundamental theory of modernism suggests the latter expressions, in that modernism is inclusive, counter-pastoral and relative to context. In its plural form, modernism is
an evolving concept with a pool of intelligible and unique contributions globally. Hitchcock and Johnson (1997, pp. 20-21) acknowledge that modernism has “become evident and definable only gradually as different innovators throughout the world have successfully carried out parallel experiments”. This echoes the space within which the networks of Ghana’s modernism relate with global modernism. Understanding, from an architectural standpoint, how the counter-pastoral view on modernism manifested in early modernist intervention is important towards a critical view on Ghana’s modernist renaissance (see figure 5.1).

Figure 5.1. The conceptual structure of the global theory on modernism existing between the pastoral and counter-pastoral dimensions and its manifestation in twentieth-century practices in the context of the modernist renaissance in Ghana.

5.2.1 Unpacking the theory of modernism from a global perspective

The history of modern architecture appears clouded by the suggested dissociation with the past or in the context of territorial translations in the non-Western world and therefore antagonistic to indigenous traditions or traditions in general. These historiographies are inclined to the “avant-garde” philosophy, which projects modern architecture in the light of its pastoral or emancipatory value, potentially situating modernism as irreconcilable with traditions (Le Roux, 2004b, p. 441). Appreciating modernism from this lens reflects on the desire to break from the past through stylistic means, as a matter of high-end taste and the subject of exclusive patronage, and the goal to liberate global practice. These notions constitute the pastoral vision of modernism, which is secondary to the contextual beginnings of modernism or the affronts that emerged in opposition to avant-garde culture, necessitated by the need to situate modernism within the
specific limits of climatic, social, and economic conditions around the globe. As Benevolo (1971, p. 375) observes, “the changes in supply, provided by the artists and avant-garde groups, remained greatly inferior to the changes in demand”. These demands in the form of changing needs in different contexts ensure that modernism is continually re-appropriated to address these needs. Such is the character of modernism – the continuous, intelligible mediation of contextual conditions of the moment within its *stylistic* limits. In the manner of the foregoing, modernism is therefore counter-pastoral. It is ephemeral through the continuous exploration of the purpose of architecture in different contexts. It is absolute only within the limits of its *stylistic* outlook, materiality, and perhaps building techniques, although these are also mediated in time. A counter pastoral view seeks to situate the historiography of modern architecture beyond the binary through its place as the exploration of in-between spaces. The entanglements that shaped modernism over time, especially from the beginning of the nineteenth century, are therefore important to this discourse.

5.2.1.1 From pre-1940 thinking to the twentieth-century context

In the late 1800s, the demands of everyday life necessitated a change in orientation, fashioned around the technological advances of the past few centuries\(^{45}\). During this period, Otto Wagner takes credit for developing the first modernist manifesto in architecture (Frisby, 1997). The manifesto, first appearing in 1896, had three successive editions in 1898, 1902, and 1914, translated in 1988 by Harry Mallgrave. Consistent with these manifestos is the engaging interpretation of modern architecture as the transient response to modern life (Paden, 2010; Wagner, 1988). Since then, Wagner's (1896/1988) views on modernism seem misconstrued, even contested. More exacting is the denouncement of Wagner's *Postsparkasse*\(^{46}\), for example, as being inconsistent with the principles of modernism (Paden, 2010). At the time, Wagner's (1896/1988) manifesto on modern architecture would not have gone without reasoned critiques anyway. According to Mallgrave (1988), Karl Henrici (a leading architect and planner at the time)

\(^{45}\) Within this period, many schools of thought on modernism emerged around the globe. The Otto Wagner and the Viennese School in Austria existed alongside Louis Sullivan and Frank Lloyd Wright in Chicago, as well as Antonio Gaudi's exploits in Barcelona, among others etc.

\(^{46}\) The Postsparkasse is an Austrian postal saving bank building (1904-1906) designed by Otto Wagner. It is one of his earliest translations of his theory on modernism in actual practice.
indicates that Wagner's (1896/1988) focus on cosmopolitan life in the manifesto, as opposed to the margins within the German society\textsuperscript{47}, perpetuates a break with traditions.

In contrast, Streiter (1913), also reported by Mallgrave (1988), maintains that Wagner (1896/1988) meant responding to necessity from the limitless demands of modern life defined by limitless necessity. Wagner's (1896/1988) emotive conception of modern architecture, with which Streiter (1913) appears to concur, relates to the theory on realism. Mallgrave (1988, p. 4) intimates that Streiter "used the term 'objectivity' (Sachlichkeit) in conjunction with realism to characterize a building's truthful compliance with the practical demands of purpose, comfort, and health, mediated historically by the sentiments and materials associated with the genius loci".

Wagner (1896/1988) uses realism in his manifesto as the opposite of the ideal, regimentary confinement of the past centuries, prior to the demands of the moment, of modern life. It appears realism was a term in demand. This is conveyed with agreeable meanings in several accounts. According to Anderson (1994), the German architect Hermann Muthesius uses realism to highlight practical needs-driven fabrication of architectures. Even if one were to hazard into generic prose on modernity earlier than this time, especially relying on The Painter of Modern Life: And other essays by Baudelaire (1863/1964), the union of thoughts with Wagner (1896/1988) seems to prevail in two ways.

Firstly, Baudelaire (1863/1964) explication on modern life – as scaling the limits of fashion and integrating concepts that look to the poetics of old masters as a way towards positive responses to the needs of everyday life – echoes realism and reconciliation respectively. Such is the call by Wagner (1896/1988) in his modernist manifesto. Perhaps, Wagner (1896/1988) pre-empts the critiques he will be subjected to, as he contends that the translation of modern architecture as irreconcilable with traditions is found within superficial responses rather than those that are intelligible. Thus, in theorising modernism or modern architecture, "it is only to be supposed that utility and realism precede in order to prepare the deeds that art and idealism have to perform" (Wagner, 1896/1988, p. 9). At the meeting point of "idealism and realism", responses require elevation above "the level of the ordinary" (Wagner, 1896/1988, p. 161). This thinking reflects Baudelaire's (1863/1964) idea of the master painter of modern life or of the flaneur.

\textsuperscript{47} A major theoretical weakness of his pioneer work, however, is the location of modernity within the metropolis and therefore with an emphasis placed on grandeur. He indicates, for example, that "the most modern of the 'modern' in architecture today are probably our large cities" (Wagner, 1896/1988, p. 103).
The second confluence of ideas on modern life is its “fleeting” "ephemeral", “transient” (Baudelaire, 1863/1964, p. 13) and “progressive” (Wagner, 1896/1988, p. 116) interpretation. The inclination to readjust to contingent conditions enhances the possibilities of the modern or of modern architecture and underlines its place as a concept in transition. Although, Baudelaire (1863/1964), as well as Wagner (1896/1988), look to conditions within their cultural settings, these perspectives have a global place including those of former colonies.

Wagner’s (1896/1988) projection of modern architecture as the intelligible reflection of the needs of modern life on a global scale could be reasoned along lines of legibility in architecture or within the frameworks of a resource sensitive, climate sensitive, place sensitive approach to modern architectural practice. The scope of modern life and architecture, either of comfort, cultural, or material considerations, is mostly indeterminate between regions and cultures. However, these differences could be contained through the progressive spirit of each region. Thus, the subsequent development of modern architecture forums around the globe focusing on the exploration of regional knowledge spaces shared on platforms such as International Congress of Modern Architecture (Congrès Internationaux d'Architecture Moderne – CIAM), is a manifestation of the place-centred reputation of modernism. It is within this infinite boundary extending beyond styled aesthetics, materiality (exclusively concrete), and modularity, other interventions (for example, Harry Weese in Ghana, Alvar Aalto in Finland) could be brought into a larger discourse on modernism.

The mid-twentieth century progressed on the understanding of modernism more directly. There was a conscious attempt to relate to the diverse needs of all societies. It may suffice for the benefit of the chapter’s argument to relate to the sound judgement of one of the famous critics of twentieth-century architecture. In Space, Time and Architecture, Giedion (1967, p. 706) portends that,

> Modern architecture is something more than a universally applicable means of decoration. It is too much the product of our whole period not to exhibit some universal tendencies, but, on the other hand, it is too much concerned with problems of actual living to ignore local differences in needs, customs, and materials.

Similarly, Frampton (2007b) believes modern architecture meant more and exceeded the limits of technology (materiality, lean and modular construction) and the idea of an absolute style

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48 Perhaps, this could be a direct response to Karl Henrici’s critique of Wagner’s (1896/1988) emphasis on modern life as reflected in cosmopolitan societies.
In many respects, the international style was little more than a convenient phrase denoting a cubistic mode of architecture which had spread throughout the developed world by the time of the Second World War. Its apparent homogeneity was deceptive since its stripped planar form was subtly inflected so as to respond to different climatic and cultural conditions [...] the international style never became truly universal. Nonetheless it implied a universality of approach which generally favoured lightweight techniques, synthetic modern materials and standard modular parts so as to facilitate fabrications and erection. (Frampton, 2007b, p. 248)

Prakash (2011, p. 262) observes that modernism’s claim of autonomy is inclined to the “foundational reading of the purposes of architecture” in different contexts. However, Giedion’s (1967) idea of responses to the context of actual living conditions, needs, and materials, Frampton’s (2007b) inclination to the climate and local cultures, as well as Prakash’s (2011) indications on fundamental translations of purpose, all echo the perspectives of Wagner (1896/1988) and Streiter (1913). In one sense, the mid-twentieth century perspectives on modernism advance the logic of those of the nineteenth century and earlier but with clearer attributes.

5.2.1.1 The role of traditions in the evolution of modern architecture

Hitchcock and Scully’s (1993) considerations in Modern Architecture, Romanticism and Reintegration are a positive reflection on the role of art history in the evolution of modern architecture much like those of Wagner (1896/1988) before him. Hitchcock and Scully’s (1993) primary concern is with the technologic lens from which modernism is seen to contrast with traditions, apparently suggesting buildings are actual machines for living, although that innuendo by Le Corbusier is metaphoric (Breuer, 1948; Gropius, 1948). Instead, Hitchcock and Scully (1993) appropriates the historiography of modern architecture by appealing to its historical mediation in time. Hartoonian (2011) refers to this idea of historical mediation as the pastoral vision of modern architecture. From the accounts of Berman (1983) with which the chapter relates, this position instead suggests a counter-pastoral vision.

49 Hitchcock and Scully (1993) trace the emergence of modern architecture to the historiography of high Gothic traditions, which coincide with the romanticist intellectual stimulation of the 1750s. The period following 1750 is significant as it marked the end of classical architecture and the commencement of the new tradition. Hitchcock intimates the new tradition was founded on a framework of disintegration and then the reintegration of previous epochs to form the new tradition (Hitchcock & Scully, 1993).

50 Berman (1983) distinguishes between pastoral and counter-pastoral modernism in All that is Solid Melts into Air as a matter of purity. The counter-pastoral position reflects the context of Hitchcock and Scully’s (1993) advances in that it seeks to establish a point in history of the role of traditions in the development of modern architecture or modernism, contrary to the pure, avant-garde and unrelated vicissitudes, which somewhat characterise a pastoral vision.
In contrast, Hitchcock and Johnson's (1997) publication on The International Style appears to project the homogeneity of a style, putting its place in conflict with the idea of contextual historical mediation. Barr Jr. (1948) argues that it was too early to conceive of modernism in terms of a style while in a transition phase. The kind of creative freedom sought and appropriated by modernists cannot be submerged by the dogma of a style (Barr Jr. et al., 1948). Even Hitchcock and Johnson (1997) feel constrained to refer to the architectural movement rather than style because of the simple need for some reference. Hitchcock (1948) subsequently admits the challenges of such stylistic monotony in practice and the theoretical dissonance it generates. Hitchcock (1948) argues, therefore, that a rupture subtends modernism through the reintegration of traditions in each country of the world where it remains a tour de force. Thus, "there are many possibilities of reference of modern architecture" but not in a "limited sense" of a style (Hitchcock, 1948, pp. 9-10). This perhaps indicates the true universal nature of what can be termed international about modern architecture and agreeably so. "Any universal formula" of its worth, means its ability to adapt to the peculiarities in different regions, or else "it lacks true universality" (Mumford, 1948, p. 18).

5.2.1.2 The question of function in modernist thinking

The 1948 symposium on modern architecture, held at the Museum of Modern Art with Lewis Mumford as chair, raised a very legitimate question relevant to the current study, which was also its theme. Namely, "What is happening to modern architecture?" This question bordered on the scope, theory, and the future of modernism at the time. Key among the issues discussed in this regard was the question of function, which had come to define modern architecture more or less. There was a consensus that the term had been misapplied, with Barr (1948, p. 6) suggesting "post-functionalism" may lay bare the narrowed interpretation of modern architectural functionalism as essentially technologic and commercial. Breuer (1948, p. 15) extends this by suggesting that, if the idea of function or the implications of an international style is that it is purely "mechanical and impersonal", then it is a mistranslation of modernist functionalism. Walter Gropius, from the perspective of the Bauhaus, argues "functionalism, has been taken too materially" (Gropius, 1948, p. 11), and that modern architecture is neither "international nor a style" except for the convenience of a name (Gropius, 1948, p. 12).

51 The forum produced a gathering of almost all critical minds who mattered at the time on modern architecture.
An essential concept is that modern architecture is "regional in character" and defined by geographical limitations (Gropius, 1948, p. 12), articulated by Lewis Mumford in relation to a "Bay Region Style" as distinct from modernism, an idea attacked by Walter Gropius (Gropius, 1948; Mumford, 1947). Gropius (1948, p. 11) notes that, "I was struck by the definition of the Bay Region Style as something new, characterized by an expression of the terrain, the climate, and the way of life, for that was almost precisely, in the same words, the initial aim of the leading modernists in the world twenty-five years back". Mumford, however, argues that he is simply seeking to project a dialect of modernism that is specific to the Bay Region (Mumford, 1948).

5.2.1.3 The intersections

There is a confluence of ideas on modernism between the nineteenth and twentieth-century accounts, which are relevant to twenty-first century responses. The emphasis on realism in translating modern life reflects the contextual readings of twentieth-century thinking. The theory on modern architecture is thus located within the exploration of emotive conditions of place, which are somewhat fixed transnational responses, and underlines its counter-pastoral place. The counter-pastoral view on modernism, therefore, questions architectural polemics such as regionalism and critical regionalism – namely, are these isms distinctive to the idea of modernism. Mumford (1948) affirms that positive modernism is essentially regional in character. In this regard, has postmodernism come too soon and is it necessary at all? It seems the postmodern has been an opportunity to bring further clarity to modernism; however, it has made it the victim.

While these developments are tenable as the fundamental nature of modern architecture, modernism features prominently as the rejection of past traditions. The theory of modernism, as opposite to traditions, amounts to a departure from the origin and intent of modernism or of modern architecture (Frampton, 2007b). What sustains this view, is considered in the next section.

5.3 Modernism as the rejection of traditions: what sustains it or otherwise?

The pastoral vision on modernism consolidates the theory of modern architecture as the opposite to tradition. The theory of modern architecture as a non-conformist epoch or otherwise, is considered here from the frameworks of transnational logics and regional negotiations. The
transnational dimensions echo the stylistic and technologic divide. It is transnational in the sense that the mechanisms that support these advances mean modernism can be replicated anywhere without geographical limitations. It is also the case that these mechanisms support regional association without colonial colouration. The regional logics embrace the socio-political undertones typical of ideational conflicts of exclusion or liberation and are common to the relationship subsisting between the coloniser and the colonised. With reference to the latter, modernism in former colonies observed in detail the enlightenment cannon or ideals tied to an autonomous project and notion of modernity, which are geared towards civilising the world and, in this instance, through architecture without reference to indigenous traditions or conditions. Within the framework of regional logics, the extension of modernism as the fundamental reading of the purpose of architecture is subtly conveyed. In-between these two logics are what can be considered a classic architectural reading of modernism and the non-classic (focusing on the socio-economic and socio-political implications of modernism). This section first focuses on the transnational logics and then the regional, which form the core of the detailed exposition specific to Ghana.

5.3.1 Transnational logics: the idea of a style; the rejection of traditionalism or the mediating model

The transnational logics founded on technology and the development of a style indicate that modernism is largely an expression of architectural antagonism towards previous epochs or traditions in Europe and America and, by extension, former colonies. Hitchcock and Johnson (1997) observe that, whereas the late nineteenth century failed to produce a unified distinctive modernism, the twentieth century witnessed the development of unified, but also inclusive, modernism. From the period of gestation in the nineteenth century, and before then, arrived a transnational style of architecture. Clearly, Hitchcock and Johnson's (1997) accounts express the style in terms of two interests: the style as a fixed and regulated standard expression, and the style as distinctive. The latter is extended as being consistent with the primary theory of modernism. The former, which is the initial focus of this section, arouses two opposite meanings: first, modernism as the rejection of traditions; and second, modernism as the postcolonial/mediating model.

52 The nineteenth-century pioneer modernist interventions with the main architects including Wagner, Perret, Behren, and others could best be described as eclectic attempts/ styles in search of the new tradition.
In respect of the style as the rejection of tradition, two perspectives may be advanced. Firstly, with a growing inclination to avant-garde idealism, modern architecture embraced *stylistic* fragmentation from experience (Frisby, 2004). The idea of a *style* founded on regularity rather than symmetry, volumes rather than mass, and minimalism rather than the decorative strategies of past epochs (Hitchcock & Johnson, 1997), was potentially limiting the scope of the new tradition and its relationship to the past. Yet it mirrors the first logic of the rejection of traditions. It had some of the leading architects denouncing traditions every step of the way. Sullivan (1896, para. 10), for example, famous for the phrase “form ever follows function”, reproached decorations, although, as Breuer (1948, p.15) points out, Sullivan did not “eat his functionalism as hot as he cooked it”. Other contemporaries such as Loos (1998), Joseph Hoffman, and Kolomar Moser of the Vienna Workshop were all inclined to the principle, which stripped the new tradition of ornamentations (Gropius, 1992; Schweiger, 1984). Tunnard (1948, p. 14) underscores this literal drive as simply the search for superficial “beauty”. The growing interest in distinctive beauty is only surface deep. However, it reflects more positively in the patronage of modernism as a superficial strategy for the decolonisation of architecture in former colonies. The idea of the *style* as beauty means a confining standard of a sort (Gutheim, 1948). However, the interpretation of modernism in this manner isolates the “creative” intents of “men behind the new doings” (Gropius, 1948, p. 11). Wagner’s (1896/1988) call for modern architecture to reflect pragmatically the emotive needs of the moment, the subsisting cycles of fashion through deep-structured and intelligible mediation in terms already discussed, becomes subservient to the advancing notion of a *style*.

The second logic lies in the extensive appropriation of building techniques (Jones, Maoret, Massa, & Svejenova, 2012). The motive to reconcile architecture with technology following the exploits of the industrial revolution is seen as advancing the divide between modern architecture and traditions. Hitchcock and Johnson (1997, p. 18) are right in suggesting that the idea of a *style* is as much a matter of “choice”. On the positive end, it benefits multiple logics of modern architecture. At the same time, it motivates restricted modernism such as the dominance of an exclusive technologic taste emanating from the extensive appropriation of modularism and

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53 For example, an organic modernist movement led by Frank Lloyd Wright, Alvar Aalto, and Le Corbusier (in his much later works, especially since the 1930s) and others rivalled the purely technologic models (Le Corbusier & Benton, 2015; Pearson, 1978). This became a source of contestation within the discourse of modernism thought (Jones, Maoret, Massa, & Svejenova, 2012).
materialism\textsuperscript{54}. In this sense, modernism is projected as a rigid system of building design with a distinctive application of new materials such as steel, glass, and textured concrete techniques. Whereas modernism may be defined by these techniques, the use of unconventional materials and techniques does not undermine the scope and theory of modernism in terms of its fundamental meaning. "Wooden construction", for example, does not constrain "the esthetic or the functional disciplines of contemporary style" (Hitchcock & Johnson, 1997, p. 82) and in some regions, by its abundance, could be an ideal and efficient expression of localised modernism.

The idea of a style, in both the pursuit of distinctive visual aesthetics and its technologic nature, together with its supposed impersonal and mechanical character, constitutes a growing misconception of modernism (Barr Jr., 1948). This is marked by moments of sentimental condemnation of placelessness and the loss of faith with the perceived sterility of modernism (Pallasmaa, 2007; Ricoeur, 2007). With such projected indifference, modernism opened itself up for critiques, including those that necessitated the growth of postmodernism, although in a rather misguided direction of nostalgic\textsuperscript{55} return to traditions (Frampton, 1993; Venturi, 1977; Venturi, Brown, & Izenour, 1977).

Existing in contrast to the rejection of traditions are ideological constructs that represent moments of ecumenism. Hitchcock and Johnson's (1997) attempt to establish these through an ideological reading of modernism conceived as style.

\begin{quote}
It may fairly be compared in significance with the styles of the past. In the handling of the problems of structure it is related to the Gothic, in the handling of the problems of design it is more akin to the classical. In the pre-eminence given to the handling of function it is distinguished from both. (Hitchcock & Johnson, 1997, p. 20)
\end{quote}

Furthermore, although the idea of a style as a non-identitarian epoch defined by its planer fine lines denounces Western traditions directly, it favours ideological constructs of neutrality, which former colonies embraced without traces of subjugation (Lu, 2011). The qualification of the style as international, then, seems appropriate in that it breaks the frontiers of the binary with a global focus.

\textsuperscript{54} Following the industrial revolution, new materials such as steel and glass led to the development of new building techniques, climaxed by the crystal palace and the steel framed skyscrapers by Joseph Paxton and Louis Sullivan among others.

\textsuperscript{55} The inclination to pursue a path of place-centred aesthetic mediation took the rather pathetic turn of scenography.
It may suffice to state, therefore, that modernism mostly became identifiable through direct visual appeal facilitated through advances in technology and creative consciousness. However, modernism as the translation of context-based traditions and their peculiarities assumed a rather indirect and abstracted approach, giving it that edge and significance as an evolving tradition. Modernism is not a closed or fixed concept; rather, it is a frame for fluid developments according to specific contexts. The "parallel experiments" by various participants around the world witnessed distinct expressions of modernism yet unified by their aesthetic "validity" with the "vitality" of realism (Hitchcock & Johnson, 1997, pp. 19-21). Pallasmaa (2007, p. 138), therefore, constructs modernism "as a dialectic view of culture that perpetually challenges and resurrects the past". In this view, the idea of the style transcends aesthetic limits and is therefore distinctive through regional logics. The meeting of the style as mediating and the style as distinctive initiated the counter-pastoral dimension of modernism relative to former colonies.

5.3.2 Regional logics: reading through the pastoral and counter-pastoral dimension of modernism in former colonies

Lu (2011, p. 1) identifies four main attributes of modern architecture relative to former colonies: a way of building, a style-of-life consumer item, a knowledge product, and the symbol of modernity. From the divide on modern architecture, the first two attributes echo pastoral perspectives, and the latter are essentially counter-pastoral. The section considers the regional logics of modernism through these frameworks.

5.3.2.1 Pastoral reading of modernism

The mechanisms linking modernism in former colonies, and to Western pastoral visions, do not entirely reflect the ideology and strategy to liberate the practice of architecture in the colonies. In many respects, the colonies profited from the development of modern architecture. As well, there were some primal colonial undertones of subjugation. Beside the notion of liberation, the economic and institutional dependency motives that sustain continuous Western interest in the colonies are discernible. These pastoral readings subtend the relationship between Western societies and their colonised others in many spheres of their interactive life. They are generic and not exclusive to modern architecture or architecture in general. In fact, these views are more
socio-political and economic than they are architectural, although they do have architectural implications.

The unbalanced nature of colonisation inevitably attracts such oriental perspectives, especially as current narratives on modern architecture strike a discord with indigenous traditions either entirely, or passively. In former colonies, the pastoral vision of modern architecture also means a strategy for colonisation. This is apparent in Lu’s (2011) dual reading of modernism as a way of building and a consumer item\footnote{Modernism is thus seen as an exportable consumer item to former colonies with potential economic benefits to the motherland.} founded on the transnational logics of a style. These can be discussed together in the understanding modernism as a way of building that looks to the techno-scientific and materiality to underpin its place as a consumer item with colonial implications.

Looking to responses to climate, three colonial implications are apparent. Firstly, based on essentially climate design criteria, it is argued that, whereas American modernism exploited this technical design condition within a freedom of explorative aesthetic responses, in former colonies it was completely embedded within the absolute stylistic dictates of modern architecture. Thus, terms such as tropical modernism tended to define the aesthetic limits of a climate focused, but aesthetical fixed modernism (Chang & King, 2011; Immerwahr, 2007; Le Roux, 2003). The absence of such creative privilege meant abstracted climate criteria were only a means to an end\footnote{It is important to note that, although modernism as style in the absolute was never consciously promoted, as a dominant creative domain as practised and taught by the British, it caught up with even informal developments in Ghana with the growing appropriation of parapet and conceived roofs in housing development.} (Le Roux, 2004a). Secondly, while climate was explored as a neutral space of mediation, it also emphasized a postcolonial ideological interest (Cripps, 2004; King, 2006; Le Roux, 2004a; Liscombe, 2006). Le Roux (2004a, p. 439) argues climate became the boundary line for "unequal exchanges". Further, Chang (2011) observes that the emphasis on climate mostly had ramifications in the power tussle between the metropole and the colonies. The climate factor clouded the socio-political praxis in the colonies regarding anti-colonial struggles and nationalism\footnote{The coincidence of the growing intensity in the independence struggle in the context of the massive infrastructural drive by the British colonial government (culminating in the design and construction of secondary schools, universities etc.) is suspect. It constitutes an unexpected benevolence coming at a time in which the colonial government seemed unready to relinquish control of the colony. From a scientific perspective based on climate, it did stress architectural neutrality and the importance of climate towards positive architectural responses. Nevertheless, it was a reaffirmation}. The emphasis on climate also strengthened distant responses by actors domiciled...
in the metropole over unfamiliar conditions and people. Thus, British architects could rely on climatic data, for example, and produce designs for the colonies from metropolitan London without visiting the colonies. Furthermore, the climate criteria tended to unite different regions or colonies overlooking the variance in the socio-politico-cultural structures (Chang, 2011).

The latter awakens the mechanism of institutional control as a third strategy of colonisation with emphasis on climate. Chang (2011) argues that the metastasis in institutionalising climate design frameworks occasioned by the need to coordinate previously isolated documentations on climate design in the colonies by the Colonial Office (CO), presents instances of the asymmetrical relationship between the metropole and the colonies. This effort coincided with the growth of modern architecture in Ghana. It began with the formalisation of the Colonial Development Welfare Act (CDWA) of 1940. The CDWA marked a significant change in British overseas policy in the colonies from domestic funding (often under-resourced) to direct substantial and project specific funding by the metropolis. Prior to this, the 1921 CDWA that was in place had been largely ineffective in adequately addressing welfare conditions in the colonies (Wicker, 1958). The renewed partnership between the colonies and the metropole in the form of the 1940 CDWA was, however, not an act of sheer generosity by the metropolitan government. Instead, Crinson (2003) argues, it was also a diplomatic tool aimed at addressing the disturbances occasioned by labour unrest and the anticolonial agendas within colonies. The intention to improve colonial conditions was also aimed at quelling the growing notion that the colonialist interest was to exploit the resources (Chang, 2011; Cooper, 1997; Cooper, 1994). Furthermore, to enhance the working of the CDWA, the British metropolitan government established networks in both the colonies and the metropolitan area with direction emanating from the centre. The regional centres were to perform localised and immediate functions while investigations that were more specialised were conducted in Britain. These networks were

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of the primordial misconception of vernacular architecture as culturally insignificant and perhaps climatically inappropriate, especially with exceptionally rare references being made to indigenous strategies.

59 The CDWA of 1940 followed recommendations by a Royal Commission set up by the British government to examine the social and economic conditions of the West Indian colonies. Prior to this time, the British had been slow in improving even basic housing conditions in Ghana for the ordinary people until the independence struggle intensified in the 1940s. All previous interventions were because of emergencies (Hess, 2000; Jackson & Oppong, 2014).

60 In Ghana, for example, the "Southern virus" was gaining momentum (Brukum, 2003, p.271). In 1948, three ex-servicemen were shot and killed following a peaceful march to protest the broken promises of the colonial government. Rioting and looting subsequently broke out coupled with strikes and boycotts by workers. These events made the colonial government unpopular and forced their hand in institutionalising reforms leading to independence. The Gold Coast Colony would be degraded from a 'model Colony' to an ungovernable Colony (Crinson, 2003, p.127).
instrumental to the development of modernism. Le Roux (2003) demonstrates how the centres' attempts at architectural decolonisation were manifested in words, but not in substance. The use of terms such as "Colonial Building Notes" were considered inappropriate at the time (Le Roux, 2003, p. 348). "Tropical Building Notes" were, instead, adopted as an appropriate postcolonial designation (Le Roux, 2003, p. 348).

The colonialist culture of the postcolonial era that was built around a network of political and economic systems (King, 1990a) also appeared to manifest materially in modern architectural history. The development of modern architecture as a system of building dependent on prefabricated components and materials alien to the colonies floated the idea of economic dependency. Most of the "exotic" building materials of tropical architecture came from the West (Le Roux, 2003, p. 350). Associated with these was the economic recovery benefit to the metropole in the immediate and in the postcolonial period. Atkinson (1953c), in his speech at the Architectural Association in 1953, indicated the abundant opportunities that existed in the colonies for British architects if they acquired the required "technical expertise" in building design in the tropics at a time that British practitioners dominated practice in Ghana (Chang, 2011, p. 221). In another instance, as noted by Chang (2011), Atkinson (1953c) indicated in a trade journal for British prefabrication manufacturers the enormous opportunities for them in exporting prefabricated components to the colonies. The capitalisation of building materials and techniques, in turn, advanced the practice of modernism as a consumer product in trade between the coloniser and the colonised.

5.3.2.1.1  Limitations to a pastoral reading of modernism

The limitations in the pastoral reading of modernism are considered here, leading to a counter-pastoral discourse.

There is a fine line between the colonial state as a facilitator of colonial machination and the independent minds of architects practising in former colonies. For many of these architects, the privilege to practice in new territories was simply an opportunity for architectural exploration unconnected to the dictates of an imperial state (Hess, 2000; Immerwahr, 2007).

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61 Crinson (2001, p. 233) notes that Ghana's National Museum by Fry, Drew, Drake, and Lasdun had "an unavoidable European association". The museum was crowned with a prefabricated dome, which Crinson (2001, p. 233) associates with the "Dome of Discovery" in Britain.
The significance of climate as a surreal neutral in the development of modern architecture seems overemphasised. In the first place, European/ British architectural responses to climate in colonial societies were not exclusive to modern architecture, although the modernist interventions were an extension to earlier known strategies (King, 1973; Lefaivre & Tzonis, 2001). The other limitation is that these earlier colonial interventions were largely undocumented and uncoordinated. The subtle remedying effect of climate as a neutral space for underlining colonial agendas seems challenged.

The aesthetic limitation of modernism in former colonies reflects the understated modernist's technoscientific mediation between climates in the tropics. The appropriation of modernist library interventions between Ghana's hot dry and humid climates demonstrated the distinctive aesthetic character of styled modernism (Bond, 1968; Holdsworth, 1959). Positive responses to climate apparently engendered alternate styled modernism that reinforced a rather place-centred outcome.

Moreover, the emphasis on a technoscientific climate reading of modern architecture, rather than of the climate, seemed to be its greatest undoing. The technoscientific standpoint distanced modernist interventions from the indigenous context by emphasising a linear binary transfer of knowledge. The climate inflicted socio-cultural dimensions that appear to have shaped modernism seem marginalized, especially from a narrative point of view. The socio-climate approach to discourse revealed in-between spaces in the development of modern architecture in these territories. d'Auria (2016) arouses postcolonial scholarly interest when she uses the phrase, "More than tropical" in the title to her article to express similar sentiments.

Further, following about six centuries of colonial domination, any process of decolonisation required gradualism. The indigenous support systems to project such an internalised agenda did not exist. Therefore, while a linear centre-periphery relationship is evident with perceived institutional control mechanisms, physical developments since can only be measured in terms of national, political and strategic decisions by the various independent states. In Ghana, Nkrumah had, at his disposal, a limited pool of indigenous Ghanaian architects to promote his transformational agenda. The architectural orientation of the few who eventually returned was

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62 These climate responsive techniques were apparent in the design of colonial bungalows, barracks, and hospitals for use exclusively by the white man.

63 Ghana's first black Prime Minister, later first President at independence in 1957

64 It was not until the 1960s that native Ghanaian architects such as Victor Adegbite, John Owusu Addo, Martin Abu-Badu, to name a few, came into the limelight of the architectural profession.
modernist – first, because of their training in Europe, secondly as they believed “most elements of their training abroad were not culturally specific” and “violent […] nor was the idea that colonial authority might be embedded in the profession of Architecture” (Crinson, 2003, p. 130; Elleh, 1997). The location of Nkrumah’s response to the tendency towards the neo-colonisation of architecture nevertheless reveals his ideological orientation. For Nkrumah, resistance to colonisation in architecture through the appropriation of modernism was ideological, much as it seemed egalitarian. Resistance to neo-colonisation meant being armed with an ideology (Hess, 2000). The ideology at independence to develop Ghana into a modern socialist state marked the process of disintegrating British colonial structures through the networks of socialist architectural connections. It did not indicate a change in the approach to modern architectural practice. Charles Polonyi of Hungary was an active participant at CIAM 1959 (Moravánszky, 2012). The Eastern connection, particularly the Balkan region, has had a shared history with West Africa as colonised regions, and found it easier to identify with Africans and conditions in Africa (Stanek, 2015). Increasingly, many architects from socialist countries had important commissions in Ghana, working with the Ghana National Construction Corporation (GNCC). Although British architects had commissions of their own, they were mostly in private practices and these were independent of metropolitan control. With a limited pool of indigenous Ghanaian architects to spearhead the transformational agenda, the socialist connection was a moment of convenience, and subtle opposition to colonisation.

Perhaps, the economic dependency perspectives have practical realities. The lack of local industry and construction companies to undertake such projects in the colonies at the time was evident (Stanek, 2015).

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65 Polish architects Jacek Chyrosz and Stanislaw Rymaszewski designed the Ghana International Trade Fair Center (ITC) initiated by Kwame Nkrumah in 1962 and commissioned after his overthrow in 1966. Others include Miro Marasovic (Yugoslav-Croatian) who designed the Unity hall of residence at KNUST and the Hungarian member of Team 10, Charles Polonyi, credited with the design of Flagstaff House. Polish architects Witold Wojczynski and Jan Druzyński also designed the iconic Job 600 edifice commissioned to usher in the Organisation of African Unity (OAU) summit in Ghana in 1965. There was also the African American connection with architect Max Bond credited with the design of the Bolgatanga Regional Library being the most prominent (Stanek, 2015).

66 Expatriate British architects dominated public departments such as the Public Works Department (PWD). PWD records, as cited by Crinson (2003, p. 130), indicate that the number of European Architects at PWD “was higher and their number was actually rising as at 1956”.
5.3.2.2 Counter-pastoral reading of modernism

According to Hitchcock and Scully (1993), while the mid-eighteenth century marked the disintegration of classical architecture in Europe, Romanticism commenced in its place. This transition involved reintegrating classical traditions with the construction needs of Romanticism. This process of integration consequently leading up to the development of modern architecture in Europe, could be discerned from a similar lens focusing on modernism in former colonies. A parallel is drawn between the emergence of modern architecture in British West Africa following the exploits of colonisation and its end, and the succeeding processes of decolonisation. The struggle for independence in these territories and its actualisation occasioned a subtle disintegration, or a process of disintegrating pastoral colonial structures, towards redefining the notion of nationhood. Important to this process was the attempt to demonstrate a counter agenda that, from an independent State perspective, addressed primarily basic internal needs through architecture and acted as a form of resistance to domination through participation in global explorative architectural space. This national interest coincided with a growing search for the development of modern architecture as a knowledge item embedded in the reading of the purpose of architecture by actors, whose professional interventions were guided, measurable, and devoid of a controlled colonial agency. Whether or not modernism occasioned colonisation through a power distance relationship, there was simply a coincidence of opposites. It depends on where emphasis is placed. From a purely architectural standpoint, the reading of modern architecture in Ghana reflects moments of ecumenism of indigenous conditions within the modernist aesthetics. However, beginning with the non-architectural viewpoint of its architectural substance, the next subsections present the counter-pastoral dimension of modernism.

5.3.2.2.1 Modernism as globalisation

Modernism is a non-identitarian epoch that can neither be described as a "European construct" nor a non-western imagining, but a universal construct with several entanglements (Prakash, 2011, p. 262). Thus, it is common to approach modernist discourse, even within the frontiers of Western society, by acknowledging French, German, American, and English modernism. Practitioners in former colonies sought to develop, in each country, a contextualised equivalent of the meaning of modernism. The fundamental reading of the purpose of architecture in these contexts, as suggested by Lu (2011), and in Wagner's (1896/1988) theory of modern life, or as the symbol of modernity as Baudelaire (1863/1964) proposed, legitimises the global pursuit of modernism. Even in terms of the globalisation of the style as an absolute concept, it is not entirely
accurate. The style is a Western mechanism deeply thrust into oriental societies. The Weissenhof example employing flat roofs and gardens, as well as cantilevered balconies, was considered inappropriate for a Western context primarily because it was typical of North African and Mediterranean architectures (Lu, 2011). Moreover, a distinctive reading of the style is discernible from the climate related responses. The development of modern architecture, therefore, accommodated strategies across the divide, and in Ghana, responses to climate and developmental planning became the cornerstone for architectural mediation.

5.3.2.2.2  

**Modernism as developmentalism**

Modernism was perceived as liberating the challenging divide in architectural practice and a symbol of consequent progress (Lu, 2011). It was considered a neutral space, distant in style from both the existing colonial architectures and indigenous traditions in former colonies. Modernism was projected as a work in transition, but concurrently, the ultimate direction of progress, especially in the post-war years following 1945. This made the nationalisation of modernism in independent States a step towards self-determination. The sheer pace, size, and volume of infrastructural development, and the social field created by making these projects accessible to the masses in Ghana, contributed to the liberation of a colonial mentality and the self-determination of progress (Evening News, 1963; Stanek, 2015). Furthermore, the dire economic conditions and the pronounced deprivation of former colonies made practical economic sense for the development of lean-based building design and construction systems, which identified modernism (Hitchcock & Johnson, 1997). The pursuit of modernism post-independence therefore reflected this mutual interest.

5.3.2.2.3  

**Modernism as nationalism**

Following on from the notion of progress, modernism in former colonies was considered more local than a Euro-American phenomenon. Gutschow (2009) observes that even the colonist required some form of education on modernism. Prakash (2011, p. 263) argues "in colonial times modern architecture at times found greater purchase in the colonies than in their metropolitan centres". This did not happen in a vacuum. For Lu (2011), modernism in former colonies symbolised nationalism for three reasons. Firstly, modernism was a means to self-determination and followed the open and global search in different parts of the world for an individual form of
modernity. In Ghana, these informed thoughts indicate that the patronage of modernism was also a form of resistance to colonisation. Hess (2000, p. 45) suggests the promotion of modernism in Ghana was clearly Nkrumah's symbol of "national and political achievement".

In the Nkrumah administration's approach to urban development, both the wish to enhance the stature of the administration and a desire to promote a sense of national identity are evident. The Nkrumah's government's response to the configuration of urban development and political infrastructure inherited from the British was the importation of Architectural modernity and the reconceptualization of plans for urban renewal [...] developed under the British colonial administration, in turn advanced the notion of the constructed community [...] the advancement of a constructed community serves to submerge divergent cultures within a façade of homogeneity. (Hess, 2000, p. 42)

Perhaps Bhabha's (1994/2012) assertion of mimicry as a form of resistance to colonial domination prevailed in Nkrumah's orientation towards the much-fancied architecture of the day. In these terms, Nkrumah was seeking to create an egalitarian society, equivalent to current trends in the West, at least on the infrastructural level. However, beyond the superficial, it was also important to the government to have these attempts at mimicry contextualised. Le Roux (2004b) underscores how the postcolonial nationalist agenda of Nkrumah and other African leaders affected the efforts of John Lloyd's reorganisation of the structure of the School of Architecture in Kumasi in Ghana to reflect thoughts of a process of Africanisation.

Secondly, in absolute aesthetic terms, modernism was largely unrelated to Western colonial architectures that were the "eternal style" known in the colonies prior to the post 1945 modernist architectural development (Prakash, 2011, p. 262). Ernst May agrees that modernism was a better option for charting the course of nationalism in the colonies, than earlier colonial architectural forms (Gutschow, 2009). Embracing modernism was therefore an opportunity to dissociate from the known symbols of colonisation. Stanek (2015) observes that modernism's appeal to Ghana's nationalism seemed to be the visual contrast with earlier colonial buildings.

Thirdly, many of these independent countries were amalgams of several ethnic groups of different cultures, and this challenged the process of nationalism through architecture. The significance of modernism within this cultural pluralism was its specific aura as a neutral practice in the attempt to construct a stable homogenous nationalism from the multitude of indigenous cultures (Lu, 2011).
Modernism as postcolonialism

Pallasmaa (2007, p. 136) indicates that "architecture is not an expression of knowledge and certainty, but of existence and faith and a perpetual search for reconciliation". This echoes the evolving nature of modern architecture in Ghana and other former colonies. Modernism therefore is a mediation of the entanglements brought upon it through architecture (d'Auria, 2014). Three mechanisms are argued to link indigenous architectural knowledge to modernism – namely, climate, sociological/developmental planning, and cultural and material symbolism (Abel, 1997/2017; Colquhoun, 2007; Liscombe, 2006).

Modernism in Ghana is first constituted as a body of knowledge founded on techno-scientific responses to climate derived partly from indigenous knowledge (Abel, 1997/2017). However, these narratives understate the important place of indigenous knowledge in the evolution of a more technoscientific climate discourse (Lai, 2010). Instead, the technoscientific climate discourse emphasises a linear binary transfer of knowledge, placing the colonial State at the centre of knowledge development (Chang, 2011). However, shifting the discourse towards the architect, their thoughts, experiences, and how these shape various modernist architectural commissions, reveals the important place of indigenous knowledge in modernist architectural development with reference to climate. Drew and Fry (1964) indicate that architectural practice in the colonies depended largely on the architect's inner self. Bond (1968) indicates, for example, that the conception of the Bolgatanga Regional Library was influenced by the local architectural responses to climate.

Giedion (1967, p. 705) is right when he says that modern architecture is largely an attempt to address a "moral problem", and for Colquhoun (2007, p. 150), it is the "essentialist model" based upon the local context. Situating modernism as the absolute style invites "architectural bankruptcy" (Giedion, 1967, p. 706). To conceive of modernism as a style implies it is a matter of authenticity; however, modernism is a matter of a condition within which architecture is imagined. For early modernist practitioners in Ghana, other than climate, the challenge to architectural practice was social. Architecture and planning as parallel disciplines in this regard forged an alliance and took a single narrative response to tropical conditions at both the building and neighbourhood scale (d'Auria, 2016; Jackson & Holland, 2014). Accounts from the 1953 conference on tropical architecture show the importance placed on seeking architectural solutions through planning (Atkinson, 1953a; Atkinson, 1953b; Koenigsberger, 1953; Marshall, 1953). The translation of developmental planning issuing from indigenous backgrounds to modern designs featured prominently. Pallasmaa (2007) observes that the indigenous
architecture of West Africa, much as it appeals to the visual mind, is especially interstitial. The mechanism that links these to modern designs (other than climate) is planning. Reference to the indigenous courtyards as an efficient adaptive strategy and social organism, among other functional conditions of indigenous habitats, affected the planning and design of modern housing and educational infrastructures. This was effectively adopted by Fry and Drew in the planning of Tema Manhean (Jackson & Oppong, 2014; Jackson & Holland, 2014) with a flexible approach for the Volta River Resettlement project in Ghana, which saw several engaging consultations with indigenes, and accounts for the adequate responses that it is known for (d’Auria, 2016). Similarly, planning was pivotal to Ernst May’s 1947 Kampala plan (Gutschow, 2009). Gutschow (2009, p. 243) indicates that May used planning as a means “to create communal culture, or Gemeinschaftskultur, among urban dwellers”. This was a clear direction in practices related to people’s needs and cultural aspirations at the time. These strategies must have constituted what Jackson and Holland (2014, p. 277) describe as “reductive modernism” in relation to the works of Jane Drew and Edwin Maxwell Fry. The prominence of a style seemed clouded with a focus on responses that addressed fundamental needs of comfort and placeness in architecture.

The visual and material culture exists in-between, not as a collective endeavour but as exclusive interventions by a select group of modernist practitioners as a means of mediating modernism (Balaara, Haarhoff & Allesandro, 2018). Drew and Fry, for example, sort to mediate between their experimentation with modernist principles, the climate, and social experiences, with the reinvigoration of indigenous visual aesthetics (Liscombe, 2006). Thus, Drew and Fry appropriated indigenous art forms, shapes, and concepts for the design of balustrades and breezeblocks for their commissions, especially in the extensive school building projects (1945-1950s) (Jackson & Holland, 2014). The quest to develop a hybrid aesthetic in essentially concrete modernism followed the inclusionary logic of postcolonial discourse to which Drew and Fry, at times, described as being humanist (Jackson & Holland, 2014; Liscombe, 2006). The use of concrete became synonymous with modernism, particularly because the local building industry was yet to grow on an industrial scale (Stanek, 2015). Harry Weese had a different take on modernism with the design of the Former United States Embassy in Ghana in the mid-1950s. Weese was confined to the limits of the client’s demands that also interested him. Following

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67 Coming at a time that the US government was primarily concerned with the responsiveness of the designs for Embassies and their reflection of the architectural context of sister nations; it necessitated the setting up of the Foreign Building Operation unit in 1954 to respond to this need. Harry Weese was subsequently commissioned in 1955 to
an exploratory study of local architecture in Ghana, Weese was impressed by the indigenous wooden structures and stilt construction techniques, which were adopted for the Embassy architecture among other mediating techniques\textsuperscript{68} (Bruegmann & Skolnik, 2010; Herz et al., 2015).

These practitioners approached modernism in Ghana by critically appropriating vernacular tectonics through planning, the knowledge of the climate, and the material and visual-cultural empathy, as a way of mediating the postcolonial space. These responses reflect Pavlides' (2007) position on the ideological, experiential, and anthropological approaches to modernist regionalism.

5.4 The scope of the modernist renaissance in Ghana and its relationship to the architectural reading of modernism

In recent times, there has been talk of a modernist renaissance within professional circles, especially among younger practitioners in Ghana. These recent interventions, by their scope, nature, and interpretation, contrast with the mediation of practice in relation to contextualised conditions known to the architectural dimensions of early modernism.

Modernism in Ghana and British West Africa died in the 1970s due to practical concerns. Uduku (2006) notes that political instability in the ensuing years led to the demise of modernism. Many of its proponents had to vacate their host countries due to frequent coup d'états. Furthermore, the economies of these West Africa colonies were near collapse by the 1970s and therefore

design the US Embassy in Ghana to reflect the local context. Actual construction started after Ghana's independence in 1957.

\textsuperscript{68} The tapering buttresses of Wa Naa's Palace (traditional residence of the Chief of Wa in North-Western Ghana) reminded him of native wooden spears and red anthills in Ghana and inspired his concept for the new embassy. Weese's response made inferences to these vernacular structures in many respects. The 8000 square foot building is square and has an inner courtyard to enhance ventilation. To facilitate ground ventilation, the building is raised above ground, reminiscent of the indigenous coastal structures. The design of the columns also pays homage to the Sudanic style buttresses of Wa Naa's Palace turned upside down with a pointed end tapering from the roof and ground at 6 inches towards the first-floor level at 16 inches. The tapering columns are rotated to 45° angles, also providing an outlook reminiscent of Wa Naa's Palace. Unlike most of the concrete modernist structures, Weese instead adopted a termite resistant local mahogany wood, which was further treated, as an adjustable louvred façade encircling the whole perimeter of the building. These adjustable louvred structures are reminiscent of indigenous strategies and enhance ventilation. The structural system adopted was also an earthquake resistant strategy as much of Accra sits on a fault line (Bruegmann & Skolnik, 2010; Herz et al., 2015).
could no longer support developments to that scale. Where economic recovery was sustainable, such as with the Nigerian oil boom in the 1970s, it led to negative development of ‘high maintenance architecture’ as an expression of wealth and modernity (Uduku, 2006, p. 14). In Ghana, there were issues of leakages due to the extensive appropriation of flat concrete roofs. These were difficult to maintain and initiated a change in practice, which ultimately was merely a change in the style of the architecture.

From interview accounts, however, an interesting and important dimension indicates modernism never truly ended. Instead, this notion of a demise is connected to the teaching of modernism in Ghana. It suggests that there was no philosophical direction for the School of Architecture at KNUST at its inception, except to train students to fill the technical void in housing provision. It produced many celebrated draughtsmen in this regard (T1, personal communication, October 11, 2016). The curriculum of the KNUST-School of Architecture at inception, however, although not stated in absolute terms, suggests a certain philosophical orientation towards place-centred education (KNUST- School of Architecture, 1965). Le Roux (2004b, p. 385) observes that the KNUST School was a tropical school and “many aspects of the school's activities resonate with Nkrumah's thinking” of postcolonial development. The main concern is that the History of Modern Architecture which focused on the origin and principles of modernism, was divorced from the Society and Community module, both of which were integral to the History of Culture course at KNUST (KNUST- School of Architecture, 1967a). Today, the rural survey course in the second year reflects the Society and Community module. This is geared towards bringing students to the realities of society, culture, lifestyle, and their place in architecture. Nonetheless, it is not specifically the case that this need is necessarily discussed in terms of the theory of modern architecture relative to Ghana. As recounted by some interview participants, modernist architectural interventions by the youth of today are a reflection on the binary approach in teaching modernism. The endemic dissociation between reading the purpose of architecture and the emphasis on the style requires rethinking.

The style is the problem, that word style is what has killed contemporary modernist architecture. Everybody is teaching style, what is style? What does style really mean based on what? If it’s a style based on an understanding of abstract relation between the loom weaving kente and the final product and a style emanates out of that, at least it’s a home-grown style. But it’s not based on imagery and symbolism. And that difference in architecture is pastiche. It is only face deep, what happens on the scene has nothing to do with

69 However, although there were few indigenous architects, among the more prominent were John Owusu Addo, for example, who carried forward the idea of modernism as a positive reflection of context. However, these appear to be isolated instances.
what happens inside. And that is my explanation of the architecture we have today. (T2, personal communication, January 09, 2017)

While modernism as an evolving concept at the time of its pioneer experimentations in Ghana in the 1940s may have been conceived in terms of its potential to inhabit indigenousness, from the benefit of the ensuing developments since its inception, modernism ought to be theorised and taught in the affirmative. Demonstrations in theory, as well as those of practice, such as the interventions by Maxwell Fry, Jane Drew, and Harry Weese and company, could form the core of a new integrated approach for the teaching of modern architecture relative to Ghana. Contemporary twenty-first century interventions by Joe Osae Addo, Lesley Lokko and others are few but positive developments that project modernism and its values, which in architectural terms manifest more through the thoughts of the architect than through a constructed State relationship.

Thus, it is common for select practitioners to argue that modernism "hasn't come to an end. In fact, if for anything we have the Akan proverb sankofa, which means go back for it and its happening for serious practices" because of its transcending value (T12, personal communication, November 1, 2016). There has been the demise of the style and its reawakening in twenty-first century practices. However, the context and content of global modernism, or of the Ghanaian translations, are fundamental to what can be described as the architecture of humanism. The failure to carry forward the intellectual side of modernism beyond the 1970s is central to the misdirection of the modernist renaissance, and generally, architecture in Ghana today (Pellow, 2014). Positive modernism requires a deep structured translation of the immediate context. In Ghana, the approach followed both the technologic and the socio-cultural with a passive stylistic presence.

### 5.5 Chapter summary

The chapter considered the relationship between the theory of modernism and the scope of the modernist renaissance in Ghana. What is established is that the critical architectural sense of modernism is its peculiar affinity with humanism or realism, or its counter-pastoral dimension, and what, perhaps, echoes the relationship between CAP and architectural theory and practice. In Ghana, as is common in other former colonies, the idea of the climate and developmental planning were profoundly explored to advance a dialect of global modernism. With the emphasis on firstly, architecture as a subject of humanity, and secondly, decoupling the role of the colonial
State by placing emphasis on the architect, their thoughts, and approaches to practice, early modernist interventions could be described as positive hybrids with postcolonial significance. The idea of a style as an elastic knowledge product rooted to context and typical of early modernist interventions, rather than style as a fixed aesthetic envelope characterising the modernist renaissance, is synonymous with the fundamental theory on modern architecture advanced earlier by Wagner (1896/1988) through post-1940 thinking.

Nevertheless, as Mumford (1948, p. 19) predicts, the future of modernism "rests in the hands of the living who will create it, and of the society of which they are part". From the benefit of the theory of modernism in Ghana as the confluence of traditions, a positive future direction may commence with a dual approach to the teaching of Ghanaian modernism in Schools of Architecture with practical references emanating from within.

Through the specific case of J. Max Bond Jr. and the Bolgatanga Regional Library, Chapter 6 gives a mediated account on modernism in Ghana in respect of the issues raised in this chapter.
6.1 Introduction

The chapter draws on the architect, J. Max Bond Jr.’s architectural influences in the context of his design response in the Bolgatanga Regional Library, with the aim of advancing the idea of hybrid modernism in postcolonial Ghanaian architecture. Bond considered the Library his first independent work and the most profound. However, as an architect-academic working alongside several celebrated modernist practitioners, Bond’s Library appears to have had strong influences. Bond’s expression of modernism in the Library reflects the mediation of three cultures: the northern vernacular building culture; the principles of Western modernism; and his hybrid background as an African-American architect. His response, much like other socio-climatic responses in late tropical practices in Ghana, demonstrates how the architecture of the marginalised manifested in the use of concrete also constitutes a reflection of the postcolonial mediation of space.

6.2 Background of the Bolgatanga Regional Library

The Bolgatanga Regional Library, located in the hot-dry environment of north-east Ghana, was part of a post-independence literacy intervention programme in underprivileged communities. The goal to decentralise the culture of reading by bringing purposed libraries closer to the doorsteps of those in remote areas in Ghana was timely. The development of regional libraries and subsequently, district libraries countered earlier challenges of access. Mobile van services had sporadically served these communities until then.

In 1964, J. Max Bond Jr. was commissioned by the government of Ghana, acting through the Ghana Library Board (GLB), to design the Bolgatanga Regional Library in a private capacity (John

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70 At independence in 1957, Nkrumah, Ghana’s first President (1957–1966), embraced this literacy interest and considered it a matter of necessity. Nkrumah’s efforts through the Ghana Library Board witnessed the design and construction of the Bolgatanga Regional Library. The Library has had an enormous social impact on the community since its completion and use.
Addo, personal communication, November 01, 2016). The Ghana National Construction Company (GNCC) constructed the Project, with Mr. Allotey as the Regional Manager and Mr. Hagan as Site Foreman (Bond, 2005). J. Max Bond Jr. belonged to an elite, educated African-American family of Louisville, Kentucky. The Bonds were exceptionally high achievers compared to other black families in America. There were high expectations with every Bond generation (Williams, 1972). J. Max Bond Jr. followed the footsteps of his seniors in the challenging profession of architecture. Bond’s interest in architecture began during his father’s time as Dean at the Tuskegee Institute where he spent time fondly admiring its beautiful architecture. He eventually entered Harvard College, graduating in 1955 with a BA degree and an MA three years later. While on a Fulbright Scholarship, Bond worked at Le Corbusier’s Paris office under the direction of Andre Wogenscky from 1958 to 1961 (Rowell, 2015). He returned from his sojourn in France in 1961 to work in the New York firm Pedersen and Tilney before relocating to Ghana in 1964 (Bond, undated), at which time he designed the Bolgatanga Regional Library. The Library represents one of Bond’s significant contributions to architectural practice and reflects, in his view, what architecture ought to be (Bond, 28th March, 1966).

The Library continues to remain prominent in architectural discourse and this is based on the nature of its commission. By its location in a rural community at the time, Bond and Ghana Library Board as the clients were keen to develop a concept closer to known vernacular practices in Bolgatanga. The resultant composition therefore draws from the architecture of the immediate setting. The Library is also recognised as being among pioneer works in the area of sustainability (Rowell, 2015). It is celebrated for its non-reliance on air conditioning, while maintaining internal comfort at acceptable levels (Bond, 1968). The building is described as an “essay in form”, better appreciated for the accomplishment of its parts than for its overall outlook (Uduku, 2008). The Library presently accommodates other out-of-service uses, such as Sunday church services, in addition to its core function. A recent visit to the Library revealed significant deterioration and leakages due to poor maintenance regimes. However, the architecture is unaltered and representing its original design, its place in architectural discourse remains significant.

A personal communication with John Owusu Addo, the first Ghanaian Head of School in the KNUST Architecture Department and Bond’s colleague, indicates Bond designed the Library directly as a commission by the Ghanaian government through the Ghana Library Board at the GNCC in 1964. Supervision of the project was during his time in the Department from 1965.

The Project was initially estimated to cost US $140,000. Bond employed Mr. Nat Cofie as his Chief Draftsman for this Project (See: Bond, 2005).
Among many deliberations (see Art in America, 1970; Duke, 2004; Rowell 2015; Stanek, 2015) on the Library, three main publications provide detailed architectural accounts (Bond, 1968, Le Roux, 2004b, Uduku, 2008). The most recent by Ola Uduku focuses mainly on the composition of the Library and the multiple functional uses since its construction without any alteration to its original construction and central function. The article briefly describes the passive cooling strategies of the Library design. In addition, the relationship between Le Corbusier's mannerisms in design and Bond's sculptural composition and use of open plan spaces (Uduku, 2008) is mentioned. However, the article does not give a detailed, critical view of the architect's design philosophy and the Library, but instead emphasises the present adaptive use.

The second article by Hannah Le Roux focuses on the Bolgatanga Regional Library to advance the idea of architectural mediation. For example, she notes that the Library is perhaps the one "that most strongly drew from African forms" (Le Roux, 2004b). Furthermore, she constructs a relationship between rural studies conducted by the work colleagues of Bond at the KNUST School of Architecture and shows how these enhanced Bond's independent engagement (Le Roux, 2004b).

The readings of the Library architecture by Le Roux (2004b) and Uduku (2008) are drawn from Bond's detailed account of the Library in the article "A Library for Bolgatanga" (Bond, 1968). Bond gives a tacit description of the local Frafra house, its form between the seasons, and how this influenced his design output. While Bond is explicit in terms of the symbolic expressions of the vernacular in the Library composition, responses to climate are his subjective views with potentially connected readings from the knowledge of the vernacular. Although he does not explicate the climatic relationship between vernacular responses and the Library in exact terms in his article, he admits that the design was influenced by the local climate (Bond, 1968).

It appears a critical review of the thoughts and architectural inclinations of Bond, and how they influenced the library design response, is yet to be realised. The detailed reading of the Frafra house form, in the context of the hot-dry climate and its relationship to the library concepts, potentially extends Bond's limited climatic account. In seeking to understand the advancement of "hybrid" (Gutschow, 2009, p. 239) modernism in former colonies, the unique position of the

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73 KNUST refers to the Kwame Nkrumah University of Science and Technology in Kumasi Ghana, where Bond taught at the School of Architecture.

74 It can be observed, however, that Bond designed the Library in 1965 at the GNCC prior to joining the KNUST School.

75 Gutschow uses the term 'hybrid' modernism to denote an approach neutral to both its historicised colonial nature and its radically indigenous form.
Library and the architect is also potentially crucial. This chapter seeks to establish the interconnectedness between Bond's thoughts and architectural influences at the time of the Library's commission and their place in the design composition.

6.3 Overview of regional library architecture in Ghana's humid zone

The development of regional library buildings in Ghana, post-World War II, coincided with the pluralism of modernism in former colonies. During this time, Ghana, formerly the Gold Coast, was heavily reliant on expatriate architects (Kwei & The Ghana Library Board, 1975) whose practices were divided between technically-minded techno-scientific responses that emphasised the climate, and interventions that mediated climate as well as indigenous architectural knowledge. The library architecture of the humid zone mostly emphasised the former and appropriately responded to the humid climate.

A typical climatic response to a library design in this zone includes maximum cross ventilation while adopting minimal shading to mitigate the effects of driving rain and glare (Drew & Fry, 1964). The objective is to create libraries that are light in composition as much as possible. This usually results in generous fenestrations (Holdsworth, 1959). For example, the Ashanti Regional Library in Ghana\textsuperscript{76}, designed by a Lagos based architect, incorporates large areas of high-level, adjustable louvre windows and is supplemented with "breathing blocks" (Holdsworth, 1959, p. 285) at the external wall base to facilitate air movement within spaces. Similarly, the Sekondi Regional Library has large areas of glazed openings to enhance ventilation (Kwei & The Ghana Library Board, 1975). The appropriation of depths for shading and reduction of glare within this climate are common to the architecture of these libraries. The Ashanti Regional Library has a long running verandah, which shades and connects adjoining rooms. It is also characterised by the prominence of concrete hoods over windows to reduce excessive glare (figure 6.1). The Kenneth Scott Eastern Regional Library in Koforidua (1955) has its roof projecting beyond the enclosing walls and supported on free-standing columns for effective shading, while the generously glazed facades allow for ventilation. Similarly, the children's section and exhibition halls in the Accra Central Library\textsuperscript{77} visually convey the character typical of climate related

\textsuperscript{76} It was the first Regional Library in Ghana to be completed in 1954.

\textsuperscript{77} The present premises was officially opened in 1956, with expansion works to accommodate the exhibition halls and the children's library completed and commissioned in 1961. Nickson, Borys and Partners designed the Library and its extensions.
architectural expressions in the humid zone. Openness, light and shade are a common theme. The building fabric incorporates a double skin façade. The inner façade utilises large glass panels and the external façade is ceramic tile screens to facilitate ventilation and to provide a minimum amount of shade for the openable glass panels (figure 6.1).

Figure 6.1. The climatic response strategies of library architecture of the humid zone in Ghana: a) the exhibition hall of the Accra Central Library depicts the openness of the external ceramic tile screens that shades the second fabric made of openable glass panels; b) the Ashanti Regional Library displays the shading, long running verandah, concrete hoods as well as large areas of louvered windows on the façades.

6.4 The development of Bond's architectural approach

Bond's architectural approach developed from his African-American background that was deeply connected to African-American socialism (Bond, 1995). Bond's approach to practice developed from his experience and perception of American as a hybrid layered culture (Bond, 1995). In addition, Bond's association with a mixture of architects in America, France, and Ghana shaped his approach to practice (Bond, 2005).

As an African-American in America, Bond considered the African-American community as neither African nor American but unique in itself with the growth of a strong hybrid culture. Bond indicated that although African-Americans are African by colour, and historically and culturally connected to the motherland Africa, they cannot regard themselves as Africans (Dutton, 1991). African-Americans are mistaken “when they do not accept the strength of their own culture in America and hark back to Africa” (Dutton, 1991, p. 87). Instead, Bond regarded the African-American
culture with its music, dance, and literature as unique, authentic, and of a higher value (Dutton, 1991). Bond's architectural responses were therefore shaped by his desire to mediate practice as an expression of hybridity and authenticity.

Bond's experience of African-American marginalisation in America further influenced his association with African-American socialism. African-American socialism is a political and economic ideology of communism intended for black liberation in America and other black societies globally. Bond's choice to go to Ghana in 1964 was linked to his African-American socialist connections in Ghana. Ghana was a beacon of hope for the Pan-African network, who took interest in the success of the newly independent State and wanted to contribute to its post-independence development. Ghana hosted prominent African-Americans, especially W.E.D. Du Bois who was at the forefront of African-American socialism at the political level. Bond is the most notable in architecture. Bond's interest in Ghana came through African-American friends who had left America for their African homeland. Bond's wife, Jean, was also connected to the Pan-African network and the American Civil Rights Movement through her work with Freedomways. Bond's interest in socio-cultural translation in architecture underpinned his socialist intervention in practice.

The diversity of American culture as a derivative of European, African, and Asian culture influenced Bond's practice. Because of the diverse contributions from various American societies, Bond considered American culture as unique and a positive place for architectural mediation (Bond, 1995, para. 4-5). As an African-American architect, therefore, Bond was involved in both issues of contemporary American architectural interests as well as concerns which affected the marginalised (essentially black communities) within American society.

Bond's diverse architectural exposure at the Harvard School of Design and especially his post-qualification training shaped his practice. His exposure to several of the best African-American architects is significant. Bond appeared to associate with the hybrid creativity of Paul Williams, the socially inspiring context-based practice of Hilyard Robinson, and the commitment to scale

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78 Friends including John Henry Clarke and Tom Felings influenced Bond's interest in Ghana.

79 'The marginalised' is used in a contextual sense for juxtaposing the two poles that shape postcolonial discourse.

80 First African-American person admitted into the American Institute of Architects in 1921, Fellow in 1923, and posthumously awarded the prestigious AIA Gold Medal in 2017. He is the most famous of African-American architects, known for his eclectic creativity.

81 Robinson is noted for his influential works in public housing within African-American communities. He was at the centre of the passage of the first National Housing Act. Robinson understood architecture as a reflection of function and contemporary culture. Amongst his collection of works, the Langston Terrace housing caught the attention of
and proportions of Julian Abele. Bond had the strongest affinity to the modernist practices of Robinson's residential architecture for various reasons. Robinson's dynamic play with scale and proportion and the appropriation of the social and cultural context critically influenced Bond's responses in architecture (Bond, 1997).

In addition, Bond's association with Le Corbusier impacted his practice. Although he never got to see Le Corbusier, his later practice and architectural interest strongly recalled Le Corbusier's work from the 1930s onwards. Le Corbusier's critical adaption of modernism to local conditions in new territories was a cornerstone for Bond's architectural engagement. Considerations of social structures and climate known in Le Corbusier's forms (Wogenscky, 2006) retained a strong presence in Bond's practice.

However, Bond's first-hand experience of the context of modern architecture in Ghana impacted all his later works (Bond, 2005). Bond connected with the building culture upon his arrival in Ghana as the intersection of three concerns, namely a "[s]trong traditional architecture, and varied from region to region. […] Responsive to climate, agriculture, and lifestyle […] and] [m]odern buildings for new institutions and in cities" (Bond, 2005, point 6). By 1964, modern architecture in Ghana had transitioned from an earlier focus on climate issues, to emphasise the social agenda and task of architecture (Le Roux, 2003). This appeared to represent the emerging global perspective on modernism in general. For example, at the 1953 CIAM meeting in Aix-en-Provence, the presentation by Candilis-Josic-Woods, which emphasised the place of inhabitants, their habits, and their living conditions in architectural development, challenged the scope of earlier modern architectural intervention strategies (Avermaete, 2005). In former colonies, postcolonial concerns and issues of globalisation necessitated the rethinking of tropical modern practices (Lefaivre & Tzonis, 2001).

Lewis Mumford. This project reflects Robinson's view of modernism and the important role of social upliftment of living conditions within the framework of contemporary practice.

The prominent African-American who worked as Chief Designer in the office of Horace Trumbauer and was responsible for a host of projects including the Philadelphia Museum and the Duke University Chapel. He was consumed by classical practice, having studied at the Ecole des Beaux Arts after graduating from the School of Architecture, University of Pennsylvania as the first African-American. He would design anything as classical even if the client demanded otherwise.

Further, Le Corbusier's expression of contrast between visual and tactile, light and shade, and scale and proportion in his architectural forms are discerned in Bond's Library architecture. Le Corbusier's sculptural take on modernism represented in his later works, especially in Chandigarh and the Ronchamp Chapel, also have a positive presence in Bond's work.
In Ghana, Drew and Fry were noted for their developing planning approach that integrated socio-climatic thinking in the planning and design of settlements such as Tema Manhean (Jackson & Oppong, 2014). Their intervention through the school building programme (1949–1957) (Liscombe, 2006) is considered as humanist (Jackson & Holland, 2014), integrating vernacular knowledge of "customs and social practices" with technical responses to climate and topography (Liscombe, 2006, p. 194). Similarly, the Harry Weese approach in the former United States Embassy building in Accra appealed to the local context, as well as climate—especially in the vernacular architecture of coastal regions—through form composition and materiality (Bruegmann & Skolnik, 2010; Herz et al., 2015). These approaches to design, which looked to the vernacular as reductive modernism, indicated the emerging direction of modern architecture in Ghana. Bond developed an understanding of the socio-climate, typical of both Drew and Fry's commissions (Liscombe, 2006), and its relationship to the regional vernacular strategies as a basis for his design responses (Bond, 2005).

Bond's background and architectural influences found a meaningful expression in his practices, especially the Bolgatanga Regional Library, which reflected a strong hybrid identity drawn from both his modernist inclination and the socio-climatic/developing planning strategies of tropical modern practices in Ghana.

6.5 Bond's professional networks in Ghana (1964-1968)

Although Bond's interest in Ghana grew through the Pan-African connection in Ghana, a telegraph to the president of Ghana (Kwame Nkrumah), and a job offer by GNCC (the infrastructure arm of Nkrumah's postcolonial developmental agenda) (Bond, 2005) made his visit to Ghana an easy decision. From 1964–65, Bond worked with the GNCC (Bond, 1990) as the Chief Architect directly responsible for projects at the seat of government (Flagstaff House). Bond's designs at Flagstaff House included the zoo, the broadcast studio, meeting halls, as well as quarters for guards. Bond witnessed the separation of architectural practice between British practitioners (who were mainly in private practice) and architects from Eastern Europe (Stanek, 2015) during his time in Ghana. He identified with the Eastern European architects (Ghana

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During Bond's time in Ghana, the Gold Coast Society of Architects (GCSA, founded in 1954), made up of mainly British Architects, existed as a separate entity to the Ghana Institute of Architects (GIA, founded in 1962). Members of the Gold Coast Society of Architects were mainly engaged in private practices. In 1965, these societies merged. The Ghana Institute of Architects included as its members practitioners from the Socialist East and indigenous Ghanaian Architects, most of whom worked for the government at either the GNCC or Public Works Department (PWD) (Ghana
Institute of Architects, 1964) and their socialist orientation. Political resilience by the socialist-oriented government of Nkrumah meant there was an alliance with architects from Eastern Europe. This was a means to decolonise architectural practice, which was dominated by British practitioners (Stanek, 2015). Bond embraced the GNCC as he was more likely ideologically inclined to Nkrumah's vision and strategy of development. However, with the overthrow of the socialist government in 1966 and the demise of Nkrumah's vision of postcolonial development, Bond's return to America seemed imminent. Bond designed the Library during his time at the GNCC, shortly before he joined the KNUST School of Architecture in late 1965. Designs by architects at the GNCC at the time mostly "appear[ed] as points in their personal creative trajectories" (Stanek, 2015, p.431). However, Bond familiarised himself with designing for the particular climate and culture following extensive research into building design in Ghana in the period prior to 1964.

Bond embraced inclusive architectural practice, and this was reinforced by the opportunity to teach in a hybrid School of Architecture at KNUST. The KNUST Architecture School mirrored the focus of late tropical practices in Ghana, which greatly interested Bond. The School also represented a bridge for various architectural networks in Ghana at the time. Bond worked alongside academics from diverse societies in the West, Eastern Europe, Africa, and Asia (KNUST-School of Architecture, 1966). Bond taught "theories of proportions and form" as an area of interest (KNUST-School of Architecture, 1967a) and, together with Lutz Christians, he administered the third-year design studio. They developed programmes that brought both them and the students into contact with the social and environmental realities of rural architecture in Ghana. Social and environmental studies were prioritised in the School's curriculum in planning and design courses. The challenges of planning were related to the challenges of design. Thus, appropriating architecture prompted the appropriation of planning strategies emanating from indigenous forms and tectonics. The philosophy of the School was thus concentrated around two themes: "tradition teaches" and "technology teaches" (KNUST- School of Architecture, 1965). These encounters further shaped Bond's growing love for place-centred responses in architecture.
6.6 The development of the Bolgatanga Regional Library

While the development of libraries in Ghana's humid zone were aided by tried and tested strategies due to the high concentration of colonial building culture, the hot-dry belt posed a new challenge to modernist architects. The underdevelopment and rural sociology of this zone implied that the Bolgatanga Library needed to convey meaning on several fronts beyond the science of comfort. Bond's design formed part of other positive experimental interventions in the hot-dry belt, especially in terms of physiological comfort. These included Patrick Wakely and Khamil Mumtaz's proposed school building concepts (Wakely, 1966; Wakely & Mumtaz, 1969).

Bond's response represented the nexus of an experiential translation of the socio-climate to an ideological modernist approach. The Library is perhaps the single project that reflects Bond's thoughts on architecture. It is also where his critical approach to practice recalled that of his mentors. As he indicated, "[A]nyway, it will be my first real building in that I designed it completely and supervised every aspect of the working drawings, so you will be able to see what I think about Architecture, at least what I think about it right now" (Bond, 28th March, 1966, para. 4). Bond spoke highly of the Library, especially on how it formed the foundation for his following architectural engagements (Bond, 2005, point 8). Bond noted with conviction that the Library would emerge amongst others as the new image of architecture in Ghana (Bond, 28th March, 1966).

The indigenous architecture of Northern Ghana, particularly the Frafra domestic architecture, was critical to Bond in two ways. His preference for context-based practice was foremost. Secondly, the development of the Library at the time was a symbolic and transactional means for the promotion of literacy in a remote community. For Bond, the Library needed to represent context in an expressive form. Bond's professional view matched with the specific design guide of the Ghana Library Board (GLB) in relation to library concepts for rural Ghana. The GLB proposed that the Bolgatanga Library be uniquely designed as a symbol of literacy through diverse but informative expressions in architecture (Agyemang & The Ghana Library Board, 1975).

Bond's library concept reflected the translation of the physiological, psychological, and experiential character of domestic Frafra architecture. However, Bond's desire to relate to the material culture was limited by several factors. At the time, no local building authority would permit the use of landcrete blocks for "a prominent modern building" (Bond, 1968, p. 68, para. 8) such as the Library. In the hot-dry belt, timber was also scarce and rarely used for buildings. Both materials were initially proposed by Bond but were considered unsuitable. Thus, the Library is constructed from stuccoed concrete blocks with special blocks moulded for the window
frames (Bond, 1968; Uduku, 2008). The use of concrete had become increasingly localised over time. It was the predominant material for building construction, especially in urban areas.

Bond defined place through an understanding of how human factors determined the form and nature of the indigenous Frafra architecture. Bond connected primarily to the seasons, and how these appealed to the visual and tactile conception of placeness in Frafra architecture. He revealed that “during the rainy season the savannah surrounding the town of Bolgatanga looks like a vast stretch of uninhabited farmland. As the dry season approaches and crops are harvested, the Frafra house begins to emerge and spot the landscape” (Bond, 1968, p. 66, para. 2). The Frafra house, much like the Kasena house to the West (figure 6.2), consists of fractal complexes of concentric rooms linked-up by connecting walls that define a series of open courtyards. Each space, including those for domesticated animals, is clearly delineated as individual units within the whole composition. Increasingly, the circular forms are interspersed with rectangular and square plan forms. Despite the changing form, roundness is a common feature to both (figure 6.3). Walls taper from a wide base narrowing towards the top. Some of the rooms have a thatched roof. Others are flat, mud construction with access stairways used for drying food produced during the day and for night-time living during the rainy season (Prussin, 1969). These principles of the indigenous Frafra architecture were consequently abstracted in the Library.

Figure 6.2. The visual character of Frafra domestic architecture: a) Round forms of flat and conical thatched roofs; b) Accessway to the flat roof top from within the courtyard, which is an alternative space for night time living.

The courtyards are utility spaces for a number of functions including drying, cooking, and night-time outdoor sleeping in the rainy season. The courtyards also offer security and privacy.
Bond therefore appears magnanimous when he denounced himself as a regionalist. He indicated, "[A]lthough I am not particularly fond of regionalism in architecture, the design of this Library was very much influenced by the indigenous domestic architecture of Northern Ghana" (Bond, 1968, p. 66, para. 1). It seems to be the case that Bond was not overly radical in his approach to regionalism. Thus, his sense of regionalism was reflected in a fusion between place-centred traditions and his modernist inclinations.

### 6.6.1 The architectural strategies of the Bolgatanga Regional Library

Bond related to context through the knowledge of indigenous Frafra domestic architecture in three ways: the knowledge and appropriation of climate as a physical condition; developmental planning strategies; and the abstractions of forms through dynamic composition.

Climate mediation is largely associated with the expansive and encompassing umbrella roof (Uduku, 2008). Bond did not construct a climatic relationship between vernacular strategies and his design responses, except broadly indicating that the library responds to and was influenced by the local climate and architecture. The attempts to read the climate strategies of the Library
through technical design recommendations for the hot-dry Savannah climate are, however, fundamental to vernacular practices.

Bond achieved effective comfort conditions through a conscious response to the dual requirements of ventilation and the need to reduce heat gain for an all-season performance. In the hot-dry zone cooling is achieved through outdoor living under shade, in the courtyards and on flat roof terraces, which complements the heavy and compact composition of enclosed spaces for warmth on extremely cold nights (Prussin, 1969). This is supported by the integrated idea of day-time and night-time living as suggested by technical design notes for building design in this part of the tropics (see for example: Alcock & Helga, 1960; Commonwealth Experimental Building Station, 1949; 1952; Drew, Fry & Ford, 1947/2013). Although Bond does not specifically refer to these technical design manuals in any text, his response recalls the strategy of an alternate use of space in vernacular settings for achieving comfort between seasons. The Library, however, integrates this dual requirement in a single composition.

Three concepts make this possible. Instead of adapting a design concept that employs both light construction and heavy construction, Bond's approach prioritised heavy construction. The compact form is reminiscent of the indigenous architectural practices in Northern Ghana. Further, Bond introduced ventilation mechanisms to complement the compact composition. The building's prominent north-east and south-west orientation maximises the flow of cool, south-west Monsoon winds responsible for the rains and high humidity conditions of the rainy season. The Library's four individual buildings—the adults' section, the children's section, the lecture hall, and the staff area—are connected by two open, but roofed, spaces in an open plan configuration. The first open space serves as the anchor to the public lecture hall, and the second is the Library commons, used for exhibitions, issuing cards, and filing. These intermediate spaces, opening externally on three sides, act as ventilation corridors for the adjoining buildings (figure 6.4). These openings serve as unhindered inlets for cool south-west Monsoon winds, or outlets for displaced stale air (Bond, 1968). The hot-dry north-east trade winds blowing from the Sahara Desert during the dry season were not prioritised for internal ventilation. Inlet spaces do not open in this direction.

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86 This is except for his draft lecture on architecture and practice in Africa and America, where Bond advances the idea of climate and weather in the hot and humid zones. See: Bond, "Draft lecture, architecture and architectural practice in Africa and America".

87 This works best during the rainy season when diurnal temperature ranges are low, and humidity is high.

88 The harsh and large diurnal temperature variations of the dry season require a heavy construction.
Figure 6.4. Compositional analysis of Bond's Library and its relationship to weather, highlighting the four buildings separated by the open spaces as well as the outdoor storytelling area and the sheltered parking and loading and off-loading bay.

This reinforces the building's overall compact nature. Thus, external window openings are limited on façades and designed with minimum sizes to reduce internal heat gain. Consequently, "the major spaces have a minimum number of windows opening to the outside" (Bond, 1968, p. 69, para. 10). The limited openings allow for natural lighting and potentially act as outlets or inlets for ventilation purposes. This compensates for the contrasting conditions of high humidity and small diurnal temperature ranges during the rainy season that warrant a light construction.
The building's overall layout was also conceived to reduce heat gain through adequate shading (Duke, 2004). Bond was particular about shade. The Library, used during the day, required replicating the outdoor shade of vernacular settings in the indoors. Hence, the overarching umbrella roof was conceived to provide such shade. The roof rests on free-standing columns that extend above the four individual buildings. In addition, the roof provides shade for the open-air storytelling theatre as well as the parking and delivery bay (figure 6.5). This strategy met the specific client demand to reduce excessive glare. The umbrella roof performs a dual function: it keeps the entire building in shade throughout the day, thereby reducing heat gain, and it also allows for ventilation of the roof cavity, dispelling displaced stale air by the stack effect. "Very comfortable temperatures resulted from this arrangement and a breeze flows naturally through the court spaces" (Bond, 1968, p. 68, para. 9).

![Figure 6.5. The shading outlook of the umbrella roof of the Bolgatanga Regional Library: a) View of the shaded parking and loading bay; b) View of shaded storytelling area (with stepped seats).](image)

Bond's distinct response to the local climate, influenced by vernacular practices, recalls Le Corbusier's approach to practice in general and especially in the tropical world (Uduku, 2008), as well as the climate-related developmental planning strategies of Drew and Fry. The indigenous Frafra architecture, as the outcome of the relationship between the local climate and human comfort needs, is profoundly conveyed in Bond's concrete modernism.

Although Bond looked to the character of indigenous Frafra architecture, the composition also draws from modernist form expressions that underpin its hybrid look. Bond understood that the degree of reception for emerging forms of architecture by indigenes, especially in rural settings, is also associated with the psychological mediation of spaces and the appropriation of existing forms. Conscious of this, Bond sought to symbolically express tradition through compositional
depth. His output recalls the solid mass fabrication of vernacular architecture in Northern Ghana, despite the use of concrete. It also recalls modernist dynamic proportioning of masses and volumes, "clean functional" (Art in America, 1967, p. 67) lines, and expressive sculptural compositions.

Bond related to tradition through mimicking the compositional culture of the Frafra house through planning and visual cognition. The four separated buildings of the Library, linked up by two open spaces and united by the umbrella roof, are reminiscent of the spatial and developmental composition of the Frafra house with its interlinked individual rooms laced around an open-to-sky courtyard or series of courtyards depending on the family structure. The open plan composition uniting the Library's four buildings, as well as the play with volumes between the library commons and the other adjoining spaces, also draws from modernist principles.

Bond recalls the vernacular through the exaggerated base, tapering walls (especially of the lecture hall), and the hybrid interlacing of round and rectangular forms. The fluid rounded ends echo both vernacular and modernist sculptural compositions (figure 6.6). The prominence of a solid wall mass when approaching on all sides, instead of generous transparency, gives it the specific character of domestic Frafra architecture relative to climate (figure 6.7). Further, the minimalist façades recall strongly modernist ideology of clean monumental expression.

Figure 6.6. The sculptural outlook and solid mass character of the Bolgatanga Regional Library: a) View from the open space next to the lecture hall, revealing Bond's play with regular and curvilinear forms as well as the overarching umbrella roof; b) The main approach, highlighting the limited use of windows on the solid mass façade.

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89 There is a trace of Le Corbusier's fluid sculptural compositions typical of his later works, especially with the form of the lecture theatre and overall rounded ends of the Library.
Bond recounted how, on a visit to the project, a little school boy walked up to his group and said, “The house is nice, ooh” as the Library appealed to his senses in those terms (Bond, 1968, p. 69, para. 14). However, the Bolgatanga Library cannot be considered purely at the level of indigenous Frafra architectural expressions without emphasising its modernist place.

Figure 6.7. Appropriation of solid masses on façades; shade through umbrella roof vis-à-vis air circulation space between the underside of the umbrella and the tops of the four buildings.

6.7 Chapter Summary

Bond’s background as an African-American architect and his diverse architectural exposure shaped his interest in mediated practices, which were brought to bear in an underprivileged community in Ghana where he created a strong sense of hybrid modernism in the form of the Bolgatanga Regional Library. Bond achieved this through the appropriation of Northern Ghanaian vernacular building culture and the principles of Western modernism. His sense of modernism evoked the context of late tropical interventions pioneered in Ghana at the time of his arrival. Furthermore, the Library is a reflection upon the work of his modernist mentors, especially of Le Corbusier and Robinson. The Bolgatanga Library can thus be described as the exploration of the in-between spaces of modernism and vernacular knowledge. The particularisation of modernism in this sense makes the reading of the Library architecture inconclusive on a purely modernist or vernacular level; instead, it can be read on a hybrid level.
The significance of Bond’s Library intervention is therefore twofold. Firstly, the distinct response to the local climate in the context of other climate-related tropical interventions at the time represents a crucial moment for rethinking architectural practice in Ghana’s hot-dry climate today. Secondly, Bond’s attempt to represent the vernacular in the Library composition, beyond the knowledge of climate and the expressive principles of modernism, indicates the inherently distinct approach to concrete modernism in Ghana generating a place for a hybrid discourse.
Chapter 7 SPATIALING HYBRIDITY: THINKING THROUGH THE THEORY AND DEVELOPMENT OF ARCHITECTURAL HYBRIDS IN GHANA WITH SOME EXAMPLES

7.1 Introduction

The theory of hybrids in architecture assumes a rather complex dimension depending on who is read and the contextual settings. From literary accounts, especially the ground-breaking work of Bhabha (1994/2012), architectural theorists have tended to adopt hybrid concepts in architecture. These localised architectural hybrid perspectives demonstrate a range of diverse interpretive complexities relative to practice and the contextual settings. The chapter draws on these theoretical perspectives, in the context of interview accounts on hybridisation in Ghana, to examine the structure and spatialise, through case studies, formal architectural hybrids. The chapter denotes the hybrid as a product of systematic and intelligible integration in architecture, which is superior. Further, it reveals the structure of hybrids between formal and informal, latent and semantic. These are underpinned by inclusive and exclusive ideational conditions. In addition, the chapter relates to the limitations to the development of positive formal hybrid practices as revealed in interview accounts to advance three concepts – the contemporary developmental approach, the socio-anthropological approach, and the performative approach. Two case studies, namely Joe Osae Addo's residence and John Owusu Addo's SSNIT flat concepts, are respectively discussed in relation to the developmental and socio-anthropological approaches. The performative approach is discussed in more detail in Chapter 8 of this thesis. It is suggested that these mechanisms and case studies can challenge architects towards intelligible mediation between capitalist driven interest and the production of architectural spaces. Architects must assume a special role in this regard, as not only arbiters between cultural, economic, and socially informed taste in the fabrication of mediated spaces, but also as agents whose outputs affect the formation of these interests, especially of the semantic extraction.

For initial clarity on the ensuing discourse, figure 7.1 (p. 143) contextualises the structure of the discourse on hybrids in Ghana at three related levels. The distinction between formal and informal hybrid interventions are first established. Formal hybrids reflect interventions by professional architects. Informal hybrids, on the other hand, echo interventions by the ordinary, the marginalised, or the non-professionals.
Secondly, distinctions between inclusive and exclusive ideation and their relationship to the development of hybrid forms are contextualised. At the centre of the development of hybrids in Ghana are ideational conflicts of exclusion and inclusion with contrasting materialistic manifestations. The material consequences respectively are the homogenization/ globalization (semantic developments), and the homogenisation/ globalisation (latent responses) in architecture. The former is the reality of Western exclusive ideation or colonial servility in the colonies and its impact on the indigenous notion of development (Brukum, 2003; Mungazi, 1996). Homogenized responses are also referred to here as black skin white masks practices based on Fanon's (2008) book of the same name. Further, homogenization underpinned by Lacan's (1977, p. 99) reality that "mimicry is camouflage [...] it is not a question of harmonizing with the background but, against a mottled background, of becoming mottled" (Bhabha, 1994/2012, p. 121; Zohar, 2011, p. 12). The inclusive ideation of integration, on the other hand, constitutes intelligible responses underpinned by internalised cultural theories of development by integration (Cassiman, 2012; Morton, 2000; Hernández, 2009), and in-between formal architectural responses (Abel, 1997/2017).

In addition, the chapter distinguishes between semantic and latent hybrids as respective realities of exclusive and inclusive ideation that are connected to the dissonance charactering modernity and globalisation and their impact on development. Semantic hybrid forms are largely expressions of architectural taste through systematic copying without conviction. These are mostly an imprudent reflection of social and economic progress (Bourdieu, 1984; Oppong & Solomon-Ayeh, 2014). However, the chapter determines as latent hybrids, forms that have extended the fundamental African developmentality such as the Contemporary African Philosophy (CAP) and architecture (Serequeherhan, 1993). The latent hybrids also echo appropriated third spaces, advanced as the superior other within the context of spatial ambivalence (Bhabha, 1994/2012; Hernández, 2009).

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90 The semantic hybrid forms are also largely a direct total re-reproduction of new built forms without intelligible integration.

91 The latent hybrids are referential and integrate new building systems into existing building culture or its knowledge.
Figure 7.1. The conceptual structure of hybrids relative to Ghana.
7.2 The question of homogenisation amid cultural pluralism

To hybridise, or to homogenise, appear as two opposites in architectural discourse. Whereas the former promotes great strength in diversity and difference, the latter is idealistically idiosyncratic. In former colonies, they are interchangeably used because attempts to homogenise are, at times, a consequence of the development of architectural hybrids, described in a semantic manner. The concepts are therefore used conversely in a sense that conveys the problematic meaning of hybrids, of simply mixing up, especially in informal practices. However, homogenisation has an even deeper interpretive significance. King (2008, p. 224) notes that “homogenisation” as opposed to “homogenization” (Ibelings, 1998, p. 67) is the perpetuation of the difference of similitudes of plural cultures in architecture. The place of homogenisation in terms of cultural pluralism and architecture therefore lies in a proper contextualisation of the historical, political, social, cultural, and economic differences and its relationship to the imagined space/ architecture (King, 2008).

Cultural pluralism thrives at the bidding of direct or virtual contact through mediums such as colonisation, postcolonisation, and the mass media and is characterised by three affronts. The inevitability of cultural dominance advances cultural lost and a consequential cultural crisis. However, mediating cultures delimits the dissonance of a crisis of culture. In the Ghanaian context, the pluralism of culture is juxtaposed as a relationship between the coloniser (Western colonisation) and the colonised, reaching its apotheosis in the postcolonial era. It is also cast in stone, in the rubrics of the indigenous society, between tribes, ethnic groupings, and institutional and class cultures. Thus, the concern of a cultural crisis necessitates that mediation or hybridity ought to be discussed holistically or inclusively.

There is some consensus on the definition of cultural crisis. What underpins these views is the determination of crisis as an imbalanced condition in a society with competing cultural interests, which tends to undermine/ enhance the potentials of one or both. Crisis occurs with a lack of synchronisation between variables in a single culture or across cultures in contact. It is considered a condition of confrontation between two competing opposites, of internal or external

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92 To bring clarity to interpretive complexities surrounding hybridisation and homogenisation, the chapter highlights the two as similitudes through a proper theoretical imagining of the transcending historical process of inclusive mediation. They are used interchangeably in a latent sense.

93 Toynbee’s (1954) A Study of History perhaps reflects the only exception to cultural dissonance as a subject of external or internal influences. Instead, Toynbee (1954) argues that civilisations are bound to die from suicide, rather than from external aggression or murder.
origins or both, and at the hands of human or natural occurrences. It occasions, therefore, a sharply contrasting and deep-seated conflict between old and acquired or emerging forms of civilisation, tradition, and modernity. Situating cultural crisis as confrontational only constitutes a first possibility. The opportunity for cultural compromise represents the other. Thus, cultural crisis is marked by the ambivalences of challenge and opportunity.

Nowhere does this seem better stated than Rader’s (1947) theoretical inquiry into a possible definition of cultural crisis. Rader (1947, p.269) defines a cultural crisis as an ambivalent state of "dynamic disequilibrium" that represents an opportunity for positive remedy or otherwise. In these terms, cultural equilibrium may be constructed as a static state, while cultural equilibrium may simply be proclaimed as a dynamic and harmonious mediation between existing and emerging cultures. Similarly, Bidney (1946) clarifies cultural crisis as a situation of sudden and drastic change to the way people live, which may be self-inflicted or under the guise of external influences. In light of this, Bidney (1946) further explicates cultural crisis as opposite to cultural integration and involves the debasing of aspects or all of the sociocultural life of a society. However, Bidney (1946, p. 538) agrees with Rader (1947) that, at the point of rupture, a crisis may occasion “constructive” reformation or “destructive” deformation. The convergence of these preceding views sums up Hippocrates’ (the Greek physician) observation of a crisis as being a tale of two emergent conditions – of recovery (opportunity) or of death (destruction), as marked by imbalances in human bodily fluids such as the blood, bile, or phlegm (Rader, 1947).

It seems inadequate for a relational contextualisation of cultural crisis, without a brief framing of its peculiar structure and origin. Bidney’s (1946) trio concepts of idealistic, materialistic, and fatalistic cultural crises readily come to mind. The latter, a fatalistic crisis, is given less prominence in this discussion, perhaps because of its theoretical misdirection. The fatalist holds that a true cultural crisis is inevitable and a natural occurrence (Toynbee, 1954). The fatalist is therefore passive to signs of crisis until it occasions a total destruction or a self-re-emergent productive end. Oswald Spengler's determination of the rise and fall of civilisations as inevitable may be considered fatalistic in this regard (Spengler, 1991). According to the fatalist, human achievement and its disintegration is the direct result of metaphysical conditions.

In the context of Ghana, the idealistic and materialistic view of cultural crisis and in particular, its attendant reflections on the practice of architectural hybridity, of homogenisation, and of homogenization, have significant physical representation. The idealist argues that cultural crisis is a manifestation of conflicting ideological views. These are largely theoretical in scope and include domains such as religion, morality, scientific innovation, colonisation, neo-colonisation,
globalisation, and modernity. On the other hand, the materialist refers to tangible social and economic practices, which are conduits for the realisation of the ideational. They are grounded on Marxian principles, which occasions socio-economic distinctions between classes or institutions. Bidney (1946) argues that both ideational/ideological, and Marxian conditions exert reciprocal influences in human development and are consequently related. The chapter draws on the ideational and the materialistic manifestations of cultural crisis in Ghana, to discuss architectural hybridity in both formal and informal interventions.

7.3 From precolonial to postcolonial times: approaching the ideational and materialistic manifestation of informal architectural hybrids

7.3.1 Colonisation as an idea and its manifestations in Ghana

Of profound significance in the ideological relationship between Africans and the rest of the world is the European presence and colonisation of Africa since the fifteenth century (Intsiful, 2008). In several accounts, the juxtaposition of African perspectives in the context of the European worldview sharply contrast. As a political ideology, colonisation, postcolonisation, and perhaps globalisation are specific strategies of Western cultural dominance in Africa expressed through systematic cultural indoctrination (Arowolo, 2010; Mungazi, 1996). The era of colonisation, which is a dark period in Africa's history, set the stage for a comprehensive implementation of a Western agenda of exploitation under the guise of liberating a primitive people and revolutionising its existing inferior cultural milieu. A conscious effort to expunge African culture during the period has robbed future African generations of a memorable history and thus placed them within a cultural paradigm they cannot perfect while continually ensuring they are subservient to a higher European culture. Consequently, the extinctionist strategy as perceived, accounts for the cultural and developmental gap between Africa and Europe (Mungazi, 1996). It ensured the rape of

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94 The sort of mutual relationship, Calinescu (1987) argues, that subtends between the attributes of modernity, modernisation and modernism.

95 The impact of colonisation in Africa is complemented by a growing focus on globalisation. From the perspectives of Held, McGrew, Goldblatt, and Perraton (2000) and Hopkins (2002), globalisation is a historical condition counterbalancing the impact of colonisation. Similarly, Intsiful (2008) indicates that the impact of globalisation on architecture in Ghana has been interlinked with events since the moment of European arrival on the shores of Ghana.
Africa’s indigenous political, economic, social, and cultural institutions and stifled the growth and development of Africa’s own civilisation (Arowolo, 2010). The result has been a decline or stagnation in traditional African culture for many centuries. At the same time, the growth of Western culture in Africa is profound, even postcolonial, and hence a cultural crisis persists today.

What made the subjugation of the colonised possible were the specific policy strategies adopted at the time. Briefly, three spaces of colonial strategies, namely formal education, structural institutional changes, and economic dependency; and the consequences of all three in more general terms other than in architecture are considered. These strategies also influenced the development of semantic informal architectural hybrids.

The British in Ghana relied on formal education as a catalyst of Western perpetual cultural infusion. The colonial government operated a system that would ensure Ghana and many of its other colonies in Africa would look up to the British government as the standard bearer of civilisation and progress. According to Mungazi (1996), this was achieved mostly through intimidation, propaganda, and psychological warfare or the colonisation of the African mind. Within the spheres of educated Africans, it created an emerging class of elites, which influenced notions of the modern.

Moreover, to facilitate colonial rule in Ghana, the colonial government devised means to either create new institutional models such as the Chieftaincy Institution or alter existing ones in both the North and South of Ghana. Through this, colonisation altered the existing institutional structure of some ethnic groups and was partly accountable for the intertribal conflicts existing in some parts of Ghana. The British colonial government provided political legitimacy to groups that purportedly met the British estimation of a traditional authority (Anquandah, 2013). The Chieftaincy Institution in most parts of Northern Ghana created by the colonial government to facilitate governance through indirect rule, contributed to the formation of an elite group with

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96 The existence of a centralised traditional authority was localised to specific kingdoms that were known to the British. For example, in the South were the Akwamu, Ashanti, and Denkyira Kingdoms. The North of Ghana mainly consisted of patrilineal clans with clan heads, except in the case of the Mumprugu, Dagbon, Wala, and Gonja Kingdoms. For those decentralised clan societies, the British created a centralised authority for its colonial interest. The survival of the Kingdoms was directly linked to the level of loyalty to colonial interest shown by the ruling class; otherwise, they were sent into exile and the Kingdom annexed (Addo-Fening, 2013).

97 For example, the Konkomba-Dagomba ethnic antagonism is rooted in the British imperialist imposition of a political order alien to traditional political organisation prior to colonisation (Pul, 2003).
centralised authority. Chiefs were created for those communities that did not have one (Addo-Fening, 2013).

The structure of the Ghanaian economy changed because of the economic policies pursued by the colonialist. The British pursued their goal of exploiting the human and mineral resources of Ghana and encouraged the development of a commodity-based trading system and cash crop agricultural markets. The established trade links ensured perpetual economic bondage as all economic outputs from Ghana and other countries on the African continent would be directed towards meeting the demands of the imperialist (Talton, 2003). Intra-African trade suffered as a result. An elite group of African merchants who were associates of the British as allies or as mixed descendants (Mullatos) prospered directly (Akita, 1955; DeCorse, 1992; Lever, 1970; Van Dantzig, 1978).

This had practical, real and materialistic outcomes. The colonisation of the African mind, the restructuring of the indigenous authority, and the promotion of capitalism created an emerging group of African elites. It is argued that it created a different form of African elites. Africans always had elites\textsuperscript{98} amongst their ranks. They were not regarded as high priests but as loyal servants. The seamlessness of their authority and power is worthy of note. In contrast are the Europeanised African elites as described by Fanon (2008) as those whose unique responses echoed their inferiority complexes, and desire to be white by seeking colonial status symbols.

For example, accounts by Brukum (2003) indicate that three categories of Europeanised Northern Ghanaian elites emerged in colonial times. Firstly, there was the general class of Western educated Northerners. Secondly, there was the North-South European educated Northern Ghanaian elites. This consisted of students of Northern origin who were privileged to receive additional education in the South, sharing spaces with student of Southern Ghana extraction. A network of North-South European educated elites emerged, some of whom took up the mantle of political leadership following the end of Western colonial rulership in Ghana. Thirdly, the colonial government, through formal employment, rewarded those who gained European education creating a European economic class, Ghanaian elites. In the South, the story was no different. Soon these European educated Ghanaian elites denounced their own indigenous systems and cultures. Firstly, they adopted independent views to issues, often undermining the indigenous political structure and the traditional authority generally, which was of concern to some Chiefs. Secondly, they questioned the rationality of colonial policies that sought to promote

\textsuperscript{98} The traditional rulers (Chiefs), the clan heads or Tingdamba, the sages, the priest (who performed rituals) are all considered elites within the African indigenous setup.
local content as discriminatory. Brukum (2003) notes an elite group of Northerners\textsuperscript{99} criticized and protested the use of the smock and batakari\textsuperscript{100} as uniforms by pupils and teachers in Northern Ghana, because this was discriminatory against Northerners, when their counterparts in the South were at liberty to wear any European styled or fashioned dress. The colonial government's fear of a "Southern virus"\textsuperscript{101} (Brukum, 2003, p. 274) catching up with the North began to rear its ugly head through the networks of North-South European African elites. While their protestation was against discrimination, it also indicated disdain for an indigenous fabric of which they should otherwise have been proud but for their obeisance to fashionable European taste.

The ideology of European education and its actualisation resulted in two affronts to the process of maximising the opportunity of mutual cultural interaction. Firstly, an identity crisis occurred amongst these Europeanised African elites. Secondly, the exclusive notion of modernity as being largely European or Western was reinforced (Habermas, 1985; Dussel, 1993) in the minds of indigenous elites. For Mungazi (1996), such tendencies reflected the Western strategies in Africa towards cultural dominance. In contrast to the exclusive appropriation of European symbols of development, the integration of these within indigenous knowledge systems was culturally supported (Gyekye, 1997) as demonstrated in Cassiman's (2012) study.

This leads to a discussion on the theoretical context of informal hybrids in Ghana's architecture from two perspectives, namely, those orchestrated by Ghanaian elites (semantic) as a manifestation of Western exclusive ideation, and that practised by the marginalised within the Ghanaian society and founded on African developmentality (latent).

\textsuperscript{99} These include persons such as Yakubu Yali, E.A. Mahama, and Abarifa Karbo, who attended the Achimota Training College.

\textsuperscript{100} Indigenous hand-woven fabric.

\textsuperscript{101} The colonial government pursued an isolationist policy in the North because it wanted to curtail the consciousness that was gaining momentum in the South from catching up with the North. The annexation of the North was a strategic means to control trading activities and override the interest of other competing colonial interests by mainly the French. The colonial government discovered the people of the North were generally easy to control and did not want them poisoned by the agitations that had become commonplace in the South.
7.3.1.1 The context of semantic and latent informal hybrids in Ghana

The theory of informal architectural hybrids in Ghana since the fifteenth century can be considered within three periods: precolonial, colonial, and postcolonial. However, the semantic and latent dimensions run across time and reflect various ideational conditions.

7.3.1.1.1 The semantic reading of informal hybrids

Two kinds of informal hybrids specific to the people of the Coast were noticeable in colonial times, with a few exceptions in-between. The first consisted of developments since the fifteenth century up until the second half of the nineteenth century. These were spontaneous mediations of architecture through the indigenous people's appropriation of the architecture of the castles and trading posts. "Moulded or white painted architraves to doors and windows" were integrated into the existing building culture of “rectangular cottages, thick mud walls or sundried mud bricks walls, steep pitched, thick thatch roof" (Schreckenbach & Abankwa, 1990, p. 67). Intsiful (2008) further corroborates this by indicating the impact of European built forms along the Coast on indigenous home building. This involved adopting colonial building strategies within indigenous building fabrics and were therefore latent.

However, within this period, an elite group of hybrids, the Mullatoes, had begun to form distinctive settlements at the foot of the forts and castles. These Mullatoes constituted the first group of elite African-Europeans (Micots, 2015), beyond the walls of traditional elitism. DeCorse (1992, p. 173) notes that they distinguished themselves through their dress, which was influenced by "European Clothing". The Mullatoes received education in Church schools within the forts and castles by Council decree, but were not allowed to live there (Van Dantzig, 1978). Instead, special settlements of stone construction were built for their exclusive use where they were to be offered special privileges. This separated them from the native Coastal people (Van Dantzig, 1978). Many of them served either as mediators, concubines, or as soldiers in the

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102 A narrative consequently proceeded on the strength of the indigenous (marginalised). The voice of the marginalised assumed an active rather than a passive role in the process of hybridisation. The thesis presents these forms of hybrids as latent informal practices. These are also fundamentally inherent in traditional African culture and developmentality. This seems to contrast with the rather conservative stance on African society as inimical to change (Mungazi, 1996).

103 The presence of Europeans along the coast of Ghana and the development of lodges, forts, and castles since then has influenced native responses. For emphasis, Intsiful (2008) suggests that the interactions and exposures to European lifestyles affected the way a growing class of indigenous people transformed their buildings.

104 The offspring of Europeans and their Africa wives. These Mullatoes became prosperous through merchandise.
European post (Lever, 1970). Lever (1970, p. 253) further highlights that "by the end of the eighteenth century, a considerable number of Mullatoes lived around the European trading posts on the Gold Coast" numbering between six – eight hundred. These must have become part of the cosmopolitan nature of what emerged as European townships (Claridge, 1915).

From the review on Mullatoes in Ghana, an ideational construct between non-traditional elites such as the Mullatoes, and the emerging elite class of "full-blooded" Europeanised Black Africans can be established (Akita, 1955, p.217). The latter desired to attain European status symbols to be European, while simultaneously undermining indigenous traditions. These full-blooded Black African coastal elites constitute the focus of Micots' (2015) study on "Status and mimicry: African colonial period architecture in coastal Ghana", which is critically reviewed here.

Micots (2015, p. 56) underscores that the Coastal elites, by education, merchandise, or as mediators between Europeans and the locals, attained an elevated status through their wealth and often projected themselves as "cosmopolitan", "modern" and "global". Members of the elite with the greatest income and political involvement seem to have made conscious choices of appropriation as a form of expressing identity and status and resistance to colonisation (Micots, 2015, p. 41). The notion of resistance mainly materialised through equalisation as a

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105 The quest for a European value system (as an exclusive ideational form of modernity) is extended as a means to distinguish and position themselves, to exert dominion over the local population and traditions. There is documented evidence of potential clashes and subversion of authority in the relationship between traditional authority and the emerging class of African/Ghanaian elites because of competing interest through their common relationship, the coloniser, also acknowledged by Micots (2015) and Brukum (2003).

106 Non-mullato African elites emerged in the Gold Coast during the second half of the nineteenth century. Education was more accessible to Africans during this time than the period before. This was mainly aided by missionary works and school programs. In some cases, Royal sons were sent abroad for education and often returned as intermediaries at the castles.

107 In the analysis of five selected residences by indigenous Ghanaians at Anomabo (namely: George Kuntu Blankson's additions to the Castle Brew, the Justice Akwa residence, the Russel House, Kwabe Mefful's residence, and the Amanoo family residence) as case studies, Micots (2015) arrived at the following conclusion: namely, that hybridised architecture by indigenous elite Ghanaians at Anomabo was a symbol of status, modernity, and resistance to British authority. However, while status and modernity were clearly related to hybridised forms, the notion of resistance can be challenged. Micots (2015) arrives at this conclusion by relying on Bhabha’s (1994/2012) supposition that mimicry can be a form of resistance to colonial domination and therefore Fante elites (especially those discussed from Anomabo) expressed this resistance through the appropriation of The Palladian and the Portuguese Sobrado style. The core of the argument supports political resistance that, in the view of the chapter, is at variance with cultural resistance.

108 Micots (2015) assertion of mimicry as resistance is revealed in her theoretical leanings. First, in her study Micots (2015) relies on the reciprocal model of cultural appropriation (Hassan, 1995) to underpin her argument. The principle
means towards attaining mutual respect from the coloniser. This involved denouncing their association with backwardness or indigenous ways while mimicking colonial status symbols. Micots' (2015) advances are of associative resistance, and are premised on equalisation, bridging, and direct reproduction, or for consistencies, and homogenization as expressed by Ibelings (1998).

Further, Micots' (2015) arguments are underpinned by Coastal-African-elites' intension to establish their own authority, especially as power began to shift away from them with Chiefs playing central roles in a changing colonial policy. Micots (2015) notes, for example, that persons like George Blankson became disaffiliated as the British increasingly sought to rule through the local Chiefs, even though the Chieftaincy Institution predated the emergence of these Coastal elites. The subject of opposition, it seems, was the attempt to undermine the authority of traditions through personal interest rather than resisting. With reference to Justice Akwa's residence, Micots (2015) underscores that the attempt to mimic European built forms was purely the elites' attempt to distinguish themselves from the people of the interior and slaves and to present themselves as civilized members of the Coastal elites. The subject of difference here is also the colonised and not the coloniser. Based on Micots' (2015) study, it appears the intention behind the actions reflected homogenization. This is summed in the conclusion in which Micots (2015) estimates the ultimate objective of elite Africans: to assume "political and social rights of full membership in a wider society" in apparent reference to Ferguson (2002, p. 555) and Wilson (1968).

It seems the Coastal-African-elites looked to a predetermined standard of modernity to attain their own modernity. Therefore, these Coastal elite interventions are considered semantic, white masking of architectural hybrids. This is evident in the dominant projection of European of reciprocity legitimises references to the concept of mutual appropriation and therefore Micots (2015) does not recognise the uneveness in the constructed narrative through the case studies. If appropriation means the space between the "unequal distribution of power" (Huck & Bauernschmidt, 2013 p. 19), as she acknowledges, then it is not a matter of wholesale appropriation but one of difference. Within the practice of informal hybrids, Micots' (2015) study contrasts the culturally supported developmental advances. The chapter perceives that this is at variance with the Bhabha (1994/2012) position on mimicry or hybridity and its appropriation in architecture. Bhabha (1994/2012, p. 122) indicates that the quest for mimicry is "the desire for a reformed, recognizable other" that turns "the gaze of the discriminated back upon the eye of the power" (Bhabha, 1994/2012, p. 160). Bhabha (1996, p.58) also suggests that mimetic negotiations are neither "assimilation nor collaboration". In other words, the basis of resistance is the development of a superior and intelligible hybrid treasured by both subjects of difference.

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109 George Blankson was the first Black Ghanaian to be appointed to the Legislative Council and was the son of a Chief.
strategies in the Palladian, Portuguese Sobrado, St Anne, and the Italianate styles and within the entire narrative on the spaces of mediation. References to indigenous spaces such as courtyards, two storey compact rammed earth\textsuperscript{110} examples, and randomness were somewhat passive and failed to demonstrate difference in terms of a larger contextualised framework. There were also some contestable representations. The development of buildings of rubble stone that are of interest to Micots (2015), specifically because, as she underscores, Africans had never appropriated stone construction until then, appears too emphatic. The Coastal people knew stone construction in precolonial times. However, it is suggested that Portuguese or Dutch trained builders may only have introduced dressed-stone multistoried construction, which reflected European building systems, and these included those appropriated by Mullatoes such as Jan Niezer of Elmina\textsuperscript{111} (DeCorse, 1992). Archaeological studies by DeCorse (1992, p. 181) reveal the presence of “central courtyards” in these developments. Indeed, it can be surmised that the development of the forts and castles, which incorporated courtyards, may have been influenced by indigenous architecture.

Hybridisation is a dynamic, continuous process of doubling and therefore the evaluation of hybrids should be founded on the perpetuation of difference in the material moment. Furthermore, it is underscored that Bhabha’s (1994/2012) thesis on mimicry/hybridisation as a form of resistance to a dominant power does not amount, particularly in architectural terms, to an object of equalisation, but rather to the superior other in terms also echoed by Hernández (2009). Bhabha (1994/2012) maintains that the hybrid is the third and ultimate force and not an inferior camouflaged other. Instead, its strengths are internalised. It is to homogenise, not to homogenize. In the context of Micots’ (2015) study, the reading of hybrids was a means to political resistance through association rather than cultural resistance, and therefore can be described as semantic.

\textsuperscript{110} Both Micots (2015) and Schreckenbach and Abankwa (1990) agree to the existence of two-storey, compact indigenous mud houses prior to the mid-nineteenth century. Micots (2015) notes that Western Sudanic Mande masons must have influenced these.

\textsuperscript{111} Jan Niezer was one of the most prominent and influential Mullatos during the eighteenth century. A mixed deceased of a German (medical assistant in the Dutch service) and a Ghanaian woman of Elmina. He is known to be among the few successful private merchants of the slave trade.
7.3.1.1.2  **The latent reading of informal hybrids**

In contrast to semantic informal hybrids, latent informal hybrids are culturally supported. An important aspect of indigenous African architecture is the flexibility to accommodate new forms into existing building culture. For example, findings from studies conducted by the Kwame Nkrumah University of Science and Technology in the North of Ghana reveal that,

> Judging on this basis the North Ghanaian has succeeded better than many other cultures in accommodating his structure to changing family needs, for the disposability of whole rooms, and even entire compounds, is only an extension of the concept of flexibility. (KNUST-School of Architecture, 1967b)

Furthermore, the flexibility concept is apparent in the seamless integration of indigenous and Islamic concepts across sub-Sahara Africa. The conceptual marriage between spatial and visual forms is one to behold. It is a demonstration of continuity through the perpetuation of difference, change through adaptation (Tauxier, 1927). The hybrid spaces occasioned by the integration of indigenous and Islamic forms are pregnant with deeper meanings. Whereas they may be seen as copying, they are grounded in a developmental view of traditional African society. It is a view that indicates humanism to be a systematic concept of the process of Africanisation.

Cassiman's (2012) contribution "The Eiffel Tower and the eye: Actualising modernity between Paris and Ghana", brings to the fore these aspects of traditionalism. Cassiman (2012) underscores the relationship between the indigenous actualisation of modernity, in this case the Kasena people of Northern Ghana, and the Western notion of modernity symbolised by the Eiffel Tower. She does this powerfully by relating the two worlds through the medium of seeing, arguing for a worldview phenomenon. Her study focuses on a people who did not approximate as elites but were contextually considered marginalised relative to Western society.

According to Cassiman (2012), the act of seeing among the Kasena and most of Northern Ghana is manifested in the rituals of daily activities and customary practices to symbolise the transition into fatherhood and motherhood (intergenerational successions). The act of seeing is also found in the spatial planning of the indigenous homes of the Kasenas. The morphology of indigenous Kasena homes (consisting of fractals of larger and smaller constructions and multiple courtyards) are an elaboration of visual fragmentations. Visitors within the central kraal (the initial point of call) have obstructed views towards the smaller adjoining units due to the phased planning of spaces, and the play with heights, light, and darkness (Cassiman, 2012). Concealing and revealing the makeup in Kasena traditions demonstrates a connection between two worlds, namely, the outside and inside, private and public, visitors and inhabitants, the known and the unknown. One only gains knowledge of the ins and outs of the house by traversing all of its
hidden spaces. Gaining knowledge of the hidden or concealed spaces opens one up to new worlds of knowing. Those who are deprived of visual contact with the concealed or hidden knowledge is considered blind, unenlightened, or ignorant or not man enough. For example, to be regarded a real man, one needs to venture into unguarded territories such as the bush and perhaps return with a good catch unaided. Only then is one welcomed to the table of men. Seeing the bush (symbolically the city), means gaining knowledge of it and possibly conquering it. Metaphorically, it is an act of transitioning into the world of knowledge (modernity). There is a new twist with the passage to manhood however. Many young people migrate to urban centres to engage in a myriad of commercial activities and to return as men with many artefacts as material evidence of their sojourn, which they seek to integrate into their known practices, as both an expectation and cultural demand (Cassiman, 2012).

By this, Cassiman (2012) equates the primordial practices of the Kasena, reflected in the notion of seeing and the interpretation of knowledge tradition, with the liberalist progressive Western take on modernity (Berman 1983). Cassiman (2012) argues that, at the heart of Europe's rising modernity, particularly the Enlightenment, was the link between magic and development, the occult and the realm of the invisible. Drawing a parallel with the Eiffel Tower in Europe's own advancement in industrial and artistic production, Cassiman (2012, p. 148) argues the resonance of "vision and motion" the Eiffel Tower conveys, reflects the actualisation of cultural empathy of a dreamland. Much as it has enhanced the urban fabric of Paris, it is a radiating source of light at night and an enhancement of not only the "commercial visual culture" but also it symbolically illuminates the darkness of Parisians. The passage of time since the Industrial Revolution and the advent of capitalism reached its apex with a clear vision through that which illuminates and through that which brightens the darkest ends of Paris (Cassiman, 2012).

In the case of the Kasena and most of Northern Ghana, that which lights up their transition to adulthood is the desire and the obligation to bring back the knowledge and artefacts of their new experience from their adventures. Cassiman (2012) observes the significance of enhancing their existing culture and at the same time ensuring a continuation of existing traditions. For the Kasena, their Eiffel Tower is architecturally represented using corrugated roofing sheets and changing building geometry, which marks their own apotheosis from their sojourn into wonderlands such as the urban centres in Ghana. These changes are not drastic but are an integration into the existing morphology, which serves to reinforce an acceptable cultural hybrid amongst the Kasenas. Cassiman (2012) therefore questions the notion of delayed, alternative modernity in Africa. In both worlds (Europe and Africa) the notion of modernity is that characterised by knowledge empowerment and the expression of it culturally.
Cassiman's (2012) study raises two major issues of interest. Firstly, the consequence of the concept of seeing is the development of self and society and this has been expressed in both societies. Secondly, Cassiman (2012) indicates a connection between two social worlds: in the case of the Kasena, the home and the bush, the village and the urban centre; and in the case of Europe, the transition from the realm of magic to industrialisation. Cassiman (2012) underscores the clear distinction between the considerations of modernity as a break from the past. The Kasena understanding of modernity, in contrast, is a continuation of tradition. It shows how modernity does not cause a break from traditions but rather strengthens existing knowledge. The modifications to indigenous Kasena homes do not destroy their indigenous character; rather, they represent the local actualisation of modernity in architecture founded on Kasena developmentality.

This advances a parallel cultural notion of informal hybrids that is unrelated to Micots' (2015) ideation of resistance, and instead serves to emphasise the sort of resistance Hernández (2009), Morton (2000) and Bhabha (1994/2012) refer to when reading the hybrid. The appropriation of hybrids, which privileges the indigenous people (marginalised) as a fundamental cultural position, echoes cultural resistance through the perpetuation of difference and is therefore latent. These appear semantic, especially when viewed from a distance, yet they represent potential spaces with which the formation of formal hybrids in architectural practices can emerge.

7.4 The architect and the development of formal hybrids in postcolonial Ghana

7.4.1 The ideational context of formal hybrids

The British decision to make Ghana a formal colony witnessed the development of building regulatory systems, building related institutions, and formal building culture. Beyond the strategic landscapes of the lodges, forts, and castles, formal colonial building culture represented spaces

\[\text{112}\] The present state of architecture in Northern Ghana is more a case of intra-influences from developed cities in Southern Ghana. Van Der Geest (2011) indicates in his study on 'Migration, Environment and Development' in Northern Ghana that there exist few modifications in roof-scape and rendering materials usually by natives who have recently returned home after migrating to urban centres for economic reasons. The thatch and flat mud roofs are gradually being replaced with aluminium roofing and wall renderings are increasingly cement based. This is presented as examples of local actualisation of modernity alongside those suggested by Cassiman (2012).

\[\text{113}\] Morton (2000) identifies three kinds of hybrids in her study following the French Exposition of 1931, including those spontaneously appropriated by ordinary French people. She argues that these spontaneous responses are honest reflections of hybrids as they break down the binary reflections of subjects of dominance.
for an extensive discussion on formal architectural hybridity. For example, concrete modernism in Ghana can be considered as formal architectural hybrids from a similar conceptual frame as Abel's (1997/2017) exposition on tropical Malay architectural hybrids. The scope of inquiry into formal hybrid responses may even be expanded through a critical interpretation of hybrid third-space responses. According to Hernández (2009), third-space hybrids are those appropriated in the margins and by the marginalised (latent informal practices), as also echoed by Morton (2000). This appears liminal in terms of narrative emphasis and authorship. Hernández's (2009) view excludes positive interventions by the dominant power. However, Hernández (2009, p. 21) appears to generalise the third space when he indicates that the third space is,

> [T]hat area where culture is at its most productive, because buildings (and cities) are always metaphorically in the middle between architects' interests, developers' economic expectations and planning laws, while continually being re-signified. Certainly, buildings provide the physical space where people perform and negotiate their differences.

The negotiation between exotic urban space and the dwellers in neighbouring slums may be extended to negotiations between international practices and vernacular/indigenous practices as subjects of difference where authorship is inconsequential. Furthermore, Bhabha (1994/2012), whose work is at the centre of Hernández's (2009) critique of hybridity and the third space, appear pluralistic in his first attempt to bring his concepts to architecture in "Architecture and thoughts". Bhabha (2008) locates architecture in terms of the pursuit of difference with reference to terms such as site-specific, locality, rural and urban, private and public, and general sustainability.

Scale is not merely a problem internal to architectural knowledge or practice; the scale of the contemporary umma reveals profound differences in sites and localities – rural communities, small towns, industrial cities, private homes, public institutions – that demand design-imagination and material, practical interventions. Scale is, indeed, an architectural intervention that both responds to site-specificity while, at the same time, creating or constructing a sense of locality (which is never simply a given, a priori reality). In that sense, scale is also an issue of the ethics of architecture – what one chooses to build, who one chooses to build for, and the values that the building represents in-itself and in relation to others. […] Sustainability is about creating environments committed to survival and well-being – to shared expressions of neighbourhood and solidarity that are intolerant of assumptions of cultural supremacy. (Bhabha, 2008, p. 11)

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Abel (1997/2017) considers Malay hybrid architecture as tropical; that is, the adaptation of British colonial villas to the local climate through the knowledge of indigenous Malay architecture.
Both developments in hybridity (Abel, 1997/2017; Hernández, 2009) are mutually inclusive attempts to homogenise but not to homogenize. They also underline the inherent potential impact of formal hybrids at the cosmopolitan level on latent informal third spaces at the level of slums within the city and vice versa. For example, concrete modernism in urban Ghana has influenced informal expressive forms such as the use of parapet walling to conceal roofs. In like manner, concrete modernism has sought to borrow from traditions through its appropriated third spaces. Thus, the activities of a creative minority of formal practices influence developments by a dominant mimesis. Therefore, the role of the architect in engendering the positive transformation of informal hybrids through architecture is also important as they seek to appropriate architecture from within and without. The architect in formal practices may be just as guilty of semantic hybrid development. In other words, formal hybrids may be either semantic or latent. However, as a primary objective towards the development of latent formal practices, few limitations are as highlighted as impediments to positive formal hybrid developments in Ghana.

7.4.2 Limitations to formal hybrid developments

Several factors impede the development of formal architectural hybrids in postcolonial Ghana. First, there is the interpretive concerns of modernity and globalisation, and second, there are concerns of taste emanating from an exclusive ideation. The third borders on the how, to which the architect must be seen to assume a central and critical role as a creative minority.

Modernity and globalisation have been construed as a recent phenomenon of an exclusive Western dimension that has impacted architectural taste and responses. From corporate to individual taste, there appears to be a general development of externalised taste as image/status symbols manifesting in the form of architectural homogenization. Interviews conducted in this regard suggest some consensus exists on this emerging trend, as portrayed in figure 7.2.

For example, modernity is generally understood "as anything new" (T1, personal communication, October 11, 2016); that is, it has not been seen before and is different to current building systems and methods. People generally aspire to be European from a distance. They "see a glass house in Europe and like it; glass is trendy, in vogue so" they "must also have glass houses here" (T8, personal communication, January 26, 2017). As their "taste originates from there, it inhabits our responses to our climate" (T8, personal communication, January 26, 2017). "The issue of internet references, the modern version of it is on the internet, is challenging" (T4, personal communication, October 14, 2016). In practical terms, it takes on forms such as the incongruous
use of "glass and alucobond [...] done because that is how modern styles happen" elsewhere (T4, personal communication, October 14, 2016). It is done without measures to mitigate climate in a positive way. There is also the concern of a growing notion of capitalist imagining, especially of commercial high-rises and the expression of civilisation. For example, one participant indicates,

Architecture has a lot to do with civilisation. There is a saying that if you want to appreciate a nations civilisation or how far a nation has developed, look at its architecture [...] it is to demonstrate wealth or capitalism. If you look at the Accra Airport City, there is a concept; it is a known international hub for businesses, so you want to do an architecture that will attract these businesses. So perhaps what could they have done better in terms of climate? (T1, personal communication, October 11, 2016)

Figure 7.2. Thematic interview summary on hybridisation and architectural practice in Ghana, highlighting current challenges and possible mediation strategies.

The important issue is that "the style of buildings over the last 12 years has shifted from more colonial traditions to what" is seen today (T2, personal communication, January 09, 2017). "Very bad versions of foreign architecture but obviously everybody is copying from the internet, so it is called internet architecture" (T2, personal communication, January 09, 2017). "There is a lot of internationalism of architecture, but these buildings could be anywhere" (T4, personal communication, October 14, 2016). There are few "honest producers of things" with many "imitators of style" (T2, personal communication, January 09, 2017).
These points are further acknowledged in the literature. Van der Geest (2011) notes that the desire to live in a modern house partly explains the changing pattern in architecture in the north of Ghana. Similarly, Intsiful (2008) observes that the impact of globalisation or modernity on architecture in Ghana is seen in the adoption of anything European, which is largely unsustainable. For example, Intsiful (2008) notes that the development of informal hybrids, especially in recent times, is largely semantic. It creates, in his view, two disconnected life worlds marked by the co-existence of buildings of modern materials (First World) and those of mud (Third World) without integration. The phenomenon reaches the ends of the countryside through rural-urban migration. Rural people who seek jobs in urban areas return to demonstrate their exposure by replicating built forms and materials they have encountered during their sojourn wholesale without a specific attempt to integrate. Intsiful (2008) is further worried by the excessive energy demands of commercial high rises that are highly dependent on active systems, at a time a reliable energy supply is seriously challenged. Furthermore, he is appalled by the common use of foreign materials for building design and construction in Ghana, although he fails to establish the scope of such\textsuperscript{115}. These current practices, which he describes as a meaningless process of simply mixing up architecture, make it difficult to locate meaningful architectures reminiscent of "reflective indigenousness" (Intsiful, 2008, p. 151) beyond what has been theorized as latent.

From the corridors of institutions to isolated individual developments, there has been a shift from the fundamental context of African developmentalism to a misconstrued notion of exclusive globalisation and modernity. There appears to be a disconnection between theory and practice, and between taste and inclusive ideational thoughts. The consequence is the homogenization of architecture, which also includes formal practices. The expression of status, wealth, and capitalism in architecture is therefore inimical to inclusive ideation. The practice of positive hybridity as homogenisation identifies with Bhabha's (2008) expressions of specificity and locality as the emergent signs of difference amid pluralism, which necessitate change.

\textsuperscript{115} It is important to highlight that the use of certain materials such as concrete has largely been localised over time. As echoed by Bond (1968), concrete has largely become a local material in the Ghanaian context. Its appropriate usage is, however, a matter of concern.
7.5 Locating hybrid spaces for positive formal architectural practices in the context of globalisation

It has been established that latent informal practices represent selected spaces to which the practice of formal hybrids may emerge because of the seamless attempt to integrate the purposeful borrowing and in particular, the resultant hybrid as the superior other. The other spaces, which are largely theoretical, have some practical or tangible applications. These perspectives emanate from the negative condition of practice today, impacted by globalisation in its current understanding as an exclusive ideation emanating from the West. Thus, perhaps relocating globalisation to its proper place, and where it stands in a larger contextual framework may be a good starting point.

The distinctions between copying (homogenization) and copying through difference (homogenisation) is brought to light in King’s (2008) writing. He argues for a different form of globalisation and its potential positive impact. First, globalisation ought to be looked at as a dynamic historical process or else one stands caught in the web of Ibelings’ (1998) position of the moment, and of the general characteristic\(^\text{116}\) that underpins systematic copying without conviction (homogenization). Instead, at the heart of globalisation is the development of identity hybrids based on the specific cultural, spatial, visual, and historical context within which buildings are imagined. Secondly, globalisation needs to be constructed beyond the boundaries of the binary. It is not a unipolar process of development; rather, it entails unique and diverse processes of cultural formation poorly represented by categories such as Developed, Third World and First World scenarios (King, 2008). The sort of situation Intsiful (2008) refers to currently subtends corridors of the rural environment in Ghana today, which demonstrates a binary expression of modernity between classes. Globalisation, however, has had some positive impact on the development of identity architectures\(^\text{117}\) through the perpetuation of difference.

\(^{116}\) Ibelings (1998) associates the effect of globalization with the homogenization of international style around the world. It is obvious Ibelings (1998) focuses on the general characteristic rather than the specific differences in approach to modernism, especially in the Third World. It is acknowledged from several perspectives that international style has never truly become homogenized.

\(^{117}\) King (2008) describes the development of nineteenth-century railway stations around the world that, on the one hand, are homogenous in character and, in another sense, produce “different kinds of that similarity” (King, 2008, p. 223) as globalisation. Furthermore, (King 2008) relates the distinctiveness of Renaissance planning strategies in Europe and colonial cities as an expression of transnational identity in architecture, which gives meaning to architecture.
Because of this, the practice of homogenisation and not homogenization echoes Ricœur's (2007) paradox – participating in universal civilisation while deeply connected to traditions. More so, it is represented in the manner of African developmentality and of Contemporary African Philosophy (CAP), which is really an attempt to appropriate through the perpetuation of the difference of opportunities that the local, regional, and the global space brings to bear now. This reflects the kind of constructive reformation that is demanded of a crisis or for mediating idealistic and materialistic fatalities (Bidney, 1946) in architecture in Ghana such as the incongruous use of modern materials without conviction.

In theoretical terms, various studies on architecture in Ghana have posited new directions to the crises of architectural practice today in terms of formal practice, which largely reflect the position of CAP. The Cultural Policy of Ghana (CPG), which defines culture today as the integration of the past in the present as founded on the principle of sankofa, admonishes architects to incorporate vernacular ideas into the aesthetics of design (National Commission on Culture, 2004). Broad as it seems, Intsiful (2008, p. 155) suggests a theory of fusion of the "positive elements of traditions [...] with modern day building requirements". In his view, the planning of commercial high rises or tower blocks, for example, could also be done around concepts such as courtyards as a way of "aesthetic interpretation of culture" or for their climatic benefits (Intsiful, 2008, p. 155). Intsiful's (2008) position, supported by the CPG, represents consensus on the future direction of architectural practice in Ghana beyond elemental borrowing, which currently is the bane of semantic hybrid responses in architecture today.

The interview accounts merge with those of theory (See figure 7.2). Practices are generally lacking a consensual, intelligible formal hybrid, especially with the pluralism of exclusive ideational inclinations and homogenized responses. Abstracted, intelligible, or interstitial responses, however, demarcate the future of hybrid practices. Generally, there is the need to "look at different facets of this interest: cultural, climate and material based" to define African or Ghanaian hybrid practices (T2, personal communication, January 09, 2017). Specifically, there is a need to look to the "psychology of space" to represent indigenous architecture or the heritage of architecture in contemporary practice today (T6, personal communication, October 21, 2016). Secondly, there is need for fusion of local building materials into contemporary design. Currently, "there is no fusion of local materials and design", which accounts for all these systematic copied or internet architectures (T2, personal communication, January 09, 2017). Responding to the local climates is a critical means of localising international architecture. "The courtyard has proved so strong" as a concept in this regard (T4, personal communication, October 14, 2016).
Importantly, there are excellent examples of hybrids of colonial traditions and immediate postcolonial tropical practices to consider.

This kind of homologous mediation of spaces between the internalised and the larger environmental context, leading to superior outcomes within the space of architectural practice, reflect the direction of positive formal architectural hybridity. The responses to local climate and dynamic cultures or climate-modernities within the space of a globalised world, through mechanisms such as developmentalism and critical regionalism, potentially lead to the modelling of homogenised spaces. In these terms, the interpretation of hybrid architectural practices approximates that based on the content of responses rather than authorship as the subject in the estimation of hybrids. Relative to the former, the theorisation of modernism in former colonies as a subject of exclusive Western ideational materialisation stands to be questioned.

Within the architectural space in Ghana, there are few projects of note and they are not without challenges. At the height of developments through the preceding mechanisms or spaces of mediation, is the challenge of architectural taste. The development of semantic hybrids is considered an expression of taste in Ghanaian architecture (Oppong & Solomon-Ayeh, 2014). Therefore, the evaluation of selected projects is not intended to be general in all respects but specific to cultures and problematic ideational taste, such as that of capitalist imagining and the pejorative view of the vernacular, and how, with conscious rethinking of architecture in the Ghanaian context, it addresses conditions brought upon by the development of semantic taste.

The following provides two illustrations of positive homogenisation that mediate two concerns within the built culture in Ghana. These are projects by architects Joe Osae Addo and John Owusu Addo.

7.6 The developmental concern and the Joe Osae Addo's contemporary vernacular

Several poetic impulses convey the genre of the Joe Osae Addo hybrid responses in architecture. His residence designed and constructed in 2007, sums up these aspects. "It is a hybrid house of the traditional bungalows built in the forties and fifties and the traditional

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118 Joe Addo has extensive experience working in several contexts around the world – namely in Ghana, the US, Finland, and the UK. He trained at the AA and founded Constructs LLC. He is a member of the advisory board to ArchiAfrika.
Ghanaian cultural house* (Joe Addo, personal communication, January 09, 2017). This reflects the idea of folkloric/developmental regionalism with complementary performative place. Central to this is the advancement of vernacular knowledge in contemporary practice through direct and abstracted means. It is further explicated through Joe Addo’s “inno-native” or “inno-nated” concepts, which are a means of promoting pragmatic Africanisation within the creative arts (Joe Addo, personal communication, January 09, 2017). Joe Addo coins the word inno-nated or inno-native to mean innovative interpretations of lifestyle through architecture from first principles, based on indigenous knowledge and the positive energies of the day.

I always talk about architecture as a lifestyle and this house is about that […] I designed it when I lived in Los Angeles in preparation for my return. And so, the house is just an outcome of discovering who I am and what I stand for. It is a lifestyle experiment I would say. Can you have a very contemporary projection of yourself that is underpinned or sourced by the indigenous? And so, my premises were very simple […] This building is a contemporary response of how architecture can be honest […] it reflects how my family and I live. The house is very simple but at the same time a very sophisticated use of materials which does not shout at you […] the house is a direct reflection of me, it’s a continuum where people read different meanings into it, there are many messages. That's the power of good architecture I think and the edifice itself is a small part. (Joe Addo, personal communication, January 09, 2017)

This has been brought to bear through four intervention strategies that largely reflect indigenousness. First is a contextual response to the developmental concern for maximising the benefits of improved local material technology for building design and construction. This concern and opportunity do not pertain to rural inhabitants only who continue to build and rebuilt their vernacular architectures every season of the year. This is a problem shared with an emerging middle class whose attempt to build in concrete has largely been unsustainable and the pursuit of indigenous technologies does not offer a sustainable alternative, perhaps due to the pejorative view of this approach. Joe Addo recommends addressing the fundamental failures of postcolonial African States to pursue difference by harnessing the potentials of African developmentality over the years through material inno-nativeness. Buildings that are fabricated of local materials, mainly timber, bamboo, and laterite (figure 7.3) have been described as novel and yet critiqued as immoderate. However, this is a result of the absence of economies of scale because of the lack of commitment over the years and the pursuit of an alternate agenda of postcoloniality.

119 ‘Inno-nated’ was coined during his time in America to capture the lifestyles in Ghana in the larger context of today, which is exemplified by his house, and his overarching approach to practice.
Of course, my own house, it was a great research lab, it still is. Understanding how local materials which are not commercialised could be commercialised or used in its custom stage. It is about creating systems that would allow these materials to have a longer life span like timber, like bamboo. How laterite be used in the contemporary sense. Using local laterite as I did in my house or bamboo is a very custom experience. So, my house is a very important personal experiment. I moved from the more kind of collective experiments to the personal one. (Joe Addo, personal communication, January 09, 2017)

Figure 7.3. The approach to the house depicts a nature park that ties in with the creative use of slat timber and laterite. Retrieved from the archives of Construct LLC, 2016 (Reprinted with permission).

Secondly, Joe Addo witnessed the transformation from a lack of natural breeze through to the concept of openness reminiscent of Coastal vernacular architectural practices. The need for a passive dependent home merged with growing concern about the perennial energy crisis in Ghana. For him, this was an opportunity to define the boundaries between tropicalism and counter-tropicalism. To achieve maximum cross ventilation, Joe Addo was mindful of the ineffectiveness of double banking layouts and extensive solid mass walling. His house is an open plan of interconnected spaces while affording privacy. With alternate access ways to rooms
through the balcony, interconnected access ways between rooms can be closed to create privacy (figure 7.4).

If you have walls which are very solid, and air can’t fly through, you pass by the house, slats with mosquito screens that’s it. So, the building is always breathing. It is a living breathing organism. So spatially, I built this building creating linked spaces and then the corridor, so you walk from room through room to room. You have a direct flow from one side of the house to the other side of the house, so air just flows through. It is a very open plan; very high ceiling and the building is elevated above the ground or off the ground, so you have a pocket of air that acts as insulation. (Joe Addo, personal communication, January 09, 2017)

Thirdly, to complement the planning strategies, Joe Addo created a nature environment around his home by exploring the concept of shade. The building is L-shape and has both front and rear gardens that provide good views from within the interiors. “Tropical architecture cannot work in isolation; it is the vegetation that protects the building from direct effect of the sun, rain and dust” (Joe Addo, personal communication, January 09, 2017). Shade is both metaphorical and literal. In indigenous settings, trees are important gathering places for community negotiations or home activities in Ghana.

The landscaping around is what I am most proud of. The time the house was built it was covered in trees. I planted them as I was building; it is a philosophy behind African responses. Ghana, we tear down all the trees today […] Why tear down the trees? Mine there were no trees on the site. I brought them right when I commenced work and twelve years later I am most proud of my achievement because it creates that needed shade that makes tropical architecture work. (Joe Addo, personal communication, January 09, 2017)

Furthermore, Joe Addo is fascinated by the good hybrid architectures around him, as well as the lifestyles that generate these architectures. The rituals of everyday life, especially those emanating from the margins of urban life, are therefore critical to his practice. The elevation of his home off the ground recalls the indigenous coastal practices as well as, colonial bungalow architectures. Thus, Joe Addo is critical of the extent to which indigenous Ghanaian architects have advanced the knowledge of tropical modernist practices since the 1970s, which he considers the intellectual heritage of hybrid responses complimenting his contemporary vernacular approach.

What inspires me is what is around me. Everybody gets inspired by going to places like South Africa, London etc. I do that too but what is around us is always taken for granted. These buildings, most of you studied at tech, but you did not really understand where you were studying; Americans will tell you, you need to own these buildings. (Joe Addo, personal communication, January 09, 2017)
7.7 Socio-anthropological responses and the John Owusu Addo example

John Owusu Addo is a pioneer indigenous tropical modernist practitioner whose design repertoire is sandwiched between his inclinations towards modernism’s fines clean lines and his

120 The architect academic John Addo is a product of the AA, and the first black Head of the KNUST School of Architecture in Kumasi. As a former understudy of Kenneth Scott, and a senior partner of Architectural Associates.
understanding of meaning in architecture within the Ghanaian indigenous community. Following his education at the Architectural Association (AA), and considering his rural background, localising modernism through the frontiers of interpretive culture was a *priori*. For him, understanding and interpreting local cultures in architecture is more connected to planning than to anything else (John Addo, personal communication, November 01, 2016). The feel (psycho) and experience of interactive spaces (social) that are so profound in the vernacular are potential psychosocial connectors between indigenous environments and the development of localised contemporary modernities. A good example of this kind of modernity is the re-appropriation of the courtyard in the design of a middle-class social housing scheme at Asuoyeboah in Kumasi for the Social Security and National Insurance Trust (SSNIT) by John Addo (Designed and constructed in 1971). The architectural response could be described as anthropological in nature intertwined with a performative interest. The housing development consists of eight flats on each level, conceived as an organic social complex of individual parts around an open to sky interactive space that caters to its occupants (figures 7.5-7.8). The development was inspired by the configuration of the neighbouring indigenous *Kumasi fie* as described below:

The idea behind that was the "Kumasi fie" (the Kumasi house), which as a result of the boom in the cocoa and the timber industry [...] So people got money and they started building these houses (Kumasi fie) in Asante new town, Fanti new town and other places. The big ones were three stories and they had these courtyards. They were all built around the courtyard; my idea was that the courtyard served many purposes such as domestic as well as social. So, we designed the bigger courtyard for social and each apartment had a small courtyard, even the second floor, the first floor and then it was open to the sky and you could leave a child there and feel safe [...]. My idea was that the bigger courtyard, so that people (the elderly) could play draughts and the children can play football but each one has its own courtyard in each apartment and we leave out most of the time. The only thing was that you couldn't pound fufu on the first floor so you had to go down. Although it was conceived architecturally, the structural design did not isolate in structural terms the courtyard. But that was part of the architectural conception. I wanted to go further with the subsequent developments, but my partners gave them another type which was very European, but I think this one was very tropical and it's modern and it answers our social and cultural way of living. (John Addo, personal communication, November 09, 2016)

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(Ghana), John Addo has a collection of exciting projects to his name including the Cedi House and the iconic Unity Hall of Residence at the KNUST.

121 The design was a product of the partnership of Architectural Associates (AA). However, John Addo was directly responsible for this design.

122 Fufu is a national dish in Ghana made from pounded yam or cassava or both. Pounding is done using a long and light bush cut log with a sponge head. Its length limits pounding indoors. However, the double volume courtyards can conveniently permit its use within.
Furthermore, John Addo deconstructed the concept of high-rise mass housing by creatively introducing individual courtyards for each flat – a principle atypical of contemporary high-rise housing design. These cannot simply be described as balconies; they are large living spaces partially opened to the sky through nonconsecutive slabbing between floors. The courtyards are therefore exposed to an inclined view of the sky. These outdoor living spaces perform multiple functions for cooking, resting, and laundry.

Overall, the lifestyle performances of an indigenous setting have been utilised through the facilitation of cultural experiences by design in a multi-storey housing development, and in a manner that enhances users' experience while suppressing the planar modernist outlook of its character. Its nucleus is indigenous, camouflaged by the fine lines of modernism and of climate. The housing concept advances new perspectives on the way African architecture may be viewed as existing beyond the confines of the local mud house. This model housing concept is the preferred option for would-be renters because of the privatised, outdoor living area, within the Assuoyebuah SSNIT housing enclave in the view of one occupant.
Figure 7.5. The ground-floor plan of the Abuakwa SSNIT flats highlights the courtyards and the alternating voids. To be read in conjunction with the first and second-floor plans. Retrieved from the archives of SSNIT, 2017.
Figure 7.6. The first-floor plan of the Abuakwa SSNIT flats highlights the courtyards and the alternating voids. To be read in conjunction with the ground and second-floor plans retrieved from the archives of SSNIT, 2017.
Figure 7.7. The second-floor plan of the Abuakwa SSNIT flats highlights the courtyards and the alternating voids. To be read in conjunction with the first and second-floor plans. Retrieved from the archives of SSNIT, 2017.
Figure 7.8. Representation of the double volume private courtyard of the Abuakwa SSNIT flats: a) The spatial volumes of the Abuakwa SSNIT flats as represented on the front and rear elevations (Retrieved from the archives of SSNIT, 2017); b) Reflections on the double volume and open to sky private courtyards on facades. To be read in conjunction with the ground, first, and second-floor plans.
The chapter traces and critiques the theory and development of hybrids in Ghana from precolonial to twenty-first century with emphasis on formal and informal practices. Two categories of hybrids in Ghana underpinned by parallel ideational conditions, described as semantic and latent are discussed. The former is the bane of the commodification of architecture, while the latter is intelligible integration. The development of latent formal hybrids by the creative minority that can effect positive change within dominant informal majority practices was emphasised. Three spaces achieving this were denoted as the contemporary developmental approach, the socio-anthropological approach, and performative responses. These concepts are pivoted on the knowledge of the indigenous practices and climate identity responses. The chapter therefore demonstrates these first, by discussing the contemporary developmental approach by Joe Osae Addo for his residence, and how he explores materiality using local technology (timber, bamboo, mud), and climate, drawn from his knowledge of the open and ventilated coastal vernacular architecture and of colonial styled bungalows in Ghana. Secondly, the socio-anthropological approach by John Owusu Addo and how he appropriates the socio-cultural place of the courtyard based on the Kumasi fie, in a private and public sense for multi-unit, middle level income housing in Ghana was discussed. These case studies showed how the frontiers of today's developmental challenges and barren opportunities in Ghana could be harnessed through positive mediation in architecture. The case studies also represent specific and practical actualisations of policies such as the CPG and CAP in architecture. Chapter 8 of the thesis presents the performative approach to hybridisation through the exploration of passive climate generated responses of the School Building concepts by Patrick Wakely and Khamil Mumtaz, and the One Airport Square by Mario Cucinella.

The realities of exclusive ideational subjugations and their manifestations in the architecture of former colonies is a growing concern. The negotiation of this challenge through homogenisation (doubling) in the context of the case study discussions, and not homogenization, represent the space for the pursuit of difference, of positive cultural resistance to colonisation in terms echoed by Bhabha (1994/2012).
8.1 Introduction

It is known that buildings are significant contributors to global warming and this likely has a greater negative impact on developing countries such as Ghana. However, the uptake of sustainable contemporary architectural responses in Ghana are limited and challenged. The chapter explores two case studies based on form and comfort considerations – namely, Patrick Wakely and Khamil Mumtaz’s School Building Projects of the mid-1960s, and Mario Cucinella’s One Airport Square as a twenty-first century example – to demonstrate, the place climate in architectural identity discourse at regional, city and building scales. The chapter advances that performative responses in the form of the case studies, reflect the sort of place-centred approach to practice that also engenders positive postcolonial architectural mediation, as well as mitigates ecological and climate change concerns of the present century. The chapter therefore contributes to the growing interest in developing sustainable and resilient infrastructure globally, but with a focus on the developing world with the most vulnerability to ecological and climate change impact.

8.2 Background

There is an increased interest in ecological and climate change studies because of the unprecedented negative impact on food security, energy, health and human comfort in recent times (Dai, 2011; Lobell et al., 2008; McMichael et al., 2003). These foci are part of the preoccupation with sustainable development that promotes efficient use of available resources now, while accounting for future needs (Brundtland, Khalid & Agnelli, 1987). Developing countries such as Ghana are most affected by climate change impact although being the least contributors (Adger, Huq, Brown, Conway & Hulme, 2003). This calls for an approach to development that mitigates and adapts to climate change effects in general (IPCC, 2014a; 2014b).
Specifically, buildings contribute to this global concern through unsustainable construction practices (including material specification whether local or international, recycleable or non-recycleable) (Tan, Shen & Yao, 2011), and reliance on non-renewable energy sources (Halliday, 2008). Buildings that are reliant on active cooling systems to mediate climate and human comfort needs, further constrain the sustainability agenda (Balaara, Haarhoff & Alessandro, 2018). For example, Ghana much like other African countries, is bedevilled with a perennial energy crisis because of a supply deficit (Adom, 2011). The energy crisis also reflects unsustainable energy use at the building level (Gyamfi, Modjinou & Djordjevic, 2015; Kaygusuz, 2012). Consequently, the UN Sustainable Development Goals (SDG) (2015) encourages the use of clean affordable energy, and the development of infrastructure that is resilient, sustainable, safe and inclusive (See SDG goals 7,9,11 & 13).

SDG therefore calls for a change, including the way buildings are designed and built globally. While sustainable architectural development features strongly in the developed world (see Melchert, 2007), discussions regarding this, relative to developing African countries, are limited and challenged (Cohen, 2006). This chapter discusses the place of climate in architectural identity discourse and its role in mitigating concerns of climate change and sustainable development.

8.3 Climate and architectural identity

Architecture is mostly conceptualised in terms of space and time. Discourse on architecture and identity has taken a central role complementing architecture as space (Abel, 1997/2017; King, 2008). However, the climate is least considered in architectural identity discourse. For example, Abel (1997/2017) explores three approaches to the study of architecture as identity at the city and building scales but none of these approaches mentions the climate directly. The first relates to the distinct character of buildings within the city and their contribution to the overall legibility of the city for individual/ collective cognitive appreciation and perceptible orientations. Lynch's (1960) work in *The Image of the City* brought clarity on place and identity dynamics in this regard.

The general characteristics of buildings as representative of the architecture of place, constitutes the second approach. Norberg-Schulz (1971) advances this as an alternate view of place and identity formation, to Lynch's (1960) emphasis on buildings as landmarks at the level of the city. Thus, the ubiquitous character of autochthonous architectures, which are confined to specific cultural settings, or in the postcolonial context, the nature of what has become generally known
as tropical modernism (because of its transcending concepts), could be described as advancing place identity in architecture.

Beyond the context of the city, dwellings are conceived to reflect the occupant's taste (Abel, 1997/2017). The relationship between the occupant and the specific home design represents the third context of architecture and identity (Rapoport, 1968). In this regard, it is suggested that flexible design approaches, such as self-help projects, and open-ended concepts give the would-be home owner the freedom to participate and personalise the design based on their identity, experiences, and needs over time (Cooper, 2014; Marcus, 2006; Tuan, 1977; Turner, 1977). The need to fabricate architectures that are responsive to the peculiar taste of their inhabitants or clients for the negotiation of specific functions is pivotal to architectural identity development at the building scale.

However, the development of identity architectures does not exist in isolation of people's physiological comfort needs. Whereas people may look up to architectures of identity simply as landmarks, and for their phenomenon, passive responses to climate together with the personal aspirations of its occupants influences both the internal spatial organisation and its externally appreciated performative outlook. From the inside appears the outside. In this regard, climate is pivotal to the development of that perceived as architectures of identity and retains a place in architectures role in a changing climate.

### 8.4 The climates of Ghana

Ghana belongs to the climatic zone termed the tropics, also known as the warm climate. However, the tropical zone is yet to be clearly delineated. It is considered broadly as the space between the Tropic of Cancer and the Tropic of Capricorn. There is, however, a working consensus that locates the tropics within the belt defined by a 20° C annual mean isotherm for the warmest months and a minimum of 18° C for the coldest (Atkinson, 1953b, Trewin, 2014). These descriptors overlook internal variations due to differences such as altitudes, latitudes, and proximity to water bodies. Whereas the seasons in temperate climates are often distinguished by extremes of winter and summer conditions, within the tropics, seasons are conveniently described as the wet (rainy) and dry (harmattan) seasons or the respective terms of warm and cool seasons (Trewin, 2014). Thus, climates located within the tropics are generally warm but may be either wet or dry depending upon the time of the year.
More specifically, Ghana is considered an equatorial climate by its location within latitudes $4^\circ$ S and $12^\circ$ N, and longitudes $4^\circ$ W and $2^\circ$ E (see figure 8.1), with two sub-climate types. According to the Koppen-Geiger climate model, modified by Kottek, Grieser, Beck, Rudolf, and Rubel (2006), a large stretch of the country is influenced by the tropical savannah climate (AW), with only the South-Western corner dominated by tropical monsoons (AM). However, the climate of Ghana is discussed in terms of three climatic zones, namely – the Northern savannah, the Coastal savannah, and the humid rainforest (Schreckenbach & Abankwa, 1990). While the hot dry Northern savannah$^{123}$ and the Coastal savannah$^{124}$ correspond to AW on the Koppen-Geiger climate map, the warm, humid rainforest corresponds with the tropical monsoon climate$^{125}$ (AM). The architectural response implications in climate terms, limit discourse to the largely contrasting hot dry conditions of the savannah, and the humid conditions of the coastal and forested zones.

Either of two dominant prevailing winds primarily influence local conditions at alternate times within a year. The hot and dry North-East trade wind blows from the Sahara Desert, while the cool South-West monsoons blow from the Atlantic Ocean (Drew & Fry, 1964). They also determine the humidity levels and rainfall patterns between climates. Higher levels of humidity and rainfall are more characteristic of the rainforest zones than the inland Northern savannah belts (GMET, 2016).

These microclimates, together with internal socio-cultural and economic distinctions, influence architectural responses over time in these zones. With warm climates, buildings need to be designed for coolness. According to Atkinson (1953b), Drew, Fry and Ford (1947/ 2013), this involves planning/designing for comfort.

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$^{123}$ This is marked by a single rainy season from June to September and a long dry period from October to May. During the rainy season, the temperature range is much lower. However, during the dry season there is sharp contrast between night and day temperatures with extremely hot days and cooler nights.

$^{124}$ This climate is characterized by conditions similar to the Northern savannah in terms of vegetation and rainfall despite the fact that it is located along the coast and subjected to the ocean breeze.

$^{125}$ This climatic zone has sharply contrasting conditions to the Northern savannah. This zone is dominated by the South-West monsoon for a greater part of the year. The South-West monsoon is responsible for the relatively high humidity and two rainy seasons occurring between April-July, and September-November. The period December-February represents the dry period in this zone when the North-East trade winds are dominant over Ghana.
8.5 Designing for warm humid and hot dry climates

Warm humid climates are characterised by a small diurnal temperature range with negligible seasonal variations between the day and the night. The atmosphere is moist with high humidity of over 75% (Atkinson, 1953b). The mean yearly temperature may reach about 18°C in the wet season rising to about 38°C in the dry season (Drew & Fry, 1964). In this climate, various architectural response strategies appear to merge. For example, Atkinson (1953b, p.44) notes that,

In warm humid climates, the prime object of design is to provide free air movement through the building and to prevent the temperature of its inside surfaces rising above shade temperature. To obtain the greatest benefit […] from air movement […] orientation in its prevailing direction is a first consideration […] 

Figure 8.1. The climate of Ghana and the consequential appropriation of architectural concepts across the climatic divide: (a) Typical compact indigenous architecture in Sirigu in the hot dry climate; (b) The Ashanti Fetish house in the middle belts of the hot humid climate explores hybrid strategies in response to the humid and hot dry conditions; (c) The stacked wooded form and raised floor nature of the lacustrine village of Nzulezu echoes the character of indigenous architectural interventions in the humid climate.
must be balanced against the optimum shade provided when the long axis of a building faces north and south.

This is corroborated in other climate studies. Drew and Fry (1964) observe, for instance, that the warm humid climates require shading but not as deep as the hot dry climates, for several reasons. Shading in this climate keeps out driving rains from the enclosing envelope so it can be as open as possible to allow thorough airflow and ventilation.

On the other hand, the hot dry equatorial climate stands in sharp contrast to the warm humid equatorial climate, but not in exact terms. In this climate, the seasonal variations in diurnal temperature ranges sharply in contrast during the dry season. However, a smaller variation characterises the rainy/wet season. During the wet season, the diurnal temperature ranges between the day and night are less, due to rising humidity levels that are responsible for the rains. The hot dry equatorial climate is therefore a mix of hot humid (wet season) and typically hot dry conditions (during the dry season) (Drew et al., 1947/2013; Hyde, 2008; 2013).

This suggests the architectural response ought to accommodate these disparate conditions occurring between seasons. Because of a clear overhead sky, especially during the dry season, buildings in this climate need to be deeply shaded. Typically, however, in such a climate, heavy-weight construction (i.e. high thermal capacity) is traditionally used to give protection from the heat of the day […] windows are small and are opened at night […] rooms face onto shaded courtyards (Atkinson, 1953b, p.46).

Heavy-weight construction works effectively in the dry season during which low humidity levels as well as large diurnal temperature ranges firstly limit the need for daytime ventilation, and secondly compensate through its heat retention quality for night-time living indoors on extremely cold nights. Internal heat loss at night is less during the rainy season due to the small diurnal temperature variations and the prioritisation of more compact forms. Internal conditions are therefore warmer at night, which together with the relatively high humidity conditions underpins why people tend to inhabit rooftops or open courtyards in indigenous settings (Oliver, 1997; Rapoport, 2007; Taleghani, Tenpierik, & van den Dobbelsteen, 2012). In this regard, experimental climate design strategies such as the "Notes on the Science of Building" by the Commonwealth Experimental Building Station (1949), also echoed by Drysdale (1950), suggests an integrated design approach incorporating both light and heavy design of buildings for this climate (see figure 8.2).
These experimental strategies appear to be technical engagements. However, their specific appropriation in architecture tends to give architecture within these climates a purposeful and intelligible character. Marshall (1953) and Steyn (2014) suggest that the advancement of experimental comfort studies is fundamental to indigenous knowledge and practices.

Figure 8.2. Designing for both day and night-time living in the hot climate, Commonwealth Experimental Building Station (CWES) (1952). Retrieved from CWES (1952), Thermal insulation, in Notes on the Science of Building, SB25 (Within right to copy).

8.6 Climate and architectural identity in vernacular practices in Ghana

The study of vernacular architecture in Ghana reveals several aspects of thoughtful mediation between nature and socio-cultural needs (Eustace & Ophuis, 2002; Gabrilopoulos et al., 2002). The regional variations in vernacular architectural practices reflect adaptive responses to the distinct microclimates in Ghana. These variations indicate distinct construction techniques and design configuration (i.e., the nature of courtyards and enclosures). In the Coastal belt of Ghana, for example, (figure 8.1 – c.), the daily and seasonal temperature changes are minimal and require open shelters of light construction. Indigenous Coastal dwellings appropriate wooded louvre shutters to meet the need for natural ventilation. In some areas, bamboo screened walls are used to meet this need. Further, the buildings are raised on stilts to maximise the effect of ocean breezes. The rectangular shaped buildings adopted are oriented to maximise the ocean
breeze. Another climate related distinction is the prevalence of more open courtyards than those of the middle forest belts and tropical savannah zones (Faculty of Architecture-KNUST, 1978).

In the middle-forested belt, hot humid conditions permit hybrid strategies. Earthen wall construction requires an armature to prevent heavy rains from washing them away. The inhabitants adopt wattle and daub construction, consisting of bamboo or palm fronts tied vertically and horizontally, finished off with earthen daub (Schreckenbach & Abankwa, 1990). The courtyards of the middle belts are not as open as those of the coastal areas. The courtyards here are almost enclosed with the approach to the courtyard the only means for airflow (figure 8.1, b). The adoption of thicker layers of thatch roof in contrast to the coast mitigates the increasing solar heat gain. The heat gain is progressively higher as one moves from the coast to the inland Northern savannah regions. The thatch roof overhangs also tend to keep the buildings in shade, especially the courtyards, which permit their use at different locations within the day depending on the inclination of the sun (Faculty of Architecture-KNUST, 1978). The indigenous architecture here is not as light as in coastal areas. A sizeable number of windows complement the semi-light envelope. The indigenous architecture is therefore neither light nor very compact but explore the in-between.

In contrast, the inland savannah belt exhibits distinct responses to the prevailing local climatic conditions. The daily and seasonal temperatures changes are high. The belt is characterised by hot dry conditions, partly due to its proximity to the Sahara Desert. While the diurnal temperature range between day and night is much less during the rainy season (because of rising moisture levels), the dry season records a higher diurnal temperature range due to extremely hot sunny days and sharply contrasting cold nights. The main challenge here is accommodating the extreme cold at night during the dry season, and the contrasting warmer nights in the rainy season. Thus, it requires an alternate mechanism of compact and light development as suggested earlier. The drier conditions permit an exclusive use of mud. The rounded earthen construction in the savannah belt enables it to store heat during the day for evening comfort during the cold nights of the dry season. The thermal inertia is enhanced by the thicker thermal mass of the enclosing walls. The circular form also concentrates thermal radiation in a central enclosed space in a better manner than a rectangular form can (figure 8.1- a). To maximise the thermal properties of the earthen mud construction, compromises are made in terms of ventilation, limiting openings to smaller sizes, or none (Faculty of Architecture- KNUST- School

126 In the transition between the warm humid climates of the coastal areas to the hot dry Northern belt, the thickness of the thermal envelope increases to mitigate the growing heat intensity.
of Architecture, 1978; Prussin, 1969). The courtyards, which are open to the sky and compact in composition, act together with the appropriated flat roof terraces as alternate spaces for outdoor living on warmer nights in the rainy season except on a rainy night.

Although the appropriation of courtyards is common throughout the regional vernacular architectures of Ghana, their design configuration is specific to each regional climate. The construction techniques also tend to develop from the specific attempt to mitigate the local climates, including, among other factors, the proximity to local building materials. These climate adaptive strategies of the vernacular in part informed the formulation of tropical design strategies in theory. The indigenous courtyard system, for example, prevalent across all regional vernacular architypes in Ghana, became a centrally echoed theme in several publications as an important element in climate related practices (Drew & Fry, 1964; Drew et al., 1947/2013; Marshall, 1953).

While the vernacular practices reflect the geographical dispersion of climate orchestrated identity practices, contemporary interventions of recent have not particularly succeeded in this regard (see Intsiful, 2008). Nevertheless, there are positive formal architectural practices that support the discourse on identity in Ghana’s architecture.

8.7 Climates place in formal practices and architectural identity in Ghana

Responses to Ghana’s climate in formal architectural practices contributes to positive architectural identity at three levels – namely, the regional, city and building scale. This section explores two case studies in the context of the three levels of architectural identity as criteria. The School building concepts by Patrick Wakely (who is among a few privilege architects in the 1960s with architectural commissions across the two distinct climates of Ghana – humid and hot-dry climates) is an appropriate case for architectural identity discourse particularly at the regional and building scales. Likewise, Mario Cucinella’s One Airport Square as the first certified Green building in Ghana, is an ideal example for promoting sustainable architectural practice in the twenty-first century. The character of the One Airport Square in the context of its setting also lends itself to architectural identity discourse at the city and building scales.
8.7.1 The School Building Projects (1966; 1969) and architectural identity

Wakely (1969), and Wakely and Mumtaz (1966) at the KNUST School of Architecture proposed two school building concepts for the humid and hot dry climates in Ghana that reflect climate and architectural identity through cross-regional logics. These school building projects were collaborations between the KNUST School of Architecture and various Ministries that aimed to develop prototype experimental building solutions for various purposes. Such partnerships saw the development of self-help school buildings for deprived communities in the Upper Regions\textsuperscript{127} (of hot dry conditions) under the guise of the Ministry of Social Welfare and Community Development (Wakely & Mumtaz, 1966). Similar collaborations with the Ministry of Education saw the development of a prototype school building concept for implementation throughout the country with initial pilots developed for the humid climate (Wakely, 1969).

The collaborations were intended primarily to develop rational construction techniques for school buildings in terms of cost effectiveness and speed of erection. The need for new and improved school buildings (following low literacy rates post-independence) met a need for the economic rationalisation of concepts to balance the effect of limited resources and the growing need for more schools. The approach to the development of concepts followed a comprehensive appraisal of existing school buildings relative to the terms of reference. With the emphasis on cost-based affordability, considerations of climate appeared to be secondary derivatives. However, responses to climate retained a strong presence in the proposed schemes.

Existing school building concepts were considered unsatisfactory in terms of comfort for effective teaching. The climatic strategies adapted in the revised school building concepts revealed how place-centred responses to local climates can engender regional identity development in architecture in the manner echoed by Norberg-Schulz (1971).

Clearly, in developing concepts for the hot dry conditions, Wakely and Mumtaz (1966, p. 60) knew that “the existing arrangement of spaces on plan and the nature of openings which would be quite suitable in the hot humid Southern parts of the country are of doubtful merit in the North”. The commitment to pioneer distinct identity response for the hot dry climate was prioritised. Of three cost-based concepts developed in their exploratory work, the one described as “better suited to the climate of the Region” is evaluated (Wakely & Mumtaz, 1966, p. 60). Thus, as shown in figure 8.3, the developed concept plan, and façade composition responds positively to the

\textsuperscript{127} The Upper Regions at the time comprised the now divided Upper East and West Regions that are located in the hot dry conditions of northern Ghana.
prevailing conditions with emphasis on times when schools are in session. Schools are rarely in session during the peak of the rainy season. Thus, responses to the hot, dry and dusty North-East trade winds during the dry period were prioritised. In addition, the overcast sky glare influenced their architectural response strategy. Wakely and Mumtaz (1966) proposed a solid mass form with perforations at body level for the purposes of external views. They also pioneered an identity spatial compositional consisting of double bank compact plans to reduce heat gain during the day when the school is in session with temperature extremes occasionally exceeding 40 degrees. The wide verandahs (continuous along the entire length) shade exposed external wall enclosures. To facilitate air circulation between adjacent classrooms, the partition wall is perforated close to ceiling level. A horizontal opening running the full length of the enclosing external wall at a height of 6'6" admits light. These mechanisms were set in place to facilitate the performance of the proposed school buildings in hot dry conditions giving them their unique form and character.

Figure 8.3. Proposed school building concept for the Upper Regions in hot dry conditions (Wakely & Mumtaz, 1966, p. 59). Adapted from Arena: Architectural Association Journal; Arena/Interbuild, 82(904), 58-60. (Reprinted with permission).
In contrast, the primary school building proposals, which were piloted in Southern Ghana, explore concepts that are generally light and open (see figure 8.4). The use of full-length revolving louvre doors extensively appropriated on the north and south façades allows for thorough airflow across the classrooms. A seven-foot barrel roof overhang shades the façades and permits the flexible opening of the revolving louvre doors without concern of solar infiltration. The barrel roofs also tend to shelter connecting access ways from direct sunshine or driving rains (Wakely, 1969). The open void barrels aid ventilation of the roof cavity by facilitating "the dispersal of hot air both by thermal movement of the air and by allowing a through breeze immediately below the roof surface" (Wakely, 1969, p. 274). In terms of spatial identity, the open, single, and light bank configuration contrasts with the double bank proposed for the Upper Regions. The proposals also prioritise an open north-south orientation to maximise cooling and ventilation. The overall performative goal is facilitating "air movement […] at body height […] for comfort", which is realised through the building's form and spatial identity compositions and reflects the effective mediation of the humid climate for comfort (Wakely, 1969, p. 274).

Figure 8.4. Prototype school building concept piloted within the humid climate in Ghana (Wakely, 1969, p. 276). Adapted from R. Jolly (Ed.), Education in Africa: Research and Action (pp. 265-283). Nairobi, Kenya: East African Publishing House / Heinemann Educational Books Ltd. (Reprinted with permission).
8.7.2 The One Airport Square and architectural identity

Mario Cucinella's One Airport Square project in Accra is perhaps the best example for considerations on climate, architecture, and the image of the city in contemporary Ghana today. The project reveals several aspects of architectural identity through the exploration of its form, planning strategies, and the resultant performance goals attained within the humid climate. The project further arouses interest through the potential to reveal new perspectives on modernity in places like Ghana, especially ideas on performative regionalism. In this regard, two mechanisms sum up the conceived building – namely, form and performance. The hallmark of this project is the exploration of technology and performance-based solutions with keen attention given to the landscape and the climate. However, there are many aspects complementing its climate responsive nature. The building is a revolution in the internationalisation of building processes with greater empathy towards the site and energy conservation while retaining a perceptive significance in terms of the image of Accra City (Cucinella, Lee, Kim, & Mario, 2014). These aspects are interwoven with a discussion of place, client taste, and architectural identity.

Specifically, as a constructed relationship with identity in architectural practice, the advances by Lynch (1960), Norberg-Schulz (1971), and Rapoport (1968) on architectural identity are apparent. The building is first appreciated through its exclusive and encircling form within the city of Accra. The architects envisioned this as pivotal to orientation within the city. Thus, "in view of the desire for a contrast between the project area and the surrounding townscape, the rendezvous spaces for employees and the public received special attention", with the unique façades appealing to the public on sight (Mario Cucinella Architects, 2017, para. 1). While the superficial outlook of inclined, interlocking, reinforced concrete piers visibly enhance the image of the city, the overall building envelope mediates environmental conditions within the Accra area. The receding nature of projected terraces from the lower floors to the uppermost are parametrically conceived to keep the building permanently in shade at different angles and times of exposure.

128 The property is a nine-storey, mixed commercial/office block located in an important CBD, the airport city in Accra Ghana, with a floor area totaling 1700 sq. meters. It is the first building to receive a 4-star rating by the Ghana Green Building Council and the Green Building Council of South Africa.

129 The building envelope is thought to have been inspired by the "local art" and the bark of palm trees, which are typical to this climatic zone (Mario Cucinella Architects, 2017, para. 2).

130 Diverse architectural outlooks, including especially climate insensitive glass boxes, mark the Airport City. These glass boxes are reminiscent of a false notion of modernity and of capitalism. The One Airport Square breathes a life of positive capitalist mediation within urban Accra and within the airport city.
to the sun. These terraces are held in place by the inclined diagonal piers, which together give the building its unique character of placeness, acting as a point of reference (see figure 8.5a).

As a reflection on identity and architecture through regional dynamics, One Airport Square could be described as the conspicuous return of white concrete modernism, typical of the general identity of tropical modernist practices in British West Africa between the 1940s-1970s in both concrete terms and embedded climatic readings. The extensive use of concrete for its core structure\textsuperscript{131} and the appropriation of shade over the extensive glass façades through using receding concrete overhangs echo extensions to the style and character of concrete modernism of past times.

The embedded climatic readings are better appreciated in the relationship between the occupant's needs and client identity requirements\textsuperscript{132}. In this instance, the need for a passively functional office building for comfort complements its place as a model for emerging commercial high-rises within the airport city enclave, and in Accra in general. The building sharply contrasts with the largely unsustainable nature of existing forms within Accra in recent times (Figure 8.5-b).

Thus, One Airport Square could be described as a positive mediation between capitalist imagining in twenty-first century commercial high-rises in Ghana achieved through creative empathy (Cucinella et al., 2014). Three mechanisms become apparent in pursuit of regional environmental empathy. The performative envelope as a climate responsive interface, complements the responses to site specific conditions, and the internal planning and functional requirements. The building is modelled to take the shape of the site and respond to topographical conditions. The building also responds to the climate of the site. Within latitude 5.5 degrees north and longitudes -0.3 degrees east, "the sun's path makes it particularly exposed to solar radiation fronts east and west combined with medium to high temperatures" during the year (see figure 8.6) (Mario Cucinella Architects, 2017, para. 5). The need for cooling meets the need to reduce reliance on active cooling systems to achieve this goal. Thus, an appropriate orientation to maximise ventilation and reduce heat gain was conceived. The net effect is a reduction in cooling loads by some 50% (Mario Cucinella Architects, 2017, para. 5).

\textsuperscript{131} It is massive and is finished off in clear colours, which reduce heat gain during the day.
\textsuperscript{132} The projected terraces, for example, allow for flexible user transformation during occupation according to individual taste. The kind of scenario envisioned by Rapoport (1968).
Figure 8.5. The One Airport Square form in the context of other commercial high rises in the Airport of Ghana: a) One Airport Square, depicts its unique climate fabricated façade characterised by receding overhangs and inclined diagonal piers; (b) Other developments within the Airport City enclave.

Figure 8.6. Orientation and solar protection analysis. Retrieved from the archives of Mario Cucinella Architects, 2017.

The resultant spatial composition is compact because of a very tight site. The introduction of a central atrium, however, admits light but also functions as an intermediate space for air exchanges. The internal adjustable louvres, façades, and the operable external glass panels (opening onto the overhang terraces) can be controlled to aid in natural air exchanges via the atrium for comfort (figure 8.7-a; b). The meeting point is the overall reduction in energy consumption, which enhances One Airport Square as a model of “ecological beauty” (Mario Cucinella Architects, 2017, para. 7).
8.8 Chapter summary

Responses to the climate addresses two complementary architectural needs. While the passive architectural response to various climates mitigates the concern of human comfort, these unique interventions also enhance the discourse on architecture and identity. With references to interventions by Patrick Wakely, Khamil Mumtaz, and Mario Cucinella, the chapter therefore demonstrates that climate plays an important role towards positive logics on architectural identity. This relationship resides in understanding climate and architectural identity from the point of view of principles of a city’s identity, regional identity, and the building identity. The chapter thus emphasised climate as an exploratory boundary for performative postcolonial architectural mediation with a potential to mitigate current concerns of climate change. The chapter therefore contributes to the growing interest in developing sustainable and resilient infrastructure globally, but with a focus on the developing world with the most vulnerability to ecological and climate change impact.
Part IV. THE RESEARCH CLOSURE
Chapter 9 CONCLUSION AND RECOMMENDATIONS

9.1. Introduction

This chapter accounts for the main research findings with respect to the research problem and questions. The implications of the findings towards rethinking the theory and practice of architecture in Ghana are detailed. The chapter also indicates the strengths and limitation of the research and concludes with suggested recommendations towards positive architectural education and practice, as well as for future research work.

9.2. The research in perspective

The discourse on architecture in former colonies promotes mutual appropriation both in the colonial and postcolonial sense and retains twenty-first century interest. This interest is a global concern supported in theory. Rudofsky (1964), Ricoeur (2007), and Frampton (2007a) indicate the need to negotiate between universal practice and place-centred traditions. However, the boundaries of responses take several forms that are influenced by the contested appropriation of the modern, naturally occurring geographies such as the climate, institutional or governmental control, as well as the architect's appreciation of theory and practice. The negotiation between these factors tends to influence the way responses are perceived as largely exotic, local, or hybrid in nature. The thesis considered the relationship between the responses and the theory of the responses to climate and modernity in Ghanaian architecture as shaped by discourses on postcolonial mediation since the 1940s, and how this has unfolded in twenty-first century practices. The study's central aim presented in Chapters 2 and 3 was to enhance an understanding between postcolonial literary accounts and actual strategies for architectural mediation. The chapters looked to the climate and modernity as two important factors fundamental to the development of architecture in former colonies over time and their intersection in postcolonial discourse. The actual strategies of mediation were considered from the perspective of Contemporary African Philosophy, which is an extension of postcolonial discourse from the immediate postcolonial concerns to twenty-first century thinking, within former colonies in Africa. The overarching aim of the study, reported in Chapter 4, empirically accounts for the place of climate, modernity and postcolonial mediation in twenty-first century practices in Ghana, from the perspective of practising architects and academics in Ghana. The findings from Chapter
4 revealed the disconnection between theory and practice within postcolonial mediation at three levels. The findings from Chapter 4 in the context of Chapters 2 and 3 were discussed in Chapters 5 - 8. The scope of the discussions in each chapter addressed the thesis research concerns or questions. The emerging arguments in these chapters are reported under the sub-research questions considered below.

9.3. Findings and discussions concerning the sub-research questions

The sub-research questions respond directly to the main research question. This section indicates key findings relative to the four sub-questions.

9.3.1 Research question 1

What is the place of climate and modernity in postcolonial theory and architecture? (Chapter 2)

Based on Baudrillard's (1987) idea of positive responses to modernity relative to the postcolonial third world as the "the dynamic amalgamation of socio-cultural conditions" (p.70) and "as an activism of wellbeing" (p.72) for the "conquest of space" (p. 71), relative to architectural responses, the thesis establishes that this resides in the notion of climate as a dual aesthetic response to comfort needs that also take into account related socio-cultures, also described as socio-climatic (Frampton, 2007; Lefaivre & Tzonis, 2001) or the developmental planning (Jackson & Holland, 2014) responses.

9.3.2 Research question 2

What is the place of the Contemporary African Philosophy and the theory on architectural mediation? (Chapter 3)

The boundaries of positive postcolonial architectural mediation seem more general than specific. The strategy for negotiating in-between spaces also exists without much clarity. This obscurity influences the way architectures are theorised as national, foreign, or hybrid. For example, the conception of the architecture of Ghana within the limits of a developmental view of Ghanaian
vernacular architecture seems liminal. This does not account for the role of Ghanaian vernacular architecture for contemporary architectural mediation, and its place towards rethinking Ghanaian architecture. Drawing upon Pavlides' (2007) "Four approaches to regionalism in architecture", as well as Rapoport's (2006) strategy of the "Vernacular as model system" in the context of Contemporary African Philosophy (CAP), the thesis extends the strategy towards positive postcolonial mediation to five mechanisms: the folkloric, ideological, experiential, anthropological, and performative approaches. These approaches, grounded in the dual view of the climate, bring more clarity to the paradox, which defines the interest in mediating global practice while looking to context, in living and let live. In addition, these mechanisms represent an extension to the scope of inquiry of Ghanaian architecture beyond the confines of basic mud forms, to include expression in both concrete and abstract terms. Furthermore, with these mechanisms in mind, contemporary architecture in Ghana, which emanated from the centre and described as exotic and distant to context because of a linear structure of influence, is questioned.

9.3.3 Research question 3

What is the place of climate and modernity in twenty-first century practices, and how have these appropriated knowledge concepts from Ghana's architectural past?

(Chapters 4-5, 7)

The thesis found a disconnection between the theory and practice of architecture in Ghana at mainly three levels of investigation: climate knowledge and regional identity responses, the theory of modernism and the context of a twenty-first century modernist renaissance, and the theory of hybrids and their place in practice. The thesis found that, while Ghana's climate is distinct between regions, contemporary responses do not particularly consider this. The unique regional climate specific responses known to vernacular architectures or the more technical publications (Commonwealth Experimental Building Station, 1952; Drew & Fry, 1964; Drysdale, 1950) were deemed not to have had any great bearing on practices. The thesis also found that

There appears to be greater focus on a more techno-scientific response to climate from a distance that marginalises the role of the vernacular in the development of contemporary architecture in Ghana. In addition, a greater focus on the origins of architectural authorship than on the fundamental reading of the purpose and approach adopted in architectural mediation in Ghana undermines the context of contemporary architecture in Ghana.
there was a disconnection between the perceived modernist renaissance of twenty-first century responses and modernist interventions between the 1940s-1970s. While the former is a symbolic reflection on the idea of a style; the latter, through its responsiveness to climate and reductive developmental planning strategies, echoed the fundamental translation of modernism as the reading of the purpose of architecture in relation to context. Furthermore, it was also found that there was an appropriation of hybrid responses to be more semantic, especially informal interventions rather than latent.

These disconnections between theory and practice are a result of the misdirected notion and appropriation of the modern aided by the pressures of capitalism, the mass media, the client's occasioned taste and, at times, the architect's lack of appreciation of theory, practice, and context. There was a lack of consideration of the climate in its dual sense with a total disregard of indigenous strategies and principles. The thesis places the architect at the centre of both positive and negative architectural development in Ghana, despite the more informal nature of building design and practices in Ghana. A more dominant and positive practice by architects tends to influence informal developments. In this regard, the thesis argues that the architectures of Ghana are merely a reflection of the architect's appreciation of context, theory, and practice. Thus, the architect, in acting as arbiter between the client's taste and their professional judgement, is well positioned to reconstruct taste through effective dialogue.

9.3.4 Research question 4

How have architectural practices in Ghana responded positively to the postcolonial theoretical concern of mediation based on CAP?

(Chapters 5, 7-8)

Despite the failings of architectural practices in Ghana towards positive postcolonial mediation, the thesis demonstrated positive hybridisation through the folkloric approach adopted to practice by Joe Osae Addo for his residence as well as John Owusu Addo's experiential and anthropological response in the Abuakwa SSNIT flats in Ghana. In addition, the thesis drew upon the thoughts and approach to the appropriation of modernism by J. Max Bond Jr., echoing the ideological and experiential approaches to regionalism to reflect on the fundamental meaning and translation of modernism in Ghana. Furthermore, the thesis related to the performative response to climate and its place for positive regional identity practices at the city and building
scale by examining the interventions of Mario Cucinella's One Airport Square, and Patrick Wakely and Khamil Mumtaz's proposed school building project proposals for Ghana's diverse climates.

9.4. General conclusion

The study concludes that, while the adherence to positive postcolonial mediation in the 21st century remains difficult to discern, an understanding of firstly, climate as a dual aesthetic response to the science of human comfort and the resultant effect on climatically inflicted socio-cultures, and secondly, of the role or place of the vernacular in contemporary practice as existing in both concrete and abstracted terms, is plausible. This kind of approach to practice is potentially inclusive, reflects contemporary African thinking today, such as CAP, and ideas on architectural mediation. In view of this, the study determines the means to positive architectural mediation in the context of CAP to include the folkloric, ideological, experiential, anthropological, and performative approaches to regionalism. The study thus extends the discourse on Ghana's architecture and that of other former colonies beyond the confines to basic indigenous forms or their transformational outlooks.

9.5. Contributions and limitations of the research

9.5.1 Contributions

The study makes two main theoretical contributions. The theory on architecture in Ghana tends to follow a rather binary narrative approach to discourse with about five noticeable streams of study focus. These include studies on indigenous architecture with focus on materiality, climate and building techniques (see Gabrilopoulos et al., 2002; Prussin, 1969), as well as the historical account on the architecture of the forts and castles (Anquandah, 1999; DeCorse, 2016; Ephson, 1970; Fage et al., 1959; Hyland & Intsiful, 2003; Hyland, 1995a, 1995b; Jordan, 2007; Van Dantzig & Priddy, 1971; Varley, 1952). In addition, colonial architectures and hybrid architectures developing beyond the foot of the castles (Hyland, 1992; Hyland, 1995a; Micots, 2010; Micots, 2015; Schreckenbach & Abankwa, 1990) together with the modernist architectural interventions of the 1940s (Folkers, 2010; Herz et al., 2015; Hess, 2000; Lu, 2011) are emphasized. Furthermore, cross-sectional studies on architecture in Ghana today (Intsiful, 2008, 2010; Oppong & Solomon-Ayeh, 2014; Pellow, 2014) are a growing area of interest. Firstly, therefore, the research intervenes between binary narratives on architecture in Ghana considered from the
perspective of the contemporary African philosophy. The study thus expands on climate, hybridity and modern architectural discourse based on CAP by critiquing the established body of knowledge on architecture in Ghana.

Secondly, while a significant body of knowledge pertaining to the precolonial and early postcolonial period exist, this study extends discourse to especially twenty-first century practices.

Practically, the thesis contributes to a more positive approach to mediating universal knowledge and practices with more placed-centred solutions, especially with regards to the knowledge of vernacular architecture manifesting in the idea of the climate. The thesis also gives practical relevance to governmental policies such as CPG, which encourages cultural mediation in architectural practice in more abstract terms.

9.6. Recommendations

9.6.1 Further development on research in architecture in Ghana

The thesis questions the underlying approach to research on architecture in Ghana and other former colonies that places the Colonial State at the centre of architectural interventions, which largely undermines its postcolonial place. Instead, the thesis recommends that, research interest with focus on the architect, their thoughts and specific approaches to practice in Ghana and other former colonies, should be explored more as a foundation towards rethinking the place of colonial architectural interventions in the colony understood from a humanist colonised perspective such as CAP.

One of the challenges to the reduced place of the vernacular in contemporary architectural thinking seems to be the lack in recent times of sustained interest in appropriating vernacular knowledge. More research and publications on vernacular knowledge spaces, especially in their experiential value for contemporary interventions, could open up new areas of research interest. The suggested methodology in the thesis is useful for more in-depth studies on the Ghanaian vernacular.
9.6.2 **Recommendation for architectural education**

The KNUST School of Architecture appears to be grounded from inception on its philosophy. The School's philosophy of tradition teaching, technology teaching, and the 3-C's (climate, culture and construction) is well placed for effecting positive and mediated responses in actual practice. However, it appears translating theory into practice in students' work remains a challenge.

The CAA has observed that the impact of history on students' work in more recent times is lacking. Furthermore, the disconnection between theory and practice suggests that the approach to teaching architectural theory requires rethinking. For example, the teaching of modernism should intervene between the more focused global narratives on modernism, especially as a European epoch, and the less emphasised contextual translation in Ghana with detailed evaluation of the work of key actors including Drew and Fry as well as J. Max Bond Jnr. by architecture students. An approach that relies more on concepts from within potentially bridges the banality of the modernist renaissance in Ghana today, which seems a reflection of an idea of a style that is the fundamental reading of the purpose of architecture. The thesis recommends that the approach to teaching architectural theory in Schools of Architecture in Ghana should emerge more from within. This requires further research into architecture in Ghana towards the development of theory, in the terms suggested earlier.

9.6.3 **Recommendation for positive architectural practice**

In view of the failings in practice to effect positive development, the thesis recommends four interventions. Firstly, in places like Ghana, conscious public education is pivotal in shaping the client's taste towards better-informed informal architectural developments. The Ghana Institute of Architects (GIA) is well placed to offer leadership in this regard with the support of government agencies such as the Ministry of Works and Housing, and the Ministry of Local Government and Rural Development. Architects themselves require further education post-qualification. The GIA's Continuous Professional Development (CPD) courses could be enhanced further through a module on Professional Design Ethics (PDE). PDE should be designed to place the architect as an arbiter between the client's taste, globalisation, and ethical responses within the context of positive mediation. Secondly, policies such as CPG and its connection to architecture need to be complemented by the formulation of climate reference standards for practice. The Ghana Green Building Council, which is in its early days, should be empowered to develop
implementable and place-centred Ghana green building standards. Thirdly, building design and enforcement systems need to be strictly applied. The absence of proper development control is a critical setback to positive architectural development. Fourthly, the development of local industry and research into local building materials are pivotal to this process of development from within while looking to the global. This requires governmental support for private sector industrial development. Research into local building materials and techniques by the Building and Road Research Institute (BRRI) in Ghana should be promoted through more positive commercialisation and protectionist policies.
MEMORANDUM TO:

Dr Alessandro Melis Architecture & Planning

Re: Application for Ethics Approval (Our Ref. 017424): Approved with comment

The Committee considered your application for ethics approval for your project entitled Climate, Modernity and Architecture in Ghana.

Ethics approval was given for a period of three years with the following comment(s):

1. Invitation
   a. Please remove the word ‘peculiar’ from the following sentence:
      ‘…because of your peculiar knowledge on my subject of investigation in both theory and or practice.’
   b. Please add the UAHPEC approval wording: Approved by the University of Auckland Human Participants Ethics Committee on …… for three years, Reference Number …………

The expiry date for this approval is 25-Aug-2019.

If the project changes significantly, you are required to resubmit a new application to UAHPEC for further consideration.

In order that an up-to-date record can be maintained, you are requested to notify UAHPEC once your project is completed.
The Chair and the members of UAHPEC would be happy to discuss general matters relating to ethics approvals if you wish to do so. Contact should be made through the UAHPEC Ethics Administrators at ro-ethics@auckland.ac.nz in the first instance.

All communication with the UAHPEC regarding this application should include this reference number: 017424.

(This is a computer generated letter. No signature required.)

Secretary
University of Auckland Human Participants Ethics Committee

c.  c. Head of Department / School, Architecture & Planning Prof Errol Haarhoff
Mr Allan Balaara

Additional information:
1. Should you need to make any changes to the project, write to the Committee giving full details including revised documentation.

2. Should you require an extension, write to the Committee before the expiry date giving full details along with revised documentation. An extension can be granted for up to three years, after which time you must make a new application.

3. At the end of three years, or if the project is completed before the expiry, you are requested to advise the Committee of its completion.

4. Do not forget to fill in the ‘approval wording’ on the Participant Information Sheets and Consent Forms, giving the dates of approval and the reference number, before you send them out to your participants.

5. Send a copy of this approval letter to the Awards Team at the, Research Office if you have obtained funding other than from UniServices. For UniServices contract, send a copy of the approval letter to: ContractManager, UniServices.

6. Please note that the Committee may from time to time conduct audits of approved projects to ensure that the research has been carried out according to the approval that was given.
MEMORANDUM TO:
Office of the Vice-Chancellor
Finance, Ethics and Compliance
UAHPEC

1. RE: APPLICATION FOR ETHICS APPROVAL (OUR REF. 017424): RESPONSE TO CONDITIONAL APPROVAL

Please find following responses to the conditions of provisional approval of my Ethics application Ref. 017424.

2. PLEASE PROVIDE A COPY OF ANY INVITATION LETTER OF EMAIL TO BE USED IN RECRUITING PARTICIPANTS

Sender: Allan Stephen Balaara (abal849@aucklanduni.ac.nz)
Recipient: Potential Participants email address
Subject: Interviews on the framework of responses to climate and modernity in Architecture in Ghana.
Body:

Dear (Recipients name i.e. Dr. Asaasie Oppong Rexford)

Invitation to Participate
I am writing to request your participation in an interview on the frameworks of responses to climate and modernity in architecture in the third world, Ghana specifically.

You are invited to participate in this research because of your peculiar knowledge on my subject of investigation in both theory and practice. I am thus glad to interact with you if you so choose to respond favourably to my invitation. Your participation is voluntary and you may decline to participate. You are however guaranteed, your responses to questions will be kept confidential and under no condition will such information be compromised. There is no compensation for participation in this study. Your participation however will be an invaluable addition to my research.

Please find attached further details on my research in the Participant’s Information Sheet (PIS), Interview guide and consent form. Kindly sign and return to me by email of your consent to participate in the interview indicating a specific date, time and location of convenience to you for our interview. If you require any further information or queries related to this interview, you may contact Allan.
Stephen Balaara or Prof Errol Haarhoff. For any queries regarding ethical concerns, you may contact
the chair, The University of Auckland Human Participants Ethics Committee. Their respective contact
information are indicated in the PIS which is attached to this mail.

Thank you for taking time to go through my mail and I am looking forward to your response.

Allan Stephen Balaara
PhD Candidate
The University of Auckland
School of Architecture and Planning.

2. **H4: PLEASE NOTE: PARTICIPATION IS “CONFIDENTIAL” NOT “ANONYMOUS”.**

The only possible risk falls into the category of minor damage to a professional or personal
relationship. Participants may be associated with an opinion that they do not agree with.
This risk is mitigated as follows,
1. Participants are not named (*Confidential*)
2. Participants are offered an opportunity to withdraw all or part of a transcribed interview.
Appendix 3- Publication consents

Dear Architect Addo,

I am a postgraduate research student in the School of Architecture and Planning at the University of Auckland. I am seeking permission to use the following copyrighted material in my thesis entitled “Practice in theory and the theory of practice: Climate, modernity and architecture in postcolonial Ghana” for the purposes of examination and subsequent deposit in the University of Auckland’s publicly available digital repository, ResearchSpace. Furthermore, I will be glad if permission is given for use in a Journal publication:

Figure 5.3. Conects LLC (2017), the approach depicts a nature park which ties in with the creative use of natural materials as slat timber and latte.

Figure 5.4. Conects LLC (2017), the floor plan of Joe Addo’s residence highlights the balcony surrounds (shaded) of the open plan configuration of internal living spaces.

If you are happy to grant permission, please sign the authority at the bottom of this letter and return a copy to me. You may also add specific instructions regarding the attribution statement that I will include in my thesis and journal publications, and any additional terms and conditions that you require.

If you wish to discuss the matter further, please contact me at aba849@aucklanduni.ac.nz or telephone +64 211230155. Please refer to the accompanying attached for the specific drawings.

Thank you for your consideration of this request.

Yours sincerely,

[Signature]

Allan Stephen Balaraa

Permission

I, as Copyright Owner or the person with authority to sign on behalf of the Copyright Owner of the material described above, grant permission for [name of student] to copy the material as requested for the stated purposes, with no further action required.

Signed: [Signature]  Date: 01/09/17

Attribution statement

Please note any specific instructions you would like included in my acknowledgement of Copyright Ownership.

Terms and conditions

Please note any terms and conditions of the permission.
Dear Prof. Wakely,

I am a postgraduate research student in the School of Architecture and Planning at the University of Auckland. I am seeking permission to use the attached copyright material in my thesis titled "Practice in theory and the theory of practice: Climate, modernity and architecture in postcolonial Ghana" for the purposes of examination and subsequent deposit in the University of Auckland’s publicly available digital repository, ResearchSpace. Furthermore, I will be glad if permission is given for publication in an Architectural Journal.

If you are happy to grant permission, please sign the authority at the bottom of this letter and return a copy to me. You may also add specific instructions regarding the attribution statement that I will include in my thesis and journal publications, and any additional terms and conditions that you require.

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Signed: _______________________________ Date: __________________________

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GLOSSARY

Adinkra symbols – They are graphic concepts of indigenous Akan principles inscribed on fabrics and architecture.

CAP – Refers to the Contemporary African Philosophy

CPG – Refers to the Cultural Policy of Ghana

Climate – Refers to the average weather condition over an extensive period. The passive modification of buildings for comfort based on the knowledge of climate determines, building forms, and affects socio-cultural negotiations within built forms. A building of comfort may create social discomfort, therefore, climates role in determining architectural forms is to be understood in terms of its dual aesthetic socio and climatic place (socio-climatic).

Pastoral/ counter-pastoral – Charles Baudelaire used the term pastoral to refer to the exclusive idea of development, civilisation being the preserve of an absolute class that only has the potential to liberate the marginalised. On the other hand, Marshal Berman indicates that civilisation, development, modernity is known to all societies or classes with a potential contribution to global knowledge and therefore counter-pastoral in his view. I used the term Pastoral and Counter-pastoral respectively to refer to the theory of modern architecture as European epoch, and as a global epoch with many unique contributions around the world.

Hybridity – it is a continuous process of rearticulating and reconstituting cultural elements in relation to other cultures within and without.

Latent/semantic – Semantic hybrid forms are largely expressions of architectural taste through systematic copying without conviction. These are mostly an imprudent reflection of social and economic progress. However, latent hybrids are referential and integrate new building systems into existing building culture or its knowledge.

Mediation – Refers to the intelligible integration of the local and global/ precolonial, colonial, and postcolonial traditions, in architectural practice based on necessity. This further highlights the expropriation of knowledge concepts between cultures in contact with a positive cultural underpinning.
Modernism/modernist/modern architecture— The terms modernism, modernist, and modern architecture are respectively used in the following senses: an evolving concept founded on appropriating the meaning of architecture in a different context; the actors contributing to this knowledge development; and the plural architectures that reflect the actions of these modernist practitioners.

Mullato— The offspring of Europeans and their Africa wives. These Mullatoes became prosperous through merchandise.

Style/style— The idea of a style refers to skin-deep reflection on the principles of modernism founded on modularity, linearity and plane surface expressions which is fixed/absolute. The style on the other hand refers to the emotive place of modernism as a global epoch that takes on many unique characters around the globe often forging a kind of local hybrid identity.

Tradition— This refers to the socio-cultural and architectural practices of indigenous Ghanaians. The term is also used to indicate the categories of architectural development in Ghana. For example, the tradition/indigenous Ghanaian architecture, the Colonial architectural traditions, and the postcolonial modernist traditions.

Vernacular— This refers to the local/indigenous context in general. With reference to architecture, the vernacular refers to indigenous architecture therefore. In the context Ghana/Africa, the precolonial indigenous socio-cultural practices and architecture are examples.
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