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Lost opportunities and emerging possibilities: the place for collaboration in the built environment.

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ABSTRACT: This paper is part of an ongoing study that delves into the issues that inspire and/or inhibit collaboration between built environment practitioners in Uganda. It is situated in the context of discourse on the roles of architects and other built environment professionals in contemporary global practice. The bigger questions are perhaps when to, how to, with whom to and why even collaborate? The main aim of the paper is to discuss the level and extent of collaboration in architecture practice in Uganda. This discussion has been informed by the review of existing literature on the subject, previous and on-going projects, and preliminary analyses of surveys of the architecture fraternity in Uganda. The paper reaffirms two things: (i) the need for a well collaborated view of the built environment and architecture's role in this regard; and (ii) the opportunities in collaboration that architecture practice in Uganda ought to seize in order to realise socially responsive and environmentally friendly architecture.

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INTRODUCTION

While studies have revealed that Uganda is one of the fastest developing countries in the world, the United Nations Development Assistance Framework for Uganda (2010) presents a number of facts and statistics that say otherwise. It states:

> Uganda's population growth rate of 3.2 percent is one of the highest in the world, and poses serious challenges to the economy. Also, youths of 15 years old or less make up 48 percent of the population, resulting in the highest dependency ratio in the world. Most policies, laws and standards are up-to-date, but implementation and enforcement remain weak. Social services, especially health and education, continue to be functionally weak; social protection is fragmented, with large vulnerable population groups not covered. Sound governance, including transparency and accountability, are not yet a universal norm, resulting in 85 percent of Ugandans living in disadvantaged rural areas with hunger and food insecurity posing a major problem and number of undernourished people rising to 4.4 million in 2008. (United Nations Development Assistance Framework for Uganda, 2010:5)

In addition, the rate of urbanisation is less than 15%, but increasing at about 5% annually. These erratic statistics across the board call for a more collaborative attitude among professionals, government and other institutions/organisations as a strategy for holistic development. In this regard, the questions specific to this paper include: (i) What is the extent of collaboration between government, built environment practitioners, private enterprise, and external support?; (ii) What are some of the bottlenecks to this collaboration?; and (iii) Why is it necessary to vouch for collaboration as a strategy for holistic development?

This paper, thus, discusses the lost opportunities and emerging possibilities in the built environment, specifically focusing on how architecture practice in Uganda could offer solutions to the milieu of challenges. The paper reaffirms the importance of collaboration in this regard, highlighting the inevitable link between the different built environment disciplines and the knowledge bases that are tailored to provide an understanding of society within its environment.

1. COLLABORATION IN THE BUILT ENVIRONMENT

1.1. The scope and relevance

Collaboration is perhaps an issue of work ethic that requires one to be aware of one's capacity and expertise, and how to equip oneself for the enormous responsibility that is our environment. According to Bartuska (2007), collaboration in built environment terms strives to be *inclusive*, *interdisciplinary*, and *integrative* while encouraging user *involvement*. This definition builds upon what Muir (1997) states, that collaboration should not be seen as a threat to the long established notion of the architect as the natural team leader, but rather an opportunity that combines efforts in order to ensure adequate performance of buildings, not only in functional and aesthetic terms but also technical, management and cost control aspects.

The list of built environment disciplines on the global stage is rapidly increasing with a focus on more specialist areas. Take, for example, the traditional Planning, Architecture and Engineering disciplines, which have since been diversified to focus on among other things: (i) Urbanism, Sustainability, Heritage and Conservation; (ii) Building Services, Acoustics, Lighting and Ventilation specialists; and (iii) Project Management, Venture Capital, Estates/Facilities Management, Construction Management and Quality Control experts. This list is still growing as more niches are created. However, bearing in mind what Ndibwami (2010) reveals, regarding the weak policy frameworks and loose connections on which architecture practice in Uganda operates, the challenge for Uganda is the extent to which these disciplines or specialisations collaborate and innovate in light of all the possible

Source: (Thomas Onyango, *ARCHINEWS UGANDA*, May 2010)

Figure 1: Anna Montano Building for Health Science (2010) (Harvey-Pickersgill Design and dESIGN@UMU) Nkozi, Uganda. A collaborative project between Architecture firms, consequently boosting capacity and coming up with a building that functions successfully within its environment.

environmentally friendly local technologies and energy efficient techniques that exist. One good starting point is collaboration between architects/firms. The Anna Montano Building for Health Science (Figure 1) articulates some outcomes in this regard, that include, among other things: boosting human resource capacity and motivating an attitude to think outside the box.

Architecture has a basis in psychology, sociology, ecology and anthropology that would foster a deeper appreciation of our built environments. These disciplines, while advancing a more intimate understanding of the human and natural environment, are yet to be fully explored. This is evident in the tendency to concentrate on the physical (building) and ignore the social and environmental aspects; a prevalent attitude in architecture practice in Uganda. The list of issues dealing with this area of inquiry is quite long, and Blau (1991) highlights two, regarding the bottlenecks to collaboration: (i) orientation to knowledge and understanding; and (ii) the different organisational contexts of architecture and of the social sciences. While this is true, it should be noted that a collaborative mindset matures with acquaintance and is constantly on the lookout for how all-else fits in the bigger picture. As such, unless these differences are comprehended, it is difficult to say for sure that the current state of the environment can be understood holistically.

1.2. The role of the architect

Over the years, architecture has had to deal with what Perkins (1962) described as the architect working in a constantly changing and evolving urban setting. He notes that there will be: (i) economic decisions to be made from which the architect will too often be excluded; (ii) political decisions which will frustrate the architect and make life intolerable; and (iii) technological advances over which the architect will have little control. Bognar (1989) in 'Toward an Architecture of Critical Inquiry' presents Perkins' view in a proactive light by arguing that architecture ought to assume its place as part of the socio-political milieu. To be able to reveal itself, and thus to foster a more liberating *form* of human environment, the profession needs a strong political self-consciousness, while aiming at critical inquiry. Critical inquiry would warrant a holistic understanding of the built environment that, in itself, requires a collaborative attitude.

Blau (1991) offers a starting point for architecture that, while a sociologist will focus on understanding the genesis of problems that affect society, a psychologist is more pragmatic and will assume the circumstances under which the problems prevail and seek to understand the problem–*the what,* the cause–*the why* and potential solutions–*the how*. McHarg (1962) offers another point of view from an ecologist [a natural scientist], whose concern about ecosystems is quite illuminating. The ecologist proclaims that organic systems are by themselves exhaustible. Perhaps, in an era of growing scarcity of resources, such knowledge is likely to instil a renewed sense of restraint.

The necessity for architecture in Uganda, as Ndibwami (2010) states, to approach society and the environment more sensitively, perceptively, flexibly and empathetically is inescapable. However this requires adequate knowledge of the issues and a dynamic human resource base.

Schumacher (2002) introduces the role of an architect in contemporary global practice and brings Blau's (1991) view to light. First is the *avant garde* architect who attempts to approach architecture from a problem solving and innovative perspective. Second is the *mainstream* architect, who is not as thorough. The *mainstream* architect could be associated with what Andersen (2010) refers to as *everyday architecture,* perhaps the cause of the prevailing urban chaos: the architecture that is concerned with simple homes and spaces as part of the loosely set-up urban fabric. The cause of this is as much an ethical as it is a capacity issue. This is not helped by the fact that some governments in the Less Developed Countries (LDCs), of which Uganda is one, are mostly concerned with providing infrastructure, as opposed to repairing, planning anew and supporting the establishment of new neighbourhoods. It is crucial that a scientific knowledge base on how communities are resourcing themselves and being resourced by initiatives from local and national governments, Non Governmental Organisations (NGOs), as well as the international donor community, is built. This will assist the process of making architecture part of the resourcing network, which is a direct outcome of a collaborative attitude.

2. BUILT ENVIRONMENT PRACTICE IN UGANDA

2.1. Common practice in Uganda: a case of lost opportunities

Findings in Ndibwami (2010) bring to light one respondent's view that restates a popular opinion that "The industry is not a coherent practice. Professionals work as teams just for formality." It is little wonder, then, that one of the conclusions in that study reveals that architecture as a profession in Uganda is struggling to find a unique identity, one that is perhaps more relevant to Uganda's socio-cultural, socio-political and socio-economic context. An understanding of collaboration is often limited to bringing on board allied professionals whenever it suits a given project and as laid out in a contract, mostly to provide a given set of drawings. It is also common practice for members of the profession to assume the roles of as many disciplines as they can get away with. The prevalence of pseudo architecture is exacerbated by the failure to control the erroneous autonomy of draughtsmen in practice and the widespread indifference toward professional services. This could be attributed to the weak enforcement mechanisms by government and allied professionals, ignorance among the general public and negligence by society.

Uganda's capital Kampala today is congested, dominated by poorly designed (especially post colonial) buildings, littered with repetitive designs for new buildings and ill planned sites and environments. This has spread to the rest of the country. Perhaps it is testimony to the perceived notion that most practices may not be investing in knowledge through research in: design, planning, materials and technology, or smartly applying any of this knowledge to demonstrate innovation.

It goes without saying that the architecture scene in Uganda, like the rest of the world, has been shaped by a number of factors. The current struggle in Uganda to find a unique identity is explained in Olweny (2007), who argues that the link between history, politics, religion and architecture is yet to be fully appreciated in contemporary architecture discourse. This raises questions on how equipped built environment professions are with regard to collaboration of diverse skills and knowledge. The lack of awareness on the public scene with built environment professions being confused for one another worsens the situation. The specific role of the architect is often *mis-construed* for either a *draughtsperson* or the *engineer* whom the common person sees as the designated provider of *plans*. Consequently, it is more likely that the task/project will be undermined and/or undermanned, and the outcomes compromised. Innovation is more likely when a qualified team, diverse knowledge base and skills set are employed. The outcomes are easily visible from the quality of the building - take an example of Bank of Uganda building (Figure 2), one of a kind today.

Source: (Mark Olweny, *ARCHINEWS UGANDA*, October 2011)

Figure 2: Bank of Uganda Building (1970), (Peatfield and Bodgener Architects) Kampala, Uganda. One colonial building that employs a timeless material palette and simple

2.2. Emerging possibilities

The execution of and/or discourse on architecture in Uganda can be traced in the following areas: Built Environment Education (BEE), research, professional practice, allied professionals (engineers, planners and developers), government (ministries and departments), Non Governmental Organisations (NGOs), multilateral agencies and the local community. Additionally, a number of projects/programmes/centres to support and promote innovations in architecture have been conceived and executed over the years. The successes in the built environment may be attributed to a deliberate effort to make a difference, albeit with numerous limitations. On the other hand, the conspicuous flaws may be attributed to the quality of professional practice and availability of and access to relevant/contextual information, and the extent of collaboration across the areas identified above.

In the last ten years, projects based at two universities (Uganda Martyrs University and Makerere University respectively) have included the Promoting Renewable Energies in Africa (PREA) project and the Centre for Research in Energy and Energy Conservation (CREEC). The PREA project was courtesy of the European Union and the German Academic Exchange Service (DAAD). Initiated in 2006 and concluded in 2008, the project set out to develop an MSc curriculum and build capacity in Energy Efficiency (EE) and Renewable Energy Technologies (RETs) in East Africa and South Africa. Founded in 2001, CREEC is a research consultancy and training organisation with the goal of developing into a centre of excellence in energy for Uganda, and the entire East African region. The founding and establishment of these programmes has been successful. However, it remains to be seen how well they are embraced and integrated in practice. It is one thing to build capacity and promote EE and RETs, it is another thing to actually execute and be able to track application in practice. The weak policy frameworks and loose connections on which practice is based as identified earlier are major limitations.

In terms of awareness, the government, in conjunction with multilateral agencies, has been able to engage the Promotion of Renewable Energy and Energy Efficiency Programme, Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (BMZ), through the Ministry of Energy and Mineral Development (MoEMD): July 2008 – June 2011 and managed by GTZ - Deutsche Gesellschaft fuer Technische Zusammenarbeit now GIZ - Deutsche Gesellschaft für Internationale Zusammenarbeit. This has included energy audits of government buildings, training of staff, subsidising solar systems and energy efficient charcoal stoves. Other activities include the Energy Efficiency Week, an annual event since 2006. The Energy Efficiency weeks are organised by the Ministry of Energy and Mineral development for all stakeholders. The key activity is an exhibition for Government agencies, NGOs and companies involved in selling energy efficient appliances and other alternative power sources like Solar, Liquefied Petroleum Gas (LPG), and Biomass to get their message to the public. Awareness is a very effective strategy, to let the public know what is available, how to use/apply it and the benefits attached. However, technology works much better when it is integrated as part of a given project right from conception through to construction. The trouble with some of these awareness programmes is the inclination toward advertising technologies as add-ons/installations simply because they are appropriate. While it may be appropriate at this stage, it ought to evolve into a deliberate drive to promote integrated design and construction for which collaboration across fields is crucial.

A strategic time to make amends is now and an opportunity may be through the joint Global Environment Facility (GEF) and UN-HABITAT / the United Nations Environment Programme (UNEP) project to promote energy efficiency in the East African building sector. The project is a collaboration between UN-HABITAT and its sister agency UNEP, and the governments of Kenya, Uganda, Tanzania, Rwanda and Burundi. Having kicked off in March 2012, the idea is to mainstream energy efficiency measures into housing policies, building codes, and building practices in East Africa, both to save energy and curb greenhouse gas pollution. Perhaps some of the intended outcomes will be collaborative government and private sector initiatives for incentives to register, recognise and reward building projects that successfully execute sustainable design and construction. The result will be increased integration and application of EE and RETs in design and construction.

There are two institutions currently offering professional architecture degree programmes in Uganda and hopefully more will be accessible and visible across the region since the revival of the East African Community. While every architecture school and later architecture practice has a right to front its philosophy, it has to be clear what the common goal is. There is widespread debate the world over on what architecture education and/or BEE really is or ought to be: whether it is to prepare future problem solvers, thinkers, artisans, builders, or a combination of these. While this debate is among academics, it is not evident that a similar debate specifically in Uganda is going on among practitioners about the role of practice, let alone how the two align their roles in and views of architecture in Uganda. Judging from the state of the current built environment, it is hard to say the two collaborate well. From an ideological and ethical point of view, the apparent gap between architecture education and architecture practice is rather alarming. The education of an architect is a lifelong process for which an intimate dialogue has to be sustained between academia and practice. Some efforts are being made, but the process is not as deliberate and progressive as it ought to be. The onus is on the schools offering architecture education to prod practice; however it is also the duty of practice to be more proactive itself.

It is evident that in recent years the Uganda Society of Architects (USA) has and is making an effort to be relevant, but perhaps not strategically and progressively enough. One of the core responsibilities of such a society is to promote and facilitate professional development through Continuous Professional Development (CPD). The bigger questions for the USA are perhaps: how, why, when, for whom and with whom to undertake and or promote professional development? According to the South African Institute of Architects, CPD is

intended to address the following: (i) Increasing complexity of construction; (ii) Ongoing development of materials, techniques and systems; (iii) Rapid developments in information technology; (iv) Continually changing legislative and practice frameworks; and (v) Growing environmental imperatives. These are such pertinent issues but rather wide and global in nature, and cannot be resolved outside of collaboration.

Traditional built form is as old as mankind, however architecture as a profession is perhaps not as old. The profession is even younger in Uganda–approximately 50 years, with a ratio of 1 Architect for every 200,000 people. The loose connections that practice is predominately based upon could benefit from the numerous possibilities in collaborating with more experienced architects and international firms. This may boost capacity that in turn arouses innovation. In addition, some projects due to their nature, taking an example of the British High Commission in Kampala (Figure 3) could assume the emancipatory role of architecture. While it boasts of elegant architecture solutions, the project successfully engaged different personnel right to the grassroots in the procurement and installation of a special material palette.

> By gracefully stating that this is not business as usual, the High Commission has, in process and an aesthetic expression, contributed to the illumination of architectural possibilities innate in Uganda and also focused attention on some existing questions. The possibilities being to use the courtyard to break up functions into small buildings, as is the case in local tradition, and in the beautiful Ugandan soil that can offer our rich palette of construction materials. Also, by expressing brick so boldly, this building must have jogged the minds of the public into considering the relative suitability of veritable fired clay vis-à-vis applied finishes. Sanya (2006, para 8)

Source: (Adrian Hobbs, *Architects Journal*, May 11, 2006)

Figure 3 and Figure 4: The British High Commission (2006), (Cullum and Nightingale Architects Limited) Kampala, Uganda. An expression of material and its impact on spatial quality and building legibility. The facility seems to announce itself rather boldly yet sit subtly respectfully in its context.

3. TOWARDS SOCIALLY RESPONSIVE AND ENVIRONMENTALLY FRIENDLY ARCHITECTURE

Writing and analyses by the Italian architect, humanist, painter and art critic Leon Battista Alberti give a concise and timeless account of the *Art of Building* (1452). The fundamental tenet of these discussions is the need to design, build and adorn buildings with an insatiable goal to satisfy the people that will use them and capture the opportunities that the natural environment presents all year around. It has been revealed earlier in this paper that the loose connections on which practice operates, and the apparent indifference with which most practitioners undertake tasks has undermined the quality of built environments in Uganda today. Perhaps this attitude is sustained by a genuine inability to actually understand and solve the design and building tasks at hand.

Indeed, access to shelter is a basic need borne out of challenges and the aspiration to grasp the opportunities the environment presents. Common sense dictates that shelter – the basis for architecture – should respond to the needs of its users within the context of their locale and impact the environment subtly, if at all.

> The traditional built form, in any culture, should be the starting point in the quest for a socio-culturally appropriate, popular building culture. This is particularly true of developing economies. Modern architects in such regions of the world would do well to study and improve upon it, bearing in mind the fact that it has stood the test of several hundreds of years of innovations and has, to a large extent, persisted – in spite of them. (Osasuna, 2011:68)

Socially responsive and environmentally friendly architecture is an enduring subject that invites various points of view. It could base itself around sustainability, ecological design, green architecture and energy efficiency. Either way, it all comes down to being mindful of our environment and what Ndibwami (2010) has termed as designing with an appreciation of how people live, work, relate, consume and think. However, Olweny and Sebbowa (2006) argue that a general lack of awareness of the pertinent issues, the lack of readily available contextual information and the extremely low degree of implementation pose major challenges. It is for this reason that collaboration is being fronted in order to close the knowledge gap and increase capacity.

CONCLUSION

While identifying the opportunities collaboration presents globally, the paper has attempted to bring to the forefront the gaps in built environment practices, especially pertaining to architecture practice in Uganda as a result of the lack of collaboration. The paper has also revealed that architecture practice needs to rethink how it is approaching the built environment and how far it is mindful of society's importance in the midst of the socio-political, socio-economic and socio-cultural challenges. The myriad issues that an architect is faced with require him/her, from both a design and ethical point of view, to not only appreciate the role of but also to elicit the contribution of as many people as relevantly possible. It is argued that the mind of a sociologist, psychologist, anthropologist and ecologist will serve to nourish the architect's approach; in terms of how sensitively, perceptively, flexibly and empathetically he/she will approach society and the environment. A perceptive approach is partly an outcome of collaborating with relevant professionals to ensure an even more integrated approach.

REFERENCES

A big boost for energy efficient building in East Africa (2010) Retrieved from http://www.unhabitat.org

Alberti, L., B. and Rykwert, J. (1452), On the Art of Building in Ten Books, MIT Press, Cambridge, Massachusetts (USA) 1991

Andersen, J. (2010), "Meanings and perceptions of the built environment in peri-urban areas of Maputo, Mozambique", in Bakker, K. (editor) *The African City Centre: [Re]sourced, Proceedings of the International Conference*, University of Pretoria, 25-28 September 2009, pp 79-90.

Bartuska, T., J. (2007) "The Built Environment: Definition and Scope" in McClure, W., R. and Bartuska, T., J. (editors) *The Built Environment: A Collaborative Inquiry into Design and Planning*, John Wiley and Sons, New Jersey, USA, pp 3-14

Blau, J. (1991) The context and content of collaboration: Architecture and sociology*, Journal of Architectural Education,* Vol. 45 (No. 1), pp 36-40.

Bognar, B. (1989) Toward an Architecture of Critical Inquiry, *Journal of Architectural Education,* Vol. 43 (No. 1) pp 13-34.

Kilburn Nightingale Architects–In the Media–Kampala (2006) Retrieved from http://www.cullumnightingale.com/ourwork/articles/articles0306/kampala.html

McHarg, I. (1962), The Ecology of the City*, Journal of Architectural Education* (1947-1974), Vol. 17 (No. 2) pp 101-103

Muir, T. (1995) Introduction to Collaborative Practice, in Muir, T. and Rance, B. (editors), *Collaborative Practice in the Built Environment*, E & FN Spon, London, United Kingdom.

Ndibwami, A (2010), Architecture as Environment: A case for discourse on Architecture practice in Uganda and how it impacts its environment, *Master of Architecture Dissertation*, Uganda Martyrs University, Kampala, Uganda.

Olweny, M.R.O. (2007), Politics, Religion and Architecture in Uganda, in Loo, S. and Bartsch, K. (editors) *Panorama to Paradise: Scopic regimes in architectural and urban history and theory*, Proceedings of the XXIV International Conference of the Society of Architectural Historians, Australia and New Zealand, Adelaide, Australia.

Olweny, M.R.O. and Sebbowa, S. (2006) Best practice in environmental and sustainable architecture. *Promoting Renewable Energy in Africa Workshop*, International Solar Energy Society and Uganda Martyrs University, Hotel Africana, Kampala, Uganda.

Osasona, C. (2011), "Traditional Building Form and Techniques in Africa", in Mare, C., E. and Lindegger, M. (editors) *Designing Ecological habitats: Creating a Sense of Place*. Hampshire, Permanent Publications, pp 62-68.

Perkins, H.G. (1962), The Architect and the City, *Journal of Architectural Education*, Vol. 17 (No. 2) pp 94-96

United Nations (2009) *United Nations Development Assistance Framework for Uganda, 2010-2014*, United Nations System in Uganda, Kampala, Uganda.

What is an architect in society today? (2002) Retrieved from http://www.patrikschumacher.com/index.htm