

The Role of the Landscape Architect in the 21st Century Fight against Climate Change

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Abstract

The field of landscape architecture, like all other professional fields, constantly evolves to address emerging trends such as developing water crisis and increased urbanisation. However, landscape architects have a myriad of professional responsibilities to comply within various jurisdictions. The ethical and legal responsibilities demanded of a landscape architect are further complicated by increased interconnectivity of humanity due to cheap communication tools such as the Internet and mobile communication. For example, a chartered landscape architect is required to familiarise them with climate change and the impact it has on the environment.

The professional practice module seeks to address the issues that are typically faced by a professional landscape architect. The course structure aims to enhance understanding of the principle systems for architectural practice, guide on the knowledge buildup as regards landscape practice and provide a basic overview of the laws guiding it. Other objectives of the course include the introduction of modern theory and practice of landscape architecture, enhance professionalism and advance student knowledge on the diversity of practitioners working within the landscape environment. This paper seeks to build upon the course content by undertaking a comprehensive review of the content and reaching conclusions on the same (Nichols, 2012).

Key words: Landscape Architect, Planning Law, Business Model, Historical and Archaeological Landscapes;

I. Landscape Institute Policy

The landscape Institute policy focus aims to influence thinking on issues facing the landscape. The Institute releases the policy statements with the aim of protecting, conserving, and enhancing the natural and built environment. To achieve the stated objective of influencing thinking, the Institute develops policy position statements, responds to public consultations and represents the landscape Institute in external events and working groups. The landscape Institute has a dedicated policy consultancy for the devolved nations including Northern Ireland and Wales.

The dedicated policy consultancies have the mandate of identifying policy consultation opportunities in the countries and responding to inquiries on behalf of the Institute. The Landscape Institute is a signatory to the European Landscape Convention which acknowledges the diversity of the landscape and their fitness for purpose. The convention inspires decision making at the Landscape Institute as it seeks to promote landscape protection and management at the continental level (Thompson, 2014).

Some of the issues addressed by the Landscape Institute include Green Infrastructure, Green Belt and Public Health. Other issues dealt with by the Landscape Institute include housing, investing in landscape and floods. A discussion on the issues is undertaken as below.

Green Infrastructure

The concept of green infrastructure relates to the original network of natural and semi-natural features such as lakes and rivers. The Institute adopts a position statement based on the ability of green infrastructure to address large-scale issues such as climate change and sustainable transport.

Public Health

The concept of healthy landscapes is used to refer to design features that promote well-being among the general population. When public health gets adopted as a guiding feature in landscape design, the main aim relates to the prevention of disease before it can occur.

Water and flooding

The policy advocates for the adoption of a long-term approach to the management of water resources in light of climate change that threatens to increase flood rates. The Institute advocates for the incorporation of design practices that take into account the management, distribution and storage of water resources.

Greenbelt legislation

These set of policies advocate for the adoption of buffer zones that aim at protecting the environment from encroachment.

Housing

Housing occupies a special role due to its function in addressing humanity housing needs while at the same time maintaining a sustainable environment. The Institute advocates for the incorporation of housing demand while at the same time promoting healthier lifestyles (Landscape Institute, 2017).

The role of the landscape architect in emerging trends

Based on the discussions undertaken above, one can be able to conclude that the landscape architect plays a major role in the emerging local and global trends. The landscape architect has to keep pace with the complex nature of increasing urbanisation by creating built environments that address

humanity needs such as mobility, food needs and flow of waste. The leadership role taken by the Landscape Institute through policy pronouncements are a welcome addition to the professional development of the landscape architect. The issues addressed by the Institute will play a leading role in changing the approach taken by landscape architects to the development of the built environment (The Next 50: Planning, Architecture, and Landscape Architecture, 2012).

Climate change: Hydrology and flood alleviation

The landscape architect is mandated to have an advanced understanding of the various facets of climate change. Trained architects are increasingly occupying a central role in the development of new landscapes as opposed to simply developing buildings close to each other. The trained architect is emerging with advanced tools for tackling complex non-linear problems while at the same time drawing a great deal of inspiration from the self-regulating nature of the environment. This academic orientation implies that the architect is increasingly relied on to solve environmental problems such as hydrology and flood alleviation (Waterman, 2015).

Achieving the purpose set forth for an architect with an environmental advocacy background requires the recognition of the methodologies and tools available to the architect by different agencies (Morell, 2011). However, some regulatory agencies have based their guidelines and policies on the old academic orientation of building then consulting the architects. For example, the environmental agency guide on flood recognises the building of flood resilient buildings.

Review of environmental agency guide on flood resilient buildings

The environmental agency guide on flood resilient buildings gets addressed to developers. The guide recognises that some of the features incorporated for the management of floods include the prevention of construction in risk areas and the strict adherence to the planning policy. The guide terms the concept of flood management as *resilient construction*. In the handbook, resilience gets defined as the incorporation of sustainable measures in the building fabrics so as to reduce the impact of floodwater on the property. Also, the guide advocates for the inclusion of flood reparability mechanisms so as to ensure that flood damage gets minimised.

When addressing the limitation faced in the generation of the guide, the environmental agency focuses on the building such as the inability to address structural damage due to high-velocity flows and the costs associated with construction materials. The guide further recommends design strategies for adoption by professionals. The strategies include the assessment of potential flooding sources, predicted flood levels and frequency of floods. The guide states that incorporating these approaches will result in more resilient buildings (Department for communities and local government, 2017).

Discussion

As pointed out above, regulatory approach to landscape design is heavily centred on the buildings. A review of the environmental agency guide to flood management has shown the increased focus on the building rather than the incorporation of environmental approaches to the design of the landscape. The orientation stands in stark contrast with academic developments in the field of landscape architecture which have tended to advocate for the incorporation of environmental science in the design of the built environment.

II. Contractual Relationships

Contractual relationships mainly imply that the professional landscape architect may be held responsible for failure to meet standards related to reasonable care and being negligent. Legal actions may be brought against the architect and upon conviction may lead to the negative perception of the professional practice and the ultimate loss of projects (Demkin, 2003). Various laws regularly update the guidelines on reasonable care expected of an architect. However, the basis for raising a legal complaint against an architect adheres to the following discussions.

Legal action against an architect may be brought for negligence. Bringing a negligence action successfully against a professional architect requires the complainant to prove that the architect owed a legal duty to the applicant and they subsequently breached the duty of care. The complainant also needs to prove the proximate cause of harm which is based on the violation of duty, and the actual damage suffered as a result of negligence (Balmori, 2014).

Legal actions may be also brought against an architect for injuries suffered by third parties with whom the architect has no direct contractual responsibility. The scope of third parties include the construction workers and users of the projects. However, the architects may enjoy some limitations related to breach of contract and negligence. The limitations are referred to as the statute of limitations and the time limits for such statutes vary by jurisdictions.

Documents commonly used in architectural practice

The letter of proposal incorporates client requirements in the project. The architect normally prepares it after undertaking a successful visit to the customer. Some of the contents include the identity of each party, the project description and the basic scope of services performed. The letter of intent comprehensively defines the services proposed by the architect and additional terms of service.

The letter of agreement defines the scope of work and gets signed by both parties indicating agreement on the project requirements. The architect prepared contracts address specific issues experienced by an architect for the range of services offered.

Developments in case law

A lot of legal obligations emanates from the legislation governing architectural practice in a given jurisdiction. It is important that the architect keeps updated with the relevant principle legislation governing building works. In addition, the architect has to comply with statutory obligations defined in various legislations. The express and implied terms of a contract can become the basis for legal action, and the architect has to ensure that they evaluate their liability in tort for third parties. Recent trends in case law tend to extend the scope of architectural responsibility to the third parties. The developments in case law cover the architect's liability to contractors in traditional methods of project delivery and architects' liability in design and build contracts (Pillai, 2014).

III. Planning law and the landscape architect

Some laws govern landscape architectural practices, and it is the mandate of the professional to ensure that they are in compliance so as to avoid the risks associated with non-compliance, including the adverse option of withdrawal of practising license. However, the high level of legal compliance does not imply that architects are mandated to know every aspect of the legal code. The legal comprehension

should enable the architect to offer professional advice when the circumstances call for advanced legal resolution, including advising the client to engage the services of an advocate.

Sources of laws governing professional landscape architecture practice

Legal judgements mainly emanate from two main sources, the unwritten law and the written law. The unwritten law is based on previous judgements made under the common law while the unwritten law emanates from enacted acts or legislation approved by parliament. The unwritten laws derive their guidance from the customs and precedence of cases tried in the law courts. Some institutions that are involved in the drafting of the common law include the judiciary and legislature.

Written law derives their power from legislation passed in parliament or edicts issued by the monarch as advised by the counsel. The acts passed by the legislature may establish subordinate laws that guide the effective implementation of the acts legislated. The subordinate legislation are known as statutory instruments and aim to address a broad range of issues that guide architectural practice but do not need to be necessarily incorporated in law (Cantrell, 2014).

The laws of the United Kingdom are highly influenced by the laws of the European Union, even though the country has currently elected to exit the union. Whenever a conflict exists between the United Kingdom laws and the European Union laws, then the European Union laws take precedence. One of the laws that originate from the European Union and has an impact on the United Kingdom laws is the Environmental Assessment Regulation. The laws are mainly divided into criminal and civil cases, and an architect has to navigate the complex structure of courts across the United Kingdom jurisdiction including Scotland and Wales (Galbraith, 2013).

Application of planning law to landscape architecture

The shoreline management act of 1971 in the United States governs the regulation and protection of public interest. The law affects any person who undertakes developments across the shorelines. The acts also aim to protect the environment by mandating the production of master program documents that show the developers intend to protect the natural resources across the shorelines. A professional landscape architect is required to become familiar with the shoreline management act for purposes of compliance with the requirements (Washington department of licensing, 2010).

IV. Enterprise and Business Models

Professional architectural practice businesses take a myriad of forms. An individual considering the establishment of an architectural practices should incorporate some basic features so as to ensure the success and long-term stability of a firm that is heavily reliant on the creativity of the individuals who must act as a team. The person exploring the option of setting up an architectural practice should be able to define the key goals and targets to get attained within a certain timeline. Creating the vision for the firm allows an organisation to determine the nature and extent of growth that it is likely to experience. It also allows the architect to define the role that they will play in practice.

The professional practice should also consider the likely sources of funds and utilise the information to their advantage. For example, the entity should ensure that family members and friends can get nudged to provide the cheapest source of funds. This option should get evaluated against costly alternatives such as seeking funds from the bank. Bootstrapping is also a reasonable alternative to establishing an architectural practice as it allows for the practitioner to work with limited budgets and

safety in the knowledge that they are independent of financial obligations that limit their growth potential(Moorhead & Grice, 198).

The founder should also consider the structure of the firm as this will affect various aspects such as the nature and amount of taxes paid and the legal obligations of the enterprise. Some of the issues that are considered under company structure include the extent of liability and the implications of expensive suits brought against the company. The founders should consider engaging the services of an insurer so as to reduce the risk exposures due to professional practice(Green, 2013).

Professional branding plays a role in defining the nature of success experienced by a firm. The founders should consider the impact of establishing their brand image, especially when they want the architectural practice to continue operations for extended periods of time. The founders should also strive to ensure that they capture the imagination of their first clients as it forms the ground new clients who continue being a source of pride for the firm. The nature of the office should also be taken into consideration so as to promote the development of original ideas among employees(Anderson, 2012).

Biodiversity, green infrastructure and the designed ecologies of the urban environment

Biodiversity loss is one of the issues that attracts much attention in the built environment. Cities are increasingly becoming the focal point for promoting interaction between nature and urbanisation. Although cities occupy a small proportion of the land surface, they play a major role in the development of biodiversity as buildings coming up in a city pose the greatest threat to the development of human nature interactions.

One of the means through which architects can enhance the creation of diversity relates to the provision of wildlife corridors in the built environment. The corridors allow wildlife to move in search of food and nutrition which enhance the interaction of humanity with nature. Some scientists point the decline in animal numbers, and in some cases, the extinction of animal species is a result of human encroachment on the migratory corridors. Landscape architects can also incorporate organic methods in the development of the built environment as opposed to mechanised maintenance of lawns(American Society of Landscape Architects , 2016).

Other means through which the landscape architect can facilitate the improvement of biodiversity relate to the increased utilisation of green space connections so as to enhance biodiversity. For example, incorporating already existing green spaces such as forests facilitates the development of biodiversity. Designing with biodiversity in mind also encourages thinking of new predatory networks so as to ensure that wildlife is not subject to new predators. For example, exploring means reducing opportunities for domesticated cats to attack bird species (Landscape Architecture , 2016).

V. Historical and Archaeological Landscapes

The innate desire for humanity to connect with their past imposed a burden on the landscape architects to incorporate historical features in the development of the built environment. Incorporating archaeological features implies that the architect has to understand different facets of society including the cultural and social forces underpinning societies. Undertaking work on historical sites means that the architect recognises the need for the maintenance of the current state of the built area(Hunt, 2014).

The historical architect first needs to understand the location of the built area under consideration. The architect has to acknowledge the effects of feeling generated by people who have an attachment to

the given area. The second thing that the architect needs to evaluate relates to the ruins from different periods. They need to research on the archaeological principles guiding the built environment within the different periods. The interpretation of the cultural significance of the ruins enhances the output of the architect (Carvalho, et al., 2013).

The landscape of the historical site should also be taken into account. The landscape should also adapt to the period of the construction of the historical site, and this will greatly enhance the overall importance exhibited by the built area. The materials used in the building of the historical site should also get evaluated for function and form. This allows the architect to reconnect visitors with the initial purpose of the built environment. Overall, the reconstruction and preservation of historical sites call for an advanced understanding of the purpose and form of which the built area was used. This calls for advanced research techniques that the architect may use to generate built environments that address the innate need to reconnect with our inner souls. It would imply that the reconstruction and maintenance of archaeological sites is a job in cultural understanding (Landscape Architect Network, 2010).

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