Lessons in Architectural Improvisation

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1. ABSTRACT

Looking at the majority of constructed environment in our cities (i.e. Tirana and Athens), questions arise concerning on one hand customary relations between architects and their end-product recipients, and on the other hand usual means that define these relations. Is architectural design advanced enough to provide handling of contingency due to users' unforeseen dispositions and actions? Are users adequately prompted and properly activated to contribute and participate in the formation of their own space?

A traditional perception in theorising the profession of architect, and consequently in teaching architec tural design, recognises architects as absolute masters in the formal process of space determining and building planning. Exclusive authority and responsibility, based on their expertise, are imposed and affect how composition principles and practices correspond to actual functions and, hence, how initial definitions relate to future developments. In general, end-product users either unconditionally accept architects' ingenuity or they ignore it, managing and completing space formation in further ways.

To face this binary misconception and subsequent problems it may cause, architectural composition should facilitate improvisatory actions as a way to render collaborative space formation an available and beneficial option. It is believed that the concept of architectural improvisation should come into composition processes, not as the architect's privilege to spontaneously create, but as the user's right to immediately participate.

In order to become viable, such an attempt entails a thorough study of the associations between roles and means in space formation processes, as well as a multi-layered examination with regard to interactions between composition and improvisation. A concise analysis of these associations and interactions, as appear in music, offers an additional tool to comprehensively define architectural improvisation.

2. INTRODUCTION

2.1 Improvisation in the formation of built environment

The unpredictable consequences of user's modifications in architectural edifice are a usual problem and, therefore, a crucial task of architecture to the extent that they constitute a ubiquitous way of constructing the environment. Laypeople's interventions in the objects of our professional activity are typically perceived as a basic and constant trouble that affects our notions of current design and construction methods and, thus, confines the ways our principles and practices might be developed.

The rigid processes of most architectural designs manage the relation of form to function in ways that seems to ignore actual use and its significance. An authoritarian approach is preferred by architects and engineers in order to provide absolute control to the final product. Established relations with customers are limited in a manner that excludes them from immediate participation in the formation of the spatial object. Master-architects and final recipients of their work have hardly common goals, if not live in separate worlds.

On the opposite side of a monologue, in which architects are trapped by soloing and designing a finit e form, building and, after that, living suggest a rather interactive, social process; a dialogue, whereby each individual proposal contribute uniquely to the collective product.

Architectural education, as the fundamental fashioner of architectural conscience must face the reality of dwelling in ways that, being creative for the architect, also provide a more active role for the rest of the agents involved in the formation of built environment and, especially, for users.

Improvisation as a key concept in architecture should come into design and construction basically as a lively and creative element according to which presumably every one might intervene in the building processes. This intervention is expressed either in individual or in collective level.

2.1.1. Individual level

In the case of small-detached units, each person or a family lives in a dwelling, so its impact in the structure and form is unique and, to some degree, independent from other's dwelling.

Fig. 1: Suburban area in Tirana (source: http://www.panoramio.com/photo/59454756).

In this case, and considering that the Greek word for improvisation, i.e. *αυτοσχεδιασμός*, literally means self-design, the processes of planning and construction activate inhabitants directly.

As an act of individual creation, *do-it-yourself* becomes an essential mode for the satisfaction of personal needs and / or dispositions in terms of a small-scale performance.

2.1.2. Collective level

In the case of large complexes of dwelling, people live together in a structure that limits their individualities to an average degree, so that every act of differentiation depends on rules of cohabitation.

Fig. 2: Tirana, art in a building (source: http://www.panoramio.com/photo/14677098).

In this case, improvisatory action occurs as unpredictable reaction of anonymous user, or as a result of collective effort to improve conditions and standards.

Informal intervention in formal structure becomes a common medium of customisation and alteration that provides to inhabitants a sense of individuality within an organisation.

2.2 Improvisation as a creative activity

The definition of improvisation as an uncertain building activity takes into account its fundamental characteristics as creative action and its various levels of occurrence as creative process.

The word 'improvisation' means without provision. Unpredictability and indeterminism represent the fact that whatever happens, it is actually a surprise that has not been anticipated and whenever happens, it has an

immediate impact in its likewise undetermined or contrariwise predetermined context.

However, in a controlled frame of work, improvisation is expressed clearly as a spontaneous intervention. So, this expression might be intended or unintended but, in its very substance, it is beyond control.

Improvisation, also, might take the form of an addition, an adaptation, a change, etc. but, in every case, it is an action on the spot, which leads to an extemporaneous situation.

Specialisation and amateurism may coexist in such situations and, thus, no matter what are its skill levels, anyone can improvise.

Furthermore, improvisation might be considered as an absolutely liberal action and in that case we talk about 'free improvisation'. Nevertheless, freedom within constraints is also one very usual condition that might lead to extensive improvisatory action.

Finally, the facts that improvisation has a rather elusive character and that its results are unique and unrepeatable on one hand put into question the relation between the process itself and its product and on the other hand define the extend to which this product is finite or infinite.

3. INTERDISCIPLINARY STUDIES OF IMPROVISATION

As becomes clear, in order to establish an extended theoretical concept of improvisation in architecture, and as long as this is not yet a widespread and enough developed field of academic research, we must examine all possible analogies and explore all possible areas where improvisation seems to constitute the object of a multifaceted theoretical enquiry. This examination and exploration entails certain experimentation, whereas studies of other experimental, innovative approaches offer evidences of extended improvisational action.

Fig. 3: Scratch Orchestra's Cottage, 1971 (source: Stefan Szczelkun's photo album at flickr.com).

Architecture as an art involves creativity in multiple levels. From design to construction, and afterwards to usage, various agents get involved and cooperate using specific means and manageable tools to shape a form and build a structure.

Similarly to architecture, music as an artistic activity involves different levels of creative interface between agents and use of various means to shape a form and build a structure.

Improvisation through its interdisciplinary dimensions, in art generally, in music and architecture particularly, corresponds to a creative and lively process where communication and learning are the principal goals of people's interaction (see: Alterhaug, 2010).

Disparate references to miscellaneous documents attempt to help sufficiently study, better understand and fully describe improvisatory creativity as a composite and diverse human action, while also seek to discover and reveal hidden analogies.

4. THE WORK

Being an elusive activity, improvisation puts into question the concept of 'work' and its identity, thus, and particularly in music theory, it questions the dominant perceptions, which, according to Benson, are rooted in the hegemony of classical music theory: the ideal of work's truth, and the ideal of the composer as a 'true' creator (see: Benson, 2003). In this sense, improvisation corresponds to Barthes' 'death of the author' and, accordingly, architectural improvisation corresponds to the death of the architect, as far as his acclaimed authorship is determined by functionalism and other established building practices (see: Hill, 2003).

As a basic categorisation of the work of art, Umberto Eco suggests the distinction between *closed* and *open* work. Whereas a *closed* work represents a *finished* product conceived in its full detail, an *open* work is by nature incompletely conceived, namely *unfinished*. According to Eco, a work of art "is a complete and *closed* form in its uniqueness as a balanced organic whole, while at the same time constituting an *open* product on account of its susceptibility to countless different interpretations which do not impinge on its unadulterable specificity." (Eco, 1989: p. 4) Consequently, supposing that composition refers to a *closed* work and improvisation to an *open* work, the production of an artefact may involve simultaneously composition and improvisation. However, despite their convergence in a creative process, we may distinctively define them according to their fundamental differences, as follows:

Closed Work (Composition)

- determinism
- perfection
- predictability

Open Work (Improvisation)

- indeterminism
- imperfection
- unpredictability

4.1 Agents and roles

Improvisation is an action that may emerge at any stage of a work-production process; however, the scope of this research studies particularly the kind of improvisation that is performed after the product is designed, during its realisation and afterwards. In this case, there exist a creator, who makes the initial arrangement, an agent of realisation and a final recipient for whom the arrangement is intended and who actually intervene to the formation of the product by improvising.

Every creative activity in a work-production process - from initial conception to realisation, and finally to usage - entails an interpretation. However, although the act of interpretation itself concerns to a certain degree all agents involved in this process, the sort of intervention that takes place according to their exact role is classified in three levels, which, particularly for music and architecture, are as follows:

interpretation level		1st	2nd	3rd
music		composer	performer	listener
architecture		designer	builder	user

Table 1: Agents and levels of interpretation

As suggested in this table, musical performance as well as architectural use is positioned in the 2nd and also in the 3rd level of interpretation. What this actually means is that, although performer and user are b asically in different levels by intervening in different ways, there is an analogy and an association between them in terms of the exerted interpretation, since a performer may be the final recipient and a user may be the one who materialises the product. Of course, there can be proposed further associations too, but only the one suggested above is believed that serves the purposes of the specific research.

4.2 Means of production

Having in mind the suggested association between performance and usage, the key factor in how interpretations are carried out and, thus, in how improvisations are performed, is the sort of means that facilitate these activities. More specifically, we examine the tools, which are used by the agents of the 1st level in order to communicate their ideas to the agents of the 2nd and 3rd level, so as to enable them to improvise, while preserving the identity that the creator has envisaged for the work.

In this examination, we focus on two particular systems of production that encapsulate, on one hand, the interaction between composition and improvisation and, on the other hand, the related analogy between music and architecture. These systems are Anthony Braxton's *Language Music* and Christopher Alexander's *Pattern Language*. As becomes clear, the linguistic features of both systems constitute a strong analogy that may shed light on the concept of architectural improvisation and, therefore, they are very important cases of the conducted research.

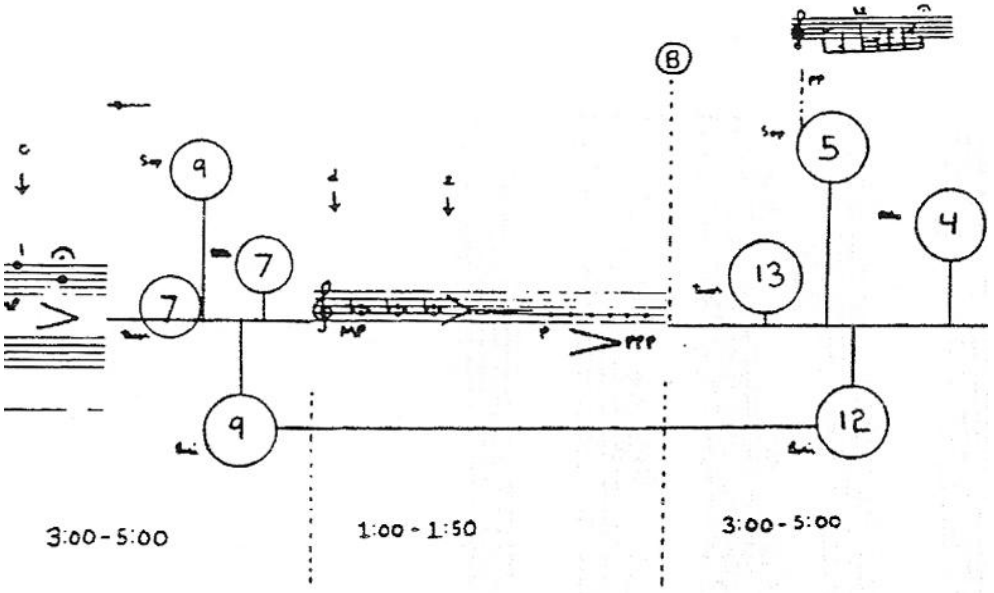

Fig. 4: Excerpt of 'cell structure' notation for improvisers in Composition No. 37 (source: Braxton, 1988: p. 36).

Anthony Braxton has developed *Language Music* as a system based on elementary sound classifications, which are called *language types* and comprise system's primary units. Each of these types is represented by a particular shape and can be combined with other types in endless ways in order to form the structure of a composition. Moreover, all possible resulting structures can in turn be combined in order to form other musical pieces. Having been developed gradually from previous experimentations of Braxton in prototype musical notations, such as 'cell structure' notation (see: Fig. 4) and 'modular' notation, *Language Music* is a compositional tool for the production of music based on solo and collective improvisation.

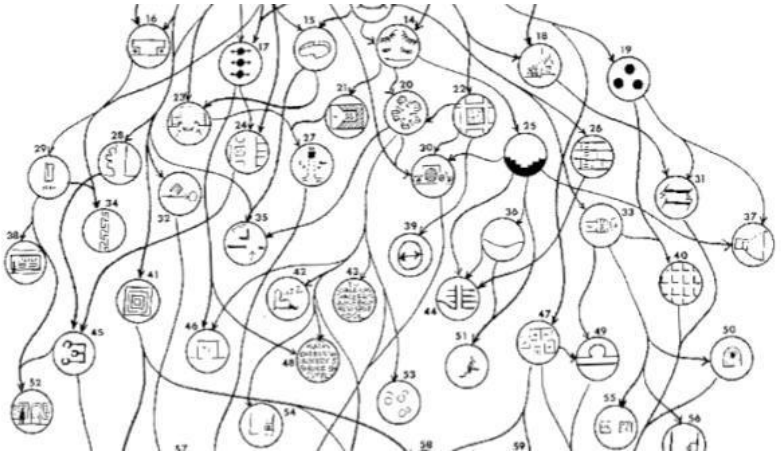

Fig. 5: Schematic representation of the relations between patterns (partial view) (source: Alexander, 1968: p. 18).

Christopher Alexander and his colleagues in the Center of Environmental Structure have developed *Pattern Language* as a set of design principles based on elementary meaningful units of built environment. Each pattern can be combined with other patterns in endless ways in order to realise a project. *Pattern Language*, which comprises a reservoir of spatial structures and relations (see: Fig. 5) available to every one, is a tool for resolving small and / or large design and building problems with a process based on improvisation.

Thus, each of these two systems constitutes a mean of composing works based on improvisation and can be related directly to language and communication by comprising some of their elementary features as follows:

Language

- grammar, syntax, vocabulary
- interpretation

Communication

- types and patterns
- representation

5. COMPOSITION AND IMPROVISATION

In this research of improvisation as a phenomenon of both music and architecture and, also, in studying systems and methods of creating and realising compositions based on improvisation, it is very important to study the particular characteristics of these two modes by describing their relation. A useful diagram of that relation has been suggested by Joe Viera and can be seen in the following diagram:

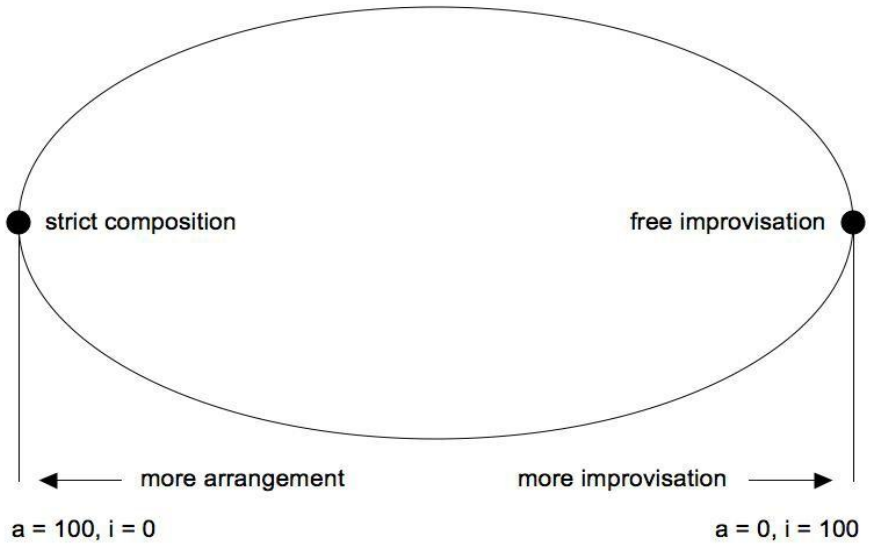

Fig. 6: Schematic representation of the relation between composition and improvisation (source: Viera, 1971).

This diagram suggests the close interconnection between composition and improvisation. As we can see, there are two extreme cases where, in the absence of improvisation, composition takes its most strict form and, conversely, in the absence of composition, improvisation switches to the state of free improvisation.

Trying, now, to specify the characteristics of architectural improvisation by applying to it features of musical improvisation, we shall focus, firstly, on the different levels of participation and, secondly, on the forms by which architectural improvisation is manifested.

5.1 Individual, collective and communal action

An improvisatory action is primarily an individual act of creation, which either remains in the personal level or it is part of a broader interaction between people working together for a common task. This task may involve both design and construction of a building and, therefore, improvisation may occur in either activity.

Fig. 7: Participatory planning (courtesy: Kroll, L.).

In the case of user's participation in design, the main goal is the activation of final recipients by allowing them to intervene in the initial steps of the formation of a project. Self-utterance within participatory planning becomes, thus, an aim to be accomplished through individual and / or collective improvisation.

Fig. 8: Dwellers building their house (source: Alexander, 1985: p. 296).

In the case of user's participation in construction, the main goal is the involvement of final recipients in the realisation of a project in order to ensure the fulfilment of their actual needs. Do-it yourself becomes, then, a vital process of work-production while the overall result may be shaped and built by a community.

5.2 Forms of improvisation

According to Derek Bailey, musical improvisation is classified in two main forms: idiomatic improvisation, which is mainly concerned with the expression of an idiom - such as jazz, flamenco or baroque - and takes its identity and motivation from that idiom, and non-idiomatic improvisation, which has other concerns and is most usually found in so-called 'free' improvisation (Bailey, 1980: pp. 4-5).

Using this classification in architecture we examine two cases, which seem to confirm the attempt to define architectural improvisation in analogy to musical improvisation. These cases represent the efforts of their architects to provide users with the opportunity to intervene in the formation of their space: Herman Hertzberger's Diagoon Dwellings in Holland as a case of idiomatic improvisation, and Lucien Kroll's Medical Faculties in Belgium as a case of non-idiomatic improvisation.

Idiomatic improvisation

Diagoon Dwellings have been designed so as to provide a stable structure where users can proceed to individual adaptations without affect to the overall complex.

Fig. 9: Diagoon dwellings, Delft (source: Hertzberger, 2005: p. 158).

To the extent that this project allows user's intervention within a given rigorous framework, improvisations can be performed maintaining the idiom that has been proposed by the architect; therefore, we can talk about a case of idiomatic improvisation.

Non-idiomatic improvisation

Medical Faculties have been designed mostly with the participation of their users so as to provide a context of free intervention during the realisation and afterwards.

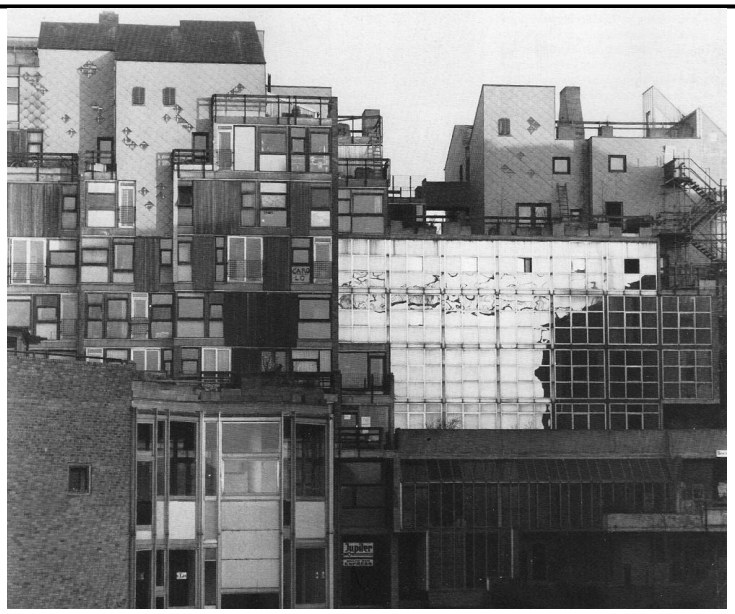

Fig. 10: Medical faculties, Brussels (source: Kroll, 1987: p. 46).

Given the fact that this project allows users' intervention within a loose framework, improvisations can be performed in every possible fashion, without referring to a specific predetermined style; therefore, we can talk about a case of non-idiomatic improvisation.

6. CONCLUSION

Being an 'imperfect art' (see: Gioia, 1988), improvisation is theorised as a significant phenomenon in architecture as well, while its characteristics lead us to question the role of the architect as exclusive, authorised creator of built environment.

Fig. 11: Refugee's building in Kosovo (TIME magazine November, 1999).

As spontaneous action, improvisation in everyday life may result to 'noise' (see: Attali, 1985), but its coexistence and interdependence with design may yield lively architectural compositions.

An architect-facilitator, and not improviser as Brown implies (see: Brown, 2006), should collaborate and support interventions in order to give to its client the joy of participation and, subsequently, the pleasure of self-fulfilment through its contribution to the social action of architecture.

Improvisation, hence, helps us to think of a building as a shared space where to build a common discourse.

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