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COMMUNITIES IN TRANSFORMATION SUSTAINING COMMUNITY DESIGN

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ABSTRACT

Human Settlements are in essence, agglomerations of Communities, few or numerous. Communities' collectively are a complex socio – cultural phenomenon with clear physical manifestations; comprising distinct local groups and their settings, natural and man-made. Urban Communities invariably experience/undergo continuous change and transformation, in response to micro and macro contextual shifts and pressures, as well as direct and indirect interventions, by inhabitants, authorities, pressure groups and neighbouring communities. The changes cover; the various features of communities; physical (buildings, the space-between, networks and infrastructure) and socio-cultural. The present work looks into Communities' Transformation; representing "Community Design" as a threefold process, comprising three overlapping and interdependent phases, actions and products, namely; designing and implementing community-settings, monitoring communities and enabling interventions and guiding changes (inspiring and coordinating active partners "Actors", roles and contributions, boundaries and levels). Controlling change and sustainability are inherent features of effective Community Design; aiming at and maintaining: quality living, appropriate environmental standards, cultural identity and preserving resources. The proposed process of "Designing Communities" is the result of extended research into the overlapping issues of design, monitor and control community development, undertaken and supervised by the authors; at Cairo University, the Department of Architecture. The regenerated process is presented through a sequence of closely related sections: 1- Representing "Community Design", the process and products, beyond Postmodern Urban Design; threefold and open-ended, combining and coordinating actions;

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Design and Implement, Monitoring and Enabling Communities, 2- Communities in Transformation; synopsis of research into "Community Design" and highlights of three case-studies from Contemporary Cairo, Egypt - between Initiation, Development and the Present, Interventions and Shortcomings, 3- Guidelines for effective "Community Design", enabling interventions (actors and actions), sustaining environments and enhancing cultural identity.

Keywords: Community Design and Development, Developing Settings, Monitoring Communities, Enabling Communities, Actors' Roles, Actions & Levels.

Introduction

In the realms of Development Planning and Design, the notion/conception "Community" extends beyond its common usage, to refer to, a distinct group of people with common characteristics - to include the related setting/context, physical and nonphysical elements and features. "Community Design", the formulation and manipulation the physical settings to satisfy development goals and programs to accommodate/provide housing, services and work to communities, is generally accepted/treated (synonymous with Urban Design) as the process aiming at reaching the best solutions to satisfy the said objectives. The authors pointed out the need to readdress "Community Design", its scope and target, S. Ettouney and Nasamat Abdel Kader [1], [2]. The present work represents "Community Design" as an Open ended Process that goes beyond Designing and Implementing settings and elements (see for example, K. Hall and G. Portfield) [3], and handing over to a controller/developer or an agency, inauguration and early settling. It introduces a three-fold Community Design that addresses; people, settings and products, and comprises three interrelated phases; spanning; "Design and Implementation", "Monitoring" residents and settings, and "Enabling, Guiding and Controlling Interventions".

Representing "Community Design"

Community Design may be regarded as a Post-Postmodern Urban Design; marking a second shift in the evolving realm, theory and practice. Maintaining the direction and emphasis of the 1st shift, from the physically biased, aesthetically focused origins of Urban Design, namely; the Architecture of human settlements, Townscapes and Images of localities. The earlier shift presented Urban Design as "the Process and Products, to delineate optimum appropriate expressions/outlooks of communities' cultures, needs and aspirations; within the bounds of contexts' determinants and resources." It combined concerns and emphasis on

"Development Control", Environmental Quality, Character and Identity, (see also for variations on the said propositions [3], [4], [5], [6], [7]).

The 2nd shift, "Community Design", may be regarded as an earnest endeavour to enhance and appropriate the earlier yearnings and objectives to truly address "people", individuals and groups as the prime concern/drive behind the physical manipulation of urban settings, see for example, E. Lozano [4] and A. Mehrhof [5]. "Community Design" may thus be presented as a three-fold process directed towards; "communities; individuals and groups", "related settings and development contexts" and "the physical components/ products, namely; buildings, the space–between and networks".

The multi-layered Community Design process involves complex chains of parallel and interactive actions, spanning and including; setting "objectives", delineating "programs", identifying "contextual determinants, limitations and resources", as well as developing and finalizing "proposals". Community Design (being closely related to Communities' Development) goes beyond the completion of physical settings and components; the authors [1]. Implementing a development phase leads to another, initial settlers grow, interact and intervene. Evolving into clear social units with distinct features; spatial and physical, social and economic; collectively adopting common goals, sharing activities, needs and aspirations, feelings of belonging and interdependence. In turn "Communities" undergo continuous physical and cultural change, the result of their actions and interactions to satisfy the complex needs and improve living conditions, together with outside pressures and interventions from; authorities, civic groups, developers and neighbouring communities. Changing communities call for an evolving "Community Design", integrating involved and potential parties and "Actors".

Earlier studies accepted and emphasized the participation of residents and local groups in the development process. It identified possible/needed "Actions", "Levels" of interventions, and designated "Roles" of actors and participants, J. Habraken [8]. It pointed out the roles of professionals in providing tools and means to empower and enable residents, J. Turner [9]; recognizing inherent complexities and approaches of facing its challenges, including, the limits of participatory planning and design, flexibility, managing small scale incremental change, L. Kroll [10], N. Hamdi [11], see also the authors' [12], [13] . The said research into participation and intervention management of general urban settings and housing areas pointed-out four key entries affecting/shaping development processes, namely:

- Physical Components, "Attributes" and elements of the built-environment/urban setting.
- Likely "Partners", "Participants", "Actors" or involved parties.
- "Actions" and areas of influence and intervention, marking and linking "Actors" and "Attributes".

- “Levels” of “Actions”/Interventions, hierarchy of “Partners” and “Attributes”/ elements.

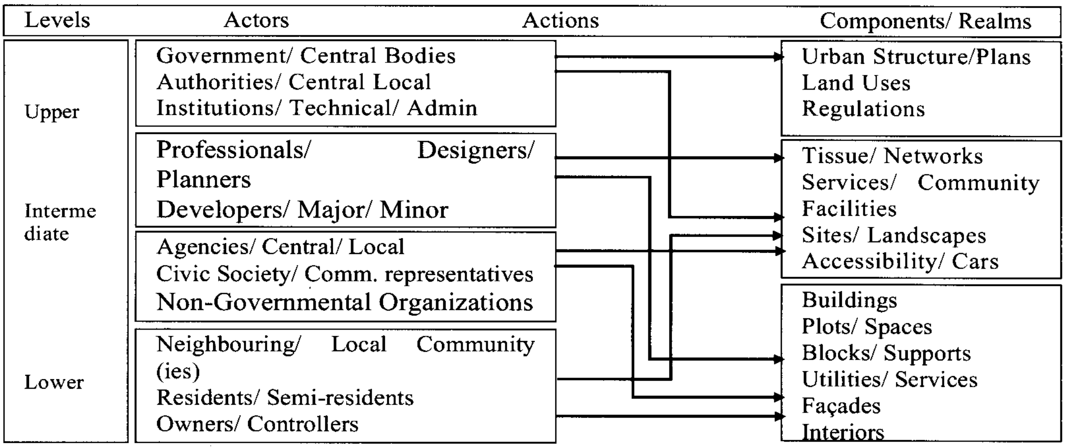

Levels
Actors
Actions
Components/ Realms
Upper
Interme diate
Lower
Government/ Central Bodies
Authorities/ Central Local
Institutions/ Technical/ Admin
Professionals/ Designers/ Planners
Developers/ Major/ Minor
Agencies/ Central/ Local
Civic Society/ Comm. representatives
Non-Governmental Organizations
Neighbouring/ Local Community (ies)
Residents/ Semi-residents
Owners/ Controllers
Urban Structure/Plans
Land Uses
Regulations
Tissue/ Networks
Services/ Community Facilities
Sites/ Landscapes
Accessibility/ Cars
Buildings
Plots/ Spaces
Blocks/ Supports
Utilities/ Services
Façades
Interiors

Fig. 1. Actors (Participants/Partners), Actions/Interventions and Components/Realms Framework.

Those entries/parameters suggest a framework combining; the settings’ elements/ components, partners/actors, actions/influence and levels, spatial and strategic. The framework allows reading, recording, developing and controlling interventions at the various “Levels” of development. Figure 1, shows the Participation/Intervention frame work and the likely interactions among its entries, [8], [12], [13].

The Participation – Intervention framework could be integrated into the “Community Design” Process, to facilitate the needed expansion of its scope to span; “Monitoring” Development, “Enabling” and “Controlling” Interventions.

Communities in Transformation

Over the past five years (2011 – 2015) the authors supervised a series of postgraduate, limited research assignments and seminars, entitled “Communities in Transformation”. Some 150 postgraduate Master and Doctoral students participated, conducted field research, prepared and jointly presented mini-thesis/reports and seminars. The research addressed existing new and older communities, in the Gt. Cairo Region, Egypt; developed since the turn-of and through 20th Century. The work focused on the issues of; reading, following and documenting “Communities”; people, settings and physical products. It looked into Communities as a complex; human, cultural and physical phenomenon; developed and applied tools/means of monitoring and analysing it at the various phases of its transformation. The set of field studies and research assignments aimed at bridging the gap between design and planning visions and propositions, and the existing conditions of living urban communities in "Developing" countries; with emphasis on "Community Design and Development" in Gt. Cairo, Egypt.

The key research question was to critically address and assess conceptions and practice of "Designing Communities", its feasibility, means and measures to evaluate its products (relative success), and seeking models/living proof on the success (or otherwise) of the drives to design and shape "Communities". The latest research experience, and the set of related research assignments (supervised by the authors), was carried out during the Fall Semester 2015; within the "Community Design Unit", the Postgraduate Program, at the Department of Architecture, Faculty of Engineering, Cairo University, Egypt. It looked into a number of existing relatively new "Communities'; its initial development dates back to the early 20th Century, with thin traces related to the 19th Century. The research covered two sets of objectives, namely:

- Researching and elaborating tools for reading and monitoring Communities; people, settings and the built-environment; together with interactions and interventions.
- Recording the present status, features and conditions of the selected urban communities (individuals and groups, physical and cultural setting as well as the related urban fabric and components) in and around the older core and fabric of the Gt. Cairo urban mass – within the framework and impact of recent national and regional, socio – cultural, political and economic transformation.

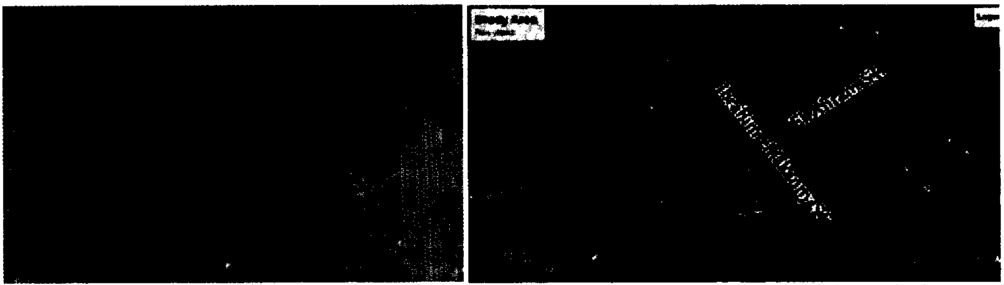
The research work spanned two distinct phases of "Community Development", namely:

- The beginnings; initial growth and development framework of the selected community, including: objectives, determinants, target socio-economic groups, origins, demographic profile, related details, housing, community facilities, work-places, and networks.
- Existing Conditions of the selected Communities (2015); people and physical settings and districts, the development experience; comprising; current features, shifting objectives and aspirations, management responsibilities, land uses and activities, housing, community facilities, work places, circulation network, living and environmental quality (pollution, noise, solid waste, etc.), impact of the setting on residents and users (privacy, satisfaction, belonging, security), visual preferences, character and local identity.

Highlights from three selected research studies of the covered Communities are briefly presented herewith; pointing out the transformation experience of three distinguished districts, namely; "Heliopolis" and "Maadi"; located North East and South of Cairo Central area, and "Zamalek" an island to its West. Their planning and formal development loosely dates back to the early 20th Century, though earlier historic activities and sporadic settlements could be traced in the cases of

"Zamalek" and "Maadi".

It is not the intention of the present work to outline or linger on the details of the selected research projects and reports. Highlights of the physical settings, transformation, are summed up in three sets of "photos, maps and synoptic posters" together with the collective findings of the research project, into the feasibility of designing communities and means of appropriating the process. Figures 2, 3 & 4 present the selected sets to highlight features of the three communities; "Heliopolis", Maadi" and "Zamalek", Cairo, Egypt - including; initial growth and the present conditions, hinting at the transformation over the decades (The selected "Research Projects" credits are presented in the "Acknowledgement & Research Projects' Credits section").



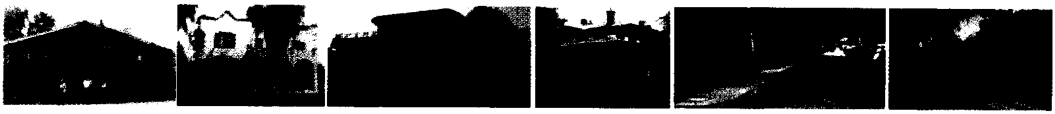
"Heliopolis", Initial Development, and study area; current "Google Earth" areal views.

Early "Heliopolis"; Low and medium rise buildings, Shopping Arcades, Architectural Character

Present Conditions, Collective Facades, Medium & high rise Mixed Development.

Fig. 2. Monitoring Communities in Transformation 1 – "Heliopolis District", Cairo, Egypt – Selected Research highlights (See Acknowledgements & Research Projects' Credits).

"Maadi" Maps – Initial Development and Present Research Outline



Old (top) and Present (below) "Maadi": Villas versus Multistory buildings, Streets and sidewalks.

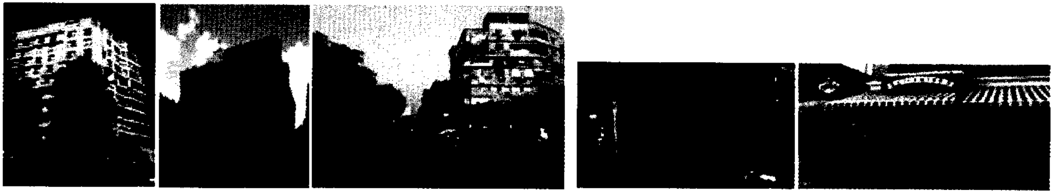


Fig. 3. Monitoring Communities in Transformation 2 – "Maadi" District, Cairo, Egypt Selected Research highlights (See Acknowledgements & Research Projects' Credits).

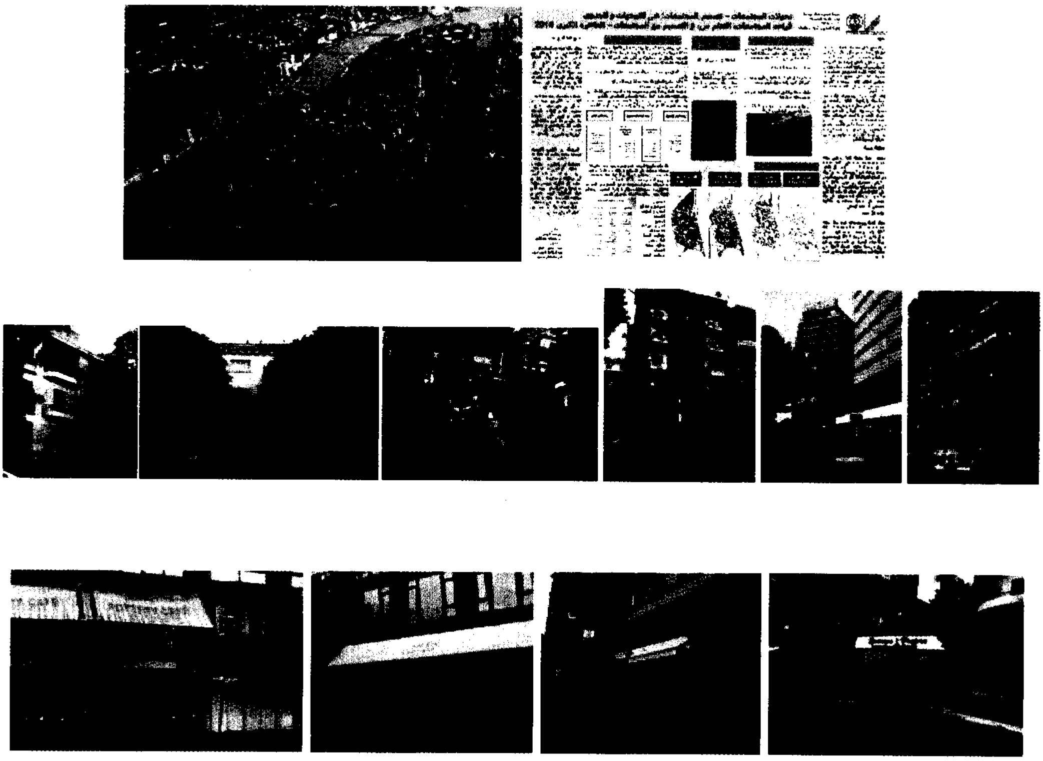


Fig. 4. Monitoring Communities in Transformation 3 – "Zamalek" District, Cairo, Egypt –

The key findings of the research investigation into community design, development and transformation, could be summarized as follows:

- Spatial Structure; in spite of the changes of building regulations, allowing higher and dense developments; communities maintained key features of original plans, with considerable horizontal fringe expansion (in the cases of "Maadi" and "Heliopolis").
- Land uses and activities; mixed uses replaced housing and residential, with proliferation of commercial, leisure facilities and businesses infiltrating housing blocks/buildings.
- Networks; overloaded and congested roads and infrastructure, poor provision for cars, adequate parking, services and accessibility.
- Community Facilities; general imbalance, poor or exaggerated provision, distorted services and target community relations.
- Housing plots and buildings; demolition of low and medium rise buildings, replaced by extensive high rise building development, higher physical and activity densities, decay and negligence of quality buildings, poor maintenance of building stock, owners and users interventions on facades, ground floors and ends (increasing building heights).

Guidelines for Effective "Community Design"

Community Design should evolve into an open ended process that continues beyond design, form generation, manipulation of physical settings and implementing planning and design proposals, [1], [2]. The research pointed out three key factors/notions that should be accommodated, provide the bases and delineate; "Open Community Design" process, namely;

- Community Transformation; community change is eminent from inauguration and settling in, residents interaction with setting and elements, and external pressures and manifestations - hence the nee for "Monitoring" communities.
- Accepting transformation and change, calls for means and tools of enabling and coordinating interventions, identifying; "Actors", "Actions" and "Acts/Intervention".
- Transformation, complex actions and interventions, need environmental/living quality indicators, guidelines, and flexible development control.

The preceding discourse and research highlights, loosely define a framework for "Open Community Design"; that besides addressing the complex three-fold design and implementation process, accommodates transformation, the related interventions and needed control. "Open Community Design" thus continues beyond the initiation of community settings, to monitor and enable interventions, and control change to secure living quality and identity.

The developed "Open Community Design" framework/matrix, combining the assets of post-postmodern urban design, collective work on "Intervention" management, and development control, is outlined in Figure 5.

The "Open Community Design" framework, Figure 5, combines two key sets/entries, namely:

1) Community Design Phases (Head row):

- Phase 1: Design, Develop and Implement - comprising: the design, form generation, and setting manipulation.
- Phase 2: Monitoring Community, Settings and Products - following post-settling activities, identifying needs, observing emerging behaviour, recording interactions among actors, settings and elements.
- Phase 3: Enabling Interventions – Control Development; overlaps and complements "Phase 2", responding to its contents, indicators and emerging patterns – It comprises two interdependent processes, namely:
- 3a. Enabling Intervention; Coordinating participants, roles/actions and responsibilities.
- 3b Controlling Development; Observing adherence to development regulations, review and propose guidelines and control tools to support community needs and address settings' deficiencies.

2) Actors, Involved Parties, Participants and Partners (Left main column):
"Open Community Design" accepts the role of Professionals (Designers et al.) as enablers, and recognizes the numerous involved partners/participants, including; Authorities, Civic Society, Communities (resident, semi-resident, neighbouring, etc.), [12], [13].

Furthermore Open Community Design frame work depends on the "Products" of "Phase 1 - Design & Implement" (Column 2), which evolve through the interaction among and collaboration with key Partners/Participants. The process key "Products", when "Implemented", turn into Community setting and elements (land uses, networks, community facilities, housing, open-spaces, etc.). Those "Products" are the subject of intervention, manipulation and control; (Phases 2, 3a. and 3b.), (extended Column 3); or the acts carried-out by key actors (Community and partners); at the various levels of the process (Upper, intermediate and lower).

The "Open Community Design" framework/matrix presented in Figure 5, simplifies the multi-faceted complex process with its variables, actors and products. It allows; delineating phases, contents, responsibilities and products, monitoring interventions and defining actions. The Matrix provides the bases for more detailed action plans, interventions' programs and evaluation checklists – which could be tested and further developed through research and application.

Open Community Design (Process/ Products) - Partners, Action, Levels & Elements

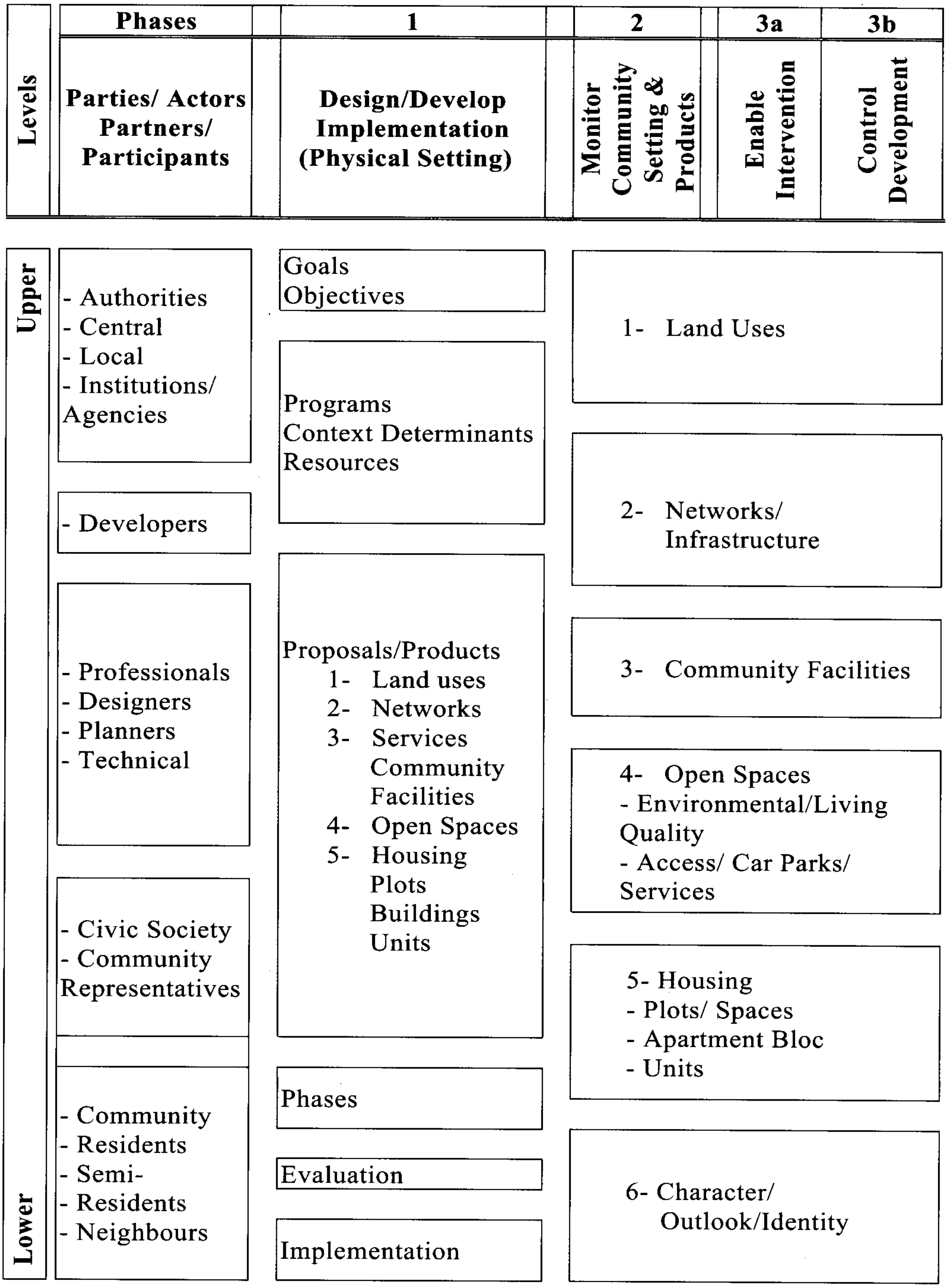

Levels
Phases
1
2
3a
3b
Parties/ Actors Partners/ Participants
Design/Develop Implementation (Physical Setting)
Monitor Community Setting & Products
Enable Intervention
Control Development
Upper
Lower
- Authorities
- Central
- Local
- Institutions/ Agencies
- Developers
- Professionals
- Designers
- Planners
- Technical
- Civic Society
- Community Representatives
- Community
- Residents
- Semi-
- Residents
- Neighbours
Goals
Objectives
Programs
Context Determinants
Resources
Proposals/Products
1- Land uses
2- Networks
3- Services Community Facilities
4- Open Spaces
5- Housing Plots Buildings Units
Phases
Evaluation
Implementation
1- Land Uses
2- Networks/ Infrastructure
3- Community Facilities
4- Open Spaces
- Environmental/Living Quality
- Access/ Car Parks/ Services
5- Housing
- Plots/ Spaces
- Apartment Bloc
- Units
6- Character/ Outlook/Identity

Fig. 5. The Proposed "Open Community Design" Framework – Phases, Levels, Partners/Participants, Process, Products and Actions.

Conclusion

The present work "Presented" and "Represented" Community Design; as a Post modern Urban Design, focussing on "People", individuals and groups.

- "Community Design" is introduced as a three-fold process addressing "Communities", "Settings" and "Physical Components".
- A framework for "Participation – Intervention" is then presented; synthesizing earlier work by the authors and others, to manage Community and Partners "Interventions".
- The "Representation" of the process, integrated the proposed "Participation – Intervention" framework together with the underlying change and transformation -Introducing:
- "Open Community Design" with an extended scope, spanning: "Monitoring" Development and "Controlling" Interventions.
- The framework of the proposed "Open" multi-layered "Community Design" is finally presented in a collective matrix, combining; the merits of "Post-modern Urban Design", "Intervention Management" and "Development Control".

The proposed matrix provides the bases for delineating and undertaking "Sustained" Open-ended "Community Design", clarifying the intricate relations/interactions among the involved "participants/partners", "settings' components/elements" and "levels", at the various "phases" of development, - hence allowing better understanding and control of the challenging process and products.

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