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POST MODERN WALK-UPS
ON THE TRANSFORMATION OF AN AILING CONCEPTION -
WITH REFERENCE TO HOUSING IN DEVELOPMENT CONTEXTS

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ABSTRACT

The present work formulates a positive statement for walk-up apartment blocks and advocates a better role for a transformed conception. It puts forward the notion that; the apartment block is a suitable-most housing type for post-modern urbanism and builtscapes, as its inherent features could be developed to answer the complex and clashing needs for : internal flexibility, external territoriality, local identity and cost minimization; i.e. avoiding the concept's practice related drawbacks and exploiting its potential. The proposals are substantiated by the accumulated research findings; into Egypt's development and housing experience during the past three decades. The discourse falls into an epilogue preceded by three sections; namely: On walk-ups; an overview with reference to Egypt's public housing experience, On merits and drawbacks of walk-ups, A post modern walk-up apartment block- Guidelines for the transformation of the ailing conception.

1. On Walk-ups; an Overview, with Reference to Egypt's Public Housing Experience

Walk-ups; the infamous medium rise, direct & indirect access, deep & narrow apartment blocks; are synonymous with; public, completed housing projects, throughout the world. despite of contextual variations, walk-up apartment blocks were (and arguably still are) the preferred housing mode for low and medium income families in urban settings. It enjoys the obvious (rather controversial) merits of: efficient building and land use, accessibility, easier pre and post development control, environmental quality and image. Hence its adoption (since the proposals of the pioneers of modernism, the schemes Le Corbusier and Gropius included) by housing agencies, professionals and politicians; being a "devil you know" and a safe haven; if compared to the menacing unpredictability of incremental growth housing alternatives (including : shabby sites and services and sprawling core-housing projects). During the past three decades the deficiencies of walk-up developments were identified by researchers, professional and users. A long list that included: low economic viability, lack of character and local identity and wasting of valuable urban land resources.

Medium rise, walk-up apartment blocks, were the predominant housing type in Egyptian public housing developments, since the mid nineteen fifties and till the present. Thousands of which were erected in hundreds of housing projects, with little (if any) awareness of the conception's inherent complexities and internal and external impacts. The result can be seen in most, relatively new public housing areas; which effectively combine the indicated deficiencies; hence support the view that the walk-ups are partly responsible for the inadequacy or failure of public housing policies in Egypt,(6).

All formal, middle to low income housing projects that extensively used walk-ups, predominantly shared the following features.

1.1 The House Units

The house units, that collectively made up the walk-up blocks were characterized by a number of common features, Figure 1, namely:

- Ordered internal organization.
- Concern for optimum relations and balance between: principal elements (living and sleeping) and secondary components (circulation and utilities).
- Drive for reduction of cost, through: combination and reduction of the wet points, minimization of external periphery (exposed walls) & compactness.
- Direct and indirect access, with a preference to stair access.

The units varied in areas (a range of the order of 45 to 120, 150 and 180 square meters); as well as in programs, i.e. internal elements and finishes. National housing regulations designated the standards: areas, components and finishes for the various levels of housing (upper middle, middle and low cost).

1.2 The Apartment Block

The numerous projects developed since the mid-fifties, were typified by repetitive features and stereo-type external appearance, that led to general anonymity and absence of visual identity, see Figures 1&2. In general walk-up blocks shared some or most of the following characteristics:

- Relatively limited height; restricted by the building regulations to a maximum height of livable floor levels of 16 meters; hence most developments used five and six (and in some rare cases four) stories apartment blocks. This was usually attributed to economy, i.e. efficient building and land use.
- Double aspect, narrow or limited depth linear blocks were invariably used in housing projects, with no internal courts (light wells). Deeper blocks were also used with or without internal courts.
- Single stair access cores; serving two, three and four housing units (per floor), with no provisions for garbage collection or emergency escapes.
- A mixture of (one level) housing units of various areas were accommodated in the block; allowing for different family sizes and ability to pay.

- The apartment blocks allowed simple and sometimes complex grouping, through mechanical repetition of the basic block: free standing, parallel, single, semi detached and rows of blocks.
- The external appearance was the result of rigid (rather dogmatic) functional interpretations; reflecting mediocrity and limited regard (if any) to users identity and the context. Mixing the issues of good design and cost reduction resulted in faceless facades (despite of the use and manipulation of colors, materials and masses).
- Very little attention was given to profiles, ends and sky lines.

1.3 Site Organization

Site planning and spatial organization of walk-up housing projects were invariably inferior to the architecture of the housing blocks it contained; in terms of conception and details. Sites and layouts were generally characterized by the following features:

- Mechanical organization of housing blocks; oriented blindly towards the geographical North, to exploit local breeze and to enhance pressure-induced ventilation; hence the overwhelming linearity of blocks, the space-between and roads.
- Modern notions of urban design, i.e. abandoning urban continuity and emphasis of paths, nodes and corners; to free-standing blocks; surrounded by open spaces and no-mans land.
- The spaces-between buildings were mostly treated as common areas, comprising hard and soft finishing, with little (if any) attention given to: landscaping, space articulation and territoriality, (1).
- Roads and circulation networks defined and contained urban blocks; hence the variation in accessibility levels (between the outer blocks of flats and the internally located blocks, with relatively limited access).

2. On Merits and Drawbacks of Walk-up Apartment Blocks.

The colossal number of housing projects comprising walk-up apartment blocks; that were developed in contrasting settings (urban and rural), climates and within a wide range of development and contextual constraints (social, economic and physical); allows the drawing of an extensive list of the merits and drawbacks and in sequence allows a reasonable perspective into the potential of the underlying conception. Structuring such a list greatly benefits from the extensive work into the housing context in Egypt in general, and into housing units and settings in particular.

The merits and drawbacks of the ailing walk-up apartment blocks conception may be briefly, outlined as follows:

2.1 On Merits

The walk-ups apartment-blocks and related housing settings generally enjoy the following positive aspects.

2.1.1 House Units and Blocks

- Limited number of families/users per block , higher social interactions and support.
- Effective access and accessibility to house units.
- Minimum cost of public facilities.
- Internal flexibility, i.e. provision of a wide range of house units in terms of: programs, areas; within the same structure.
- Economy of infra-structure and utilities (compared to high rise and low rise housing prototypes).
- Environmentally healthy interiors; ease of climatic control; day-lighting provision, insulation and cross ventilation.
- Visibility; open views.
- Privacy; (physical) visual and acoustic.

2.1.2 Sites and Settings

- Efficient building and land use.
- Relatively high accessibility; in terms of relation to cars (private and public) and vehicular traffic (services and emergency).
- Exposure of units and the space-between; hence the ease of maintenance and control.
- Climatic adaptability, i.e. in terms of: provision of shadows, insulation, ventilation and wind shelter.
- Completeness and neat appearance (and surroundings).
- Visibility; open views.
- Urbanity, strong sense of.
- Relative nearness (proximity) to community facilities.

2.2 Drawbacks

Though the drawbacks of walk-ups may in many cases be attributed to designers decisions and determinism; the following are the common deficiencies, generally related to or taken against the housing conceptions in hand.

2.2.1 House Units and Blocks

- Height; climbing up of four, five and some times six stories.
- Distance (separation) from the ground; to families with children, the elderly and all.
- Rigidity of internal solutions and organization of flats; limited provisions for change and adaptability.
- Standardization of users' needs and ignoring of cultural variability.
- Poor internal environments in terms of: cross ventilation, day lighting and insulation, as well as acoustics (sound insulation and noise levels).

- Limited psychological and physical privacy (in corridor access types and with stairs serving numeral units).
- Sensitivity of facades to users' additions.
- Poor appearance and diluted character, (3, 8).

2.2.2 Sites and Settings

- Lack of identity; visual and social.
- Poor accessibility to services: cars, garbage collection, deliveries and emergencies.
- Mechanical; concrete dominated environments (match boxes, army barracks).
- Poor space-between, in terms of designation, surveillance and use (proliferation of accidental open space), (1).
- Low environmental quality; in terms of: landscaping, maintenance and general appearance, (3, 8).

3. A Post Modern Walk-up Apartment Block - Guidelines for the Transformation of the Ailing Conception.

It is often claimed that technical and economic pressures are behind most of the above mentioned drawbacks and that users and communities should readily tolerate and accept it; in return to affordable shelter and settings.

It is also pointed out that, the process of mass production logically leads to standard and identical dwellings; as it calls for the standardization of the elements and components. A view that is rejected by many researchers who stressed the fact that standard elements could be endlessly organized and manipulated, within the concept of "open systems"; to create a variety of alternatives and solutions.

Similarly the argument that, the mechanical repetition of: components, details, house units and whole walk-up blocks; leads to: capital savings and development cost minimization - may be challenged through the findings of recent urban housing economics studies. Which indicated that; cost reductions could be reached through better use of materials, rational design decisions, better management of construction phases; albeit without overloading the design process with false constraints that may adversely affect the general outlook and economic viability of the product; i.e. house units, blocks and settings, (4, 5, 9).

It is believed that the need for the apartment blocks is likely to continue to offer living scenarios that cannot be easily met by other housing types. It provides a wide range of dwelling areas starting from some 30 square meters and up. The relatively small house units areas of: 30, 45 and 60 square meters, which are suitable-most to housing demand in urban living in industrial and post industrial societies-are conveniently and efficiently achieved through walk-up apartment blocks developments (by far better than other prototypes including town houses),(7).

The above discourse briefly highlighted the merits and drawbacks, and hence indicated the potential of the infamous housing type to continue among the suitable forms of urban housing, in developing settings. The potential of walk ups basically stems from three inherent characteristics, namely:

- Urbanity; which is arguably the result of solid continuous walls and high intensity living.
- Internal flexibility, i.e. the ability to accommodate various development scenarios in terms of: areas, briefs, form, etc.
- Efficiency of building and land use.

These potential together with the findings of research work into: urban housing: modes of development, shelter provision efficiency and performance of housing prototypes as well as into the issues of: community identity and urban character and the role of designers in communities (see for example:1,2,3,7,10) suggested the following check-list or guidelines for the metamorphosis of the ailing conception. The list comprises three levels; used earlier in the introduction and overview of walk-ups, namely: the house units, the block and sites & settings.

3.1 The House Unit

- The internal design of units should be flexible; allowing users modifications and alterations without clashing with external appearance, efficiency or safety, (7).
- Selection of units by the users rather than designation of units to them should be an integral part of housing development. Selection should extend to deciding on internal treatments and features: closed versus open plans, balance of internal components, areas, living versus sleeping, main functions vs. utilities etc., Fig 4.
- Provision of house units plan alternatives within fixed features (supports) or delineators. Alternatives may be generated through:
 - exploitation of functional sectors, (9).
 - floor levels; living on one or many levels (same areas).
 - closed versus open plans.
 - incorporation of outdoor spaces ,courts, terraces, loggias, .etc..
 - openness (extroversion) versus inwardness (introversion),i.e. treatment of party and outside walls.

The above directives fully recognize the potential of users participation and the changing role of the architect (to an enabler rather than a producer) in housing development, in post modern walk-ups , see also (2).

3.2 The walk-Up Block

- Careful design of common areas; provisions for social mix and territoriality; special attention to: main entrance(s), circulation areas, entrances to private dwellings (flats), staircases: circulation and access to flats, mix and separation of users.

- Avoidance of corridor and gallery access; of comparable cost to direct stair (point) access, though inferior in terms of: privacy, environmental quality, and cultural suitability, maintenance and control.
- The block should/may accommodate variety of: house unit areas, programs and internal treatments
- Adoption of low walk-ups and high density development (e.g. four stories); and if five stories are reached change of heights within the same block and within the housing project should be encouraged.
- Three storey walk-ups should always be examined as a competitive alternative; allowing better: living quality, privacy, access to the ground and efficient land use. Four stories may also be (mixed) and used in this respect, comprising duplexes at lower levels accessible freely from the ground, with one or two higher levels of stair accessed flats.
- Special attention should always be given to facade treatment and external appearance. Mechanical repetitions should be avoided. The basic block should encompass variety and complexity that is enhanced and amplified by juxtaposition of blocks, Figure 3.
- The external appearance of blocks should benefit from the potential and skillful manipulation of facade elements, including:
 - block profiles; i.e. sections perpendiculars to facades.
 - ends profiles.
 - block skyline (avoiding clear cuts, manipulation of heights and façade planes, subtraction of masses (whole rooms) and reduction of top flat areas.
 - porosity and fenestration location and details.
 - open areas (outdoor elements), canopies, loggias, terraces and verandas.
 - parapets of open areas and roofs.
 - local and vernacular treatments, themes and materials (exploiting local and regional associations).
- Design for complexity and variety; enhancing identity for facades and the site, (3, 8).
- Facades should accept (accommodate) some levels of users traces and contributions.
- Special attention should be given to utilities and its impact on the external appearance and image without sacrificing cost or efficiency; e.g. wet areas location, treatment of pipes, means of garbage collection.

3.3 The Site and Setting

- Walk-up sites should always be treated as the key to the success of the housing development; rather than as an after thought with attention only focused on the units and blocks, (1).
- The sites are the key to the metamorphosis of the walk-up housing. Site planning decisions affect the form and visual appearance of the blocks; i.e. enhancing its merits and minimizing drawbacks.
- No-mans land should be avoided; or reduced to practical minimums, (1).

- The space-between should be articulated into private and semi-private areas; well related to designated communities. Public spaces should also be linked to community facilities with responsible parties defined.
- Avoid free standing blocks surrounded by open no-mans land.
- Design for continuity of facades (with double access to blocks whenever possible); accentuating crossings, corners and intersections, (8).
- Economy of Infra-structure networks need not lead to rigid alignments of walk-up blocks.
- Design for high accessibility to vehicular services.
- Vehicular and pedestrian circulation should be integrated; with safety, freedom of movement and interactions, vividly in mind.
- Avoid stereo-type visual forms and formalism, e.g. deterministic serial visions and path sequences.
- Stress community definition and physical expression (boundaries), levels of territoriality, surveillance, control, etc..

Epilogue

It is reasonably justified to claim that, the walk-up apartment block is likely to continue as a major housing type well into the twenty first century. If not because of its merits and potential; it will be because of conventions and common practice on the one hand and the size of the existing housing stock of walk-up apartments and related projects, on the other. This calls for collective work on three fronts, namely:

- Enhancing awareness of the involved parties in housing development (including; executives, developers, designers and communities) concerning the mistakes of earlier and current practice, i.e. to deal positively with the evaluation of completed walk-ups housing projects, avoiding drawbacks, enhancing merits and exploiting potential.
- Upgrading and rehabilitation of existing stock of walk-up housing projects; to improve the components and settings, namely: the house units, blocks and sites.
- Readdressing the housing development process, with emphasis on the role of designers as enablers, facilitators, and on their contributions as a flexible settings rather than rigid structures; i.e. working for and with the community.

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Projects' Credits

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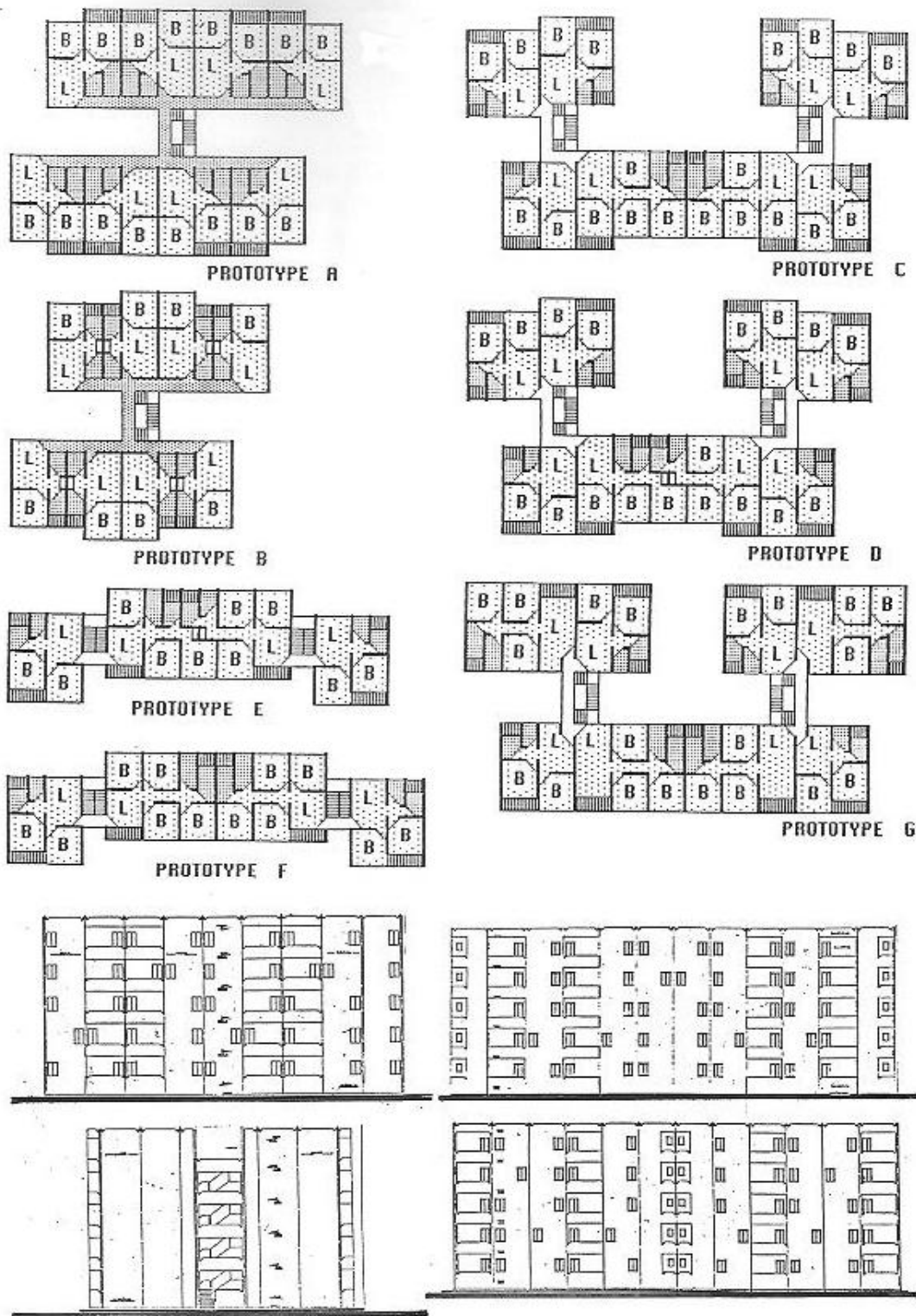


FIG 1
 Typical recent Walk-ups' plans and elevations;
 low cost housing prototypes, Egypt, (7,15).

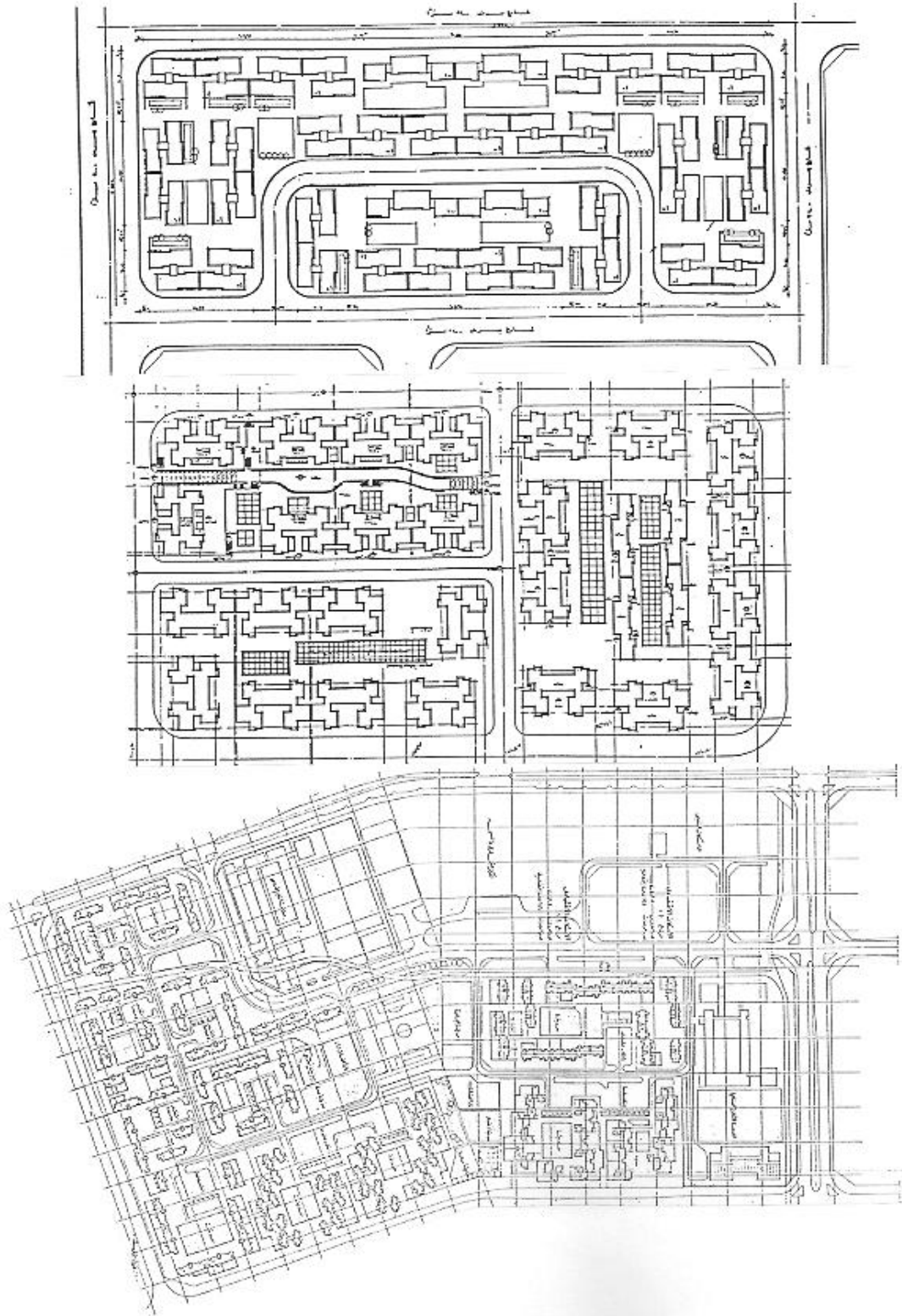


FIG 2
Typical Walk-ups' site plans; Settlement No.3, at Khatamiya (14.a &14.b)
and New Ameriyah City (13), Egypt.

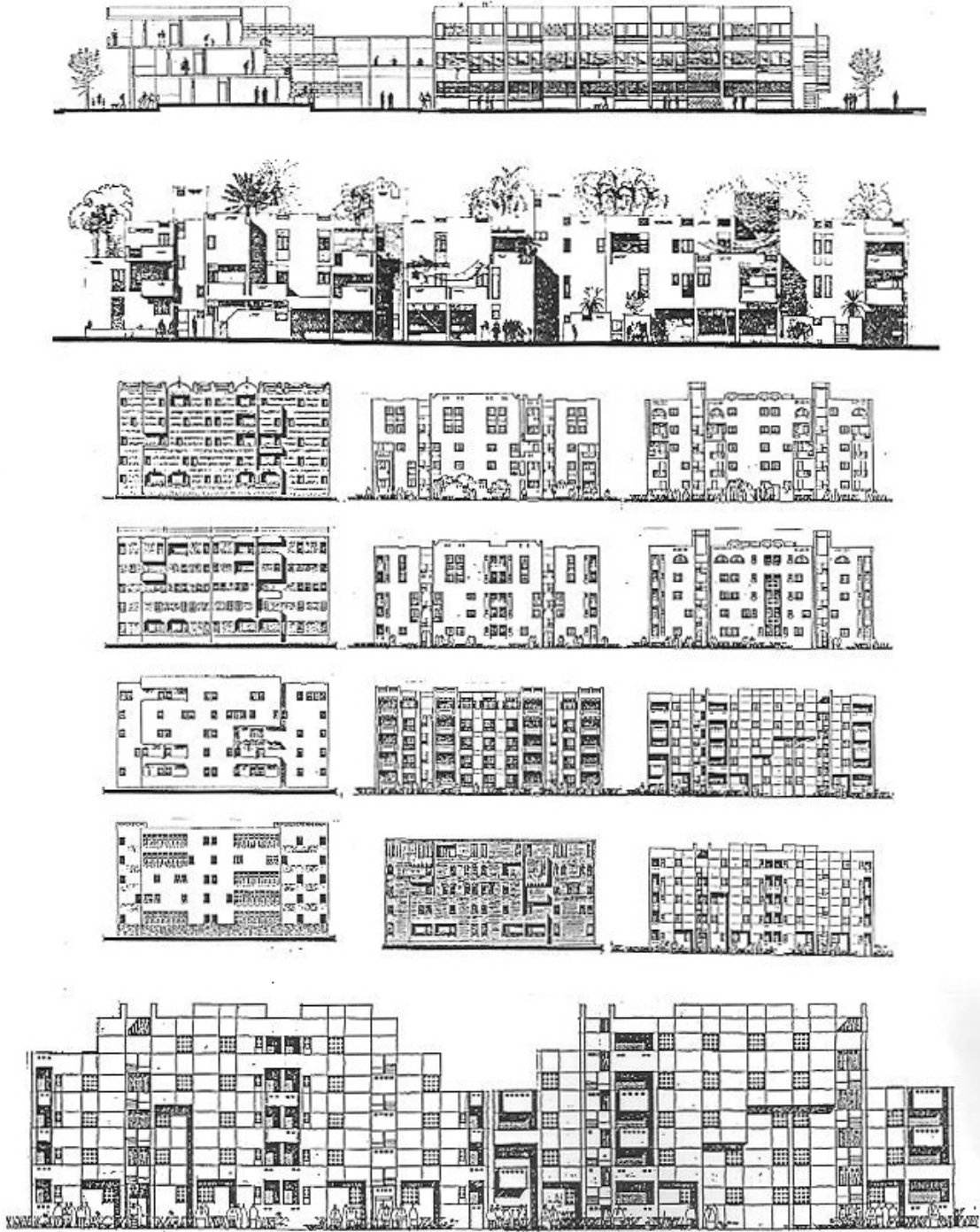


FIG 3

Walk-ups transformation I - External appearance and character: Deversoir Resort (13), ElOubour New City (12), low cost housing facades variations (8 & 15), Egypt.

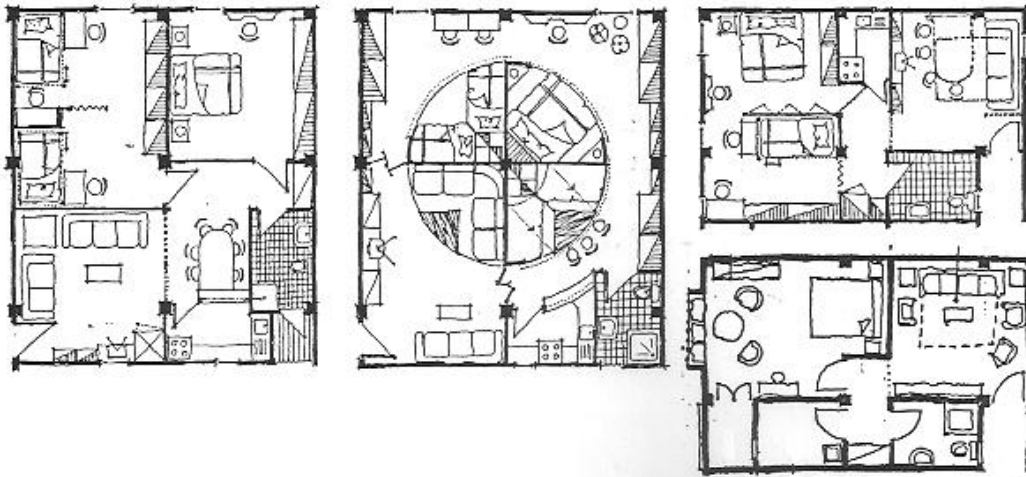
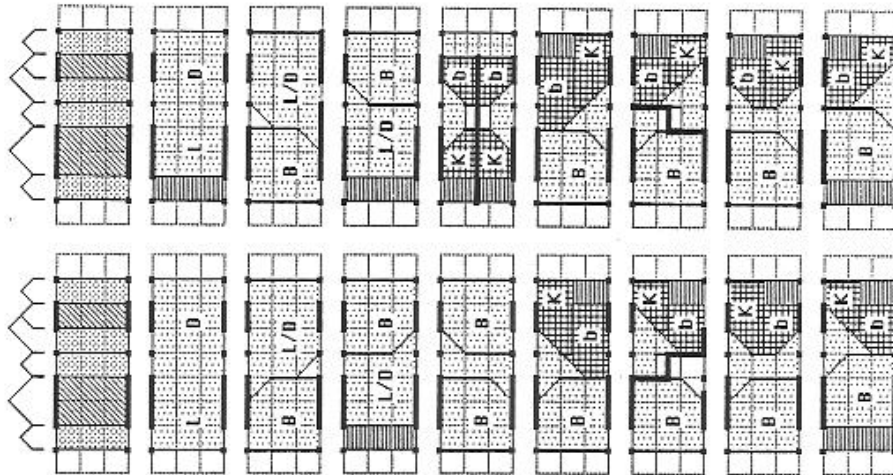
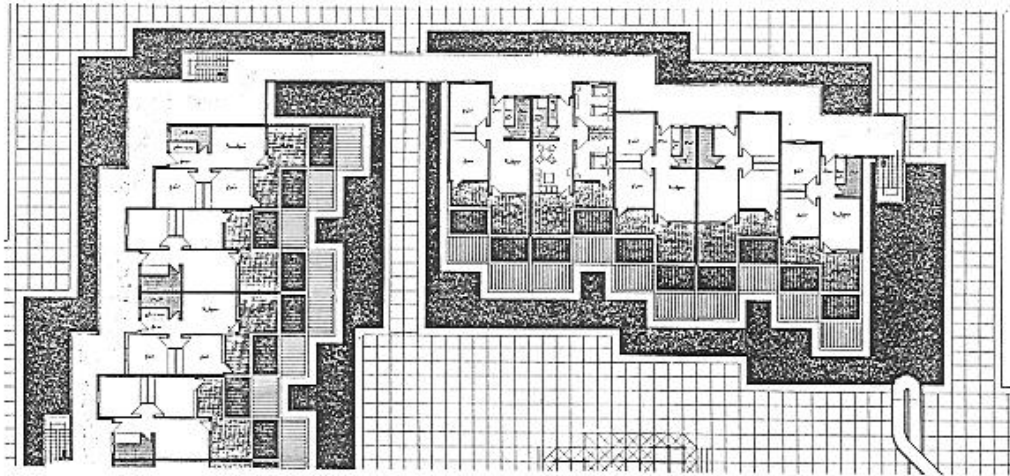


FIG 4

Walk-ups transformation II - house units and internal organization: Deversoir Resort (13), low cost housing sectors and internal variations (15), Egypt.