HABITAT FOR A SATELLITE TOWN

by COLIN H. DAVIDSON

with the Boston group of CIAM

M. Architecture
1955
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ABSTRACT:

THIS PROJECT IS AN ATTEMPT TO DEVELOP A NEW KIND OF ENVIRONMENT. IT USES THE LATENT POSSIBILITIES OF CONTEMPORARY TECHNOLOGY AND ECONOMIC POTENTIAL TO FULFILL OUR SOCIAL NEEDS.

TECHNIQUES: NOT A PRODUCT OF A SPECIALLY CREATED INDUSTRY, THE COMPONENT PARTS OF THE HOUSE WILL BE MASS-PRODUCED BY SUITABLY RELATED EXISTING FACTORIZED AND ASSEMBLED AT A CENTRAL POINT ON THE DEVELOPMENT.

ECONOMICS: GEARED TO A CONSUMER'S MARKET, THIS HOUSE AND ITS GROUPING ARE CONCEIVED FOR THE NEEDS OF A HIGHLY MOBILE MIDDLE CLASS WITH EVER-RISING STANDARD OF LIVING. IMMOBILISED CAPITAL (THE SHELTER) IS REDUCED, AND FLEXIBILITY FOR RENTAL OR PURCHASE IS INCREASED (INTERIOR COMPONENTS).

SOCIAL: IN A TIME OF ANONYMOUS SOLUTIONS TO COLLECTIVE PROBLEMS, THIS CONCEPT IS AN ATTEMPT AT RESCALING THE SOCIAL PATTERN AND RESPECTING THE INDIVIDUAL.

THIS IS EXPRESSED IN DESIGN CHARACTER IN BOTH THE NEIGHBORHOOD
AND THE DWELLING. TWO STANDARDS OF SUB-MODULES GIVE ALMOST UN-
LIMITED FLEXIBILITY IN THE LAY-OUT OF THE NEIGHBORHOOD CLUSTER
AROUND ITS MECHANICAL NUCLEUS AND IN THE ARRANGEMENT OF THE
HABITAT WITH THE COMPONENT PARTS CHOSEN AND INSTALLED FOR THE
NEEDS OF EACH OCCUPANT.

A SEQUENCE OF DIAGRAMS AND TEXT DEVELOPS THIS THEME: AFTER A
BRIEF STATEMENT OF THE CONDITIONS WHICH PROVOKED THIS PROJECT
THE TWO LEVELS OF ENVIRONMENT ARE DISCUSSED, EACH IN TERMS OF
ITS TECHNICAL, ECONOMIC AND SOCIAL IMPLICATIONS.

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DE-
GREE OF MASTER OF ARCHITECTURE AT THE MASSACHUSETTS INSTITUTE OF
TECHNOLOGY IN THE MONTH OF AUGUST, NINETEEN HUNDRED AND FIFTY
FIVE

SIGNATURE OF THE AUTHOR:

CERTIFIED BY THE THESIS SUPERVISOR:

ACCEPTED BY THE CHAIRMAN OF THE DEP-
ARTMENTAL COMMITTEE ON GRADUATE STUDIES:
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HABITAT FOR A

PEOPLE MAY SOME DAY LEARN TO BUY NOT ONLY PACKAGES OF GROCERIES OR BOOKS BUT "THE LARGER PACKAGE" OF A NEIGHBORHOOD, A SOCIETY, A WAY OF LIFE.

LES HOMMES APPRENDront PEUX T'ETRE UN JOUR ACHETER NON SEULEMENT DES PAQUETS D'EPICERIE OU DE LIVRES MAIS AUSSI LE "PLUS LARGE PAQUET" D'UN QUARTIER D'UNE SOCIETE, D'UN STYLE DE VIE.

THE LONELY CROWD... (LA FOULE SOLITAIRE)
SATellite TOWN
Levittown and the like are wrong! They are wrong socially and technically. They use immense resources of materials and financial organisation, but they fail to solve their problem. They are bigger solutions than ever before, but by the law, so well-known to scientists, that every phenomenon has a limit of size without having radical change of pattern, they are doomed at the outset. It is a problem of this generation, to build large towns for people known only through impersonal statistics, and whose requirements must be always changing. It is absurd to create for them one or two or even three standard types of home and expect them to suffice. It is equally absurd to then put gratuitous variants on the houses, under the illusion that they give identity to the home. They make the monotony more aggressive. It is anachronistic to translate modern high-powered financing into nails and studs, neglecting the resources of industry.

The public is reacting. It has discovered the trailers and is occupying them for permanent dwellings in an incredibly large number. Industry produces the trailer, a packaged form of living, well studied in detail, but denying the freedom of space. The trailer is not meant for gregarious living, and the aspect of the trailer camps is a sorry testimony to the failure of this solution.

Industrialisation of the house is the answer, industrialisation of the parts, so designed that they can be arranged to suit the needs of the occupant. Standardise the shelter to ensure adequate protection, express the individual in the choice of parts.
THE SUBURBAN TOWN:

THOUGH THE PROBLEM CENTRES AROUND THE DWELLING AND ITS IMMEDIATE ENVIRONMENT, IT IS INDISPENSIBLE TO GLANCE AT THE HIGHER LEVELS OF PLANNING TO ENSURE LOGICAL HIERARCHY.

AT THE HEAD OF SOME RAPID TRANSPORTATION LINK TO THE SOURCE OF EMPLOYMENT, THE SATELLITE TOWN MUST BE CONCENTRATED AT HIGH DENSITY TO AVOID UNNECESSARY TRANSFERS FROM ONE FORM OF TRANSPORT TO ANOTHER. THE TOWN WILL CONSIST OF A PATTERN OF SUPER-BLOCKS SURROUNDED BY STREETS PLANNED FOR MEDIUM-FAST TRAFFIC. THESE WILL BE CONNECTED PERIODICALLY TO THROUGH-WAYS FOR LONG DISTANCE TRAFFIC, AND THEY WILL LINK THE PARKING AREAS DIRECTLY.

THERE WILL BE NO CULS-DE-SAC OR RESIDENTIAL STREETS WHERE CHILDREN PLAY PERILously AMONGST THE FLOW OF TRAFFIC, TO THE JEOPARDY OF THE FORMER AND THE INCONVENIENCE OF THE LATTER.

OPEN SPACE, NORMALLY FRACTIONED AMONGST A MULTITUDE OF PRIVATE OWNERS FOR WHOM IT IS OFTEN A SERVITUDE AND WHO HAVE A MINIMUM OF PRIVACY ON IT, WILL BE GROUPED IN BELTS THAT WIND THROUGH THE CENTRES OF THE SUPER-BLOCKS. ONLY THE REALLY USEFUL AMOUNT OF GARDEN WILL BE LEFT TO THE INDIVIDUAL, IN THE FORM OF WHAT HAS COME WRONGLY TO BE CALLED "PATIO". THE GREEN BELT WILL PROVIDE THE IDEAL SETTING FOR THE SCHOOLS, KINDERGARTENS AND SOCIAL CLUBS THAT WILL BE DOTTED ABOUT THE SATELLITE TOWN. OVER- OR UNDER-PASSES WILL ALLOW THE PEDESTRIAN TO PROCEED ALONG THE GREEN BELT FROM ONE SUPER-BLOCK TO THE NEXT, AND DISTANCES WILL BE SO SHORT, DUE TO THE HIGH DENSITY, 7.75 FAMILIES PER GROSS ACRE, THAT THE SHOPS AND THE COMMUTING TERMINAL CAN BE REACHED ON FOOT.
AN AERIAL PHOTOGRAPH OF A TYPICAL SUPER-BLOCK FOR 300 FAMILIES
THE NEIGHBORHOOD CLUSTER.

THE SOCIAL ENTITY THAT IS MEANINGFUL IS MUCH SMALLER THAN THE SUPER-BLOCK OF 300 FAMILIES. DESPITE CERTAIN CONTRARY PRONOUNCEMENTS, 30 FAMILIES HAVE BEEN GROUPED TO FORM THE AVERAGE UNIT. THE AUTOMOBILE WILL NOT PENETRATE THIS NEIGHBORHOOD CLUSTER AND ITS STREETS WILL BE FREE FOR PLAY AND STROLLING, FOR SOCIAL CONTACTS AND SAFE DAWDLING. THE STREETS WILL CARRY THE FLOW OF PEDESTRIANS TO THE CENTRAL PLAZA OR TO THE GREEN BELT. ON THE OPPOSITE PAGE, THE SKETCH SHOWS ONE ASPECT OF THE STREET.
ONE ASPECT OF THE PEDESTRIAN WAY LINKING THE HOUSES, A NATURAL PLACE FOR THE SOCIAL CONTACTS AND ACTIVITIES
UN ASPECT DE LA VÔTE POUR LES PIETONS JOIGNANT LES HABITATIONS, PLACE NATURELLE POUR LES CONTACTS SOCIAUX.
Planned around a mechanical core, the houses fill an area not more than 200 feet from it. The automobile penetrates to this core, where there will be a car-port for each owner. In the core, he will find mail-boxes, delivery boxes, automatic dispensing machines for his daily requirements. From there, his walk is not more than 200 feet, in safety and in congenial surroundings. The existing chaotic situation of the suburbs with the omnipresent automobile, cannot continue, the danger is already too real, and the dispersion it creates damaging to social contacts. By grouping mechanical amenities at the parking space, it is felt that the fact of leaving the automobile will be significant, not merely objectionable.

The mechanical core:
The mechanical core will group all the facilities for the neighborhood that are either uneconomically dispersed at each individual house or equally uneconomically served by local store and delivery boy, both doomed in face of rising wages. At the car-port, each resident will have a storage unit where he can deposit sundry hardware, a small barrow for carrying parcels to his house. Under the main shelter he will have a mail box, a delivery box, and a deep-freeze storage unit. Serving him through the community, there will be machines to distribute milk, bread, some beverages, and cigarettes and emergency drugs. Central heating and cooling will be there, together with an incinerator and garage for the garbage collector. A room will be available for bulky deliveries to be deposited during the absence of the homeowner.
1. Secondary Road. Rue Secondaire
2. Guests' Parking. Parking des Invités
3. Car Port. Abri pour Voitures
4. Service Shelter. Abri des Services
5. Pedestrian Square. Place pour Pétions
6. Pedestrian Street. Voie Pédestre
7. 32'x32' House. Maison 10,25x10,25m
8. 24'x32' House. Maison 7,56x10,25m
9. Green Area. Zone Verte

neighborhood cluster

TYPICAL AMERICAN SUBURBAN LOT AT THE SAME SCALE
LOT TYPIQUE DE BANLIEUE AMERICaine À LA MEME ÉCHELLE
habitat for a satellite town

incinerator under

maintenance depot
garage for garbage & delivery dolly.

central heating
energy conversion

drinking plant

deep freeze lockers

storage units

mail & delivery boxes

fire hose & hydrant

public telephone
distributing machines

40 ft 30 20 10 0

THE MECHANICAL CORE.
Through the mechanical core, the access to the neighbourhood cluster now offers the daily facilities.
Le groupement des services mécaniques, accès au groupe de voisinage, pourvoit aux besoins journaliers.
OPENING FROM A SMALL CENTRAL PLAZA, EACH PEDESTRIAN STREET WILL HAVE A DIFFERENT CHARACTER. THE GROUPS OF THE HOUSES THEY ENCLOSURE ARE DIFFERENT, SOME COMPACT, SOME SPREAD-OUT. SOME HOUSE WILL BE ALIGNED, OTHERS WILL HAVE VARYING SET-BACKS. THE HOUSE ITSELF WILL VARY. THESE CHANGES ARE NOT ARBITRARY BUT BASED ON DEFINITE FEATURES OF THE DESIGN THAT WILL BECOME APPARENT LATER, AND ARE INTEGRAL FEATURES OF THE SCHEME.

THE GREAT DISTANCES, NORMALLY ASSOCIATED WITH THE SUB-URBAN RESIDENTIAL STREET, WILL HAVE BEEN COVERED BY CAR, WHEN THE DRIVER'S ATTENTION CAN BE FOCUSED ON THE ROAD ALONE, AND ONLY SMALL DISTANCES WITH SUSTAINED INTEREST WILL REMAIN TO BE COVERED BY HIM AS HE WALKS FROM HIS CAR TO HIS HOME, AN INTERESTING END TO HIS HOME-COMING.

OPPOSITE PAGE: SKETCH SHOWING THE VIEW OF THE HOUSES THAT FACE THE CENTRAL PLAZA. THIS IS THE FIRST VIEW OF THE CLUSTER ON LEAVING THE MECHANICAL CORE.
habitat for a satellite town
SITE WORK.

THE EXPERIENCES OF LEVITT SHOW THAT IT IS IN THIS PART OF
THE CONSTRUCTION OPERATION THAT GREATEST ECONOMIES ARE NEC-
CESSARY THOUGH HARDEST TO OBTAIN. RATHER THAN WORK AT THE
SCALE OF THE INDIVIDUAL HOUSE, IT IS PROPOSED THAT THE SITE
WORK BE DONE FOR AN ENTIRE CLUSTER AT A TIME. IN THE OPPO-
SITE PAGE AND ON THOSE THAT FOLLOW, WE WILL SEE THE ESSENTIAL
STAGES OF THE SITE WORKING, HOW IT IS RATIONALISED TO AVOID
MAN-HOURS ON SMALL JOBS. THE TECHNIQUES ARE SIMILAR TO THOSE
USED RECENTLY IN ROAD-CONSTRUCTION.

LET US IMAGINE A TYPICAL SITE, AND FOLLOW THE STAGES OF
CONSTRUCTION FROM THE BEGINNING TILL IT IS READY TO RECEIVE
THE SHELTERS. (COMPARE PAGE 9 FOR THE PLAN OF THE FINISHED
CLUSTER)

THE EXACT LIMITS OF THE CLUSTER ARE PICKETED, TREES THAT ARE
SUFFICIENTLY NOTEWORTHY TO BE SAVED ARE MARKED, ALL THE PRE-
LIMINARY SURVEYING IS DONE, THOUGH THE POSITIONS OF THE HOUSES
ARE NOT INDICATED YET.
habitat for a satellite town
habitat for a satellite town
THE JUNCTION BOXES ARE CONNECTED TO THE PIPE-DUCTS PLACED AT POINTS THAT WILL BE UNDER THE SHELTERS. PIPE-FOUNDAIONS ARE FORCED INTO THE GROUND IN ROWS OF THREE, SIX TO A HOUSE, AND CONCRETE UNDER PRESSURE IS INJECTED TO FORM A BULBOUS FOOTING WHOSE SIZE, CONTROLLED BY THE PRESSURE AND THE YIELD OF THE SUB-SOIL, AUTOMATICALLY CORRESPONDS TO THE NECESSARY DIMENSIONS. THE SITES ARE DEMARKED.

UP TO THIS POINT, WORK HAS BEEN CONDUCTED WITH THE TOLERANCES NECESSARY FOR HEAVY MACHINERY, NOW RAILS ARE FITTED TO THE HEADS OF THE PIPE FOUNDATIONS AND ARE LEVELLED PRECISELY BY SCREW JACKS. THE SHELTER CAN BE LIFTED ONTO ITS BASE NOW.
THE PLOT, THE SHELTER, THE INTERIOR COMPONENTS.
THE PLOT, THE SHELTER AND THE INTERIOR COMPONENTS.
THE DESIGN HAS CLEAR DIVISIONS, NATURALLY INTER-RELATED,
BUT OBEYING CERTAIN INDEPENDANT CRITERIA. IT IS IMPORTANT
TO BECOME FAMILIAR WITH THEM AT THIS STAGE. WE WILL EXAMINE
NOW THE RELATIONSHIP BETWEEN THE PLOT AND THE SHELTER, AND
FROM PAGE 27 THE SHELTER AND THE INTERIOR COMPONENTS.
EACH GROUP HAS DIFFERENT SUB-MODULES, AND FITS INTO A DIF-
FERENT PATTERN OF OWNERSHIP AND RENTAL.

NOTE:

THE SHELTER
THE PLOT
THE FOUNDATION RAILS
THE JUNCTION BOX
THE CLOSETS
THE TOILET
THE BATH-ROOM
THE KITCHEN UNIT
THE FLOOR DECK
THE STAIRS
THE PANELS
THE WINDOWS
Research by the developer will enable him to predict with reasonable accuracy the family structure of the future occupants, and past experience will reveal to him their feelings on the subject of gardens. For there is a choice in both that he will have to make though the consequences of this choice are less drastic than with conventional design. The plot is available in two widths, 33' and 24', each with a depth of 90'. On each plot a two- or a one-storey shelter may be placed, the latter being at first floor level or raised on pilotis to second floor height. The elevation on the opposite page indicates clearly the six different type that these alternatives allow, and in each case the maximum number of bedrooms that can be arranged in each space conveniently is indicated. It will be noticed that the largest space is repeated in the drawing, since it will be also the most common. The sections on the following two pages are concerned with the second choice, whether the shelter be placed at the front of the site, with a maximum private rear garden, set back 24' or 30'. The fact of having a front garden may give greater privacy to the house, less participation in the social life of the street, but a smaller rear garden. The decision has to be made during the site work, and cannot be changed, though, as we will see, the flexibility of the interior compensates considerably for this. It will be noticed that in no case do opposite houses face directly into each other if the distance between them is less than 40'. In that case, one of the houses will face sideways onto an intersecting street. If the distance falls below 25', both the houses will face onto the intersecting street.
Street elevation showing the range of different types of shelter that are available. It also shows the integral pattern that stems from these types and the different fenestrations that express the individual interior arrangements.
opposite houses at centres of plots, distance between window walls 76' approx.

opposite houses: one at centre of plot, one at front, distance 46' approx.

SECTION ACROSS A PEDESTRIAN STREET
opposite houses: one set back 24', one in front. Distance from window to wall 40'.

opposite houses at front, corner case. Distance between blind walls 16'.
THE SHELTER.
This is the prototype of the shelter with one of the possible arrangements of interior components and window-walls. View of the street front.
THE SHELTER

view of the garden front
THE SHELTER

street front

This is the largest sheltered space that is proposed. It is sufficient to enclose the requirements of a family of eight persons, though as shown it is arranged for four. It is sited in the centre of the plot, with a small garden for privacy behind the shelter, and a private part visible from the street in front. A porch encourages out-door living, in closer contact with the street and passing pedestrians.
THE SHELTER

street front

garden front
PLAN AND SECTION SHOWING ONE POSSIBLE ARRANGEMENT OF THE 30' x 30' x 16' 4" SHELTER. THIS IS FOR A FAMILY OF 4, WITH THREE BEDROOMS.
32
habitat
for a
satellite
town

5 metres
15 feet
habitat for a satellite town
PLAN, SECTION AND INTERIOR PERSPECTIVE OF THE SHELTER AS
ARRANGED FOR A FAMILY OF 8, WITH SIX BEDROOMS.
habitat for a satellite town

INTERIOR PERSPECTIVE LOOKING TOWARDS THE PRIVATE GARDEN
ECONOMICAL CONSIDERATIONS:

In view of the trend in home ownership, which, under the pressures of accumulated mortgages, has lost all except the title and in view of the increasing mobility of the class for whom this project is designed, it is felt that the shelter and the plot upon which it stands should be rented. In this case, the developer has only to invest his capital in the shelter and the amenities of the neighborhood clusters, but is saved the expense of the partitioning and interior fixtures. The interior components on the other hand, will belong to the occupant who can either bring them or some of them with him when he moves, or can buy them at the appropriate dealers which will be near any such development. There will be a second-hand market for the resale of units and components. The saving for the occupant lies in the fact that the rent he pays is lower in proportion to the developer's saving, and the capital he invests in components is strictly controlled by his needs or taste.

It is a characteristic of mass-production that the demand must remain at a high level over a period of time, that the production itself must not flood its own market. It is not intended that the shelter should be of very long duration, and weathering, fashion and technical innovations should be able to stimulate change. Consequently each shelter is complete, independent of its neighbor for support or insulation. The small space between contiguous units will be sealed with a cocoon sprayed gasket that can be cut easily when it is necessary to remove either of the houses.
CROSS-SECTION OF TWO CONTIGUOUS SHELTERS.
DETAIL OF THE RIGID PRESSED ALUMINIUM FRAMES, THE PLASTIC INNER AND OUTER SKINS, AND THE SECOND FLOOR-DECK, SHOWING DUCTS.
TECHNICAL CONSIDERATIONS:

THE SHELTER IS, BASICALLY, A TUBE, EITHER 30' OR 21' INTERIOR WIDTH, 16'-4" OR 8'-0" HIGH. ITS OVERALL LENGTH IS 36', 30' TO GLAZED WALLS. RIGID PRESSED ALUMINUM FRAMES ON 3' CENTRES AND DIAGONALLY BRACED IN THE PLANE OF THE WALLS, HOLD OUTER AND INNER SKINS. THE OUTERSKIN, IMMovable, IS OF TWO SHEETS OF FLEXIBLE PLASTIC, SEPARATED BY SPACERS AND BONDED BY A PLASTIC FOAM OF NON-COMMUNICATING CELLULAR STRUCTURE. THIS FOAM SERVES THE DUAL PURPOSE OF INSULATION AND PREVENTING FLAPPING. THE INNER SKIN IS SIMPLY A RIGID SYSTEM OF PLASTIC PANELS CLIPPED ONTO NOTCHES ON THE FRAMES, WHICH CAN BE CHANGED. THE WINDOW-WALLS ARE AN INGENIOUS SYSTEM OF GLAZED UNITS, THAT FOLD IN PAIRS, AND OPAQUE PANELS THAT CAN BE MOVED AT EACH CHANGE OF OCCUPANT AND FIXED WITH PIN-BOLTS, SERVING TO FIX THE HINGES AND LATCHES OF THE OPENING GLAZED UNITS. THE OUTER SKIN IS TRANSLUCENT, AND BY REPLACING THE PANELS OF THE INNER SKIN BY TRANSLUCENT PANELS, EXTRA LIGHT CAN BE OBTAINED AT ANY POINT OF THE INTERIOR. SINCE PLASTIC MATERIALS CAN BE CUT AND BONDED EASILY, IT IS POSSIBLE TO INSERT BUBBLE-DOMES IN ANY POINT. THIS SAME PROPERTY FACILITATES THE SEALING OFF OF THE SPACE BETWEEN NEIGHBORING HOUSES BY A COCOON STRIP. THE INNER SPACE CAN BE DIVIDED HORIZONTALLY BY A FLOOR DECK THAT, WITHIN CERTAIN LIMITS, CAN BE ARRANGED TO COVER MUCH OR LITTLE OF THE LOWER LEVEL. THIS FLOOR DECK, OF RIGID ACORN-TYPE, IS SUPPORTED ON SLENDER TUBULAR COLUMNS WITH NON-SLIP UPPER AND LOWER TIPS, PLACED SO AS TO BE ABOVE ANY ONE OF THE FRAMES. STABILITY IS GIVEN TO THE DECK BY CLIPS THAT HOLD IT AGAINST THE STRUCTURAL FRAMES. SELF-SUPPORTING STAIRS CONNECT THIS DECK WITH THE LOWER LEVEL.
The vertical space dividers, partitions, closets or bath & toilet units, are arranged so that they can be assembled at any point on the 1 foot sub-module and in any number from two in line to 4, with the addition of a non-structural cover strip. The panels themselves obtain their own stability from
Having a spring-loaded upper edge member that is released when the partition is in place, jamming it between the floor and ceiling. The core of the partitions is a serpentine tube that gives strength against deformation and permits, also when it is in place, that sand be blown into the interior for sound deadening by mass. Though it is relatively simple to install these panels and units, the maintenance authorities extend their services to include help in this matter.
TOILET

BATH ROOM

lift cover to connect plumbing

movable panel to connect plumbing

plumbing outlets

plumbing outlets
The type of shelter that has been discussed up to this point corresponds to the most advanced thoughts in terms of existing industry and transport and construction conditions. As conditions change, however, it is conceivable that the design may be modified more or less radically. The exterior dimensions cannot change, and the interior must be based on the same 1 foot sub-module.

The three house types that are on these pages are presented not so much for their actual design as to emphasise the principle that other types are possible, and will contribute to the integral variety that characterises the design.
Habitat for a satellite town
TEST CASE.

THE PROGRAMME CALLED FOR THE ERECTION OF THREE HUNDRED AND THIRTY HOUSES OF VARYING SIZES. THE OCCUPANTS OF THESE HOUSES WILL BE EMPLOYED AT A NEAR-BY INDUSTRIAL PLANT. THE AREA IS AT PRESENT MAINLY UNDEVELOPED, THOUGH THERE WILL BE SUBSEQUENT INCREMENTS OF HOUSING, AND CONSTRUCTION OF THE NECESSARY ANCILLARY BUILDINGS, SHOPS, THEATRE, SCHOOL CLUBS. THE SITE SELECTED FOR THE FIRST INCREMENT OF HOUSING IS LINKED TO THE NEIGHBORING VILLAGES BY A ROAD, WHICH, IF INSUFFICIENT FOR ULTIMATE REQUIREMENTS, WILL FACILITATE THE CONSTRUCTION.

DIAGRAM SHOWING EXISTING CONDITIONS: LIMITS OF BUILDABLE LAND (AREA APPROXIMATELY 50 ACRES), EXISTING ROADWAY AND TRACK, WIND CONDITIONS.
uncleared wood-land

secondary link to through-way
link to minor expansion

uncleared wood-land

site for nursery-school

zoned for 330 housing units

to through-way

to work

to through-way

to school

park

to expansion of housing

to main re-
creation area

EXTRACT FROM THE MASTER-PLAN SHOWING THE ZONE FOR THE INITIAL 330 HOUSING UNITS, MAIN AND SECONDARY EXITS FROM THE REGION. NURSERY SCHOOL HAS BEEN ADDED TO PLAN
THE PROPOSED SOLUTION USES THE PRINCIPLES THAT HAVE BEEN EVOLVED IN THIS RESEARCH. IT USES THEM, SHOWING THE LATENT FLEXIBILITY OF THE METHOD. THE HIERARCHY OF THE SUPERBLOCK PATTERN IS MAINTAINED, BUT NOT THE ENCLOSING ROAD PATTERN.


TYPE A (UP TO 6 BEDROOMS) 48, TYPE B (UP TO 4 BEDROOMS) 22
TYPE C (UP TO 3 BEDROOMS) 25, TYPE D (UP TO 2 BEDROOMS) 5.
BI B I L I O G R A P H Y AND SOURCES.

It is not the purpose of this bibliography to list all the books that should be read in connection with the more general aspects of this enquiry. These should include the work on urban design by authors such as Gallion, Stein, on house financing contained in the work of Charles Abrams.

Also the following works have a bearing on a particular aspect of the project:

Fortune, October 1952 vol 46:4 "Levittown"
Architecture '54. "Special Number on Jean Prouvé". number 11/12
Architecture d'Aujourd'hui, "La Maison Contemporaine" Study on "Le Bloc-MA" May-June 1946

Westinger, L: Social Pressures in Informal Groups.
Kelly, Burnham: The Prefabrication of Houses.
Nelson, Paul: La Maison Suspendue

Other sources include interviews, and from the following the specific concepts mentioned emerged, among many others:

with Burnham Kelly: the need of design control over all the private land, and the wastefulness of a typical suburban lot from that concept.

Kevin Lynch the value of giving a private and a public side to the habitat

Jacqueline Tyrwhitt: the value of the mechanical core, and the need to develop it to the utmost.

Welles Coates the difficulty of reconciling flexibility with change of the outer skin: the need to delimit from the outset the final volume that the house will grow into.
ACKNOWLEDGEMENTS:
The author of this thesis wishes to emphasise this memorandum:
"I am very glad to express the pleasure that I had to work with H. Morse Payne and Maurice Silvy on the evolution of this project. Within the framework of the Boston Group of the CIAM and in response to the challenge contained in the circular sent from J.B. Bakema of the CIAM X committee, many months of strenuous and stimulating collaboration lead to the germination of the ideas developed in this thesis.

"I cannot in justice attempt to name the many architects and planners who gave advice and encouragement at all stages of the development of the project. To do so would raise the irrelevant issue of protocol, and would also fail to recognise the many others whose talk and behaviour created the environment that helped this project."
...The time in history at which a new useful mechanical device is born, has perhaps more influence on the details of present living than the physical characteristics of a country.

"This timing in history will have great bearing on the details of prefabrication of dwellings. It is the basis of the great conflict in auto design in this country. The battle line is sharply drawn between the mass-producer and the innovator. They are mutually abhorrent to each other. To the producer any change means added cost - perhaps a reduction later, but always added at present - and it is the present only that interests the producer. His ideal society would be one always in his 'present' time, i.e. completely static. The innovator sees possible improvements by a change in design. He must break through the static resistance set up by the mass-producer....U.S.A. industry was basically that of the innovator until the 1930's. Then it swung under the influence of the producer for the masses, so that now the road of the innovator is beset with difficulties and it requires a far greater expenditure of time and savings than formerly to make a change. That is why the forward looking manufacturers here are turning to the smaller markets of Europe and South America in which to perfect innovations only attacking the great American mass when the innovation has become an accepted thing. This sounds like Spengler, except that when an innovation is put within the financial reach of the mass, it is absorbed by it with tremendous speed, only to suffer stagnation in a few years. But the profits during this absorption are great, so that a group can develop periodically innovations acceptable to the masses and it will stay in business, while those that only reap present profits from static situations, die gracefully in a few years.

...This battle of mass-production versus innovation is the most talked of problem today among industrial executives. At the present time the mass producers are in the saddle here, but falling profits make their seats insecure and as they begin to realise it, they will start compromising with the innovator. All of the above has a bearing on your prefabrication designs.

...The American home no longer centres around the hearth. It is the W.C., the bath and, to a growing extent, the deep-freeze and refrigerator that are the symbols of comfort required to make up the family dwelling. Individually all these items are now mass produced and for the moment approximately standardized and static. It is their arrangement and installation that is left to the individual, so that cheap in themselves, they become costly to set in place.

...Here the artist in the architect still has play, but great care and research will be required to fix a pleasing room on the masses. Once in production, innovation may be out for many years. There will be choices, as in automobiles, but the choice will be limited to those designed by a few manufacturers.

(sgd. A.D. Chandler)