

VILLAGGIO MATTEOTTI

Case Study

HISTORICAL CONTEXT IN ITALY

SOCIAL HOUSING in Italy during the Post-WWII ERA:

FOLLOWING WWII, EUROPE FACED CRITICAL HOUSING SHORTAGES DUE TO "DEMOLITION, OBSOLESCENCE, CESSATION" OF BUILDINGS DURING WAR YEARS.

HIGH MARRIAGE RATES and expansion of urban population and incomes during this period increased the need for new social housing programs



In 1963, the Italian government promoted a **HOUSING PROGRAM** through a funding called Gestione Casa Lavoratori (GESCAL).

CONTEXTUAL INFORMATION

Village Matteotti is a neighbourhood located in Terni Italy. The town economy is “anchored based on the establishment of the Società degli Altiforni, Fonderie e Acciaierie di Terni (SAFFAT),” the first major Italian steel company.

DURING THE 1950S THE DISTRICT COMMITTEE CLAIMED THE MAINTENANCE OF THE HOUSES AND ENVISIONED A REGULATORY PLAN IN 1960 THAT AIMED TO INCREASE DENSITY OF THE MATTEOTTI NEIGHBORHOOD FROM 0.6-0.7 M³ / M² TO 3M³ / M².



A couple of years later, the Board of directors of Terni decided not to sell the homes in this neighborhood, as originally intended, **TO AVOID REAL ESTATE SPECULATION.**

The project was eventually commissioned in the early 1960s by the Società Terni for workers in its steel mills and funded by the European Coal and Steel Community (ECSC) administered by GESCAL to Architects **Giancarlo De Carlo, Valeria Fossati-Bellani, and Fausto Colombo** were to rethink the old Villaggio.

In July the architect **delivers five solutions alternatives to rebuild the neighborhood.** The first three were building typologies already adopted by the company which consisted of slab housing and towers. The last two, were innovative solutions with a low-rise, **HIGH-DENSITY** scheme.



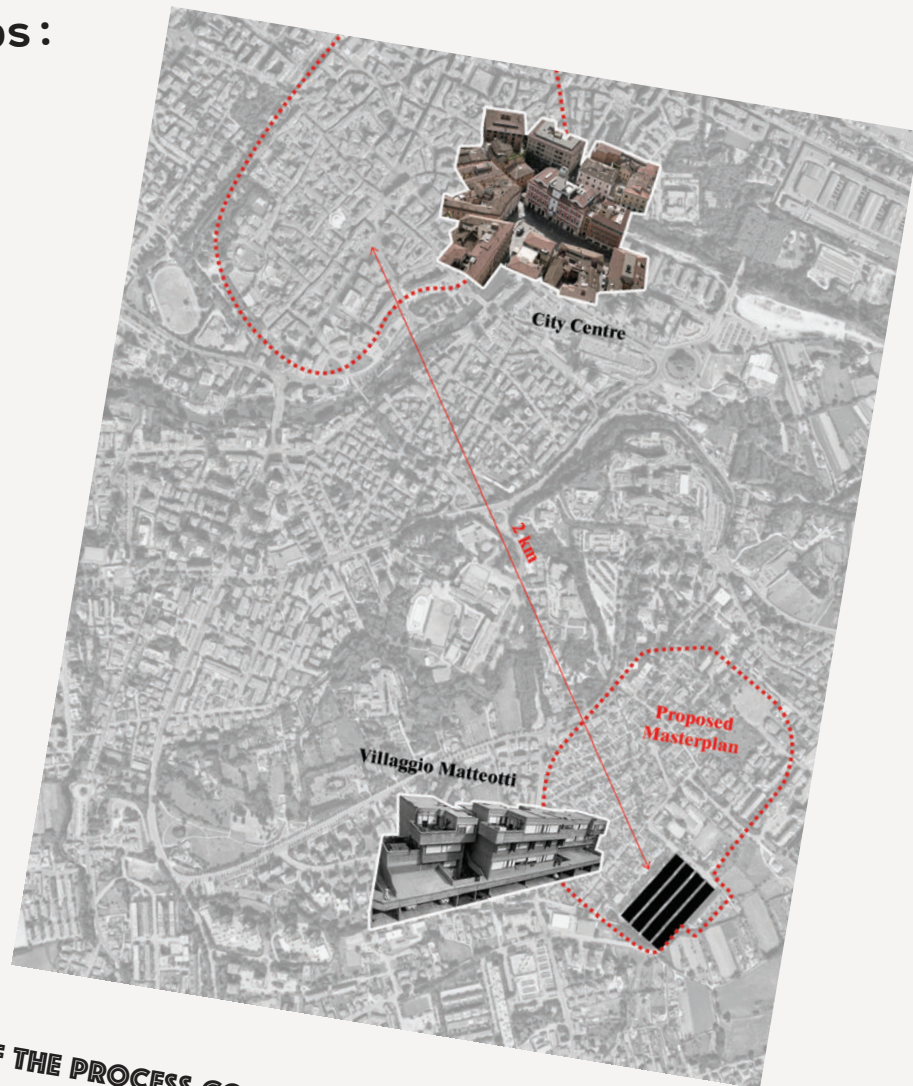
“USERS WOULD NOT HAVE EASILY ACCEPTED THESE LAST SOLUTIONS SINCE THEY CONSISTED OF AN ORGANIZATION OF SPACES IN CORRESPONDENCE WITH A WAY OF LIFE THAT BENEFITS COMMUNITY EXCHANGES”.

In fact, users were drawn by the pristine and impenetrable image of private properties making it difficult to see the individual and collective advantages of these new models.



Eventually, the company boss went with the last urban scheme and **ACCEPTED** Giancarlo's **PARTICIPATORY ASPECT.**

THE VILLAGE MATTEOTTI development process was implemented into 2 steps:



THE FIRST PART OF THE PROCESS CONSISTED OF SOCIOLOGIST DE MASI'S Sociological plan which consisted of **6 PHASES**. HE WAS RESPONSIBLE TO ORIENT AND UNDERSTAND THE NEEDS OF POTENTIAL USERS.

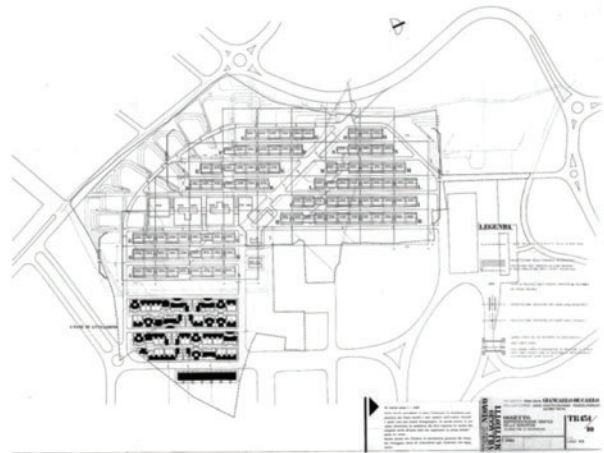
THE SECOND PART CONSISTED IN THE DEVELOPMENT OF THE PROJECT BY ARCHITECT GIANCARLO.

THE ORIGINAL SCHEME OF THE VILLAGE: 800 employees **WITH THEIR FAMILIES CONSISTED OF A TOTAL OF** 3000 people but ended up with 250 dwellings **HAD 3 PHASES IN TOTAL WITH 800 UNITS BUT NEVER BUILT 2ND AND 3RD PHASES.**

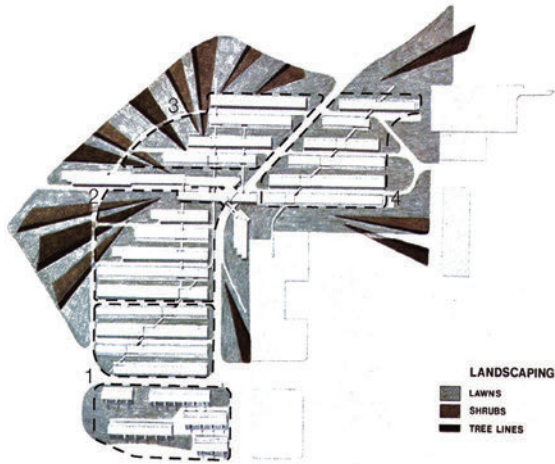
GIANCARLO DI CARLO 'S PRELEMINARY APPROACH TO PARTICIPATORY PLANNING



Alberto Franchini
pp. 9 - 26

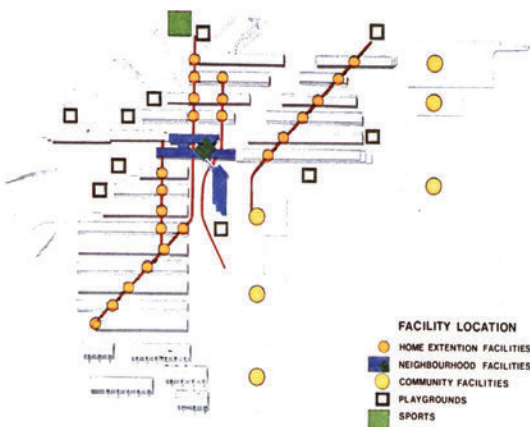


Giancarlo di Carlo Initial Plan of villaggio matteotti



The urban scheme proposed by the architect at the beginning of the interviews and discussions consisted of parking lots and warehouses / trateros and a set of houses arranged in parallel on three floors, each alignment facing a green area on one side, and on the another to a track towards the parking lots under the block,

Although it is not clearly recognizing in the constructed building both the urban and architectural scale are regulated in detail based on a grid in plan and elevation (figure above) The plot allows the architect to easily change the housing depending on users future needs using parameters established from the beginning.



Load-bearing walls mark the boundaries of the alignments with custom fronts, manipulating the larger scale and relativizes the choice of details by the users, by establishing a housing module, which regulates from the floor to the facade.

EXPLORATION OF THE PARTICIPATORY ASPECT IN THE PLANNING OF NEW VILLAGGIO MATTEOTTI THROUGH DE MASI'S 6 PHASES PLAN

De Masi's work began with the survey of the services available which were then synthesized in a graph.

THE SURVEY REVEALED THAT THE ONLY NURSERY IN TERNI WAS LOCATED 3 KILOMETERS FROM MATTEOTTI NEIGHBORHOOD.

PHASE 1



MOREOVER, TAKING INTO CONSIDERATION THE INCREASE IN POPULATION FOLLOWING CONSTRUCTION, IT WAS ESSENTIAL TO PROVIDE A COMMUNITY CENTER AND A NEW SUPERMARKET.

THE SECOND PHASE CONSISTED OF GATHERING GENERAL INFORMATION ON USERS OF THE NEW NEIGHBORHOOD.

The Terni company decided that potential users must be current residents of the neighborhood, specifically families working for the company or who are already living in houses owned by the company.

TAB. 3 - ETA' DEI CAPI FAMIGLIA COMUNQUE INTERESSATI AL NUOVO VILLAGGIO MATTEOTTI

Eta'	Capi di famiglia che hanno presentato domanda di alloggio	Capi di famiglia che già abitano nel villaggio Matteotti	Capi di famiglia che abitano in altre case della Terni	Totale
20-30 anni	101 (26,6%)	2 (0,7%)	5 (0,8%)	109 (7,8%)
30-40 anni	136 (36,0%)	20 (7,0%)	45 (6,2%)	201 (14,5%)
40-50 anni	88 (23,2%)	23 (8,1%)	74 (10,3%)	185 (13,3%)
oltre 50 anni ...	54 (14,2%)	238 (83,0%)	596 (82,7%)	888 (64,2%)
TOTALE	319 (100%)	283 (100%)	721 (100%)	1383 (100%)

THE RESULTS REVEALED THAT 62% OF FAMILIES WHO HAVE APPLIED FOR A HOUSE, ARE UNDER FORTY YEARS OF AGE.

ACCORDING TO MASSI this information was important as family will be likely to expand grow compared to older families which may be considered more stable.

The third phase consisted of meetings with some of the potential residents to conduct a survey related to planning problems and urban issue in order to provide a clear understanding between residents needs and the architect' s principles.

THE SURVEY WAS CONDUCTED BASED ON 100 INDIVIDUALS WHO WERE CHOSEN FROM A TOTAL OF 1366 FAMILIES INTERESTED IN THE INITIATIVE.



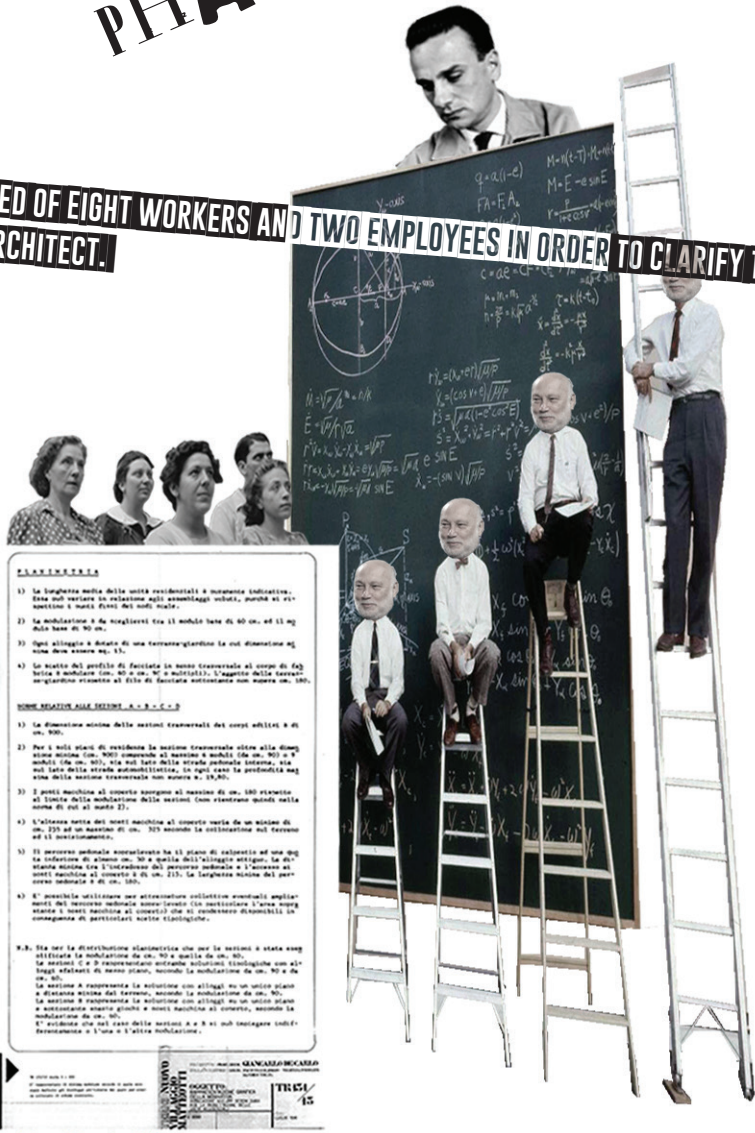
THE SAMPLE CHOSEN WAS BASED ON AGE AND NUMBER OF FAMILY MEMBERS. THE PROGRAM CONSISTED OF TEN SESSIONS OF INTERVIEWS WITH GROUPS OF 10 TO 15 PEOPLE.

THE SESSIONS BEGAN WITH THE DISTRIBUTION OF A QUESTIONNAIRE FOLLOWED BY A SERIES OF DISCUSSIONS ACCORDING TO A PREDETERMINED SCHEME.
At the end, a comprehensive report was delivered to the architect.

DURING THE FOURTH PHASE a general presentation of the program was made by De Masi to an internal committee.

PHASE 4

THE COMMITTEE WAS COMPOSED OF EIGHT WORKERS AND TWO EMPLOYEES IN ORDER TO CLARIFY THE INTENTIONS



SUMMARY

- La larghezza media delle unità residenziali è massima indicativa. Essa può variare in relazione agli assestamenti urbani, purché si rispettino i limiti fissati nei punti successivi.
- La mobilitazione è da ringhieri tra il modulo base di 60 cm. ed il mg. della base di 90 cm.
- Ogni alloggio è dotato di una terrazza-giardino la cui dimensione minima deve essere di 15 m².
- La scelta del profilo di facciata in senso trasversale al corpo di fabbrica è modulata (in m. 40 o m. 30 e multipli). L'oggetto della terrazza-giardino è ricavato al filo di facciata sottostante con sovrapposizione di 100 cm.

NOTE RELATIVE ALLA SEZIONE A - B - C - D

- La dimensione minima delle sezioni trasversali dei corpi edilizi è di cm. 900.
- Per i vari piani di residenza la sezione trasversale deve essere sempre uguale. Il 900 comprende il servizio a moduli (da cm. 90) e 3 moduli (da cm. 90), sia sul lato della strada pubblica esistente, sia sul lato della strada automobilistica. In ogni caso la profondità massima della sezione trasversale non supera i 24,00 m.
- I posti macchina al servizio vengono al massimo di cm. 140 ricavate al limite della mobilitazione delle sezioni (con rinvio quando nella somma di cm. 20) ed un massimo di cm. 325 secondo la collocazione nel terreno ed il contenimento.
- Il servizio pedonale sovrapposto ha il piano di calpestio ad una quota superiore di almeno cm. 30 a quella dell'alloggio sottog. La distanza minima tra l'interazione del servizio pedonale e l'accesso ai posti macchina al servizio è di cm. 215. La larghezza minima del percorso pedonale è di cm. 180.
- E' possibile utilizzare per attrezzature collettive eventuali ampliamenti nel servizio pedonale sovrapposto (in sostituzione l'area sopra citata) i posti macchina al servizio che si dimostrano disponibili in conseguenza di particolari scelte urbanistiche.

N.B. Sia per la distribuzione elettrica che per le sezioni è stata sempre utilizzata la mobilitazione da cm. 70 e quella da cm. 60. Le sezioni C e D prevedono anche alcuni stanziamenti con alligati relativi al terzo piano, secondo la mobilitazione da cm. 90 e da cm. 60.

La sezione A rappresenta la soluzione con alligati su un unico piano e distanza minima dal terreno, secondo la mobilitazione da cm. 90. La sezione B rappresenta la soluzione con alligati su un unico piano e sovrapposizione servizi giardini e posti macchina al servizio, secondo la mobilitazione da cm. 90. E' evidente che nel caso delle sezioni A e B si può ottenere indifferentemente o l'una o l'altra indicazione.

DE MASI HIGHLIGHTED THE IMPORTANCE OF SOCIAL AMENITIES AND COMMERCIAL AREAS IN THE MAKING OF LIVELY NEIGHBORHOOD.

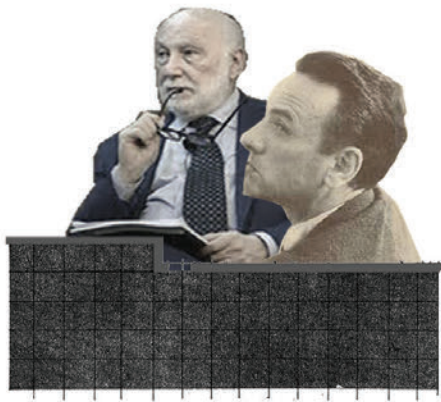
The fifth phase includes **INTERVIEWS WITH WORKERS** to share their interest in the concerns raised by the architect.

PHASE 5



C'ON **HURRY UP**.... IM LATE FOR WORK!!
DAMM WE DEFINILY COULD USE A SECOND BATHROOM...

GARDENS ARE A MUST.. CANT HAVE THE KIDS RUNNING AROUND THE KITCHEN ALL DAY LONG...



WE WANT GARAGES FOR OUR CARS!!!

WE WANT KITCHENS TO BE THE MAIN LIVING SPACE...
LIVING ROOMS ARE ONLY USED OCCACIONALLY HERE IN TERNI !

PHAS^{ee} 6

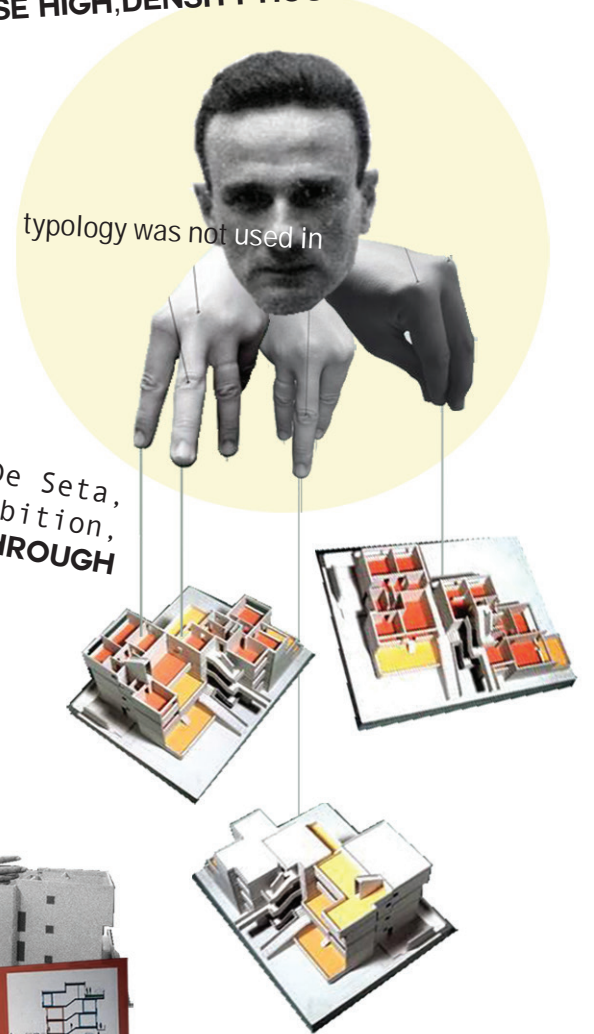
The 6TH and **LAST PHASE** WAS AN OPEN EXHIBITION OPEN TO THE PUBLIC TO DISCUSS THE DESIGN. THE EXHIBITION TOOK PLACE AT THE GALLERIA POLIANTEA IN TERNI'S CITY CENTER.

DE CARLO MADE A LIST OF ABOUT FORTY BUILDINGS FROM DIFFERENT COUNTRIES, ALL OF THEM FOLLOWING THE CONCEPT OF LOW, RISE HIGH, DENSITY HOUSING.

None of the examples were Italian because this typology was not used in that time.

From the list, full of English examples, Cesare De Seta, a Neapolitan architect in charge of the exhibition, **SELECTED FOUR EXAMPLES THAT WERE PRESENTED THROUGH 65 SHEETS,**

These sheets were designed to convince people about the communal architectural qualities of the projects, presented with titles and texts detailed in a straightforward understandable way.

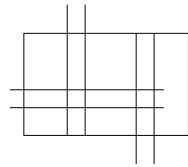


The strategy functioned as a mean to win to win over workers in relation to the scheme by educating them on communal aspects of architecture

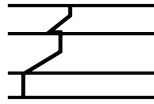
PART 2 DEVELOPMENT OF THE PROJECT BY ARCHITECT GIANCARLO. From this point on ,the allocation of the houses and **PARTICIPATION OF POTENTIAL USERS WAS EXCLUDED**,the user no longer had a say in the urban scheme, or development of the work

“Participation does not consist at all in satisfy what users want, but in modifying the architecture so that responds to thier real wishes.” **GIANCALO DE CARLO**

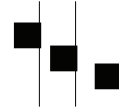
PRELEMENARY DESIGN SCHEME HIGHLIGHTED BY GIANCARLO



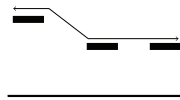
Abstract context
Existing city connection



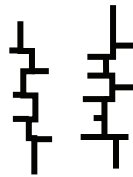
Pedestrian streets



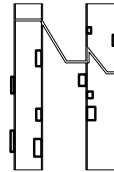
Services



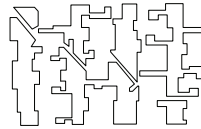
"Street in the sky"



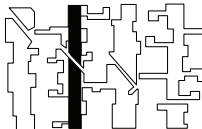
Green Corridor



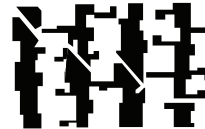
Courtyards & Streets



Cluster Urban morphology
Low-rise high density



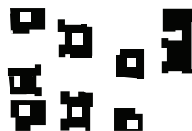
Only 1 motorway



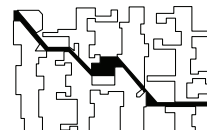
Intermediate spaces



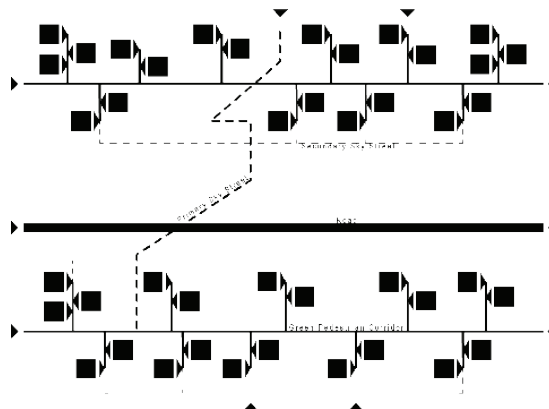
Street Superposition



L shaped Courtyard



Private space Housing
6 Different configurations



DESIGN PRINCIPLES HIGHLIGHTED BY GIANCARLO



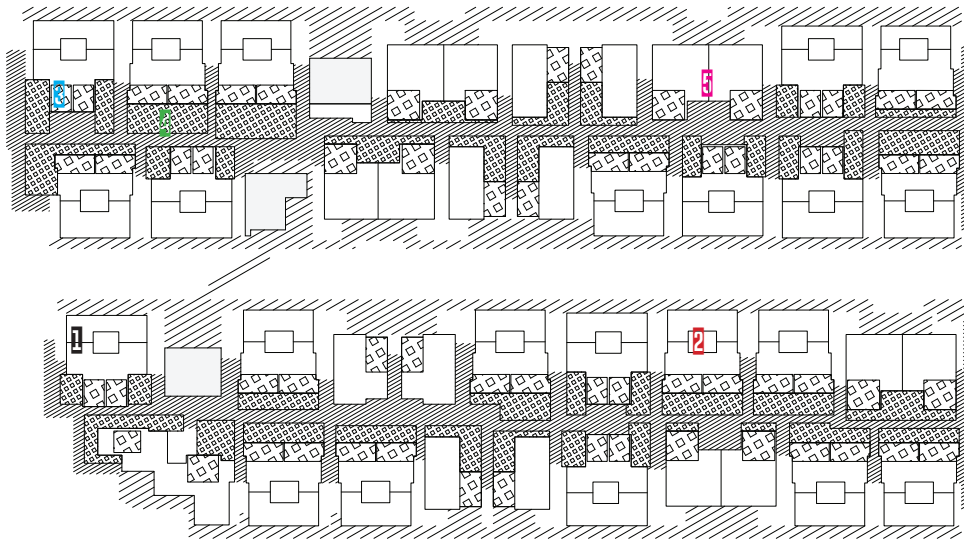
3 HANGING GARDENS



4 COMMUNAL SPACES



5 INTERMEDIATE AREA BETWEEN BLOCK & FRAGMENT

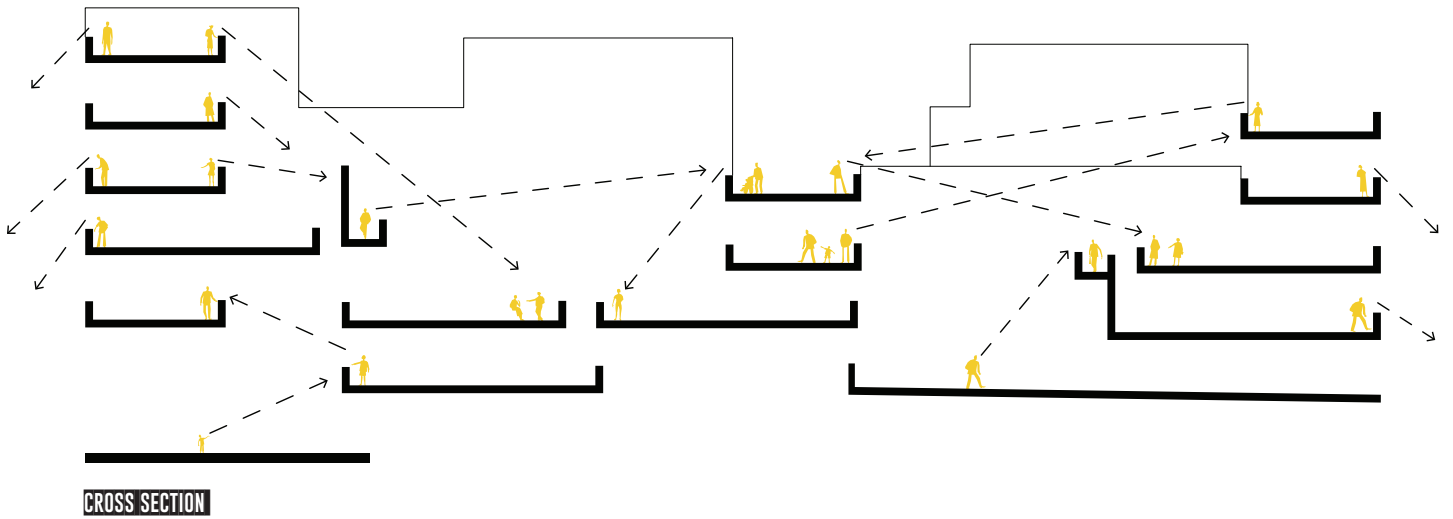
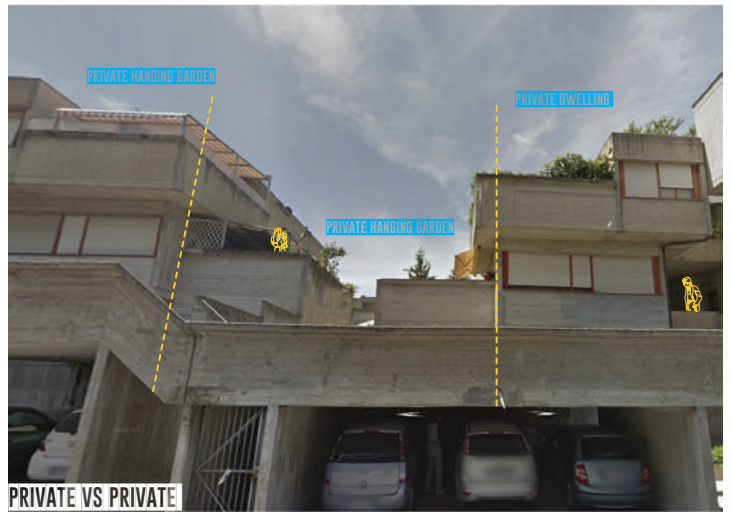
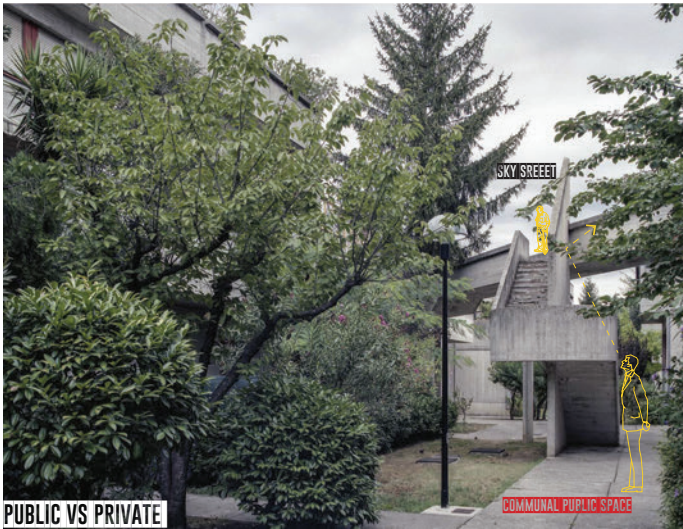


1 STREETS IN THE SKY

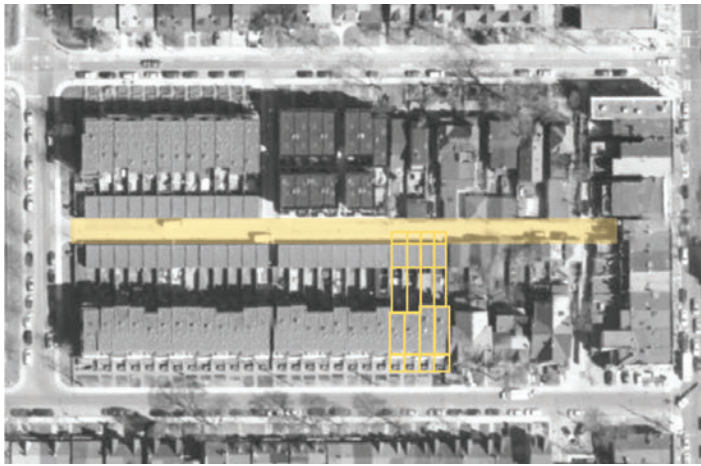


2 SEPERATION BETWEEN CARS AND PEDESTRIAN

VISUAL CONTROL & SPATIAL EXPERIENCE



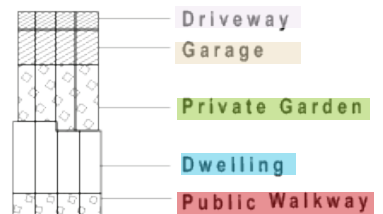
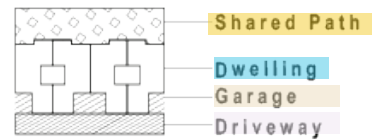
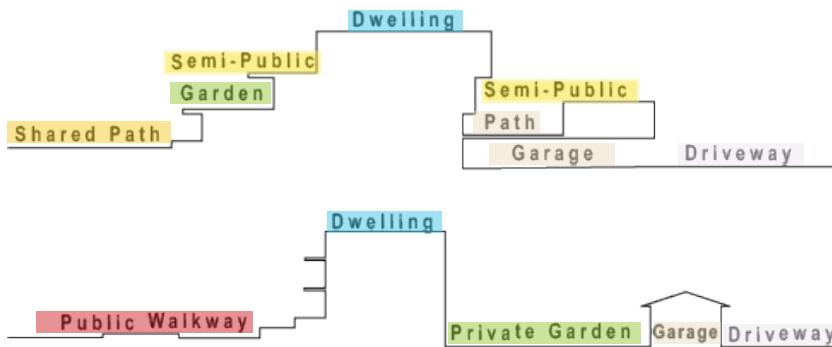
COMAPRISION TO CONTEMPORARY TORONTO MASTERPLAN



ACHTMAN LANE & SHAW TORONTO



VILLAGE MATTEOTTI ITALY



INFLUENCE AND DISSEMINATION

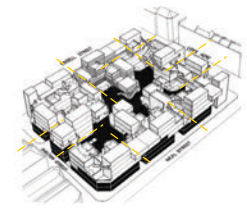


ODHAM'S WALK (1979)

Odham's Walk is a mat housing project that was constructed in London, UK, approximately 10 years after the development of Villaggio Matteotti. Although the project is configured differently due to its varying contextual conditions, Odham's Walk holds a strong resemblance with Giancarlo De Carlo's 5 design principles.



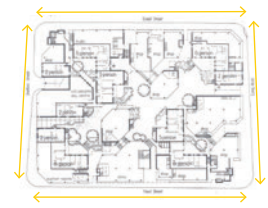
STREETS IN THE SKY & HANGING GARDENS



INTERMEDIATE BETWEEN BLOCK & FRAGMENT



COMMUNAL AREAS



SEPARATE VEHICULAR CONNECTION WITH THE CITY

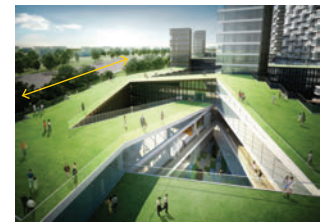


NINE DRAGON HOUSING COMPLEX (2011)

Nine Dragon Housing Complex is a contemporary derivation of Villaggio Matteotti. Proposed in Suizhong, China, the project envisions high density dwellings that is weaved through a series of communal spaces. It strongly promotes high quality pedestrian experiences and the establishment of a sense of community.



STREET IN THE SKY



SEPARATE VEHICULAR CONNECTION WITH THE CITY



COMMUNAL AREAS



MIX OF HIGH-RISE AND MID-RISE WITH HIGH DENSITY

The greatest influential factors of Villaggio Matteotti are the mat housing principles, pedestrian prioritization and the integration of communal spaces to housings. Mat housing architecturally reflects on the various relationship: individual and collective, public and private, between the city and home. The reconstitutions of the relationships result dynamic spatial compositions that can elevate one's well-being. The project also engenders the pedestrian-oriented network in a residential area, where vehicular accesses are limited and prevents unnecessary mixing of the two entities that degrade the quality of the inhabitants. Moreover, within these secluded residential area, Villaggio Matteotti encourages communal spaces that could be shared to enhance the experiences of the dense units.

Work Cited

Mat-hybrid housing: Two case studies in Terni and London

Source: https://www.researchgate.net/publication/326408667_Mat-hybrid_housing_Two_case_studies_in_Terni_and_London

View: obituary - GIANCARLO DE CARLO 1919-2005

Source: <https://www.architectsjournal.co.uk/archive/giancarlo-de-carlo-1919-2005>

Giancarlo De Carlo y la participacion.

Source: https://www.researchgate.net/publication/339911709_Giancarlo_De_Carlo_y_la_participacion_El_caso_del_Villaggio_Matteotti

Minimum Documentation Fiche 2003

Source: https://www.docomomoitalia.it/register/MF_37.pdf

Travel, Space, Architecture

Source: https://books.google.ca/books?id=9cmXCwAAQBAJ&pg=PT293&lpg=PT293&dq=villaggio+matteotti+inhabitant+interview&source=bl&ots=l3sPc_YUxq&sig=ACfU3U1xaxl186dalh9yYJmbfOK-by_7UQ&hl=en&sa=X&ved=2ahUKE-wiF4NqLkK3sAhVBiOAKHYdCB5IQ6AEwD3oEACAcQAg#v=onepage&q=villaggio%20matteotti%20inhabitant%20interview&f=false

Villaggio Matteotti

Source: https://beyond-expression.com/3_2020_qd2_caso-de-estudio-3_-villaggio-matteoti_-participacion_mat-housing_arq-g-de-carlo/

Matteotti Neighbourhood

Source: <https://www.atlantearchitettura.beniculturali.it/en/quartiere-matteotti-terni/>



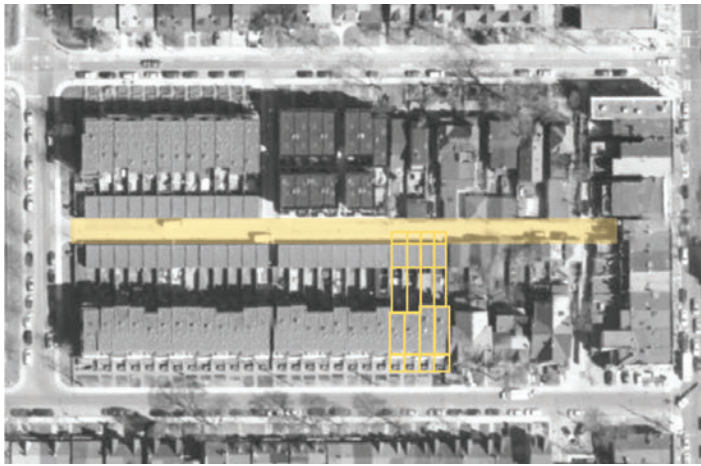
Villaggio Matteotti: Urban Scale Axonometric Drawing

Giancarlo De Carlo | Terni | (1964)

Eric Jung - Michel Saleh - Jim Kurt Ereño - Yixin Yang

The urban scale axonometric drawing explores the spatial, circulatory and pragmatic aspects highlighted in the overall scheme proposed by Giancarlo De Carlo. The Vehicular and pedestrian movement are clearly divided, pedestrian circulation is characterized by (public) pedestrian paths on grade and semipublic (streets in the sky) that connect extended communal facilities located at 35m interval.

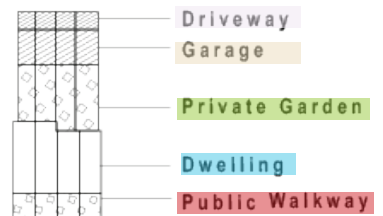
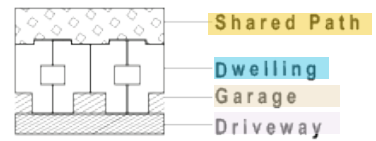
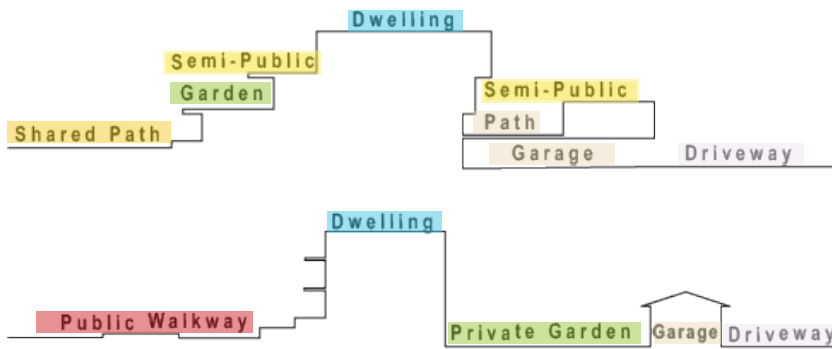
COMAPRISION TO CONTEMPORARY TORONTO MASTERPLAN

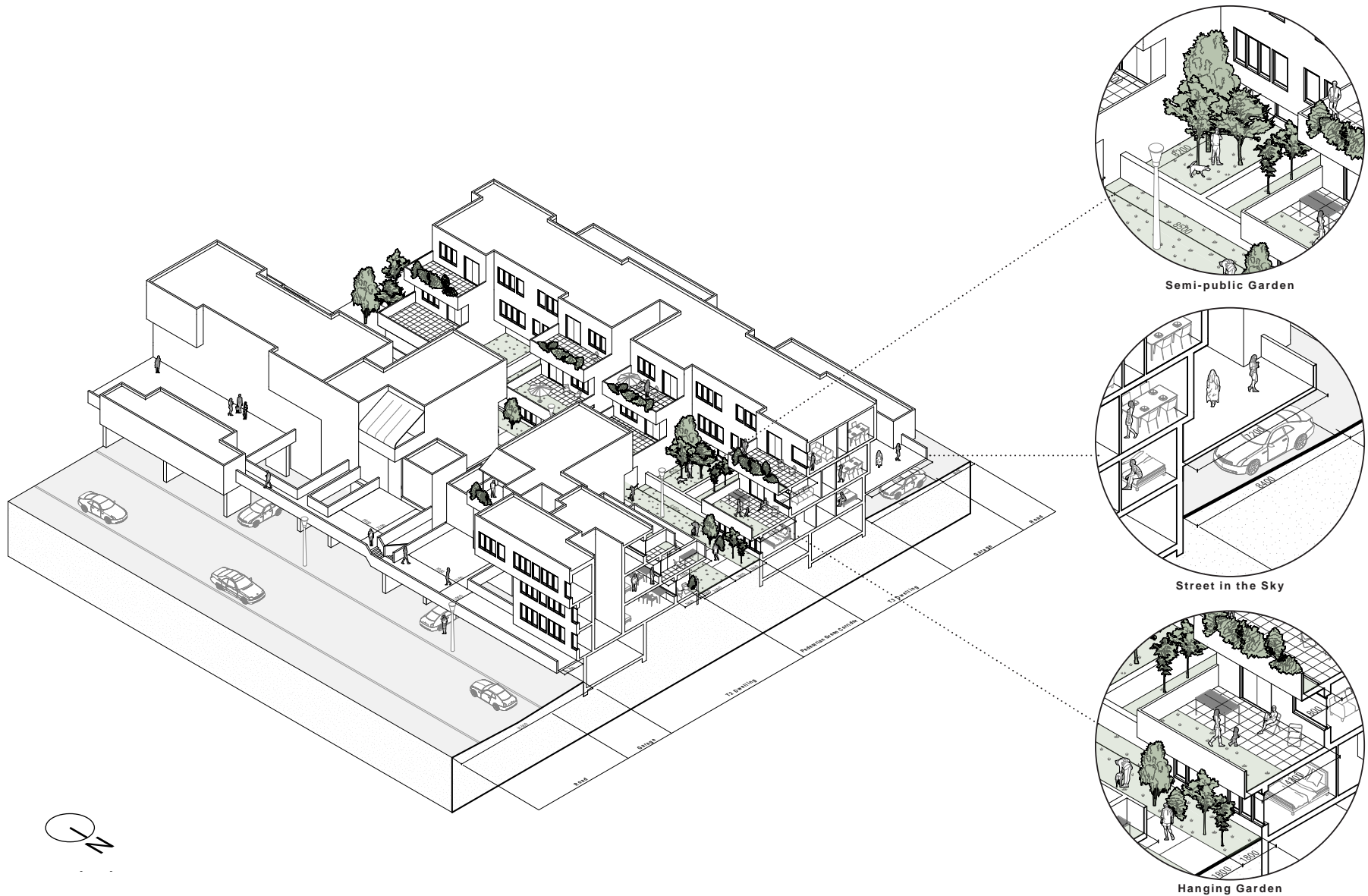


ACHTMAN LANE & SHAW TORONTO



VILLAGE MATTEOTTI ITALY





Villaggio Matteotti: Block Section Axonometric

Giancarlo De Carlo | Terni | (1964)

Eric Jung - Michel Saleh - Jim Kurt Ereno - Yixin Yang

The cross-sectional block axonometric drawing explores public-private and communal spatial relationships by examining how an interplay between surface textures, vegetation and topography are used to create “threshold spaces” between households and circulatory corridors (Vehicular, Pedestrian walkway/corridor and streets in the sky).

DESIGN PRINCIPLES HIGHLIGHTED BY GIANCARLO



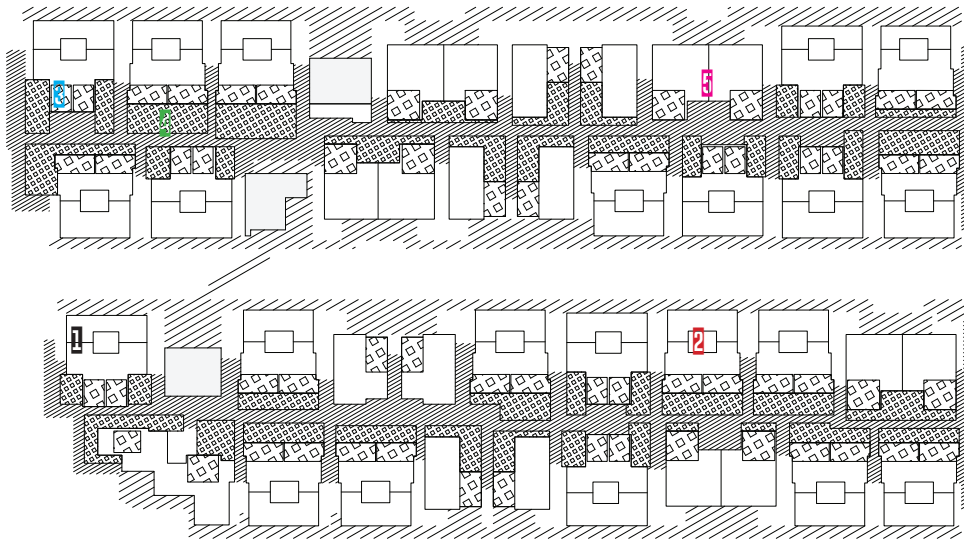
3 HANGING GARDENS



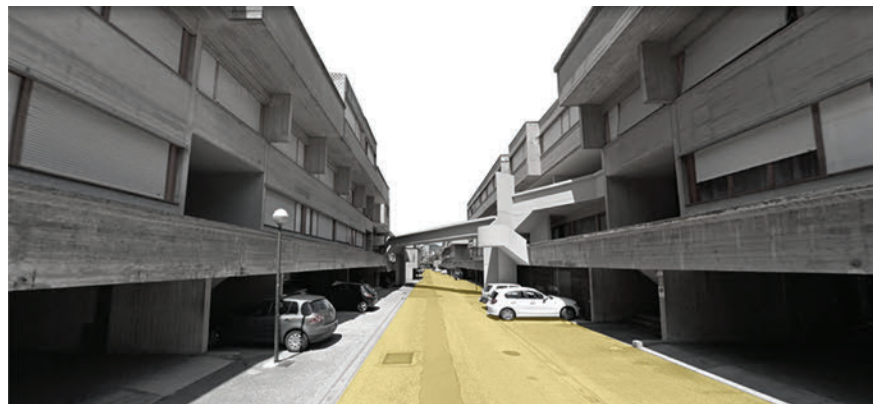
4 COMMUNAL SPACES



5 INTERMEDIATE AREA BETWEEN BLOCK & FRAGMENT

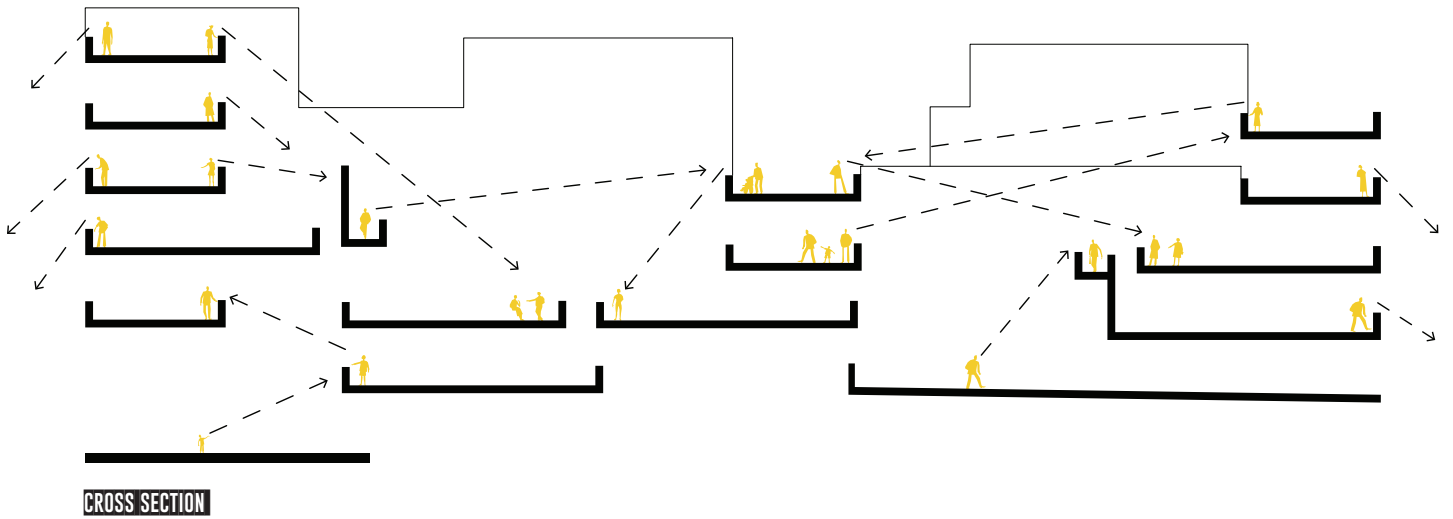
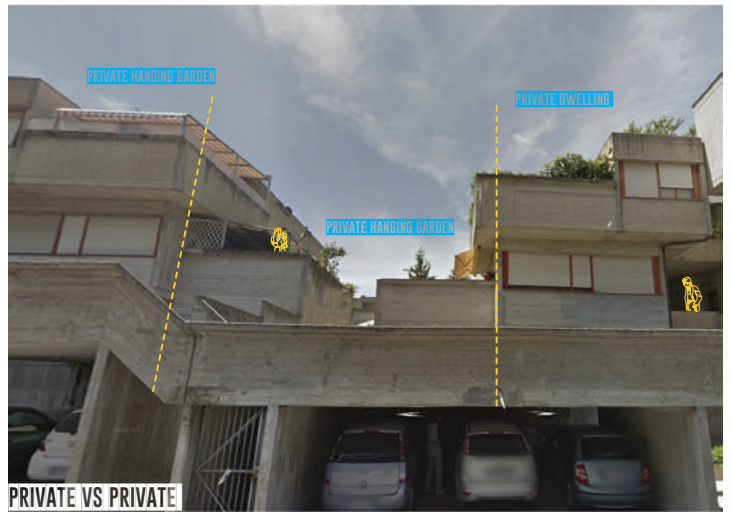
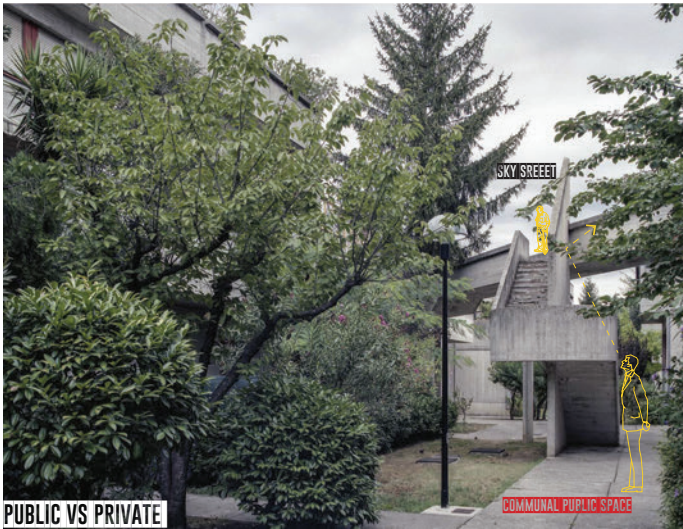


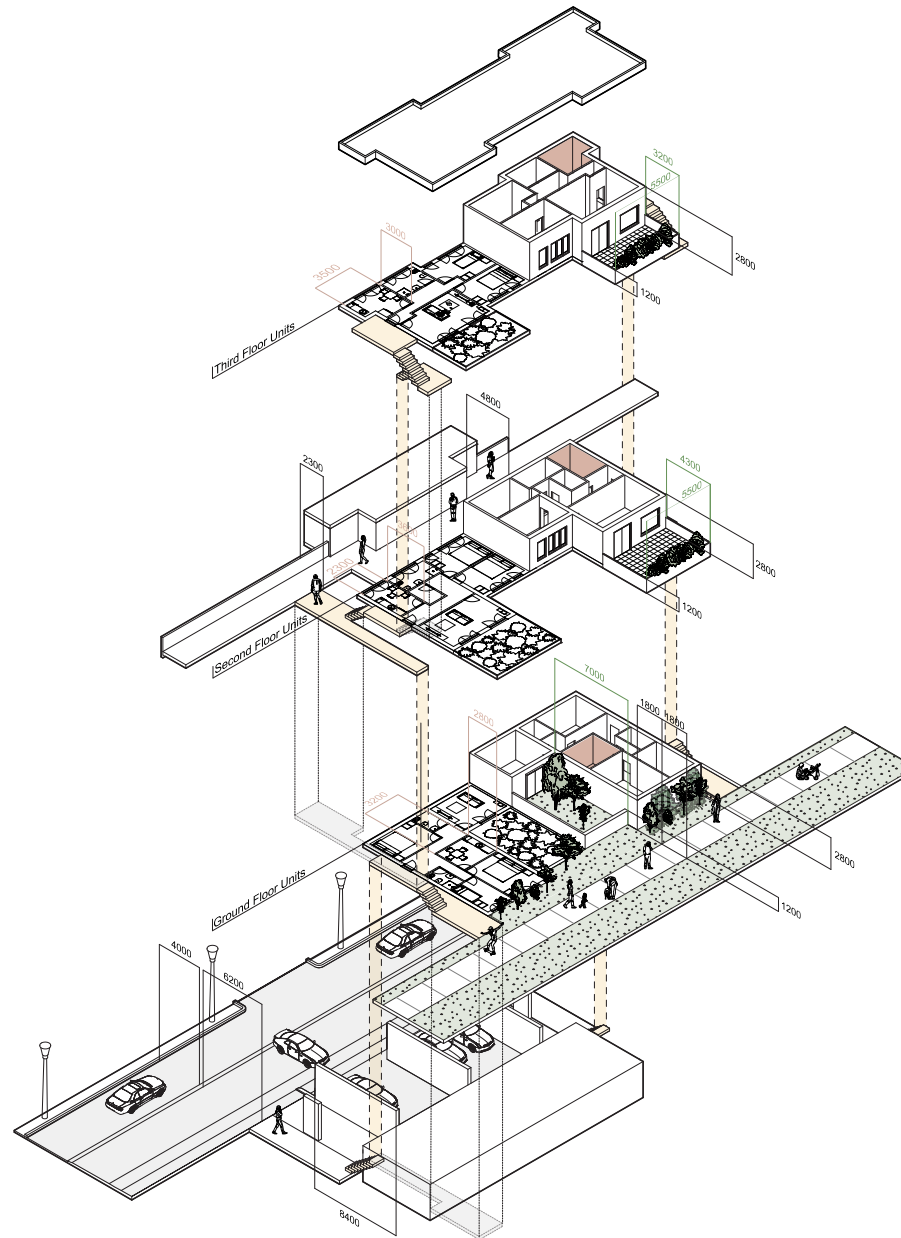
1 STREETS IN THE SKY



2 SEPERATION BETWEEN CARS AND PEDESTRIAN

VISUAL CONTROL & SPATIAL EXPERIENCE



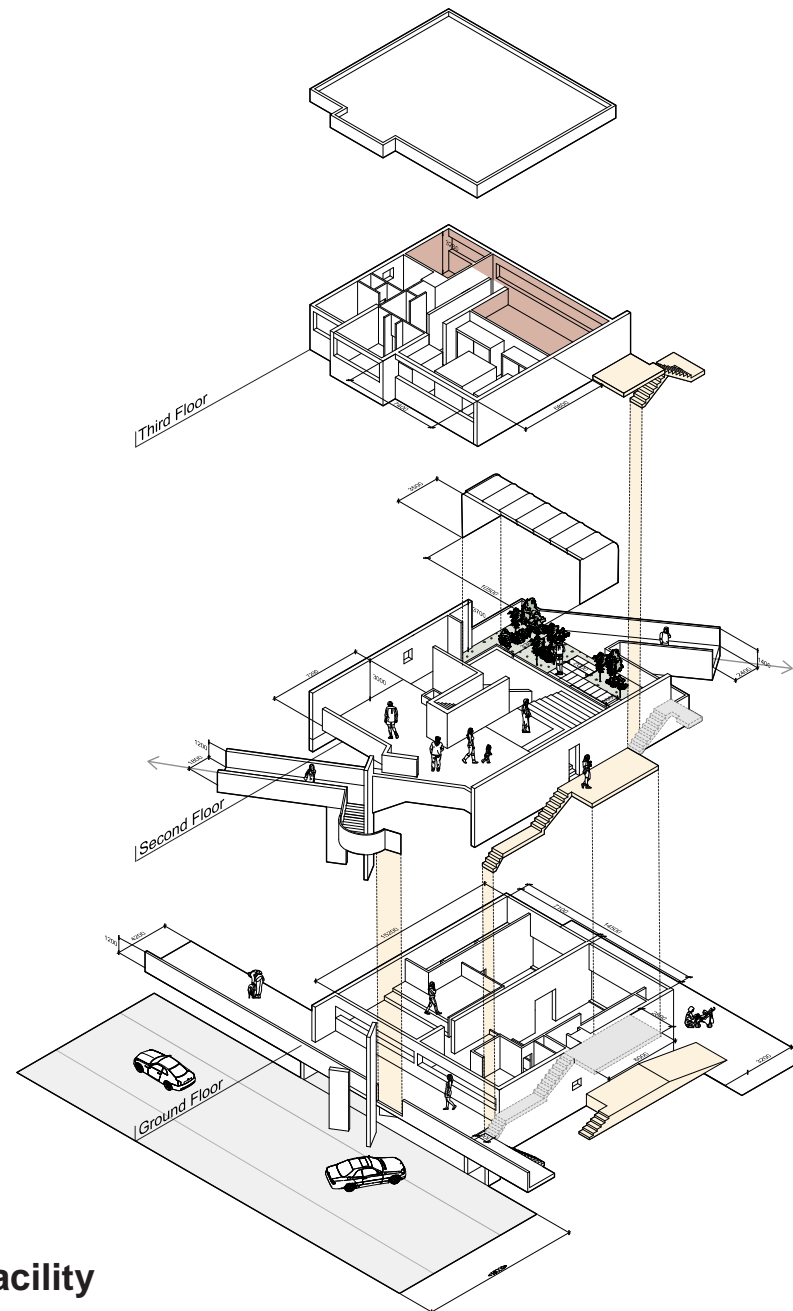


Villaggio Matteotti: Unit Type Axonometric

Giancarlo De Carlo | Terni | (1964)

Eric Jung - Michel Saleh - Jim Kurt Ereño - Yixin Yang

The exploded unit diagram examines the spatial organization of households and relationship to exterior circulatory corridors in a type 3 block. The block unit is composed of three floors, each floor has two identical units mirrored. The units are accessed by point access staircases located between two adjacent blocks. The diagram further examines the kitchen area relationship to the overall household.



Villaggio Matteotti: Home Extension Facility

Giancarlo De Carlo | Terni | (1964)

Eric Jung - Michel Saleh - Jim Kurt Ereño - Yixin Yang

The exploded unit diagram examines the spatial organization, pragmatic functions and relationship to the “semi-public” streets in the sky walkway. The second floor of these facility spaces acts as a transitional circulatory space along the pedestrian raised walkways. The architect uses various changes in topography, and surface texture to create a sense of meandering/playfulness as one cross through these spaces. The first and third floor house a kitchen area, dining spaces and storage facilities.