

The primary role of routes, in interpretation and design. An experiment in San Martin de las Flores' self-built fabric, San Pedro de Tlaquepaque - Guadalajara, Jalisco-Mexico

Vincenzo Buongiorno

Dipartimento di Architettura e Progetto. "Sapienza" Università degli Studi di Roma. Roma, Italy
E-mail: vincenzobuongiorno@hotmail.it

Abstract. *The experience of interpretation and design on the mexican self-built fabric of San Martin de las Flores in San Pedro de Tlaquepaque, Guadalajara, Jalisco-Mexico, is presented here as an instrumental case of study for a discourse about the primary role of routes in the interpretation and design of urban built environment. After a brief introduction about the value of routes, with their actual physical and virtual ambivalence, the paper focuses on the presentation of the interpretative work on the formative process that characterizes the settlement, then, on the presentation of a design proposal at the different scales. The core of the proposed study was elaborated at the Taller Internacional de Arquitectura y Urbanism Ciudad Cercana - San Pedro Tlaquepaque 2016 - INTHAB Instituto Tecnológico del Habitat, by a group composed by Prof. Arch. Giuseppe Strappa - "Sapienza" Università di Roma (co-ordinator), Arch. Vincenzo Buongiorno - "Sapienza" Università di Roma, Arch. Claudia Mora Reig - Universidad politécnica de Valencia and Andrea Gonzalez - Universidad de Guadalajara. In the adopted design philosophy, according to which interpretation and design tend to coincide, an interpretative tool such as the analysis of the routes' pertinence strips, occupies a primary position and also becomes a 'new' tool for a design that is vitally permeated and structured by the anthropic act of walking. The goal of the paper is the experimental demonstration of a project mode that responds to the language crisis with the reduction of the expressive/authorial tone. This reduction is obtained by restarting 'in vitro', as in the scientific laboratory, the formative process of the urban settlement read and interpreted on the living body of the city. For the construction of an organic and coherent anthropic environment.*

Keywords: Roots, Pertinence strips, Urban fabric, processual project, self-built, Mexico

Introduction

Routes, ancient and modern global networks.

The act of walking on a route, with its ritual(istic) value, has always been the heart of an ancient global dimension, far ahead of the economic and political globalization of the 21st century. From the stratae of ancient Rome, to the tracks of the nomadic populations in the deserts, routes are always organized in a network, with nodes and connection hierarchies, but always strictly interconnected.

A globalization, that one of the streets, similar but different from the contemporary one, which is dominated by virtual and abstract routes, streams and data flows. The latter is dominated by a separate and virtual reality, populated by figures like symbolic analysts and creatives¹, filled with a 1 || the abstract dimensions of contemporary living and working. The contemporary globalized world, its political and economic system is astonishing and symbolic, prefers the emergence and

iconic image. In a semblance of democratic horizontality and fair distribution of networking possibilities, promotes the pyramidal model instead of that of the network grid.

Modernity and routes.

The routes faced a recent, but still lasting, history of lack of care and unattractiveness; the history that saw the modern movement considering the road as a purely functional element designed just for the displacement of people or goods from a production pole to a consumption center and vice versa. Thus denying its value of urban fabric generator.

A chronicle of abandonment of the road in its great potential, which has seen the advent of the great flows of inescapable traffic, the streets becoming the dividing lines² of the modern built environment, with a subsequent medieval accumulation of urban life in large autonomous units, “romantically” isolated in tame urban green forests.

The spread of the car as a mean of transport, firstly in America at the beginning of the twentieth century and then in Europe in the middle of the same century, marks a critical moment in the history of routes. The urban street, centralizing axis³ of the dense fabric of the historic city, place of pedestrian crossing commercial exchange, in the overcrowded urban context of the American horizontal city, and later also in the new urban centers in Europe, becomes a dividing line, a pure channel of transport between polarities, abstract and detached from the fabric.

The formation of new building typologies is strictly connected with the crisis of the routes: the commercial mall, the heir of 19th century European passages and arcades, was born in the American sprawl suburban city to propose a new urbanity, a centralizing axis in a territory already dominated by dividing lines⁴;

The routes chronicle sees, in the period between ‘60s and ‘70s of 20th century, the rising of some critical reflections such as those by B.Rudowsky and J. Rykwert⁵, that, expressing the critical spirit of their special historical period, put, after a long time, at the center of the disciplinary debate the question on the role of paths and the pedestrian usability of urban space in design.

The tradition of urban morphology studies, researching on urban form, on the structure of relationships between elements and parts of the city and its fabric, in a modern era of oblivion, sheds light on routes as important generative elements in the construction of the urban environment.

In a century of iconic and seductive images like the 20th, characterized by an almost exclusive dominance of the singular, “new” architectural and urban visions, designed departing from the assumption of *Tabula rasa*, urban morphology discipline goes searching for the ‘spontaneous’ process, ‘The formation of the city, the profound structure of the phenomena, since the first study experiences on European historical centers, like those on Rome and Venice. Thus, research in the past, not for the singular and blazing image, potentially replicable or imitable, but rather for an internal view of the formative process, which, by setting aside the dynamic of affirmation of creative personal intentionality, looks at inertial and silent transformation of reality.

Methodology

The following interpretative study aims to highlight the primary and generative role of routes, the first act in the area, in the construction of the urban settlement. For this, the disciplinary interpretation instrument ‘pertinence strip’⁶ is used in its validity for the interpretation of the formative process and its potential for design use. The adopted perspective is that of a project that arises from the formative process, read on the living body of the city and reintroduced ‘in vitro’ as in a scientific laboratory⁷. The interpretative study and the project described below, refers to the urban fabric of the settlement of San Martín de las Flores, located in the Guadalajara’s conurbation in the state of Jalisco-Mexico.

The core of this work, in its first elaboration, was developed at the Taller Internacional de Arquitectura y Urbanism Ciudad Cercana - San Pedro Tlaquepaque 2016, organized by INTAHAB Instituto Tecnológico del Habitat, by a design team coordinated by Prof. Arch. Giuseppe Strappa -“Sapienza” Università

di Roma (coordinator), Arch. Vincenzo Buongiorno -“Sapienza” Università di Roma, Arch. Claudia Mora Reig - Universidad politecnica de Valencia and Arch. Andrea Gonzalez - Universidad de Guadalajara.

Measurement and analysis

Interpretation. San Martin de las Flores in San Pedro de Tlaquepaque, Guadalajara, Jalisco - Mexico

Territorial scale

San Martin de las Flores is located in the territory of San Pedro Tlaquepaque, a city in the Guadalajara conurbation, and tells us about a formative process where routes and movements have a relevant role. Tlatzigonzingo (in the nahuatl language: a place rich of vegetation and flowers), San Martin de las Flores occupies a dominant position on the valley of the river Ladrillera, which in its name already denounces the driving role of the river and its furnaces for the production of bricks, almost exclusive construction material of the settlement.

Surrounded by the hill chain at the north of the Cerro de la Cruz, the urban settlement rises at the confluence of two important cross-ridge routes (fig.1), as confirmed by the ancient Spanish and pre-Spanish colonial historical chronicles⁸ and cartographic documents⁹:

-The camino de San Martin, current Calle Independencia, confluent in the largest Camino real, a route that connects Guadalajara to the capital Mexico City;

-The camino a Tonalà, that connects San Martin with the ancient city of Tonalà, seat of the pre-Hispanic royal power. This route, now interrupted in the section corresponding to the urban center, can be reconstructed through the analysis of pertinence strip and the comparison of historical cartographies (figs. 1,3a).

Urban Fabric scale

The urban settlement rises at its dawn, and before the colonial quadricular implantation, along the two paths mentioned above, as the emanation of them in their respective pertinence strip (fig.1).

The analysis of the urban fabric through its pertinence strips allows to verify the generating role of a single path in the urban fabric and its hierarchical position with respect to the other paths. It also allows to observe clearly that the urban block, basic or specialized / knotted, is in a close relationship of dependence with the urban fabric and even more with the route, the real formal fabric generator, through its pertinence strips.

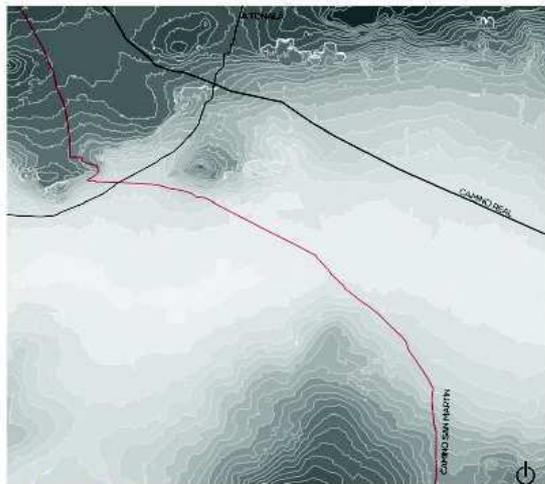
In this process, after the formation of the routes from the recognition of soil suitability and orographic movement to host a route, the act of edification as further “transformation of matter, can be interpreted as a specialized modification of a part of territory, a specific technical and economic phase within the human settlement process: individual finalization to be followed by collective finalization and organic synthesis.”¹⁰

Thus, the building assumes its relative position within a wider organic process in which the anthropic phenomenon of the path continues to permeate, formally and structurally, the fabric that it produced in its specializations: the first urban settlements were born with the development, along a path, of a stable cultivation that needs continuous care, protection of crops with fences and agricultural lots that became building urban lot by time.

In San Martin de las Flores the driving force of the territorial routes is dramatically clear also in the complex relationship of integration and deletion that they have with a critical and superimposed urban design (fig.1), the colonial quadricule.

The analysis of pertinence strip (fig. 3a) reveals a first nucleus, the oldest one, that comprises the religious center with the two churches of the Spanish Franciscan Mission, the former hospital and cemetery, along the Camino San Martin and Camino at Tonalà and at its intersection, followed by the settlement in the upstream area of the Camino at San Martin, on solid soils, more suitable for stable construction and then gradually downstream along the two current routes call Narciso Mendoza to the east, Pino Suarez to the west, up to the rio Ladrillera and the brick handicraft furnaces, where takes place, almost synchronically, the transformation of matter into material for the construction of the urban fabric.

Territorial roots, phases of the settlement development



1.1. Territorial Routes



1.2. San Martin's Mission at the cross of the caminos San Martin and Tonalá



1.3. First settlements on the two routes



1.4. Superimposition of the quadrangular urban scheme



1.5. Formation of the urban fabric



1.6. Actual city

Figure 1.
Territorial interpretation

The current route hierarchy sees as Route 1 - the Camino San Martin, current Calle Independencia.

The Camino a Tonalà, that in other times could have been the Route 2, instead, is now interrupted by the overlapped quadrilateral mesh, which with its orthogonal orientation is set on the Camino San Martin, sanctioning its far superior hierarchical role for its ability to connect with the new power seat of modern colonial state (Guadalajara), at the expenses of links with Tonalà, center of pre-hispanic power¹¹.

Then there are the Routes - 2, calle Narciso Mendoza to the east and calle Pino Suarez to the west, historical seats of the daily ‘informal’ market (‘Tianguiz’ in nahuatl language), which from the historical nucleus go down to the Valley of the river Ladrillera and its brick furnaces.

The coherence of the fabric and its consistency can also be observed from the study of pertinence strips: in San Martin’s case the fabric has very narrow meshes and is very dense next to the Route - 1/historical nucleus, then gradually becomes wider getting to the river. It is also possible to verify the constant observance of the settlement rule and to detect anomalies or variations: in San Martin, the entire fabric has a good consistency, the pertinence strips belonging to the opposite sides of each block are contiguous without discontinuities or interposed batch in the transverse direction. An abnormal behavior, however, can be found in the urban block at the south of the historical nucleus, the block delimited by calle Independence, calle L. Càrdenas, calle Lòpez Mateos and calle Pedro Moreno. Here, in fact, the strips belonging to the north-south routes are not contiguous, but separated by an abnormal and atypical oblong, north-south oriented, big lot. The role of this lot is difficult to understand, as there are no documents on it, except for records of the cadastral register in which it appears as mostly unregistered property (fig. 3b); during the research work, in the interviews with the local inhabitants association, this lot is told to be a collective ‘corral’, an area that, as long as the lots attested to the north - south routes are unified and not subdivided, serves as a space

2a. Territorial design plan



2b. Territorial design sketch



Figure 2.
Territorial design

3a. Pertinence strips analysis

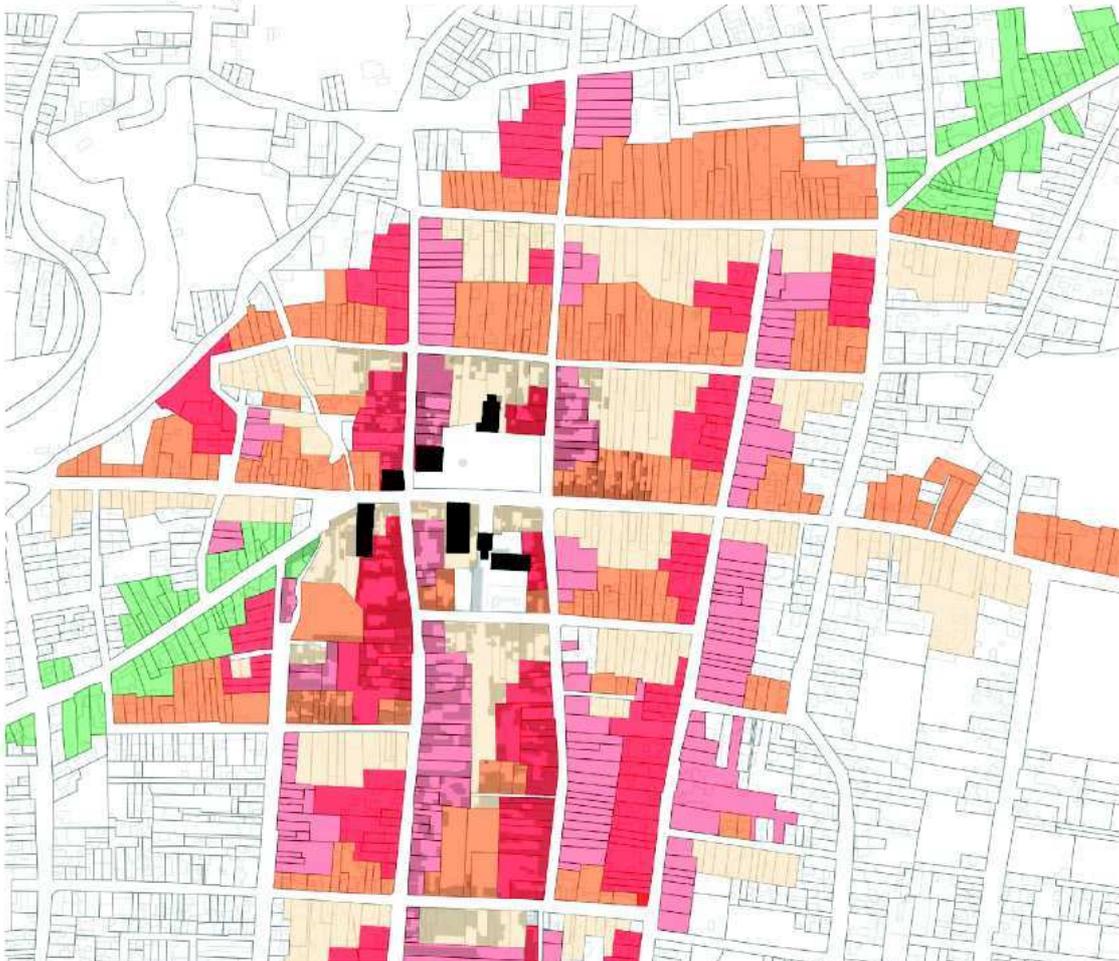


Figure 3.

Urban Fabric Scale - interpretation and design

for breeding animals and for the cultivation; when the side lots are subdivided to allow the construction of new housing units, the atypical lot is transformed into an urban route, for giving access to the new lots. However, this hypothesis does not seem to exhaust the doubts. If such a logic was to be applied to the settlement, it should also be seen in surrounding blocks; moreover, the central position of this lot, close to the historical nucleus, together with the unique dimensions of the block from all the others, leads us to speculate that it can be the residual trace of some urban project, not fully implemented, in which this lot is the place of a specialization.

Building Scale

The fabric is characterized by the Patio house type, organized by the schematic sequence:

workshop/storebedroom-patio-kitchen-patio corral (smaller patio for breeding and cultivation)-border lot wall (fig. 6a). The construction technique presents the specific characters of the Latin American and Mexican self-built context, that can be found in the wide self-construction manual literature¹².

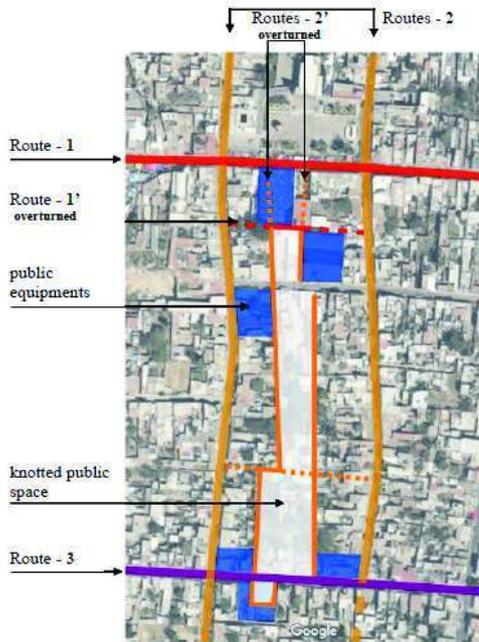
The construction technique generally used is masonry in brick elements, produced in furnaces located in the Ladrillera river valley. Walls are innervated by a cage of reinforced concrete curbs, put at irregular and significantly variable distances from one building to another (figs. 5a, 5b). The building process sees firstly the construction of separate sections of the wall spaced each one from each other of about 10-15 cm; this distance is the dimension of the reinforcing curb that, once built the formwork (by using the two vertical surfaces of the wall portions and wooden boards), will be reinforced

4a. Plan



A municipality offices; B. library; C. Market; D. New public space in connection with the school patio; E. arcade, public urban space with flexible use, result of the overlapping of the urban routes into the block; F. public equipment, multi-use building; G. hypostyle space with retractable roof; H. square, open air public space; I. Proposal of substitution and updating of the housing building; J// K. public equipment, multi-use building; L. public equipment, handicraft exhibition building; M. commercial spaces;

4b. Urban fabric roots' overturning strategy scheme



3c. Project axonometry

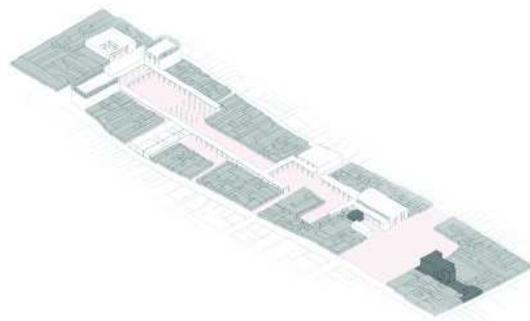


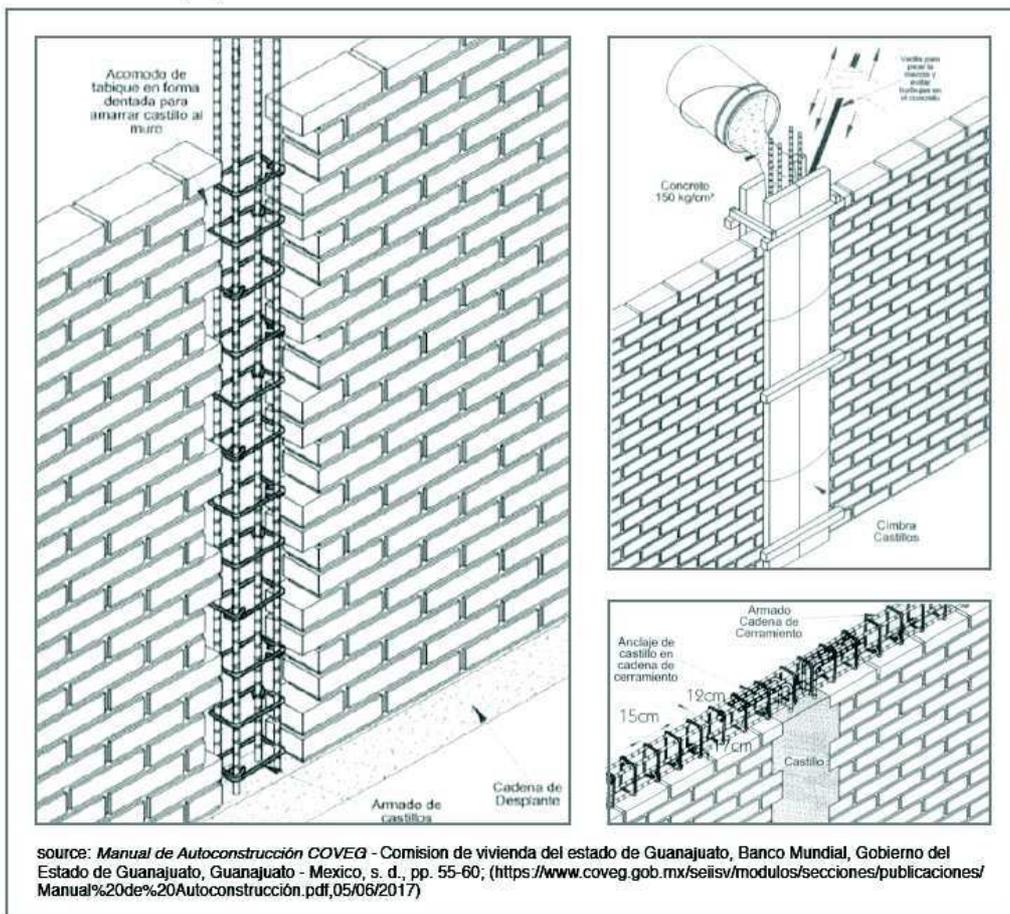
Figure 4.
Urban Fabric Scale - design

and cast. This sequence is also valid as regards the realization of the horizontal curbs, where, instead, each portion of wall can be built only after having built the horizontal curb.

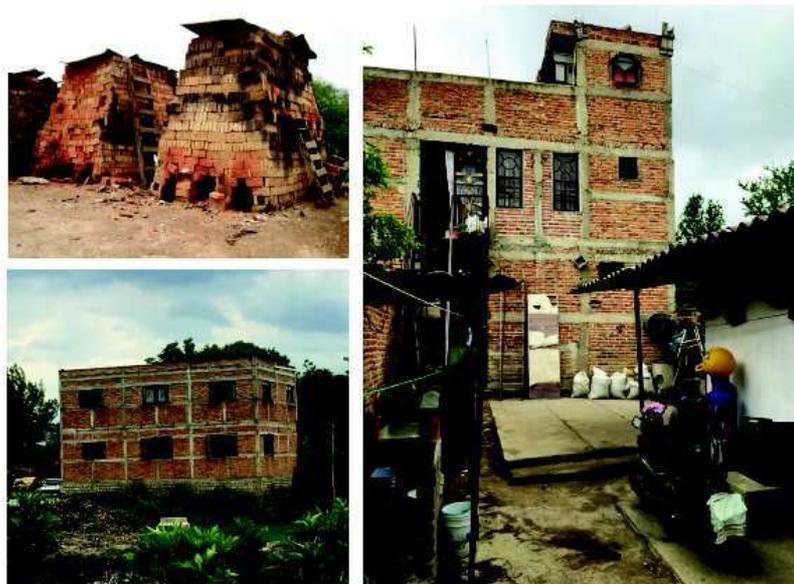
It's possible to observe an about 2.5

meters horizontal distance, between masonry reinforcement vertical curbs; horizontal curbs mark and strengthen the architectural organism tectonic knots: spandrel, belt course, architraves and openings of windows or

5a. Construction technique process



5b. Construction technique examples (Ladrillera river brick furnace and reinforced masonry buildings)



Source: Photographs by V. Buongiorno;

Figure 5.
Building Scale - interpretation

doors. It's interesting to note that, although this constructive sequence could be similar to that of some anti-seismic reinforcement techniques of walls with wooden frames, in San Martin something different happens: the big difference is not in the new material, the concrete, which replaces the wood, but rather in the organization of the elements; the wooden reinforcement system provides an elastic behavior through elements that are regularly spaced and connected together; in the self built mexican world, instead, the plasticity of the concrete rather than the elasticity of wooden frames rules. Instead of an elastic wooden frame, such as that of the portuguese 'gaiola pombalina', in the self-built reality of San Martin the builders prefer a complex and irregular one: a plastic single masonry mass where the discontinuities and irregularities of the frame-network of curbs can be seen on the one hand - if the builder is not able to control 'formatively' and intuitively - as the premise to a static error, on the other hand as a guarantee of strong unity and plasticity, and of the ability to expand the architectural organism over time, crucial in the dynamics of self building usually developed in several 'tranches'.

The routes of San Martin de las Flores are part of an organic and solid reality multi scalar in which these paths, fabrics and specializations constitute, in a multi scalar dynamics from the urban scale and through the fabric to the construction at the building scale, all together a large specialization of the territory.

In this reality, as it is the general case of self-built context¹³, the 'verbal' value of the home, in terms of personal, economic and social development possibilities is much more important than the absolute exchange value, the 'substantive' value that, to be quantified, requires abstraction from the context and needs the destruction of the organic balance of the built environment.

The project - Routes as catalysers in the transformation process of urban fabric.

Territorial scale

Assuming the basic structures of the existing fabric, the matrix routes and the colonial

'grid' as organically absorbed, the project works along the paths that, orthogonally to the camino San Martin, from the historical nucleus lead to the river Ladrillera. On these routes, exchange and communication axes between the urban settlement and the brick furnaces area, the proposal is to build a new bearing axis, hierarchically subjected to the territorial axis of the camino San Martin, which can structure and serve the urban settlement and its surroundings.

On this backbone, bordered by the two calles Narciso Mendoza to the east and Pino Suarez to the west, it is proposed to complete and densify the fabric, by using the same patio house type found in the surrounding fabric. Going down to reach the riverfront, by crossing it the new backbone reaches and structures a new urban settlement on the opposite side. (fig. 2)

Urban Fabric scale

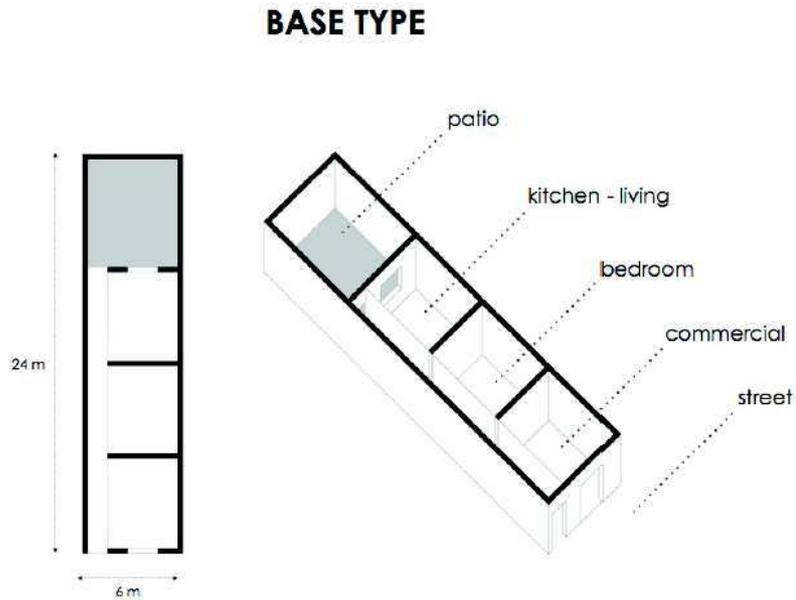
At the fabric scale, routes are still main actors of the transformation project: to the south of the historical square, by using the atypical lot bounded by calles Independencia, L. Càrdenas, Lòpez Mateos and Pedro Moreno, that becomes the center of the project area (fig. 3c), it is proposed an overturning of the mentioned urban routes within the block, sanctioned by the physical presence of perimetrical arcades, that by crossing generate an urban knot (fig. 4b). The arcades host new marketplaces and act as catalyst for the public and commercial transformation of the adjacent residential lots; arcade paths are polarized by a public equipment (as kindergartens, multi use halls, libraries, etc) and by the bigger polarity of the historical square, reachable through the current market building. The latter, currently degraded, is reactivated for commercial use and acts as a passage between the historical square of the Franciscan mission and the new open-air commercial and civic open space (fig. 4a).

Building Scale

The fabric in its individual building units is transformed by an updating strategy.

The project indicates the hypothesis of updating the Patio house type, coherently to the new needs and uses and suggests also a

6a. Base type interpretation - plan and axonometry



6b. Patio house type specialization and update schemes - plan and façade

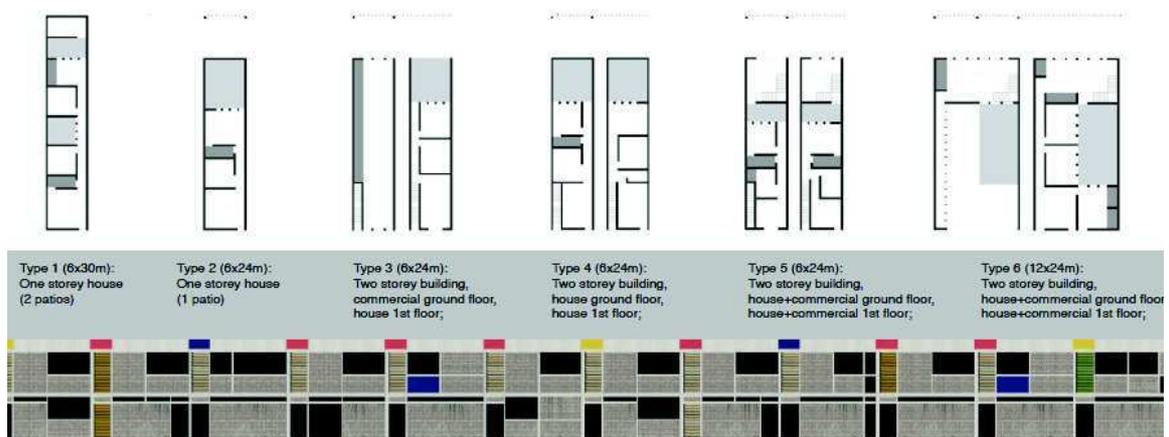


Figure 6.
Building Scale - interpretation and design

commercial specialization (fig. 6b). A diagram of facades reflects on the contemporary linguistic potential of the constructive system found in San Martin (fig. 6b).

Conclusion

Approaching Spontaneous consciousness.

Looking at the routes as driving lines for transformation and designing into the existing fabric is a strategy that allows to operate the necessary approach to spontaneous consciousness dynamics¹⁴, to the urban fabric formation process, right from its primary generative element, the route.

This strategy emancipates the architect from the contemporary tendency to conceive the project as exception and polarity tout court, from the crystalline perfection of the single architecture, that aseptically occupies the territory.

Organic solidarity between territory, fabric and specialization.

The proposed strategy works for the construction of an urban environment as a body that is solidly structured on routes and is generated according to a processual dynamics.

In this horizon, the urban fabric and its specializations are generated not by the brilliant arbiter of the single author, following a practice globally accepted in the actual world of brands, but by a constant formative process, even if with variations and exceptions, in which the anthropic act of walking on a route has a primary role. The place of specializations, the urban commercial-community knot of this Mexican case, grows from the ground as concretion and sublimation of the base mesh, from the existing fabric, and is an organic and irreplaceable part of this.

A language response.

The perspective that the experience of interpretation and project on San Martin shows is that one of a project that almost inertially follows spontaneous formative processes; as every modern project is authorial for being an

interpretation of the reactivated process; at the same time it limits critical interventions to a minimum quantity, maximizing quality and intensity; a project that in the babelic language crisis¹⁵, opposed as an antidote a reduction, almost ecological censorship of expression.

Notes

1 Symbolic analyst in: R.B.Reich, *The work of nations: preparing ourselves for 21st-Century capitalism*, Vintage Books, New York 1992; *Creative class in: R. Florida, The rise of the creative class: and how it's transforming work, leisure, community and everyday life*, Perseus Book Group, New York 2002;

2 G. Strappa, *Unità dell'organismo architettonico. Note sulla formazione e trasformazione dei caratteri degli edifici*, Dedalo editore, Bari 1995;

3 *ibidem*

4 G. Moretti, *Entre globalisation et réalités locales: centres commerciaux et formes urbaines à Los Angeles, Montréal et Paris*, PhD Thesis School of Urban Planning, McGill University, Montréal 2004; (http://digitool.library.mcgill.ca/webclient/StreamGate?folder_id=0&dvs=1499684994258~867,05/06/2017)

5 B. Rudofsky, *Streets for People. A Primer for Americans*, Doubleday & Company, Inc., Garden City, New York 1969; J. Rykwert, *Imparare dalla Strada*, in *Necessità dell'artificio*, Arnoldo Mondadori, Milano 1995;

6 G. Caniggia, G.L. Maffei, *Composizione architettonica e tipologia edilizia: 1. Lettura dell'edilizia di base*, Marsilio, Venezia 1979;

7 Processual design as reintroduced 'in vitro' process in: G. Caniggia, *Relazione al progetto per il Campo di Marte*, in AA.VV., *Ridisegnare Venezia. Dieci progetti per la ricostruzione del Campo di Marte alla Giudecca*, Cataloghi Marsilio, Venezia 1986;

8 J. L. Razo Zaragoza, *Crónicas de la conquista del Reino de Nueva Galicia en territorio de la Nueva España*, Ayuntamiento de Guadalajara IJAH-INAH, Guadalajara 1963; Fray A. Tello, *Libro Segundo de la Crónica Miscelánea en que se trata de la conquista espiritual y temporal de la Santa Provincia de Xalisco en el Reino de la Galicia y Nueva Vizcaya, y descubrimiento del Nuevo México*,

Imprenta de “La República Literaria” de Ciro L. de Guevara y Ca., México 1891;

9 Mapa de la “Relación de las tierras que la Compañía de Jesús tiene en el valle de Toluquilla”, siglo XVI. (Archivo General de la Nación); Mapa de la Nueva España y Nueva Galicia, 1717 (Archivo General de Indias, Sevilla); Mapa del pueblo de Tonalá y su jurisdicción, 1772; Mapa de los curatos de la diócesis de la Nueva Galicia; Mapa de la jurisdicción de Tonalá, 1776. (Cartografía Histórica de la Nueva Galicia);

10 G. Strappa, Architecture of the territory, in G.Strappa, P. Carlotti, A. Camiz, Urban morphology and historical fabrics. Contemporary design of small towns in Latium, Gangemi editore, Roma 2016; p. 26;

11 As an important crossroads, San Martín’s location hosted anthropic settlements since pre-Hispanic era, as results from the

burials remains found next to Cerro de la Cruz, now exhibited in the ethnographic collection of the Musée du quai Branly in Paris (L. González Ramírez, San Martín de las Flores: tierra de antaño, Tlaquepaque, Jalisco, 2010);

12 Manual de Autoconstrucción COVEG(Comision de vivienda del estado de Guanajuato), Banco Mundial, Gobierno del Estado de Guanajuato, Guanajuato - Mexico, s. d., pp. 55-60; (<https://www.coveg.gob.mx/seiisv/modulos/secciones/publicaciones/Manual%20de%20Autoconstrucción.pdf>, 05/06/2017);

13 J. F. C. Turner, Abitare come Verbo, in J. F. C. Turner, R. Fitcher (a cura di), Libertà di costruire, Il saggiatore, Milano 1979;

14 G. Caniggia, G.L. Maffei, Composizione architettonica e tipologia edilizia: 2. Il progetto nell’edilizia di base, Marsilio, Venezia 1987; at the page. 19 the author writes about the need to approach the spontaneous consciousness, by doing a parallel with literature in which Dante in the Divina Commedia, that “di fronte allo stanco permanere di un latino statico, perché per secoli solo scritto e non più parlato, come lingua letteraria, si appropriava del ‘volgare’ frutto del millenario lavoro di un popolo che ‘sbagliando’ sistematicamente nel parlare latino aveva ormai concluso il trapasso / In front of a static Latin, because for centuries only written and no longer spoken, appropriates the ‘vulgar’,

product of the millennial work of people who systematically spoke wrong in Latin (trad. by V. Buongiorno)”, operates, as few others big authors (such as Verga, Pasolini...) a re-approach to the ‘spoken’ language. When the literary official written language is empty, these few authors go back to dig into the spoken, living and pulsating language. They are looking for a reconnection with a solid and solid base, to construct on it new “literary buildings” that are congruent and responsive, reflecting the reality of language. Then, Caniggia through the transposition of this dynamic to architectural field explains the urgency of reconnecting the project, product of crisis and critical consciousness, to a spontaneous, organic, and processual dimension.

15 G. Caniggia, G.L. Maffei, Composizione architettonica e tipologia edilizia: 1. Lettura dell’edilizia di base, Marsilio, Venezia 1979;

References

- G. Caniggia, Relazione al progetto per il Campo di Marte, in AA.VV., Ridisegnare Venezia. Dieci progetti per la ricostruzione del Campo di Marte alla Giudecca, Cataloghi Marsilio, Venezia 1986
- G. Caniggia, G.L. Maffei, Composizione architettonica e tipologia edilizia: 2. Il progetto nell’edilizia di base, Marsilio, Venezia 1987;
- G. Caniggia, G.L. Maffei, Composizione architettonica e tipologia edilizia: 1. Lettura dell’edilizia di base, Marsilio, Venezia 1979;
- L. González Ramírez, San Martín de las Flores: tierra de antaño, Tlaquepaque, Jalisco, 2010;
- F. J. López Morales, Arquitectura vernàcula en Mexico, Editorial Trillas, Mexico 1993;
- G. Moretti, Entre globalisation et réalités locales: centres commerciaux et formes urbaines à Los Angeles, Montréal et Paris, PhD Thesis School of Urban Planning, McGill University, Montréal 2004; (http://digitool.library.mcgill.ca/webclient/StreamGate?folder_id=0&dvs=1499684994258~867, consultata il 05/06/2017)
- E. J. Ríos Fajardo, Los judíos de ayer, la Judea de hoy. Historia y tradición de San Martín de las Flores, Secretaría de Cultura de Jalisco,

- PACMYC, México 2012;
- J. L. Razo Zaragoza (a cura di), *Crónicas de la conquista del Reino de Nueva Galicia en territorio de la Nueva España*, Ayuntamiento de Guadalajara- IIAH-INAH, Guadalajara 1963;
- B. Rudofsky, *Strade per la gente. Architettura e ambiente umano*, Editori Laterza, Roma-Bari 1981; (prima ed. *Streets for People. A Primer for Americans*, Doubleday & Company, Inc., Garden City, New York 1969);
- J. Rykwert, *Imparare dalla Strada*, in *Necessità dell'artificio*, Arnoldo Mondadori, Milano 1995;
- G. Strappa, *Architecture of the territory*, in G.Strappa, P. Carlotti, A. Camiz, *Urban morphology and historical fabrics. Contemporary design of small towns il Latium*, Gangemi editore, Roma 2016;
- Fray A. Tello, *Libro Segundo de la Crónica Miscelánea en que se trata de la conquista espiritual y temporal de la Santa Provincia de Xalisco en el Reino de la Galicia y Nueva Vizcaya, y descubrimiento del Nuevo México*, Imprenta de "La República Literaria" de Ciro L. de Guevara y Ca., México 1891;
- J. F. C. Turner, *Abitare come Verbo*, in J. F. C. Turner, R. Fitcher (a cura di), *Libertà di costruire, Il saggiatore*, Milano 1979;
- Manual de Autoconstrucción COVEG (Comision de vivienda del estado de Guanajuato), Banco Mundial, Gobierno del Estado de Guanajuato, Guanajuato - Mexico, s. d., pp. 55-60; (<https://www.coveg.gob.mx/seiisv/modulos/secciones/publicaciones/Manual%20de%20Autoconstrucción.pdf>, consultato il 05/06/2017);
- Mapa de la "Relación de las tierras que la Compañía de Jesús tiene en el valle de Toluquilla", siglo XVI. (Archivo General de la Nación);
- Mapa de la Nueva España y Nueva Galicia, 1717 (Archivo General de Indias, Sevilla);
- Mapa del pueblo de Tonalá y su jurisdicción, 1772;
- Mapa de los curatos de la diócesis de la Nueva Galicia;
- Mapa de la jurisdicción de Tonalá, 1776. (Cartografía Histórica de la Nueva Galicia);