Reconnecting the Social:
countering social and spatial segregation

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The URBAN ASYMMETRIES studio is an intensive theoretically and empirically driven research and design studio that aims at the understanding of the processes and conditions that produce uneven - or asymmetrical - development in contemporary urban environments. For our collective graduation project we have analyzed the social and material consequences of the advancement of neoliberal policies and practices in Mexico City. As a group of master students from extremely diverse international backgrounds, it is important for us to stress the fact that we see this research as a case study, a first step to enable ourselves to approach similar or related conditions in our own countries and realities in the future.

In our opinion, this project embodies exactly what our generation of urbanists and architects will have to address the world over - the real future of the city. Mike Davis describes the future of the city in his book Planet of Slums:

“The cities of the future, rather than being made out of glass and steel as envisioned by earlier generations of urbanists, are instead largely constructed out of crude brick, straw, recycled plastic, cement blocks, and scrap wood. Instead of cities of light soaring toward heaven, much of the twenty-first-century urban world squats in squalor, surrounded by pollution, excrement and decay.”

Neoliberal urbanization
In our contemporary condition the idea of the city is deeply induced with the logics of the neoliberal order. Pure economical thinking has taken over all fields of making the city. In “The Culture of New Capitalism” Sennett traces the cultural implications that the turn towards neoliberal politics has on modern society and the main differences with what he calls “social capitalism” that was characterized by stability, long-term thinking, loyalty and paternalistic relationships between the owners of the means of production and the workforce. Like many others he puts the dismantling of the Bretton Woods agreements in the early 1970’s as a major point in the retreat of strong governments. Under Bretton Woods, currencies were related to material value in gold, stockpiled in national banks and thereby stabilizing global economies, but at the same time preventing the easy flow of capital across borders in its constant search for quick profits (Sennett 2006). The acceleration of the movements of capital and technological innovation has put its mark on contemporary society that is now characterized by buzzwords as flexibility, adaptability and change. “In theory”, David Harvey notes, “the neoliberal state should favor strong individual property rights, the rule of law, and the institutions of freely functioning markets and free trade. [...] Private enterprise and entrepreneurial initiative are seen as the keys to innovation and wealth creation. [...] Through trickle down, neoliberal theory holds that the elimination of poverty can best be secured through free markets and free trade” (Harvey 2005, 65). This thinking of the right of the fittest is then consistently extended into the individuals responsibility for “his or her own actions and well-being”, doing away with the state’s responsibility to safeguard its citizen’s welfare, education and health care (Harvey 2005, 65).

The making of the contemporary city happens in between two extreme models: at the one end of the scale the top-down and at the other end the informal. The top-down model experienced its peak during the period of social capitalism that combined the academic with politics in the context of the welfare state to react to necessities of housing provision. This type of planning implied minimum involvement of conflicting interests, as well as reduction of cities complexities to abstract rational models and forms that were planned as absolute, often without the possibility of the city dwellers to contribute anything in their own lived reality. This often establishes homogeneity, an urban phenomenon that contributes to alienation caused by lack of urban identity.

The informal organizes the city out of contingencies, out of the bare necessity to create the environment for inhabitation. It is pure empirical process, the constant re-negotiation of a multitude of conflicting interests including those of the government and private capital in a truly social process with open end. It is tactical rather than strategical, with a very short-term horizon of action, limited by way of economical possibilities as well as restricted knowledge and expertise.

With the retreat of the welfare state the informal takes on proportions of unimaginable dimension due to the unforeseen pace of urbanization globally, while at the same time powerful private development companies have taken over the formal, top-down making of the city that is hereby stripped of its former collective goals and governmental regulation and solely geared towards profit maximization. The reality of the city is a consequence of deregulation that allows the direct coexistence of these two models of development, leaving pockets of formalized city within the sea of informality - in short urban asymmetries.

Harvey’s six points on urbanity
Faced with a project that is situated in this context and with the ambition to create a critical understanding of the processes at play in order to propose alternative urban and architectural practices, we have to envision the following six aspects that constitute urban life according to David Harvey, which he bases on Marx writings on how to recreate society. These have guided our research and thinking, not as an operational checklist but as a tool to constantly relate our proposals to imagine the type of urbanity they would ultimately enable.

1. The Relation to nature as mental conception of the meaning of nature in an urban setting.
2. The Social relations, the way people interact to form a collective social entity, that are envisioned.
3. The Modes of production of goods and ideas through which society sustains itself.
4. New technologies have to be devised to facilitate this material and social production.
5. The Everyday life of the people has to be carefully imagined.
6. The creation of Identity and Feeling of Belonging that binds the citizens to their city through all of the above.
NEOLIBERAL URBANIZATION
Case study - Mexico City
[Metropolitan scale]

Introduction
As one of the world’s biggest metropolises, Mexico City is exemplary for the development of the modern Metropolis with its immense complexity of historical, cultural, social, political and last but definitely not least, economical processes. In order for us to take informed decisions on our role as urbanists and architects in this context, we needed to develop a critical understanding of these processes that shape our contemporary world and this city in particular. We studied the city’s historical development with an emphasis on the processes mentioned above from its founding by the Aztecs in 1321 to the current day and synthesized the findings in 10 maps of which the last two are presented in the following pages (for the complete historical analysis see appendix).

Mexico City is located in the Valley of Mexico, a natural basin in the central highland of Mexico, 2400m above sea level. The contemporary metropolis of about 24 million inhabitants, nearly a quarter of the country’s population is built on what used to be Tenochtitlán, the Imperial City of the Aztecs and one of the worlds biggest cities, already at the time of the “discovery” of the new world.

The map shows the basin with its mountain ranges that enclose the city to the east, south and west. The map shows the city’s historic expansion (red), related to the diminishing Lago Texcoco that originally filled the basin (black), the darkest parts representing the only remaining parts of the lake in contemporary Mexico City. The constitution of the soil is generally of volcanic rock in the mountainous regions and very unstable sediment soil of the former lakebed, with a transition zone in between these two. The climate is moderate in the southern and western parts of the basin and increasingly hot and dry towards the north and east.

Summarized conclusions of historical analysis
Mexico City is the ultimate Metropolis; a city based on conflict, first by the Aztecs arriving from the north and establishing their empire and its capital city, Tenochtitlán. The Spanish conquest in 1521 made an end to this high culture, imposing Spanish colonial rule on the indigenous population. The development of the city to this day is marked by successive conflicts: flooding in the 17th and 18th century, independence from Spain in the early and industrialization in the late 19th century, the revolution in the early 20th century, the massive urbanization of Mexico during the 20th century and several economic shocks in the seventies, eighties and nineties.

Contemporary Mexico City reflects the extreme forms of neoliberal urbanization that have taken over the spatial formation of contemporary Mexico. It exemplifies the future of its society and the increasing “class” polarization of its citizens. This form of urbanization has exposed the existing unbalanced relations of power between the makers of the city and its dwellers. While private developers accumulate enormous monetary wealth and power, the city dwellers have been gradually confined into serialized dormitory quarters, excluded from the production of their own environment and ultimately pushed into urban poverty.

The main conclusions of the analysis are summarized as follows:

1. Current social and ecological problems often find their root in early stages of colonial history: eg. Social segregation and the notion of racial superiority, neglect of embedded knowledge.
2. Mexico City shows extreme high degree of political, economical and therefore spatial centralization: eg. Public investment prioritizes city core, private investment pursues profit maximization at the long-term expense of the public living in undignified urban conditions.
3. Lack of a Unitary Urban Strategy unifying the different political entities that make up the Metropolitan Region.
4. Low-density urban sprawl in the peripheries with inefficient public transport and lack of local employment or modes of production causing massive commuting problems between city core and periphery.
5. Unbalanced power relations between makers of the city, municipalities and dwellers: Profit maximization leading to insular formal urbanization based on individual dwelling unit within informality giving rise to social polarization and corruption.
6. Historical shift in the notion of social hierarchies from racial segregation, to religion to class and finally income. Currently, social polarization is a combination of all of the above layers.
Global Metropolis 1966-1985

Neoliberal urbanization becomes apparent only recently, therefore only the last two historical epochs will be presented at this point.

In the late 60’s the city grew exponentially, expanding mainly along the periphery where cheap ejidal land was transformed into irregular low density housing for the working class. The ban of industries from the DF (Federal District) and a factual ban for low-income people to settle within the DF by prohibiting the subdivision of land forced the urban sprawl towards the north, beyond the limits of the DF and the political responsibility of the mayor. While formal growth was being directed northwards, informality started emerging wherever it found suitable space, either around the newly established industries in the north or the mountainous regions of the south. The short-lived oil boom optimism initiated a credit-based public spending program meant to regain the low-income class’s confidence in government. One examples of was the creation of INFONAVIT (National Housing Fund for Workers), resulting in numerous housing developments being realized all over the city, the most ambitious at Tlatelolco. The Volcker Shock of 1979 made an end to the credit financed public spending as the increase in US interest rates doubled Mexico’s foreign debt overnight. The US and IMF-prescribed neoliberal remedy, deregulation, privatization and cuts in public spending, initiated the final shift towards private development. The 1985 earthquake destroyed central parts of the city including the Tlatelolco housing complex and halted urban growth for the first time as people moved outside the high-risk areas of the central city. Government’s incapability to help the victims of the earthquake saw the consolidation of civil society, driven by self-help organizations and a deep disbelief in a strong government.
Red: politics, Ochre: economics, Black: infrastructure
Neoliberal City 1985-2008

The turn to neoliberal politics and free market ideologies started in the early 80’s and culminated in the North American Free Trade Agreement NAFTA of 1994, opening up Mexican markets to foreign investment. The 90’s saw a final shift towards a profit-oriented housing production, resulting in massive suburban sprawl beyond the DF boundaries to the north and east into municipalities with less regulations cheaper ejidal land, its privatization made possible by changes in the constitution in accordance with NAFTA. This led to the development of middle class gated communities in the peripheries, mimicking the exclusivity of their elite counterparts in the west and their parasitic relationship with the city as pockets of formal urbanization within a sea of informality. The decadent business district of Santa Fe, built on former dump sites cleared of previous slum dwellers, continued the existing economical power axis of Paseo de la Reforma towards the west in a bold example of the centralizing forces of capital. The re-densification of the Bando Dos municipalities and the renovation and beautification of the historical centre will lead to gentrification and emphasizes the priorities of the government of servicing the city’s core, while neglecting the peripheries.
Lack of a unitary urban strategy

The research on the historical development Mexico City and its processes of urbanization made apparent the extreme complex political conditions that the metropolis is entailed in. Similar as in many other countries but very articulated in Mexico is the fact that political processes happen in the rhythm of the “Sexenio”, the singular 6-year presidential terms that are stipulated in the constitution and form the planning horizon of every president. This is to say that 6 years represent the “long-term” in regards to planning, as governments have to conclude their project within that time if it wants to capitalize on its merits. At the same time, the metropolitan region (ZMV/M) is subject to different political entities, the Federal State of the Republic of Mexico, the Federal District (Distrito Federal D.F.) that encompasses most of the central and southern parts of the metropolis, and the State of Mexico (Estado de Mexico, EDOMEX) within which lies Ecatepec, the municipality of the site of intervention. All these entities have overlapping political terms and are in fact at any given moment governed by opposing political parties with little coordination let alone cooperation, obstructing all sorts of development. One example of this is the Metro network that just barely touches the municipalities that lie outside the D.F. while half of the inhabitants of Mexico City live outside the D.F. and often work within the D.F.

Private urban development

In terms of urban development, the fact is that the municipality has very little power over its territory as the EDOMEX can grant large-scale urban developments such as earlier mentioned gated community housing projects, excluding the municipality, let alone current or future inhabitants from the urban planning process. However, once the privately developed projects are finished, the public infrastructure of the streets and services is handed over to the municipality that from then on is responsible for its maintenace and day to day operations. The negative consequences of this form of urban development are immediately revealed, as the infrastructure is planned solely within the very immediate and short-term planning horizon of the developers that are only interested in the first-time sale of the housing units and not at all in a durable and sustainable urbanization. Therefore the municipality inherits very ill-planned and minimal urban infrastructure that in the long term becomes very expensive to maintain.

For the inhabitants there is even less room for contributing to their own lived reality as these developments are planned and constructed in extremely short periods of time of 3 to 5 years and leave literally no space for other activities that are not housing, forcing inhabitants to find their livelihoods elsewhere.
ECATEPEC MUNICIPALITY
Urban Analysis

Ecatepec is one of the largest peripheral municipality of Mexico City’s metropolitan area, located within the Estado de Mexico it is the biggest in population (with 1.8 million inhabitants officially, but that rise to almost 4 million unofficially). In its southwest it boarders with the Federal District, the rest is surrounded by 9 municipalities of the Edo. de Mexico. Ever since the Import Substitution Industrialization (ISI) policy was implemented at national level, based on the attempt to reduce of foreign dependency through the local production, Ecatepec started developing as an industrial city that fill the needs of the DF. The big national industries at the beginning provided housing for their workers, but with the great demand of housing caused by the high rural migration it was insufficient. This ended up in the creation of new irregular settlements that slowly were consolidated, they often subdivided the surrounding ejidal (*) land plots illegally and afterwards the municipality had to provide them the infrastructure.

Ecatepec’s urban population rose dramatically from 1970 to the 1980, increasing almost 60%. This growth was also beneficiated by the improved train and highway infrastructure transforming Ecatepec into an industrial corridor that served as a passing through between the Federal District and other cities in the north of the country. In the mid 90s when the ISI fails the economic dynamics started to decay, the national industries could not compete with the technology of multinationals established in bigger industrial cities, the consequence was a reduction of size and number of national enterprises. The workers didn’t have more option that to separate from the industry and use their specialized experience to create their micro-enterprises, sometimes even in their own houses, without a proper infrastructure. On the other hand in the leftover land of previous big factories illegal settlements started to appear. This resulted in a big conflict for the municipality because by changing illegally the land use they create new risk zones for the inhabitants. Parallel to this, the low density urban sprawl continued its growth trespassing the Federal District limits towards the Estate of Mexico, this was party influenced by the State Urban Development Plan which encourage the private housing developments towards the northeast axis. When the available land started diminishing, the Ejido land expropriation (approved by President Carlos Salinas de Gortari in 1994) allowed private investors to buy the land of the peasants at cheap prices in order to create massive housing projects. These profit driven developments seldom provide a job source for the inhabitants that ended up seeking for work in Mexico City, creating its present condition of informal job dependency and the problem of extreme saturation of the roads. Ecatepec became a dormitory city, while the inhabitants spend more time commuting and at work the city is almost empty during the day. In the current situation the fast population growth above mentioned resulted in the saturation of available space for urbanization. The urban footprint now covers 95 percent of the municipality surface, and this causes two of the biggest problematics of the municipality. On the one hand it pushes new informal settlements towards the skirts of the natural reserve of the Sierra de Guadalupe, eroding the natural terrain while polluting the natural water sources of the mountain. On the other hand it forces the new housing developments to establish in polluted areas neighbouring the former water evaporation plant of “el Caracol”.

Local modes of production
The production is concentrated along a central string served by the cargo railroad. Although the heavy and light industry is decreasing, the production of the municipality is still one of the highest within the metropolitan area. In contrast, the agricultural production is decreasing rapidly, ever since privatization and illegal occupation of the ejidos there is no more massive production. On the other hand the local production and workshops are taking over, spreading along the whole municipality area.

Empty areas
Although the empty areas cover 27% of the municipality’s surface, most of them are not suitable for housing, together with the Sierra de Guadalupe and the Caracol there are other left over areas property of other jurisdictions that create urban voids that segregate the different urban fabrics. Some of these areas could be easily transformed into productive areas, but due to the different interest behind, most of them remain as undefined zones.

Main Roads and Traffic
As mentioned before the job dependency in Mexico City in combination with a poor quality and non sufficient public transportation system results in heavy traffic congestions. The traffic density is principally located around the commercial centers and the public transport hub. The road infrastructure supporting the industrial area is highly congested due to overflows of track passing in the regional roads. The same roads are used by commuters that go and come to Mexico City in the north-South direction, while the East- West connections within the municipality are not sufficient. A couple of toll roads that could ease the heavy traffic towards the city are not affordable for most of the inhabitants, forcing them to spend almost 4 hours per day in commuting time.
Housing Developments
During the last decade several private developments had appeared in Ecatepec as a new way of urbanization. They are mainly based on the previously mentioned mono-functional urban planning, focused mainly on single family housing units, grouped within separate gated communities which have a strong dependency on centralized commerce and lack any modes of production. Most of these plans are often approved at the state level and the municipality has to maintain and regulate them afterwards, they are built with very low quality materials and their serialized production lacks any sense of belonging or identity. Although at the moment it is only the 8% of the municipality surface, it is rapidly spreading to other peripheral municipalities.

Regular Housing
We classified as regular housing the older developments in the municipality, the ones that were formed as a slowly process that most of the times started by occupying former ejidal plots and that were consolidated through time. It is the most common urban fabric along the whole Metropolitan area and although most of the times it is not planned by the municipality they are responsible for regularizing them, and provide them with the proper infrastructure. They are often extended up to two or three stories by their own inhabitants, which bring a lot of constructive risks while defining their own urban pattern.

Irregular and Informal Housing
The irregular and informal housing are illegal settlements that established in the empty areas available along the municipality, most of this empty areas are either former ejido lands, ecological reserves such as Sierra de Guadalupe, or other voids within the denser urban fabric. The inhabitants commonly undermine the high risks that these areas provide, such as seasonal floods and pollution within other toxic conditions. Most of the inhabitants are recently arrived migrants from rural areas with informal jobs. These developments occupy only the 3% of the municipality and in some cases they could be considered as early stages of the regularized housing mentioned above.

**Example block:**
- Surface: 3.7 ha
- Dwelling density: 99 dw/ha

**Housing developments**
1417 HA - 8% of municipality surface
Regular housing
5152 HA - 27%
of municipality surface

Irregular housing
357 HA - 2%
of municipality surface

Exemplary block:
surface 2 ha
dwellings 120
density 60 dw/ha

Exemplary block:
surface 5 ha
dwellings 50
density 10 dw/ha
SITE ANALYSIS
Case study - Las Americas
[Neighborhood scale]
A handful of large-scale private development companies in Mexico have the de-facto monopoly on planning and construction of the formal city, geared solely towards short-term profit maximization, while leaving the public (Municipality) with the long-term consequences of their socially and materially unsustainable developments. As only private (profit) interests are at play the result is a disregard for the “outside”, the rest of the city. This ready-made urbanism is repeated all over the metropolitan region, in a volume of 400 000 units each year. Ultimately, this type of build environment is parasitic on the city’s infrastructure and employment opportunities as it provides only housing and the minimum required elementary schools.

Monopoly of planning
The development of “Las Américas” consists of 14 000 single housing units in gated condominiums, arranged in a simple square grid that sprawls over the territory. The whole development (fraccionamiento) was built in little less than three years on a land that was previously empty. It is an urban fabric planned, built and managed by CASAS ARA, which has a de facto monopoly over the land, planning, construction and urbanization). This condition enhances the idea of an island detached from the surrounding city, that is visible in the difference of construction and housing models, but also materialized in a wall that segregates the two fabrics. The carelessness of the new development towards the existing city is complete: not even the city grid is respected, with street disruptions appearing. “Las Américas” sets its own rules; the outer world does not exercise any power in them.

Uniformity
Inside “Las Américas”, the model of serial housing or toothpaste architecture is visible at first glance. Even though there are three different typologies of houses, they are bearably distinguishable from the outside; they are hidden between the two alternative models of façade (modern or colonial) that repeat rhythmically along the whole development. There is a sense of displacement in this isotropic model, a literal lack of any point of reference. Furthermore, the system itself is subject of repetition to any other spot where the market conditions and the availability of land allow it, which creates a generic environment that could virtually be placed anywhere in the world. The final consequence of this ‘insular urbanism’ is precisely that: the complete negation of the place or any trace of it.
Low density mono functional planning
The mono functionality of the land use (strictly residential) and the low density scheme create a lack of urbanity that makes it inevitable not to depend on the surrounding city for its sustain. The low densities arise as a consequence of the excessive space given to the cars, not only in the wide connection roads (that due to the wall that encloses the development have hardly any traffic) but also inside the gated condominiums, where the individualistic dream of parking one’s car in front of one’s house results in up to forty percent of the internal space empty (not built). This dependency on the city will be later transferred to the Municipality once the development is finished and “Casas Ara” is not liable anymore (having sold the houses and given back the roads as public space). The legacy of it is then an urban fabric that is completely unsustainable, dependent on the car, with huge amounts of open roads to maintain and a disperse bunch of low income inhabitants to pay taxes.

Individualism
Excessive space is provided for private transport (by automobile, 40% of the land is gated circulation space), and there is a lack of pedestrian public space (3%)

Short-term planning
The development and resulting profits are for the private developer and maintenance for the municipality. Moreover, the build quality is of poor quality, in order to minimize costs and maximize profits. The numeric model applied by the private developer concerns only profit, and is not socially sustainable (evictions)
RECONNECTING THE SOCIAL
Physical and social segregation of neighborhoods
[Site conditions]
The local context

Our intervention is determined for the area where the social and physical segregation is most apparently manifested in urban space, along the northern wall of Las Americas, where it brutally separates the uniform housing developments from the neighboring area of Jardines de Morelos. The site survey showed that the wall doesn’t actually provide a physical isolation, supposedly for the security reasons, as meant by the developers. Along the wall, there are several pedestrian openings which are permanently open, thus allowing anyone wishing to pass without a hindrance. It rather serves as a mere social barrier between the two parts nurturing consumer culture, lack of tolerance and suspicion inside, while leaving anger, feeling of rejection and revenge outside it. The physical separation of two urban fabrics also causes problems to the mobility of public and private transportation as well as economic and productive activity of the both sides.
RECONNECTING THE SOCIAL:  
Countering social and spatial segregation  

[Vision]

Indicators for interventions

The fenced part of the space is envisioned by its planners to be different from the outside world: isolated, supervised and homogenous, but there are emerging positive signs which tend to diminish the tension caused by the separation and encourage the higher density of social exchange between and within two areas: the small scale commercial activity is starting changing the homogenous structure of Las Americas in the inner parts as well as along its concrete fence. This course is accompanied by the process of densification on the both sides of the wall caused partly by needs of economic activity and partly by requirements put forward by the growth of families. More significant is that at the pedestrian openings of the wall we observed a great intensity of commercial activities between the inhabitants of two sides. The inhabitants of Las Americas make additional openings in the wals to start up small shops and services in the back of their homes, while people from Jardines de Morelos, from their side, try to provide their neighbors beyond the wall with necessary goods and services. We think these phenomena are good indicator of the potential of starting up the social and economic interaction between the people of separated urban spaces.

For our project proposals we choose the area which represents the generic urban condition along the wall of Las Americas. Between the two urban fabrics there is a small square with a church - only public building along the strip. For the initial intervention we think that the presence of the square will be an additional supporting factor for the possibilities of socio-cultural and economic interchange between the inhabitants of two densified areas. It should be noted that our strategies are not site specific, rather they are addressing the very generic problems of the strip along the wall. Therefore our interventions can be seen as attempts to make a precedence of the different approach, where the interested communities could learn from.
Growing of private house in Jardines de Morelos

Changed urban scene of Las Americas by commercial activity

Growing of private house in Jardines de Morelos

Growing of house of Las Americas along the wall

Mutation of house of Las Americas

Mutations of house of Las Americas
RECONNECTING THE SOCIAL: Countering social and spatial segregation

[Vision]

**General ambition**
The above mentioned tendencies need political and economic support from the side of the municipality and other parties interested in improving socio-cultural, economic, political and spatial problems of the area. Furthermore we think that we as spatial practitioners can offer our knowledge to the local community as well as to the municipality to assist them in carrying out these processes. In this course the main aim of our project is to define alternative possibilities of densification for the both sides of the wall. By densification we don’t mean just increasing built floor or population per certain area, but with that also increasing the density of social exchange which implies strengthening local productive forces based on the local knowledge and skills, more locally based commercial activity, less dependence on the centralities, higher level of social integration and better quality of everyday life.

**Possibilities of legal and financial support**
The process of densification of existing housing is normal for both sides of the wall. As we noted above, addition of levels or occupation of adjacent free spaces happens when the demand for the space increases with the growth of families or for commercial purposes. But the main characteristic of this kind of densification is that it is uncontrolled and based on the private initiative. We propose the schemes for private as well as collective initiatives for densification of existing land and building stock. According to the proposed strategies the schemes are providing the legal status, financial subsidies and professional expertise from the government and other non commercial organizations. The strategies imply public – private collaboration, creating housing cooperatives for alternative financing possibilities, promoting collective ownership models for land, housing and commercial spaces as well as securing housing for the low income population.

**Overview**

FSI (= Floor Space Index)

GSI (= Ground Space Index)

OSR (= Open Space Ratio)

**Legenda of the terms used in the tables**
The financial schemes are based on the model already existing in the Federal District of Mexico City. There the government lends the money to the private house owners for improving living conditions or adding more living space. In this procedure the government obliges the house owners to follow the plans offered by the architects. The architecture service is provided by the government as well. If the house owners fulfill the requirements set by the plans they are rewarded financially and are only expected to return the 70% of the loan. It should be noted that the lawn is given without interest rate. We think to use this scheme as a base for our proposal, but to offer to include in it not only the private house owners but the housing cooperatives. This will trigger the motivation for developing collectively owned multifamiliar typologies. In the scheme there are also involved international organizations willing to contribute to the housing shortage of the municipality. Conventionally such international organizations as UN Habitat etc. are asked to assist in particular housing projects. In our proposal the financial assistance coming from the international organizations is dispersed in the different housing blocks e.g. in one block of housing only one unit can be financed by them. The housing stock gained in this way will be available for the low income population who don’t have access to the government or bank lawns. The government can also finance low income housing via the housing cooperatives giving them extra money for additional housing space. The low income units built in this way will be in the government ownership. This will enable the municipality to take share in the initiative and thus gain voice in the decision making of cooperatives. In all schemes local families are given special priorities, they maintain property in private ownership and get the priorities in choosing accomodations.
Proposal for Jardines de Morelos

The main idea of the proposed architectural intervention is to create a building system supported by the necessary legal and financial framework, which will enable to substitute existing and provide additional household with better habitable conditions, possibilities of easier adaptation to the changing demands providing possibilities for different cohabitation patterns. As mentioned above the intervention area is located in Jardines de Morelos along the border of Las Americas. The site survey showed that within the blocks of Jardines de Morelos there are many empty, unused plots of land, which we see as potential spaces for the first interventions. Furthermore we found many houses in a hardly habitable condition. One of the strategies is to provide these families with necessary financial subsidies and architectural proposals for disassembling their private houses while keeping them living on the same plot of land in temporary shelters and trying to maintain their local economic activities, if there exist such, and providing them with the better habitable spaces in the multifamiliar buildings on the same spots.
Empty plot in Jardines de Morelos

Building in a bad condition

Buildings with a potential of adding extra floor

Building in a bad condition
Architectural proposal
The architectural form and content of the proposal is determined to spatially facilitate the above described operation. On the building level it takes into account the size and division of the private land within the urban block; the possibility of punctual intervention on the existing urban fabric; the prospect of later extension or reunion of buildings, enabling common use of circulation facilities, sanitary installations or communal spaces. On the unit level, the possibility of extension of the floor space in accordance with the demand of the family: the option of dividing the unit for the rental purposes, prospect for growth as well as possibility of converting parts of the housing spaces into commercial usage.
The timeline-axo of the urban block of Jardines de Morelos showing the process of urbanization together with our proposals projected in time. The interventions are outlined in red color.
Technical solutions
For the foundation of the buildings we use so called soil substitution method, which is quite common in Mexico City for the buildings higher than three levels. The main idea in the construction and technological part of the interventions is to sustain the involvement of local labor and support to the local economy by keeping design low technological and composing the building from the locally produced or available materials and components. The design is also determined to facilitate changes over time.

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[Jardines de Morelos]
possibility of division of the A type

possibility of creating commercial space on the ground floor
1 Actors

1.1 Governmental bodies

Federal state
MEXICAN REPUBLIC
The role of the federal state in relation to the project is limited. In very general terms this body imposes regulation via laws upon the lower political bodies of the Estado de Mexico and the Municipality. Next to that, the federal state is the primary source of funding for VISOMEX.

Estado de Mexico
EDOMEX
The next level of government is that of the state, the Estado de Mexico. From this body general legislation is imposed on the municipality. When it comes to construction projects private developers are required to get permission from the Estado de Mexico when the project exceeds a certain amount of units. We are of the opinion that legislation related to building projects should be taken care of by Municipalities, to allow more precise measures in relation to the specificities Municipalities are dealing with.

Municipality
ECATEPEC DE MORELOS
In relation to the project this is the most important governmental body. Rules and regulations regarding the build environment come from the municipal offices, meaning the municipality has a large say in the developments we foresee. In order to make the entire project possible, it is required that the municipality changes zoning-laws of both El Caracol and the strip next to it. Whereas El Caracol is now regarded as either wasteland or to be developed as an ecological zone as part of the lake-recovery project, the project requires it to be zoned as an agricultural zone. The strip of empty land which is now zoned for light industry should be zoned for housing development. Apart from being able to impose zoning laws on El Caracol, the Municipality is also the legal owner of it. In order to let the project take place, we require the Municipality to hand over El Caracol to COOP CARACOL. We foresee this to take the shape of a 99 year lease.

Next to imposing regulations the Municipality can hand out subsidies. We foresee the municipality to provide vISOMEX with funding for projects within the Municipality, such as the market-building. Whereas the Federal State has the legal responsibility to provide funding, the Municipality can do so to stimulate desirable developments within its borders. The Municipality is the governmental body that stands in the closest relation with the general population. It stands in a close relation with local VISOMEX offices, so that via these the needs and wants of the population can be effectively communicated to those who impose legislation upon them.

1.2 Institutions

VISOMEX
This institution provides credit for groups of people that want to construct housing or commercial spaces collectively. By providing collective credits the institution breaks with the tradition of private home-ownership. Once a collective housing project is constructed, VISOMEX is the institution that brings its dwellers in contact with those of other projects in the neighbourhood. Via regular meetings throughout the year (monthly, or quarterly) issues regarding the neighbourhood are discussed. Next to that, these meetings serve the purpose of communicating between the users (inhabitants, shopkeepers and alike) and the municipality, for VISOMEX stands in a closer relation to the Municipality than the users do.

CONAGUA
COMMISSION NACIONAL DEL AGUA
This institution is the federal commission of water, and as such is responsible for legislation regarding water. In relation to the project this means the commission has to change policies regarding El Caracol. In the current situation it is appointed as an ecological zone; the project requires it to be regarded as an agricultural zone.

UNAM
UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO
Being the largest public university of the country this institution can provide the necessary knowledge and research-skils for the initial development of the agricultural production on El Caracol. With the subsidies the UNAM can attract a research facility and experimental fields can be constructed. On these fields a pilot on agricultural production will be run to see what is the most feasible method of cleaning the water and cultivation crops suited for agricultural production in this specific context. After the pilot research should continue to increase and spread knowledge regarding this specific form of agricultural production. Once COOP Caracol is constructed the UNAM will be represented in it in order to educate and advice both labourers and land-tenants. Additionally, the local UNAM department offers an educational program in the evenings for whoever is interested.

1.3 Private companies

Casas ARA
As one of the largest private developers in the country Casas ARA has a strong say in future urban developments. More specifically related to the project the company constructed and sold the Las Americas housing project, plus it owns the land bordering El Caracol currently zoned for light industry. In order to get Casas ARA involved in long-term planning, not just short-term profit, we propose to get the company involved in the project. Under current conditions private developers are primarily dependent on the Estado de Mexico for permission to engage in new developments. However, for zoning laws Casas ARA is dependent on the Municipality. Changing zoning laws for the tabula rasa zone would allow Casas ARA to construct housing, which has a higher profit margin that light-industry does. In return for this offer to Casas ARA we request them to participate in our project and get them involved in long-term processes.
Agave
Bando Dos
Benito Juarez
Calpulli
Casas ARA
Chinampa
Chinamperia
Distrito Federal (DF)
Ecatepec (de Morelos)
Ejido
Ejidal ratio
Estado de Mexico
Floriculture
Gran Canal (de Desague)
Gran Caracol
Haciendas
Horticulture
INFONAVIT
Jardines de Morelos
Lago Texcoco
Las Americas
Latifundios
Mexico
Mestizos
Mezcal
Muralism
NAFTA
Neoliberalism
Nopal
Plaza Las Americas
Sierra de Guadelupe
Spirulina
Tenochtitlan
Paseo de la Reforma
Plano de Desarrollo Urbano
Porfirio Diaz
PRI
Pulque
Tezontle
Tlatelolco
UNAM
Valley of Mexico
Vecindades
Vivienda Interes Social
Xochimilco
Zocalo

APPENDIX
UA glossary

Agave
Indigenous plant used to make Tequila and Mezcal
Bando Dos
Urban Renewal Policy, anno 2000
Benito Juarez
First indigenous President and father of the Reform laws of 1859
Calpulli
Pre-Hispanic land tenure system based on tribal land ownership
Casas ARA
Private “Social interest housing” development company
Chinampa
Pre-Hispanic water-based agricultural system
Chinamperia
He or she who that works the land of a chinampa
Distrito Federal (DF)
Federal District of Mexico City (incl. central and southern parts of the city)
Ecatepec (de Morelos)
Municipality of the Estado de Mexico
Ejido
The concept of the ejido is based on the idea that he, who works the land, owns it, reminiscent of the pre-Hispanic calpulli of the México.
Ejidal rating
He or she who that works the land of an ejido
Estado de Mexico
State of Mexico (incl. northern and eastern parts of the city)
Floriculture
Flower cultivation for mainly decorative purposes
Gran Canal (de Desague)
Main open-air sewage canal of Mexico City crossing Ecatepec, initially constructed by the Colonizers to drain the Valley of Mexico
Gran Caracol
Disused solar water-evaporation plant for the production of soda, and in a later stage spirulina
Haciendas
*Rural
Horticulture
Cultivation of crops
INFONAVIT
National Housing Fund for Workers
Jardines de Morelos
Neighbourhood north of Las Americas
Lago Texcoco
Former lake of Texcoco that surrounded Tenochtitlán
Las Americas
Gated community single-family housing development of 14000 units
Latifundios
Large-scale private landholdings
Mexico
Aztec tribe that founded Tenochtitlán
Mestizos
People of mixed race
Mezcal
Distilled Agave spirit
Muralism
Art movement during Mexican Modernity based on Murals
NAFTA
North American Free Trade Agreement
Neoliberalism
Version of capitalism that stipulates deregulation, privatization and cuts in public spending as the base for free market ideology
Nopal
Indigenous cactus: fruit and leaves for human consumption
Plaza Las Americas
Regional, large-scale shopping mall, part of Las Americas
Sierra de Guadelupe
Mountain range in the western border of Ecatepec
Spirulina
High-nutrition Algae that grows in saline water, already cultivated by the México
Tenochtitlán
Méxica Imperial City, on top of which the Spanish build Mexico City
Paseo de la Reforma
Major Boulevard in the centre of Mexico City
Plano de Desarrollo Urbano
Urban development plan
Porfirio Diaz
President come de-facto dictator, 1876 - 1910
PRI
Partido Revolutionario Institutional (Institutional Revolutionary Party)
Pulque
Fermented drink of Agave
Tezontle
Reddish-brown porous volcanic rock, used in buildings
Tiangis
Informal street market
Tlatelolco
Housing project at the site of pre-Hispanic City of Tlatelolco
UNAM
Universidad Nacional Autonoma de Mexico
Valley of Mexico
Valley that contains Mexico City, in pre-Hispanic times largely a lake
Vecindades
Courtyard Housing Typology
Vivienda Interes Social
Social interest housing
Xochimilco
Town within Mexico-City Metropolitan Region dating back to the period of Aztec rule
Zócalo
Central city square established by the Spanish Conquistadores
The Méxica, a migrant population arriving from the north to the valley of Mexico establish the city of Tenochtitlán on an island in the middle of Lago Texcoco, where according to the myth, they found the eagle devouring a snake while sitting on a Nopal. With about 150,000 to 200,000 inhabitants, Tenochtitlán became the world’s largest city at the time. Three main axes formed the backbone of the city culminating in the central square where the temples, markets and palaces where constructed, emphasizing the very centralized form of political power. Dwellings were constructed more loosely around the core.

Despite its significant size, the Aztecs succeeded in creating a balanced relationship between the city and its hinterland, integrating decentralized and sustainable modes of water-based agricultural production (chinampas) with thoughtful spatial planning and an intricate water-management system, that both required extremely specialized skills and technologies and resulted in a highly civilized cultural production.

Red: politics, Ochre: economics, Black: infrastructure
The Spanish conquest under Hernan Cortez led to Tenochtitlán's near total destruction in 1521. As the manifestation of their superiority, the Spanish imposed their colonial grid onto the imperial city by destroying existing temples and erecting the first church that will later become the Metropolitan Cathedral. The coming century would see 85% of the indigenous population either killed or dying of epidemics and imported diseases. The Spanish determination to obviate indigenous embedded knowledge and impose a Christian model did not only result in genocide and the destruction of a once highly civilized culture but also in excessive primitive accumulation on behalf of the conquistadores and Spain. In this period lie the foundations for many unresolved problems of current-day Mexico. The introduction of racial segregation, the growing influence of the Catholic Church, the centralization of political power around the Zocalo, intensified agricultural production as well as the negation of the original water management system and subsequent desiccation of the lake due to periodical flooding would account for future social and environmental conflict.
Recognition of the indigenous as “real” human beings by the pope in 1547 prepared the way for their evangelization. Interracial marriages were hereby facilitated and laid the seeds for the emergence of a mixed race, the mestizos that found themselves socially in between the increasingly local, Spanish speaking elite and the indigenous slaves and workers. The emergence of the mestizos lead to a growing sense of belonging, ultimately resulting in an increasing detachment from the Spanish crown. Spatial and social segregation between these races diminished, though never ceased to exist. The expansion of latifundios through dispossession of indigenous calpullis lead to land degradation and more concentration of wealth within established elites. Especially the church accumulated excessive wealth in the form of landholdings during this period, firmly establishing its political influence.
Even after independence from Spain the Catholic Church remains as the major economical power. This is reflected in the way the city continued expanding, around the creation of numerous opulent churches and chapels. In 1824 the Distrito Federal (DF) is established as the capital of the Mexican Republic, conceived first as a circular area ten times bigger than the city.

The unsolved power relations between the church and the newly established state government was part of the ongoing struggle between the conservatives that envisioned a more monarchic state and the liberals that wanted to push forward a federal republic. This struggle led to the reform laws by Benito Juarez in 1859, constraining the power of the church by expropriating it’s landholdings and secularizing the state. This redistribution policy prepared the ground for private real estate speculation with the newly available land and the development of the colonias by private developers.

APPENDIX
FIRST MEXICAN EMPIRE
1821-1876
The rapid industrialization during nearly 30 years of Porfirio Díaz dictatorship consolidated the centralization of the capital city and emphasized the division between the rural and urban. The city was transformed drastically under very strong French cultural influences, not only in urban planning and typology, but also in cultural production. The most visible example of this phenomenon is the urban renewal of Paseo de la Reforma in the Haussmanian style of the Paris boulevards. The formation of a political and economical power axis that coincided with the migration of the upper classes towards the south-west became evident.

The railroad system, connecting Mexico City with 13 other cities all over the country, dramatically increased its economical reach and enabled ever-stronger economical ties with the US in addition to trans-Atlantic trade. Within the city transportation was revolutionized by the electric tram and the private automobile increasing accessibility of peripheral colonias, haciendas and country estates.
Latent social conflicts inherited from a colonial history and unresolved during independence violently erupted in the Mexican Revolution of 1910 and culminated in the promulgation of the constitution of 1917. The main issues that were addressed were the restoration of the peasants right to communal land, the so-called ejido system, as well as the recognition of workers rights while maintaining capitalist modes of production. The concept of the ejido is based on the idea that he, who works the land, owns it, reminiscent of the pre-Hispanic calpulli of the Méxica. The cultural production saw the emergence of a Mexican identity, one that recognized a shared cultural history and the social standing of the mestizos as the largest part of the population.

President Lázaro Cardenas policies of import substitution industrialization and decentralization to curb massive rural-urban migration prepared the ground for the Mexican Miracle, a period of uninterrupted economical growth that established Mexico as a modern economy. For the first time the problem of housing became a major concern of the state, including policies like the freezing of rents, effective until 1992.

APPENDIX

REVOLUTION
1910-1940
Intensification in industrialization and agriculture spurred the economic boom of the 40’s till the mid 60’s. The consolidation of political power within the national PRI party that also nominated Mexico City’s mayor accounted for the increasing indifference towards the needs of the low-income classes. Huge public spending on infrastructure, the Universidad Nacional Autonoma de Mexico UNAM as well as large-scale collective housing projects were realized within the DF, favouring the middle classes. The massive Tlatelolco housing project later came to fame during the social unrest of the late 60’s and the earthquake of 1985.

The VADO policy that prohibited building on altitudes higher than 2 350m successfully prevented further formal growth to the mountainous south of the city together with a ban of industries from the DF, forcing urban sprawl towards the north, beyond the limits of the political responsibility of the DF. The workforce that shouldered the Mexican Miracle was accommodated in irregular low-density developments or informal settlements surrounding the industrial zones in the periphery.

APPENDIX
MEXICAN MIRACLE
1940-1966
The turn to neoliberal politics and free market ideologies started in the early 80’s, culminating in the North American Free Trade Agreement NAFTA of 1994, opening up Mexican markets to foreign investment. The 90’s saw a final shift towards a profit-oriented housing production, resulting in massive suburban sprawl beyond the DF boundaries to the north and east into municipalities with less regulations cheaper ejidal land, its privatization made possible by changes in the constitution in accordance with NAFTA. This led to the development of middle class gated communities in the peripheries, mimicking the exclusivity of their elite counterparts in the west and their parasitic relationship with the city as pockets of formal urbanization within a sea of informality. The decadent business district of Santa Fe, built on former dump sites cleared of previous slum dwellers, continued the existing economical power axis of Paseo de la Reforma towards the west in a bold example of the centralizing forces of capital. The re-densification of the Bando Dos municipalities and the renovation and beautification of the historical centre will lead to gentrification and emphasizes the priorities of the government of servicing the city’s core, while neglecting the peripheries.