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Author: Raul Alejandro Martinez Medina 4859197

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P5 Thesis Report

Spatial Actions and Strategies Booklet

Delft University of Technology
Faculty of Architecture and Built Environment
MSc Architecture, Urbanism and Building Sciences
MSc track Urbanism
Complex Cities Studio

For further information please contact the author email: ramartinezmedina@gmail.com

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ASYMMETRIES OF POWER ASYMMETRIES OF POWER

Main principles (systemic goals)

For a coherent transformation and adaptation the socio-ecological dimension was included in the framework as being essential part of the complex nature of the thesis. The combination of governance, formal and functional structures in the urban fabric with socio-ecological systems allowed the formulation of 5 systemic goals that through connectedness and potentials determine spatial strategies (actions), first at the local level with the capacity to influence a cross border activation. These 5 main principles stress different dimensions of actors, scales and time, thus their capacity for transformation is directly dependent of how those factors generate synergies between them so to increase, accelerate or stagnate adaptation.

During the last chapter of the report, 'adaptive change' was mostly affected by the interests at stake. Different Interest levels regarding the specific goals (main principles) increased at the local level, thus attracting from a bottom-up perspective higher levels of power, until pairing their interests towards an effective adaptive transformation. However since interests are directly proportional to the transformation capacities without them change will not be possible.

Water Landscape Integration and Management

Green Infrastructure System and Quality Densification of the Built System of Public and Open Space



IMG. 5.13 (Own elaboration) The image shows the 5 systemic goals.

Productive Landscapes and Means of Production

Transport and Mobility System





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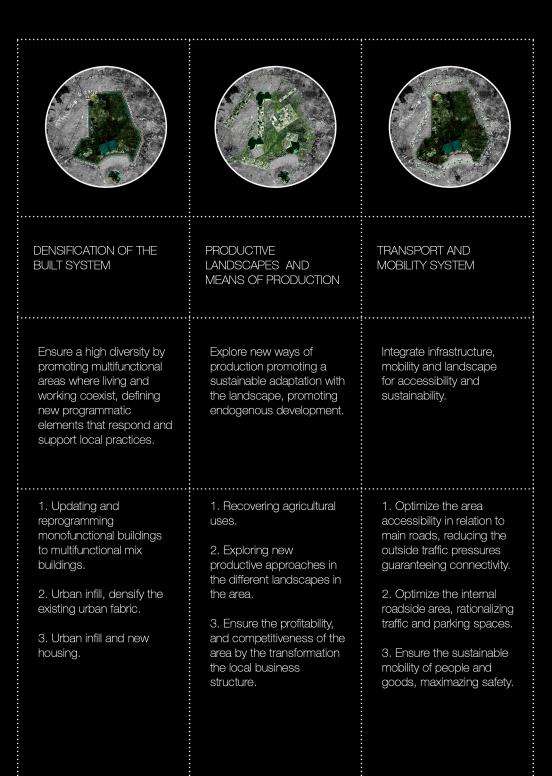


FIG. 8.19 Main objectives (Own elaboration), the figure shows the specific objectives per systemic goal.

ASYMMETRIES OF POWER

ASYMMETRIES OF POWER

Application matrix of the guidelines is developed for the different systemic goals according to different degrees of application priority such as scale (micro, small. medium and large actions) and levels of participation regarding the actors involved (from local to intermunicipal power levels).

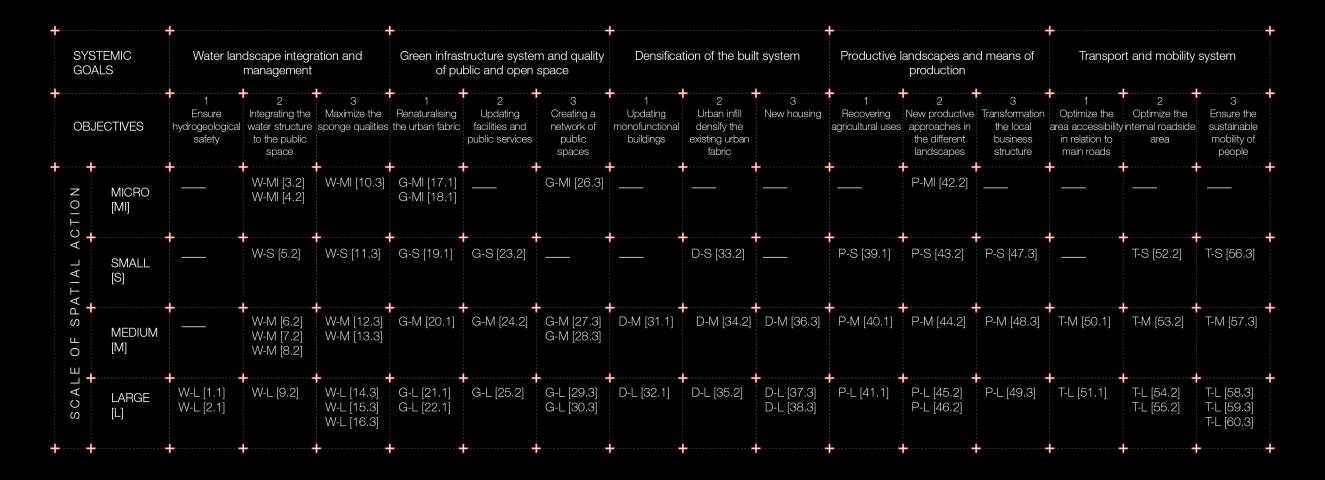
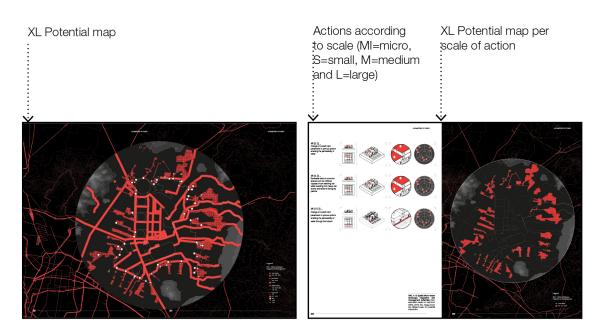


FIG. 8.20 Matrix for application (Own elaboration), the figure shows the specific spatial actions taken by each of the specific objectives per systemic goal

ASYMMETRIES OF POWER ASYMMETRIES OF POWER

Instructions

The following drawings function as a guide for the appropiate readability of the following pages.



The map shows the overall potentials of the systemic
This pages emphasize on the actions of the specific goal analyzed located along the gates

systemic goal according to scale, depicting their potential locations in the gates

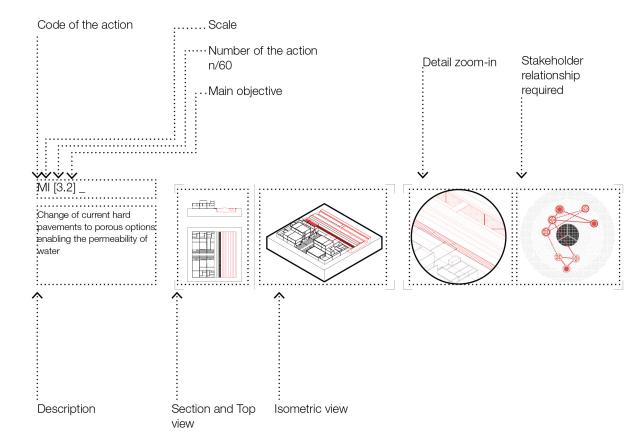
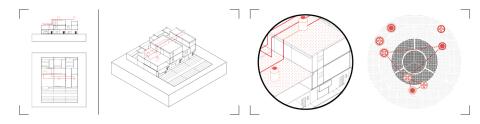


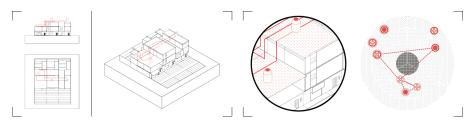
FIG. 8.25 Instructions for readability of potenials and actions (Own elaboration).



MI [3.2] _ Change of current hard pavements to porous options enabling the permeability of water



MI [4.2] _ Rainwater tanks in common spaces such as rooftops capable of can retaining the water resulting from heavy rain events and reuse it during dry periods



MI [10.3] _

Change of current hard pavements to porous options enabling the permeability of water through the subsoil

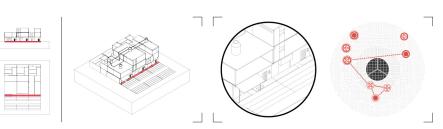
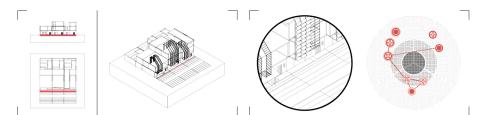


FIG. 8.27 left, 8.28 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the micro scale respectively.



S [5.2] _ Infiltration strips enabling the permeability of water through the subsoil



S [11.3] _ Retention and infiltration ponds

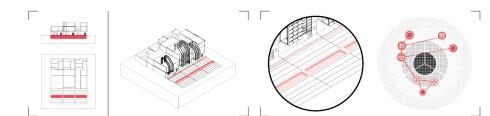
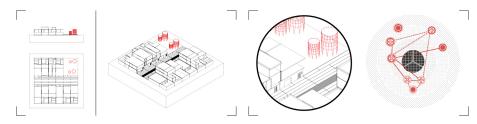


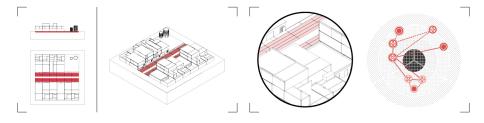
FIG. 8.29 left, 8.30 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the small scale respectively.



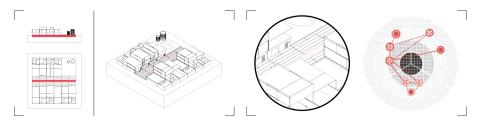
M [6.2] _ Storage tanks, construction of underground storage tanks will be required in order to provide enough water



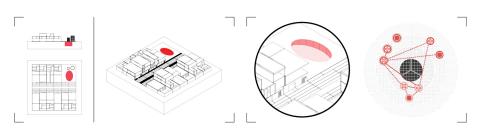
M [7.2] _ Water streets as floodable infrastructure



M [8.2] _ Building of street side canals, retaining water and enabling its natural infiltration to the subsoil



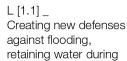
M [12.3] _ Retention ponds of medium scale used as public spaces that can retain the water resulting from heavy rain events and reuse it during dry periods

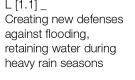


M [13.3] _ Reduction of paved areas

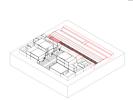
FIG. 8.31 left, 8.32 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the medium scale respectively.



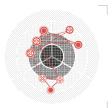








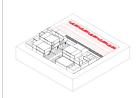


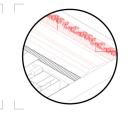


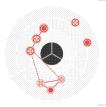
ASYMMETRIES OF POWER

L [2.1] _ Avoid taking surface water and modification of drainage flows and water disposal, filling of ditches or canals, and realizing its re-naturalization with buffer bands that could act as natural filters.









L [9.2] _ Water plazas/square. The water square combines water storage with the improvement of the quality of urban public space. Water storage facilities are visible and enjoyable and creates opportunities to create environmental quality.









L [14.3] _ Retention and infiltration ponds to capture the water in times of heavy rainfall and then reuse it during the dry periods









L [15.3] _

Expand the canals surface in order to maximize easonal storage and increasing the amount of hectares under conservation soil status









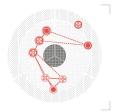
L [16.3]_

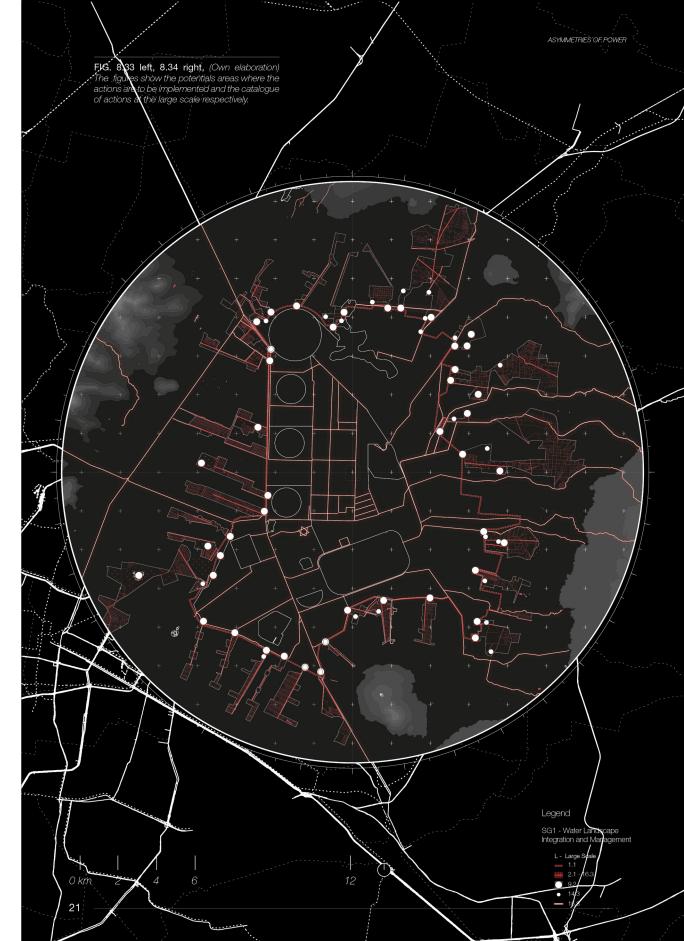
Renaturalisation of waterfronts supported by natural purification and infiltration areas

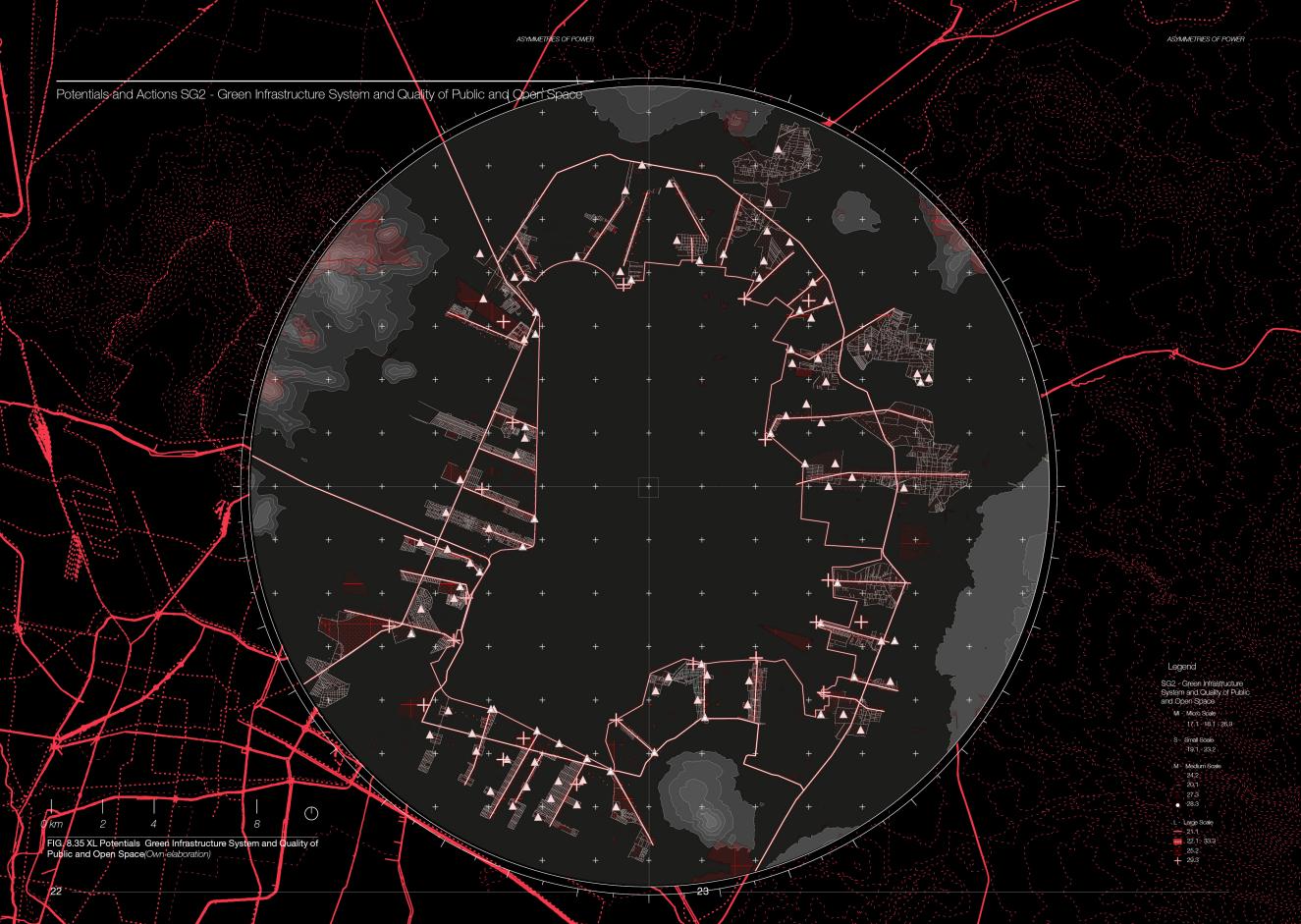




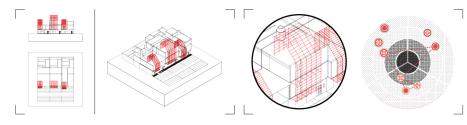






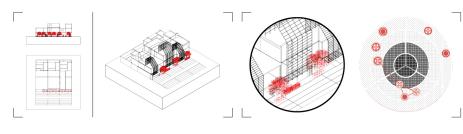


MI [17.1] _ Foster the increase of green natural elements by using the facades of the current housing typologies, integrating them primarily by using native species or through the use of climbing plants



MI [18.1] _

Increase the micro green pedestrian network by giving incentives to local communities or facilitating the acquisition of native plants that are suitable with climate conditions



MI [26.3] _

Benches as a micro public space network giving incentives to local communities or facilitating a process through which they can self-built in an organized way

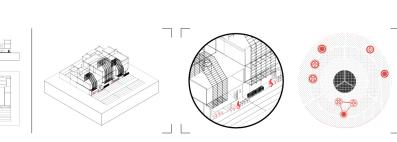
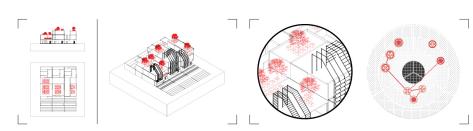


FIG. 8.36 left, 8.37 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the micro scale respectively.



S [19.1] _ Foster the increase of green natural elements in Roofs (fifth facade), integrating them primarily by using native species and by giving incentives to local communities



S [23.2] _ Active community gardens in vacant lots or wasteland

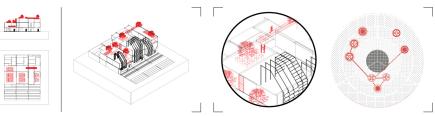
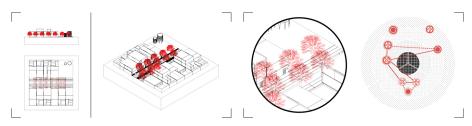


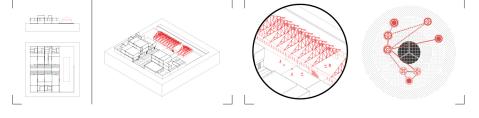
FIG. 8.38 left, 8.39 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the small scale respectively.



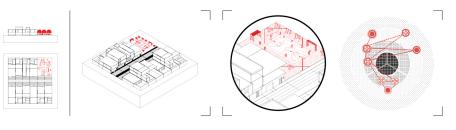
M [20.1] _ Foster the greenification of streets and roads as potential green corridors. Oversized streets with left-over spaces can turned into linear parks or expand the pedestrian system



M [24.2] _ Reuse abandoned buildings for public activities by refurbishing them, allowing the participation of the community



M [27.3] _ Neighborhood parks, in unused wasteland integrating the community in a participative process for its development



M [28.3] _ Building new capacitation centers, places/hubs for community knowledge

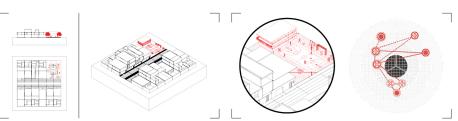
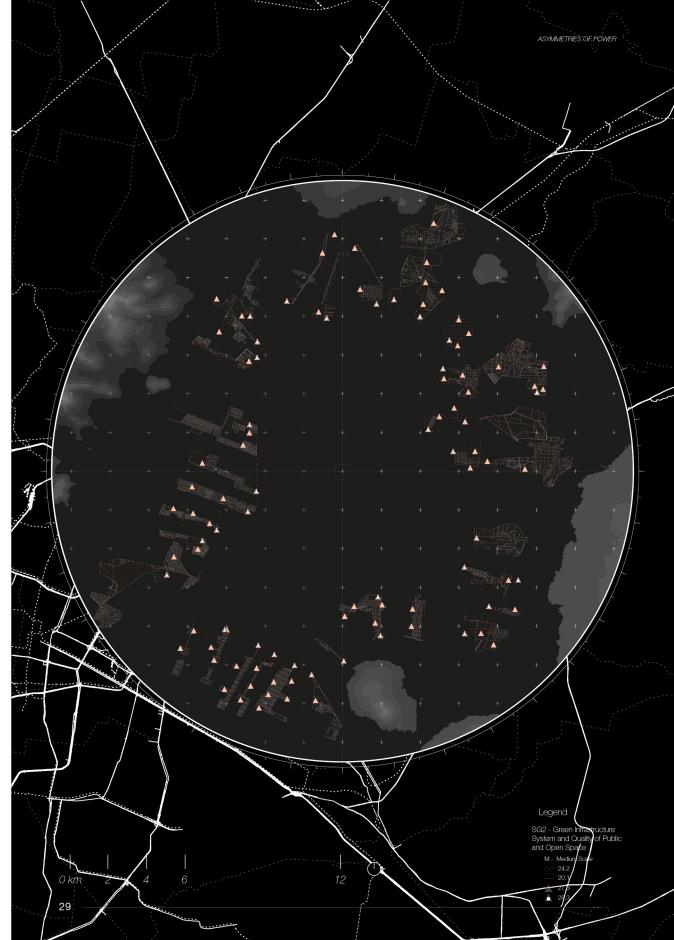
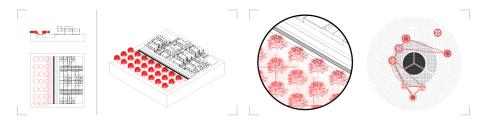


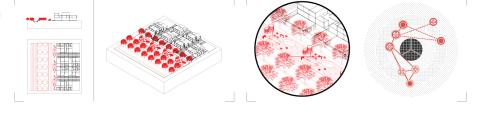
FIG. 8.40 left, 8.41 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the medium scale respectively.



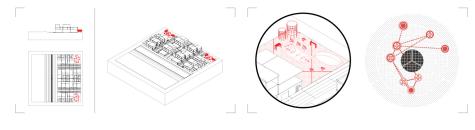
L [21.1] _ Create ecological corridors / green corridors enhancing natural habitats through regenerative interventions



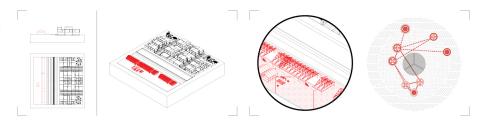
L [22.1] _ Create linear parks maximizing natural elements, and creating continuity and porosity of the green landscape



L [25.2] _ Restoration and activation of public spaces that are currently unused or lack of definition



L [29.3] _ Social hub / civic centers with new cultural program



L [30.3] _ Create linear parks maximizing greenery, and creating continuity and porosity of the green landscape

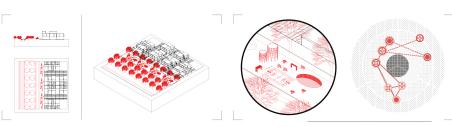
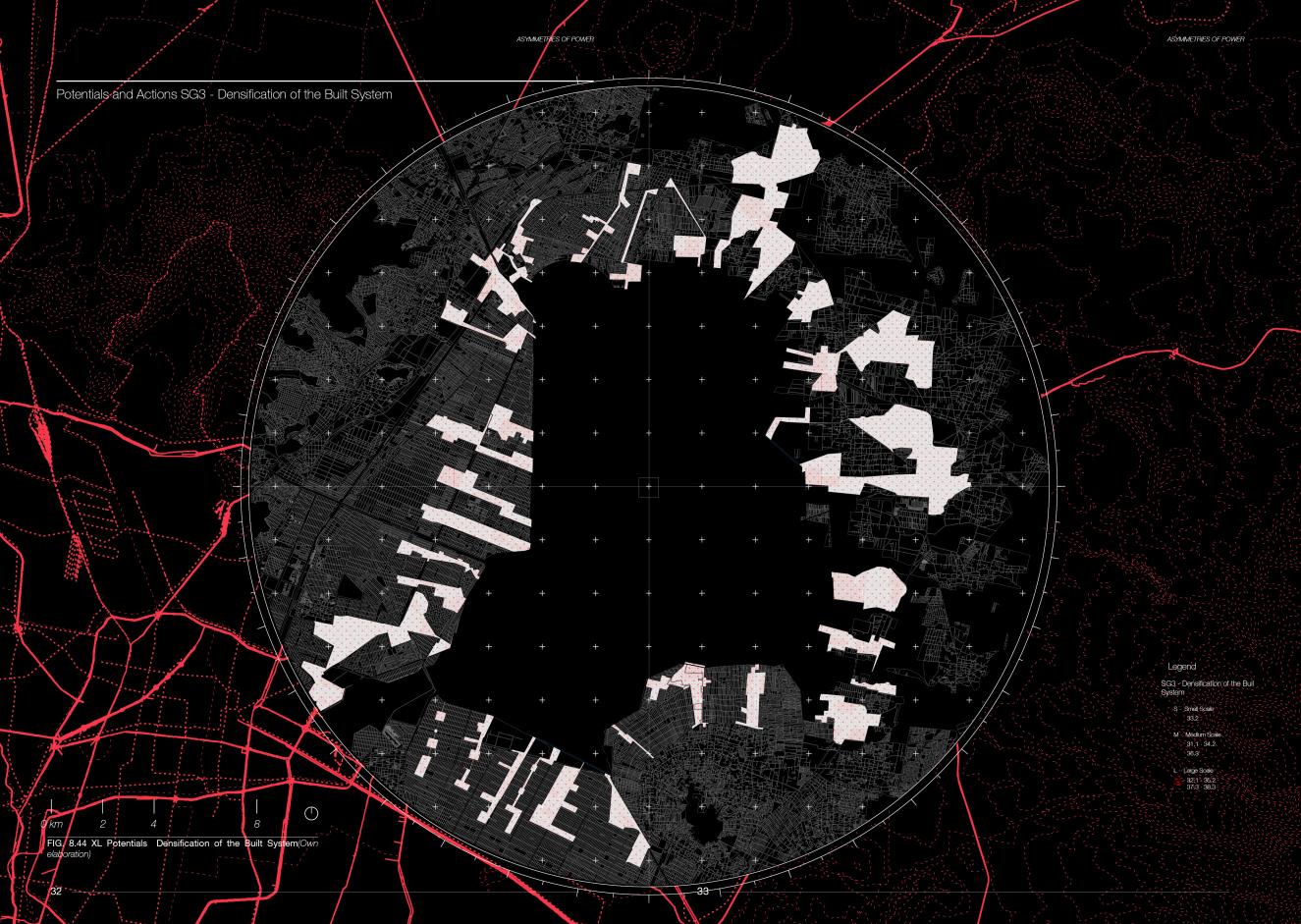


FIG. 8.42 left, 8.43 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the large scale respectively.





S [33.2] _ Housing co-production in terraces or rooftops (fifth facade)

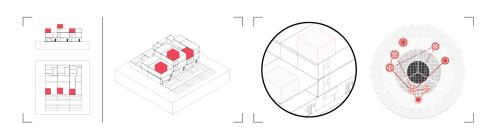
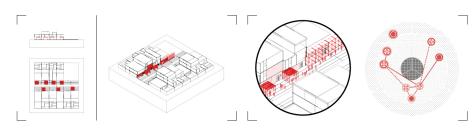


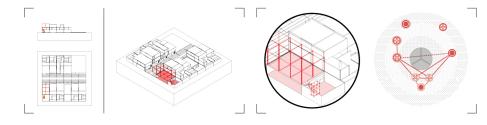
FIG. 8.45 left, 8.46 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the small scale respectively.



M [31.1] _ Reprograming unused buildings providing uses, spaces and services that ensure high urban quality and compatible functions



M [34.2] _ Densification thorough selfbuilt housing typologies and insertion of mixed uses in current urban fabric



M [36.3] _ Self-built housing typologies through cooperative production

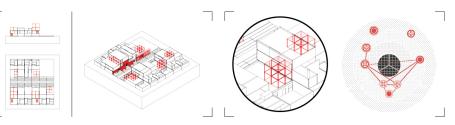
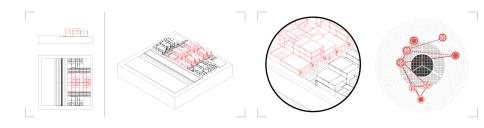


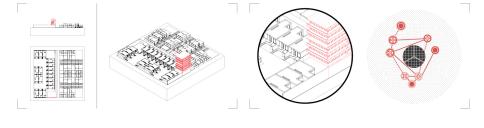
FIG. 8.47 left, 8.48 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the medium scale respectively.



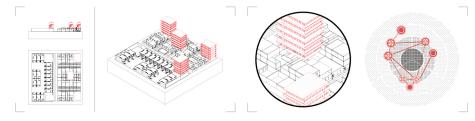
L [32.1] _ Reprograming unused buildings by introducing new uses or infill program that fosters endogenous development



L [35.2] _ Densification infill through opening up gated communities allowing new uses and diversification



L [37.3] _ Take advantage of local climatic and solar conditions with the new mixed-use volumes



L [38.3] _ Build new multifunctional and multifamily housing complexes in vacant land, or underused land, increasing FSI and GSI indexes

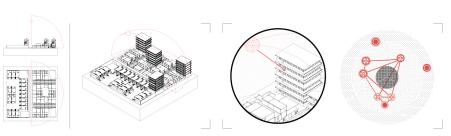
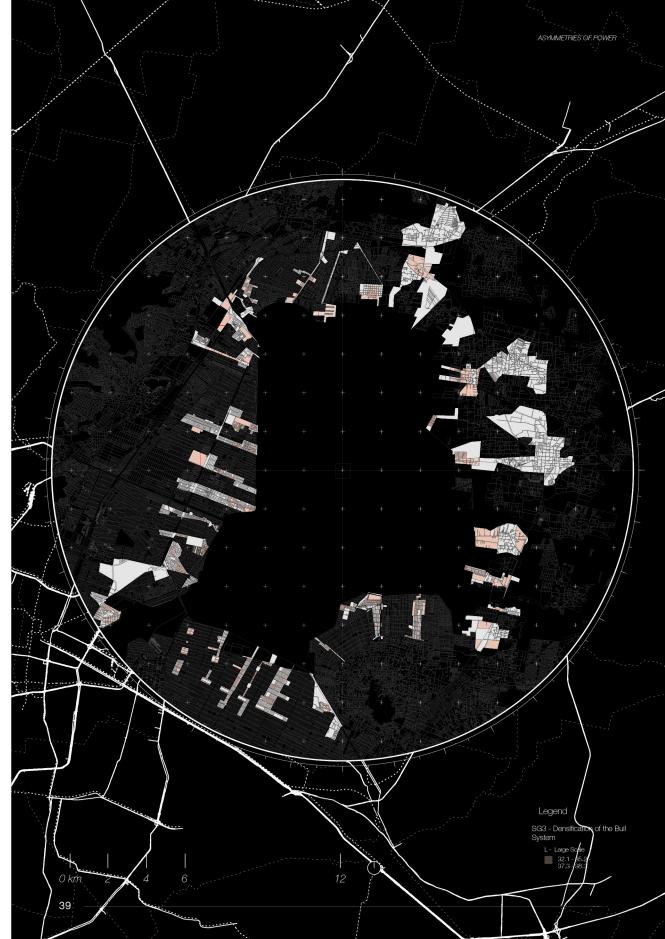
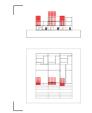


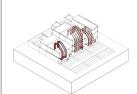
FIG. 8.49 left, 8.50 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the large scale respectively.

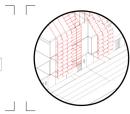




MI [42.2] _ Micro production of vegetables in facades and solar panels in the facade of a single unit







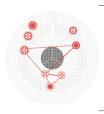
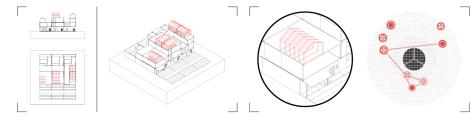


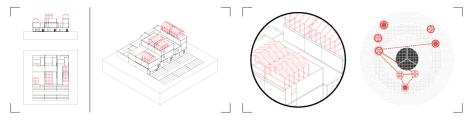
FIG. 8.52 left, 8.53 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the micro scale respectively.



S [39.1] _ Vegetable gardens and small cultivation areas in wasteland available



S [43.2] _ Self-built greenhouses on roof tops and solar panels rooftops



S [47.3] _ Micro temporary additions/ extensions to existing housing units that facilitate flexibility for commercial and productive use of street fronts

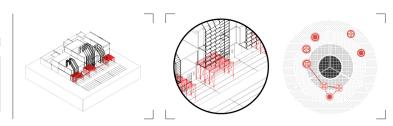
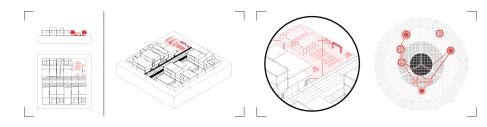


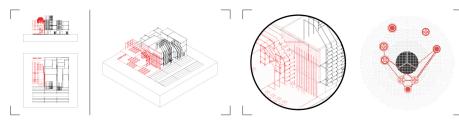
FIG. 8.54 left, 8.55 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the small scale respectively.



M [40.1] _ Cooperative agriculture in neighbourhood parks or available open space



M [44.2] _ Self-built greenhouses through cooperative production in open space or interstitial spaces



M [48.3] _ Introducing spaces for commercial and local productive activities such as small workshops on street level enforces alternative inhabitation modalities

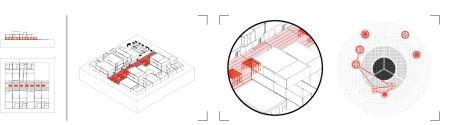
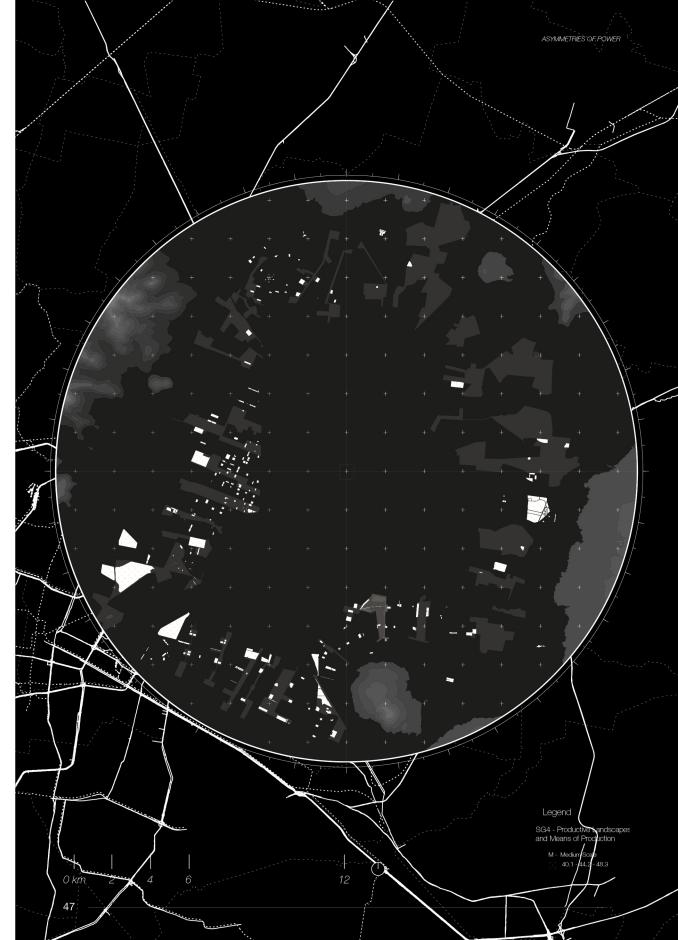
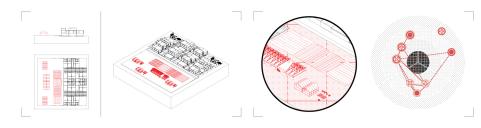


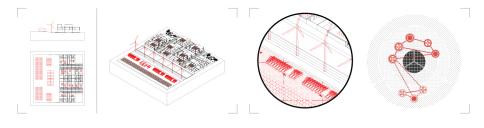
FIG. 8.56 left, 8.57 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the medium scale respectively.



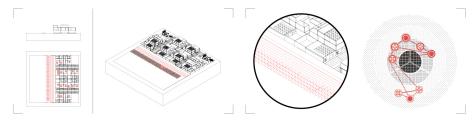
L [41.1] _ Cooperative agriculture in large areas suitable for cultivation



L [46.2] _ Insertion of productive landscapes by private investors / wind farms, solar farms in available land



L [45.2] _ Solar panels along infrastructure such as the inter-municipal highway ring along the void or regional connection routes



L [49.3] _ Insertion of commercial activities along important streets or wasteland open spaces.

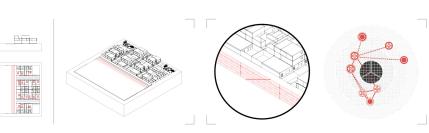
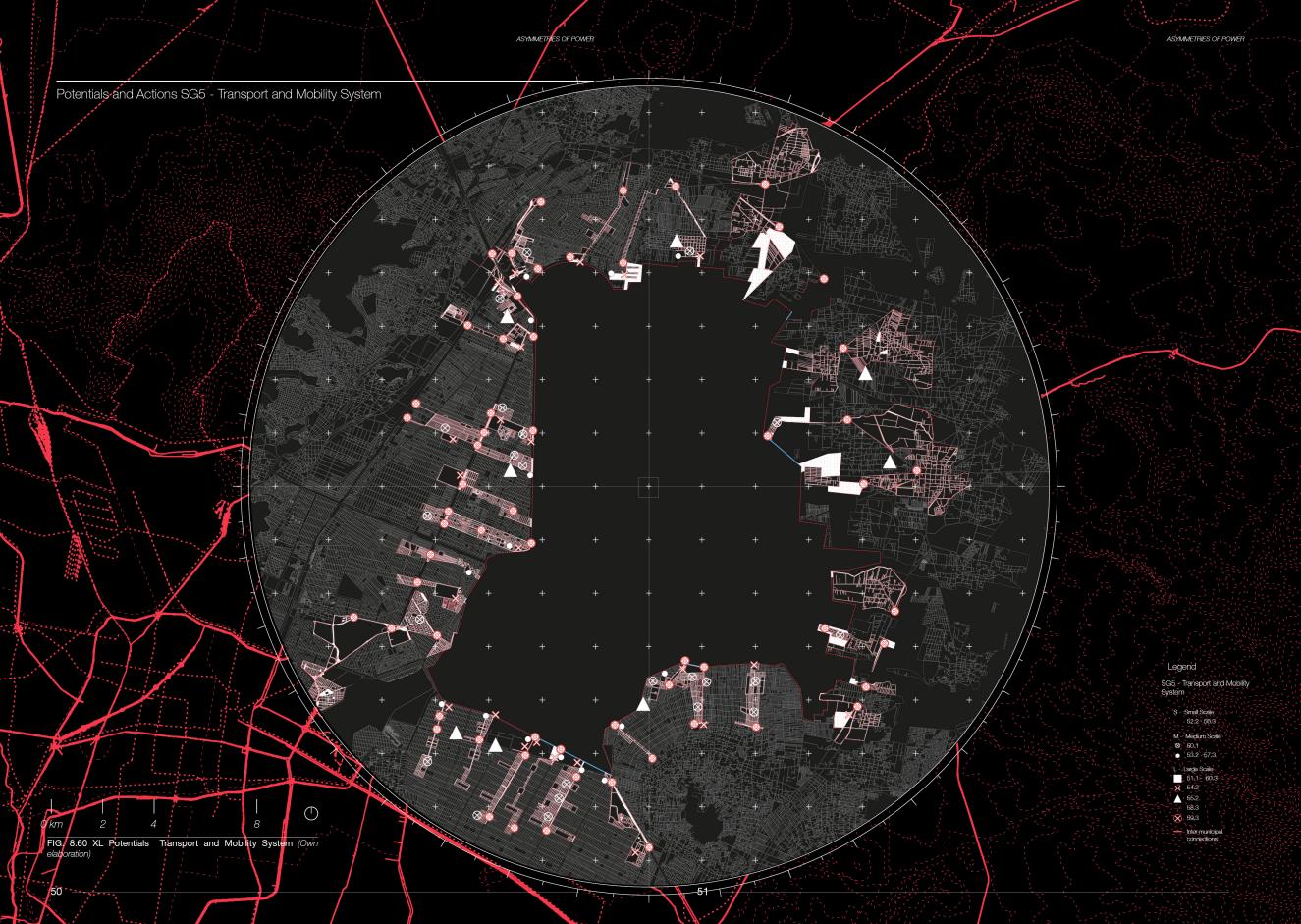


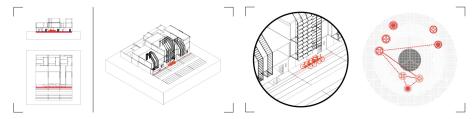
FIG. 8.58 left, 8.59 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the large scale respectively.







S [52.2] _ Arrange proper lot access to allow the clear distribution and easy orientation



S [56.3] _ Make bicycle parking areas, provide the reserved parking area for car sharing and carpooling spaces

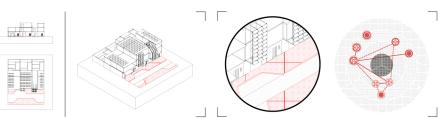
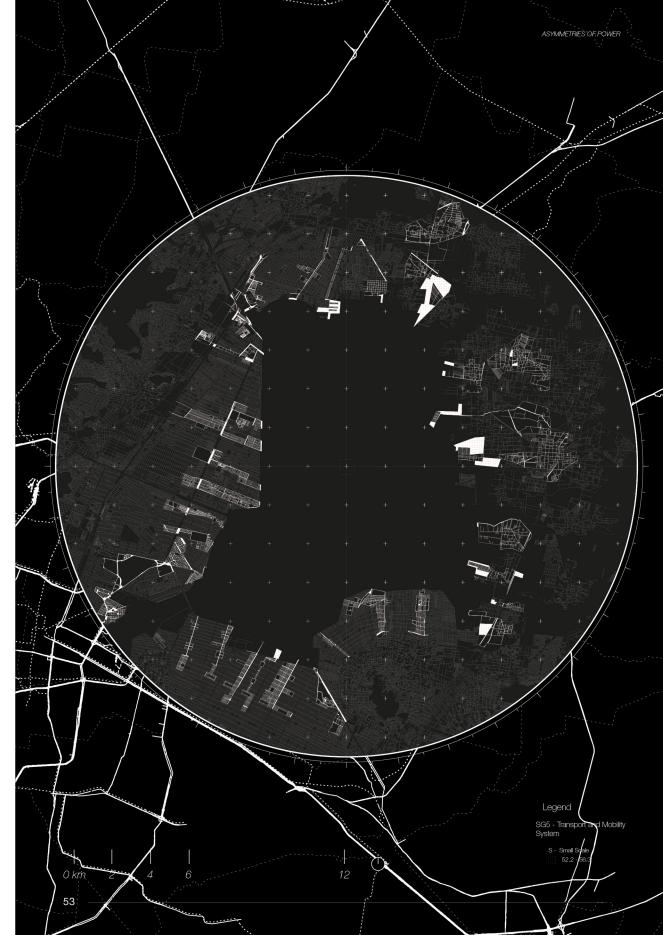
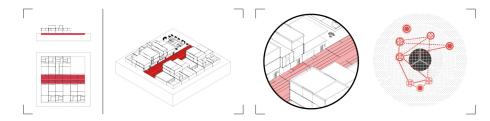


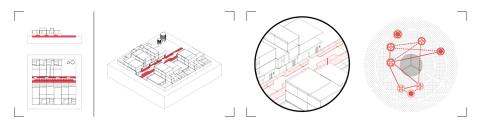
FIG. 8.61 left, 8.62 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the small scale respectively.



M [50.1] _ Scheduled seasonal street closing by community participation



M [53.2] _ Adapt the parking system, reducing interference with vehicular traffic and facilitating circulation



M [57.3] _ Locate strategically parking/ waiting spaces for public transport, ensuring the adequate visibility recognition and protection

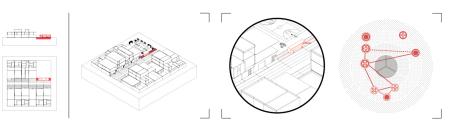
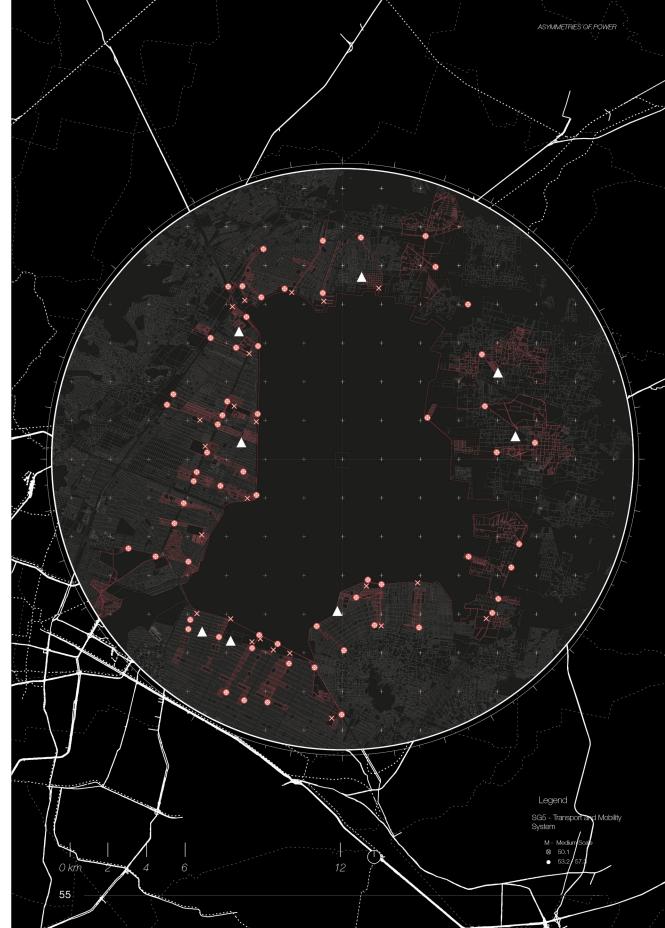
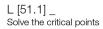
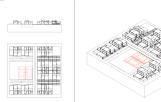


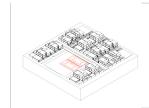
FIG. 8.63 left, 8.64 right, (Own elaboration) The figures show the potentials areas where the actions are to be implemented and the catalogue of actions at the medium scale respectively.

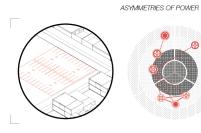




in the area's accessibility system, separating internal flows to external ones, with adaptations to the existing networks







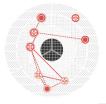


Arrange proper parking lots in available plots or underused land



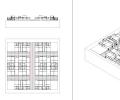






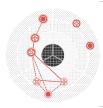
L [55.2] _

Realize dedicated areas for freight/material storage and manoeuvring/parking areas for heavy vehicles by mitigating them appropriately in the land-scape







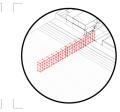


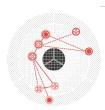
L [58.3] _

Ensure a multifunctional territorial connection, creating cycle and pedestrian paths for home/work moving, linking the area with city centers and railway stations









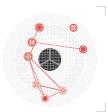
L [59.3] _

Provide a continuous and secure cycling and pedestrian network



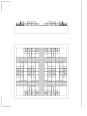


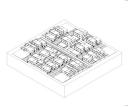




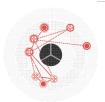
L [60.3] _

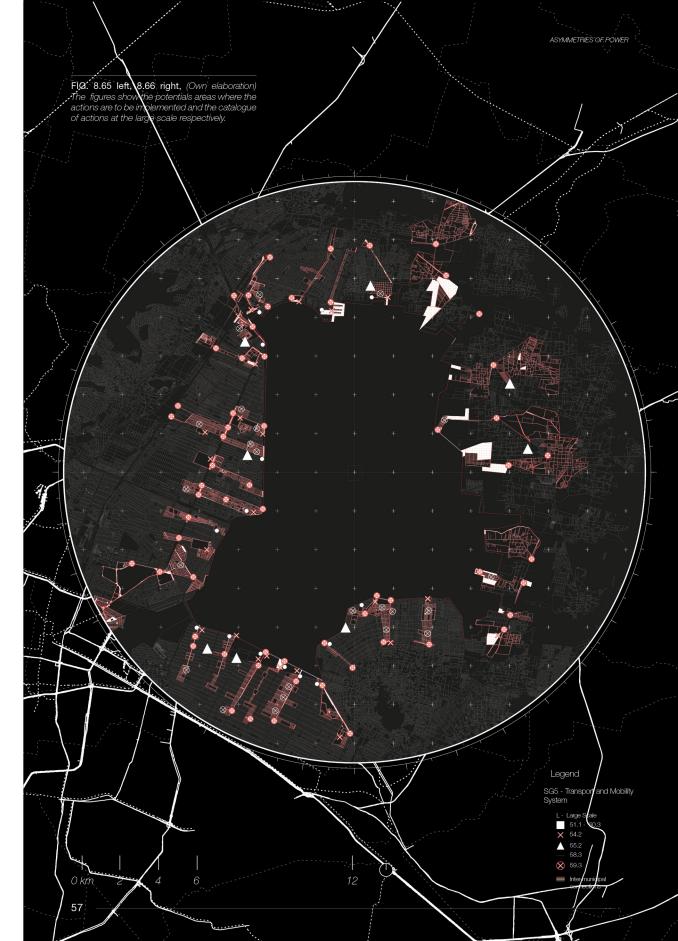
Rationalize internal circulation in terms of accessibility of emergency vehicles by ensuring the presence of spaces necessary for the joint management of emergencies and safety











Legend

9.2

• 14.3

27.3 <u></u> 28.3

21.1

25.2

⊗ 50.1

× 54.2 55.2

S 59.3

1 29.3

Conclusions

_Potentials SG1 - Water Landscape Integration and Management

Local initiatives towards micro and small interventions trigger the systemic change of the gates. However the systemic goal aims for higher integration between actors since larger scale actions which are necessary for an effective transformation require intermunicipal collaboration to be developed.

Potentials SG2 - Green Infrastructure System and Quality of Public and Open Space

SG2 can accomplish systemic development with high ecological value and local integration from a bottom-up initiative, locally the gates foster micro, small and medium interventions that can be arranged faster than larger interventions. However potentials at a larger scale need intermunicipal collaboration to effectively connect the gates.

_Potentials SG3 - Densification of the Built System

In order for systemic change to happen regarding densification potentials, the gates need to engage the transformation of more than the existing building typologies, pairing its development with other goals to reprogram the existing fabric effectively. Most of the change needs investment and a high integration between actors.

Potentials SG4 - Productive Landscapes and Means of Production

Means of production is a goal that can be stressed from a bottom up perspective supporting current practices in the gates. The potential lies in the collaborative effort of local communities to engage a more productive live, becoming themselves prosumers rather than just consumers. Agricultural land in the north east requires higher participation levels of powerful stakeholders to continue with a sustainable production and to experiment new effective measures.

Potentials SG5 - Transport and Mobility System

Potentials regarding transport and mobility require higher levels of participation and interest, moreover systemic change can only be possible with an appropriate engagement with local communities enabling the transformations to support the endogenous development activated by the other goals. Active participation will also guarantee connectivity between the municipalities.





FIG. 8.67 (Own elaboration) The figures show all the potentials

