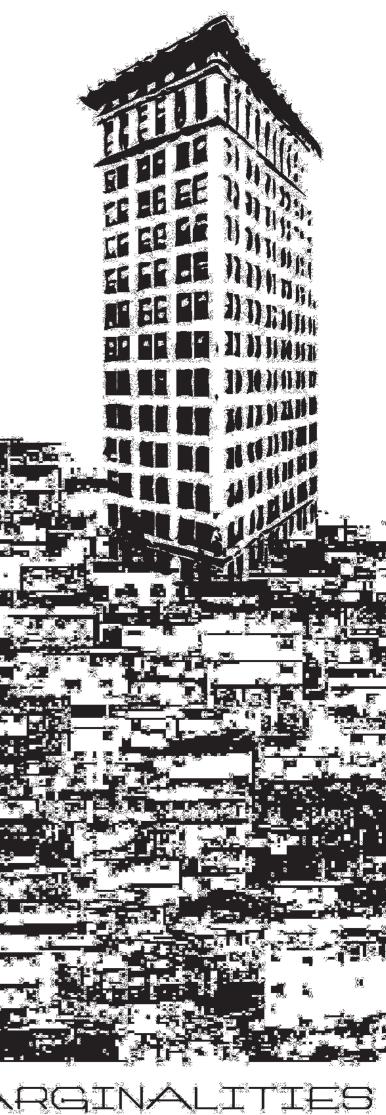
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STRATEGIC LABORATORY FOR URBAN MA



## THE EVEREXPANDING CITY INTEGRATING THE PERIURBAN GROWTH INTO THE CITY



## MANUEL FÉLIX CÁRDENAS

# INTRODUCTION Outcome Why this project? **Problem Statement Research** Questions REALITY Analysis IYPOTHESIS



VISION Regional Conception Local Intervention

## ONCLUSIONS

## WHY THIS PROJECT?

## PROBLEM STATEMENT

## PROBLEM STATEMENT

Emerging monofunctional residential settlements, not being part of any network (neither local or regional), become spatially fragmented and socially segregated periurban fragments.



homepage.mac.com/helipilot/PhotoAl



#### INTRODUCTION

REALITY





## PROBLEM STATEMENT



The result of the segregation and the fragmentation is **stagnation**. There is no improvement, only deterioration of the spatial and social structures.





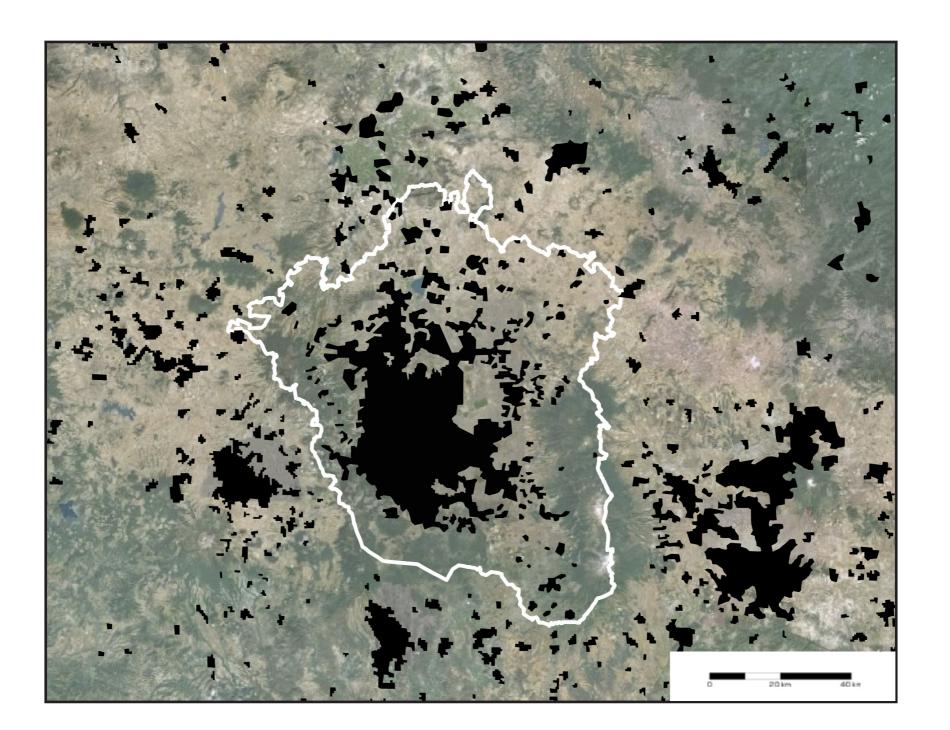
source: maps.google.com

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## RESEARCH QUESTIONS

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Which metropolitan strategies can create the urban conditions to meet the local realities of the peri-urban fragments in MCMA?



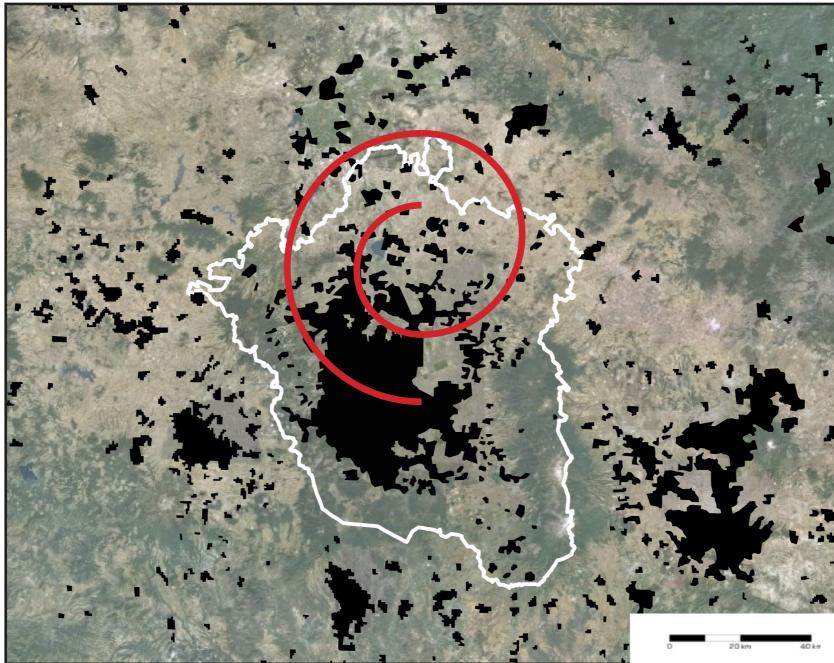
INTRODUCTION





## RESEARCH QUESTIONS

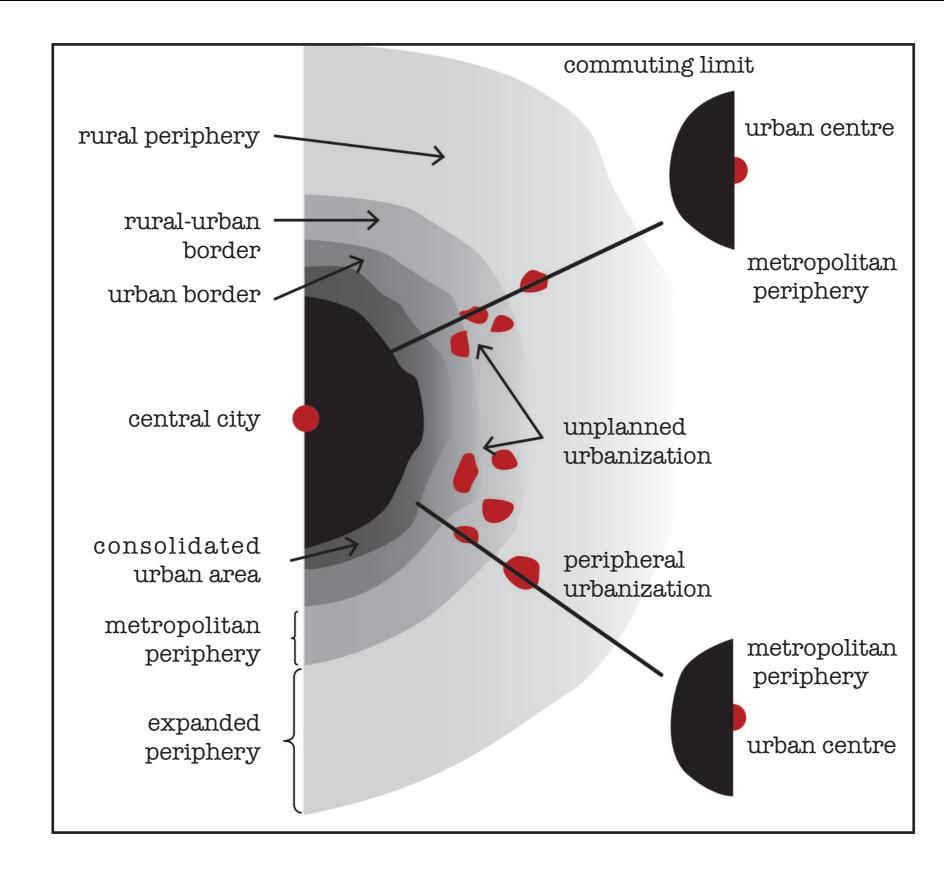
Which spatial interventions can activate endogenous forces from peri-urban fragments (formal & informal) to achieve their physical and social interaction?









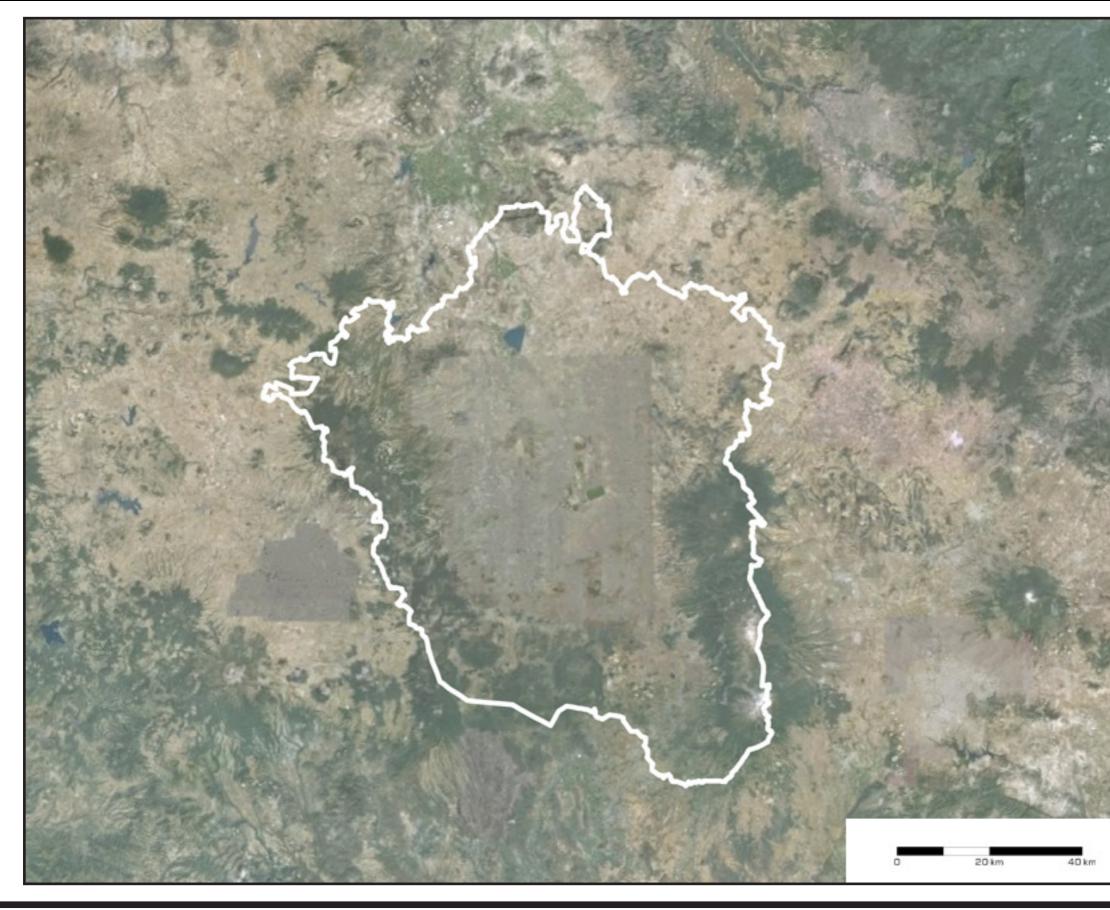


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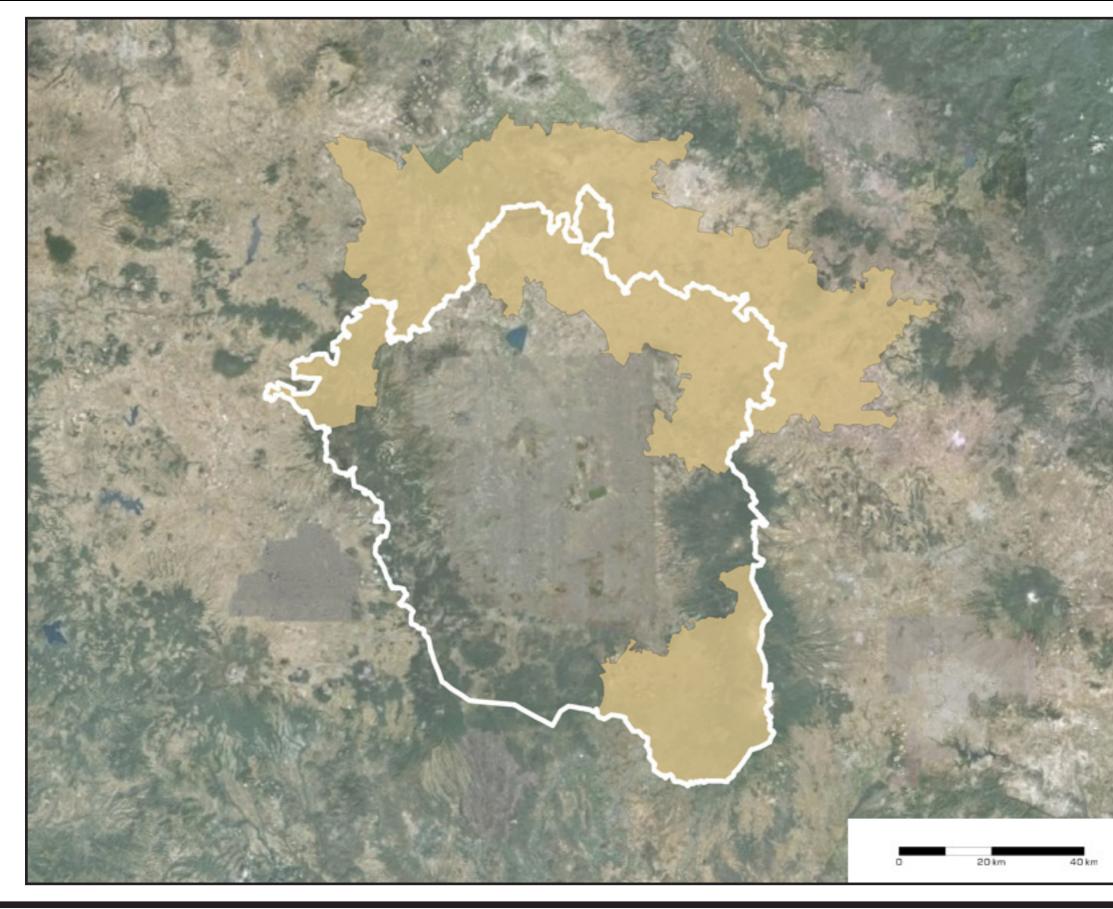
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#### INTRODUCTION

#### REALITY

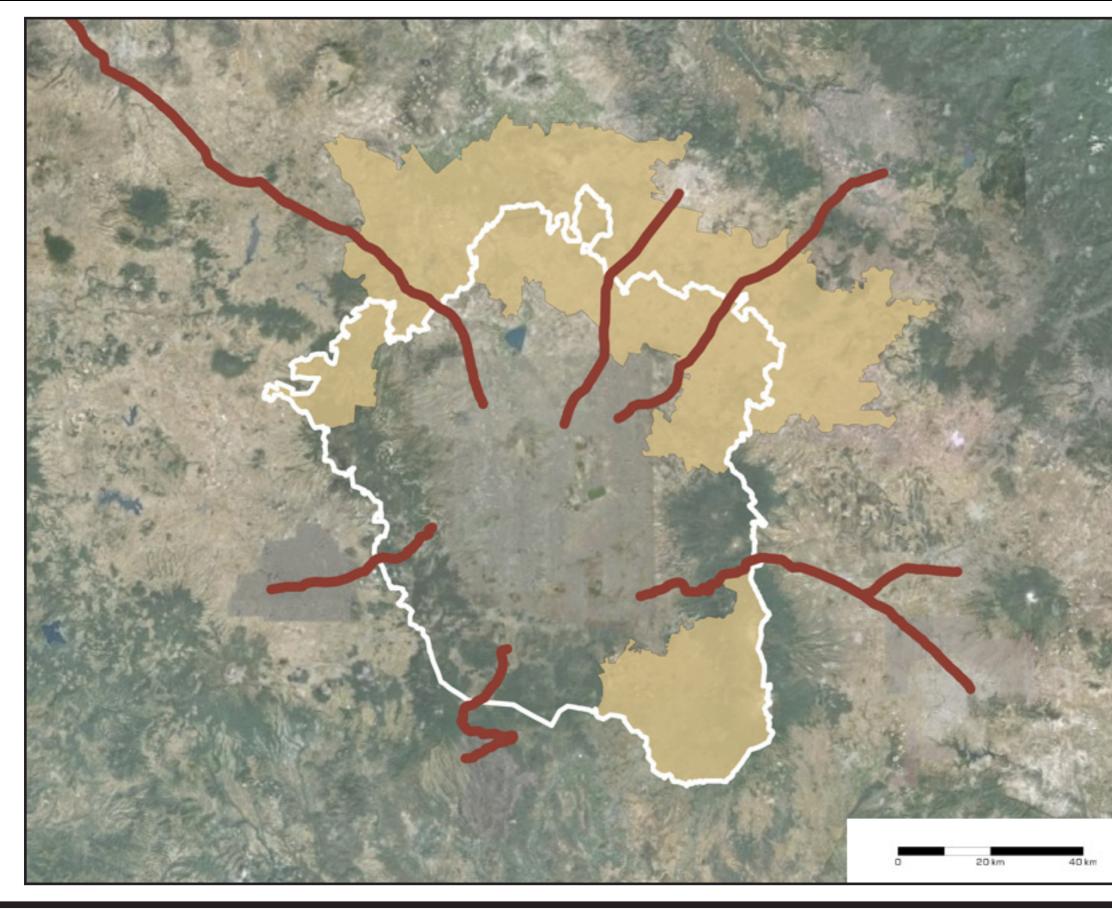
#### VISION



#### INTRODUCTION

#### REALITY

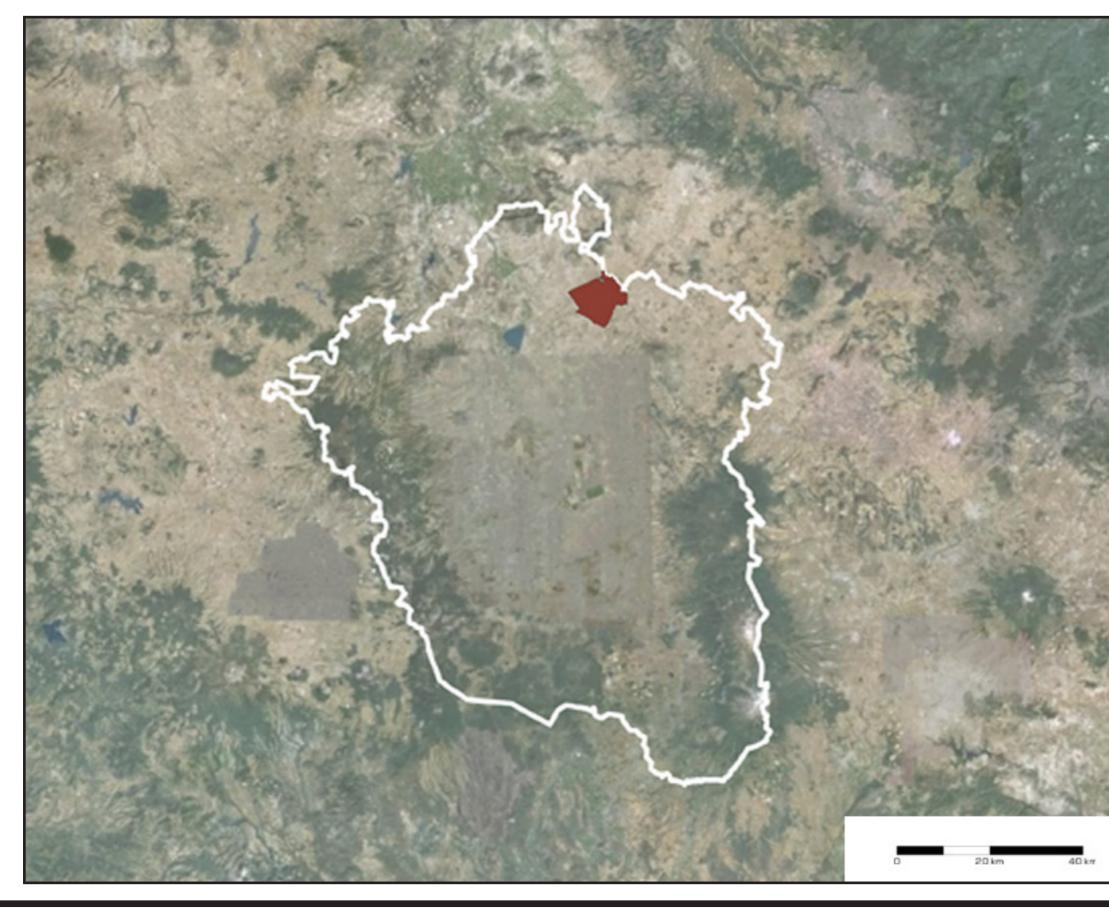
#### VISION



#### INTRODUCTION

#### REALITY

### VISION

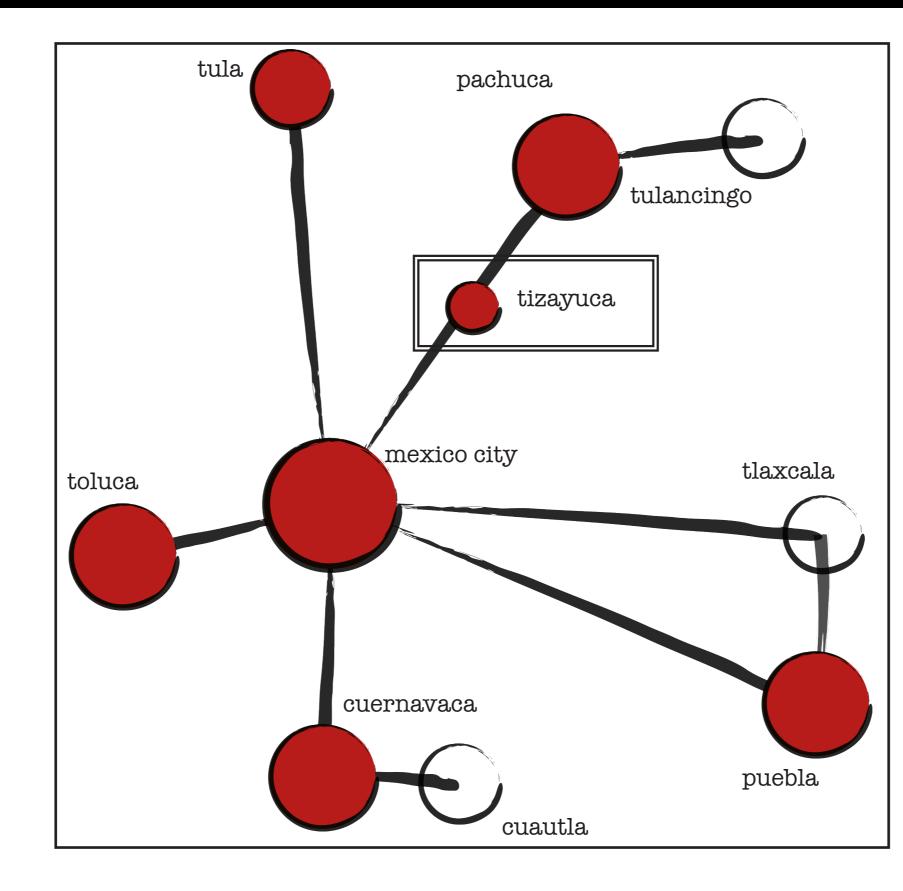


#### INTRODUCTION

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### VISION



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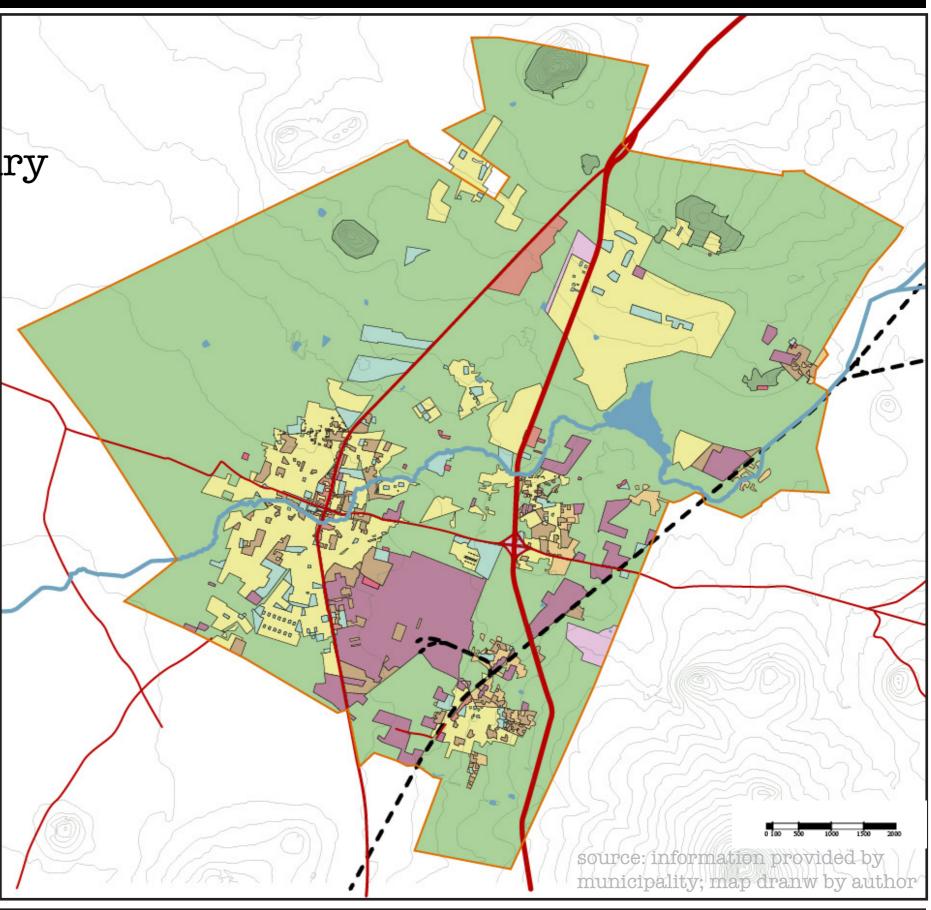
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#### VISION

#### General

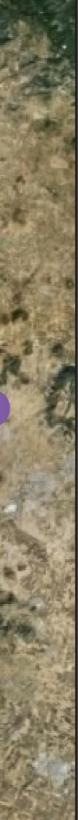
Established as a town in the  $16th \ century$ The municipality has a surface of  $77 \ km^2$ An average altitude of  $2200 \ masl$ 



REALITY



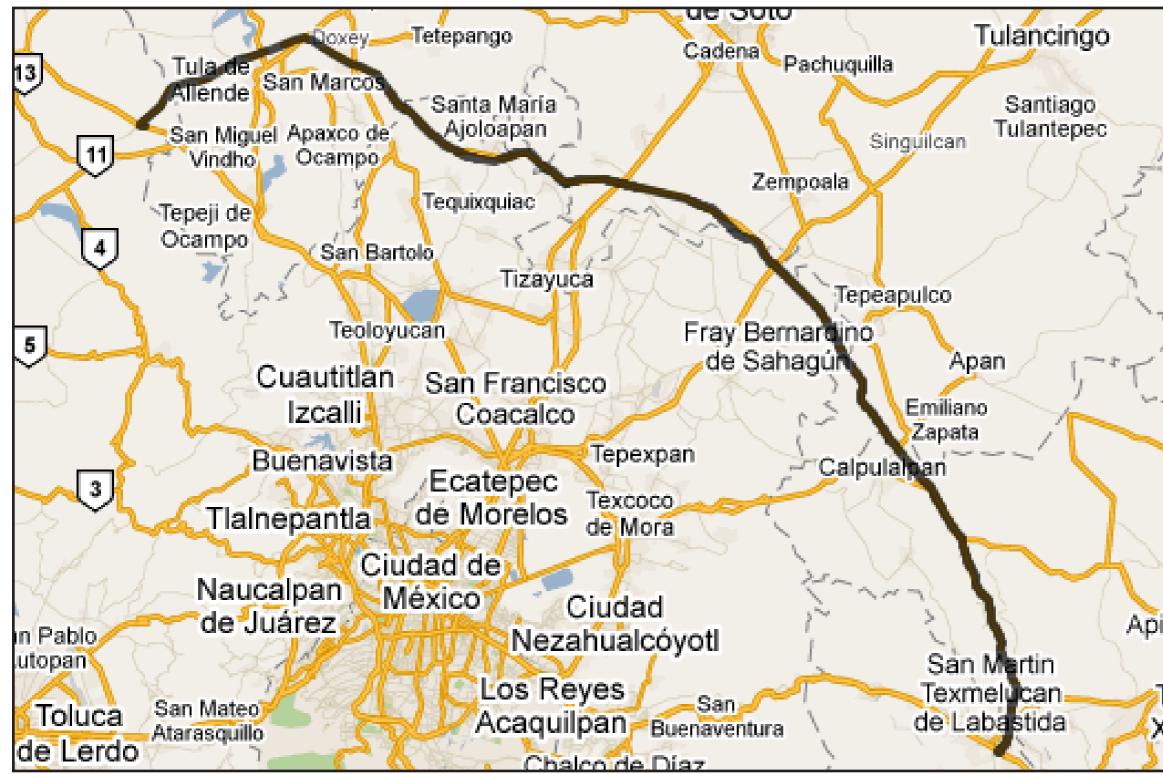






Tlanalpa

Ind. parks source: www. parquesindustriales.org





#### Arco Norte

source: www.arconorte. com.mx/



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## Population 1995 > 40,000 2000 > 45,000 2005 > 55,000

#### Mar, 2008

source: Google Earth



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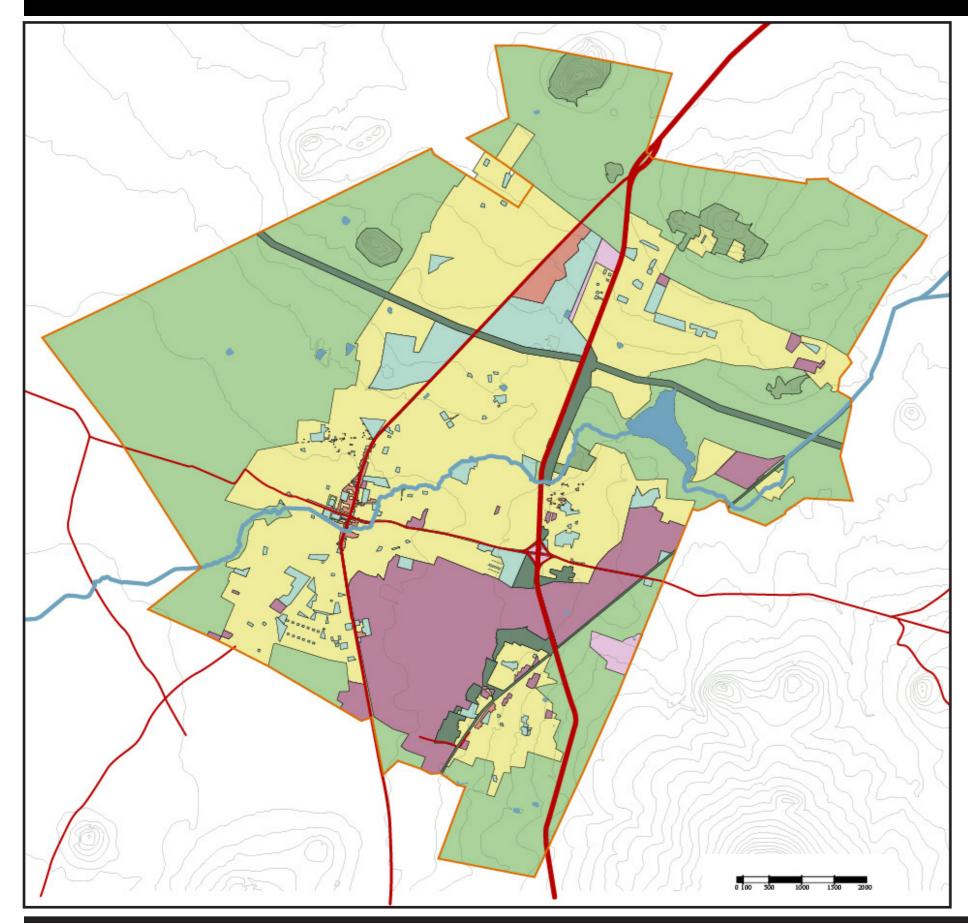


## Population 2005 > 55,000 **2010 > 100,000**

May, 2011 source: Google Earth



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INTRODUCTION

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#### VISION

source: information provided by municipality; map dranw by author

#### Highway

- Agriculture Land
- Infrastructure
- Buffer Belt
- Ecological Preservation
- Commercial
- Services
- Industrial Area
- Residential

#### Planean construir una segunda ruta de Tula de Allende a Cuatitlán

#### Desde Pachuca hasta Buenavista

En un estudio se prevén los enlaces del corredor Tecámac - Pachuca, que unirá a la capital con la línea B del metro en Ciudad Azteca.

#### Pasaría Tren Suburbano entre Hidalgo y Edomex

El 1 de agosto, la Secretaría de Obras Publicas de Hidalgo cerrará el proceso de licitación a empresas nacionales para la obra denominada proyectos y estudios del tren suburbano en la región sur del estado de Hidalgo y zonas metropolitanas del estado de México y ciudad de México







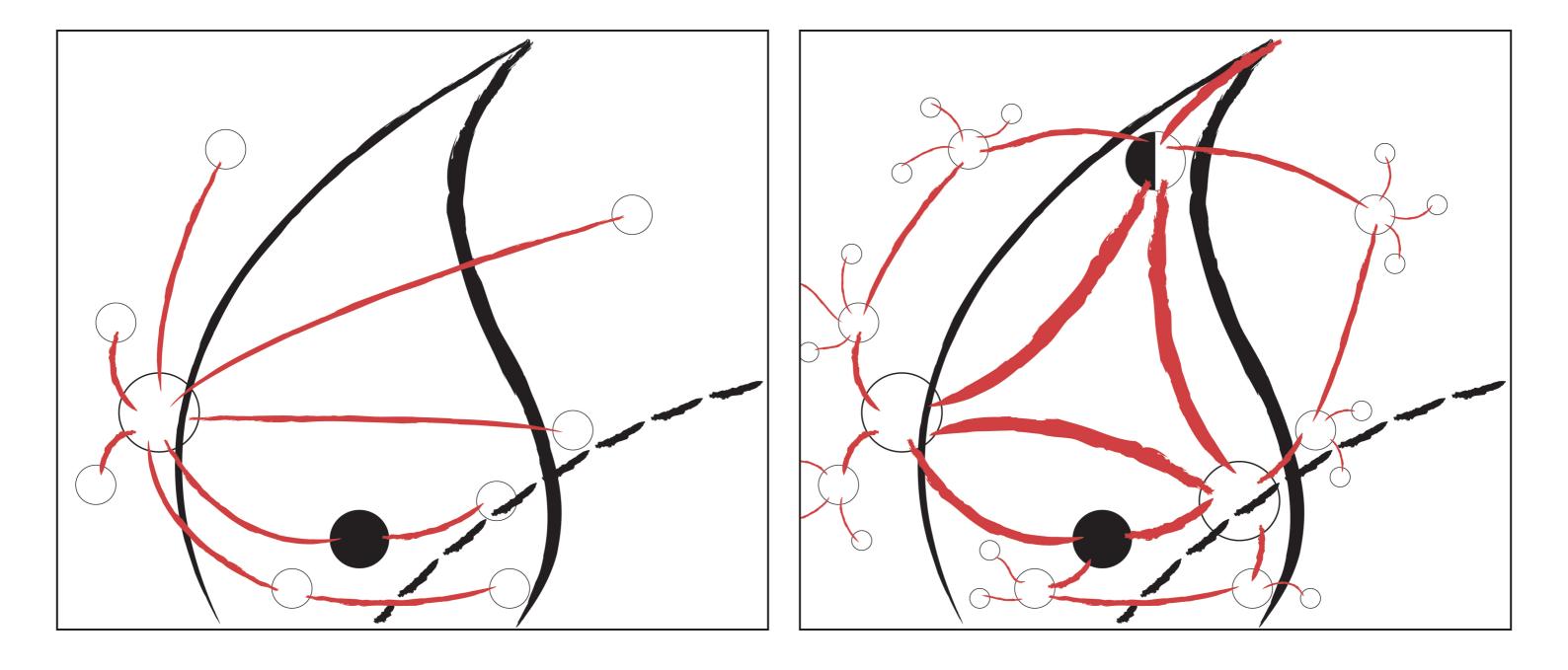
## HYPOTHESIS

# In order to connect the periurban fragments, clear physical communication channels should be established, linked to areas of common interest that react to the needs of the place.





## HYPOTHESIS





#### VISION

HYPOTHESIS

two strategies:

# 1.- mobility 2.- green structure as public space

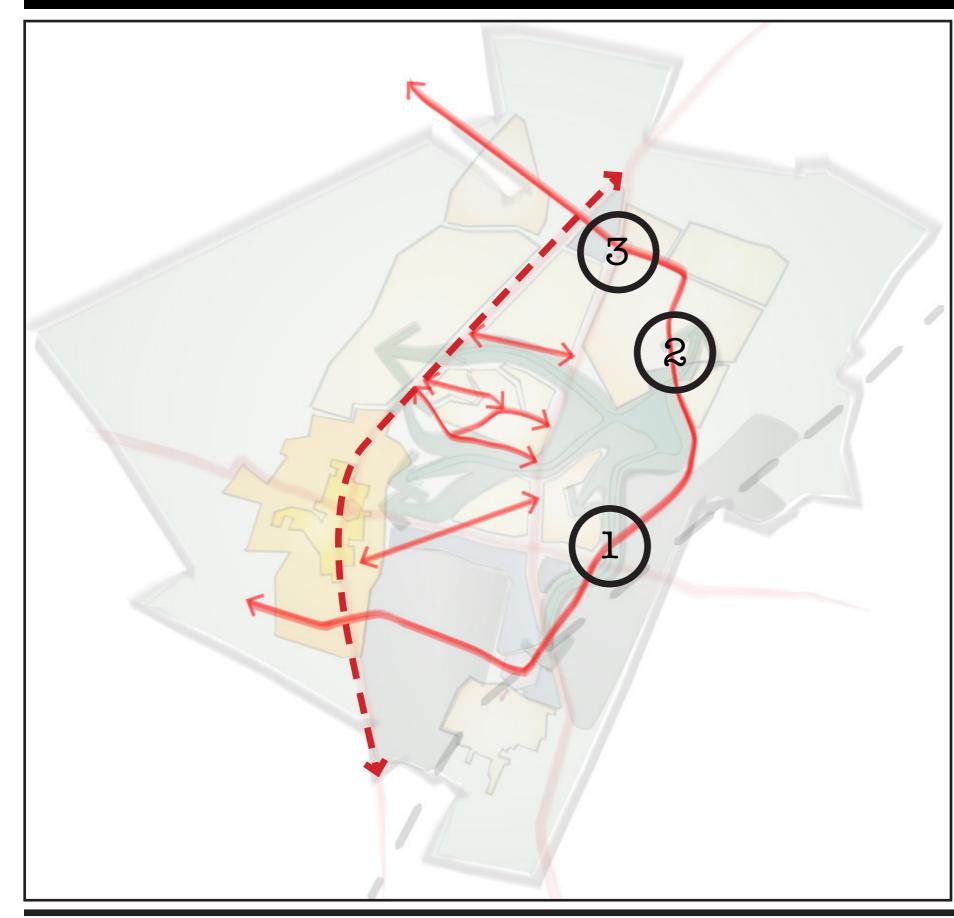
REGIONAL

MOBILITY INFRASTRUCTURE (SUBURBAN TRAIN + INDUSTRIAL PARKS + ARCO NORTE)

## LOCAL ACCESIBILITY + CONNECTIVITY







slow traffic

federal highway

INTRODUCTION

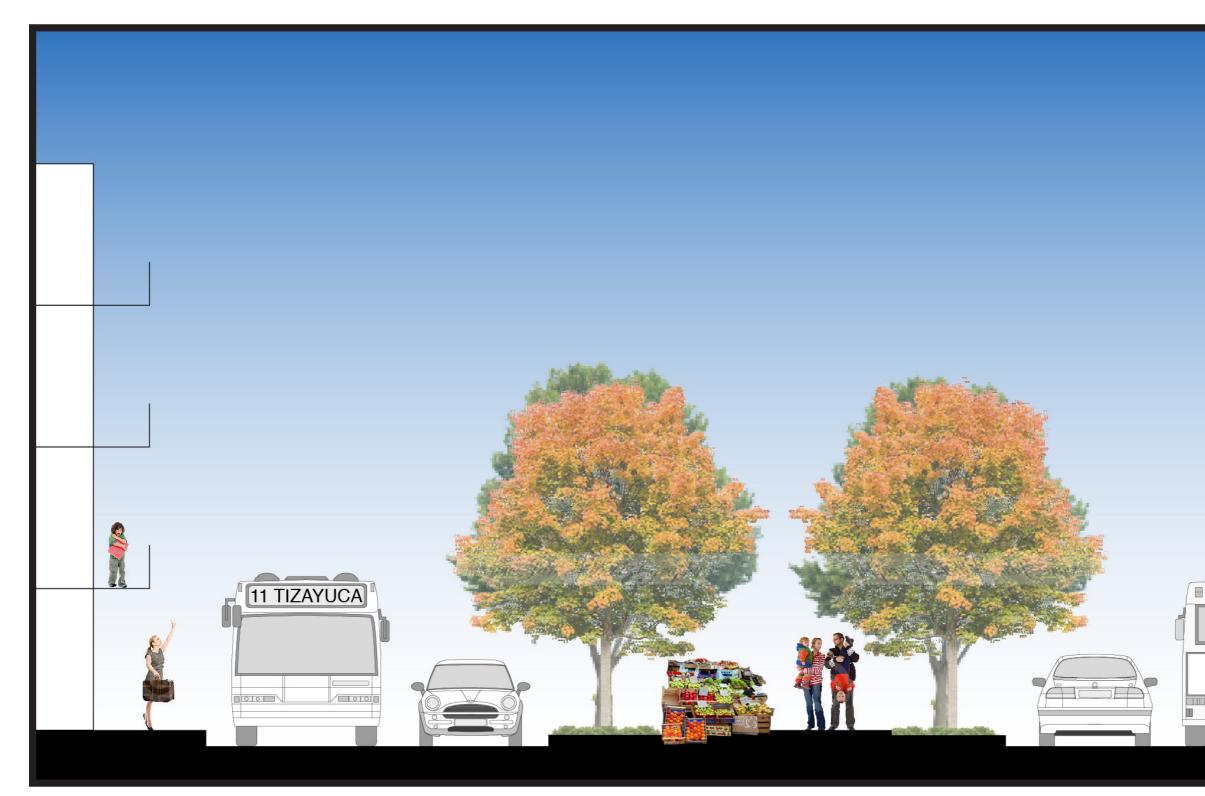
REALITY

# - east-west connections for

# - ringroad linked to the old



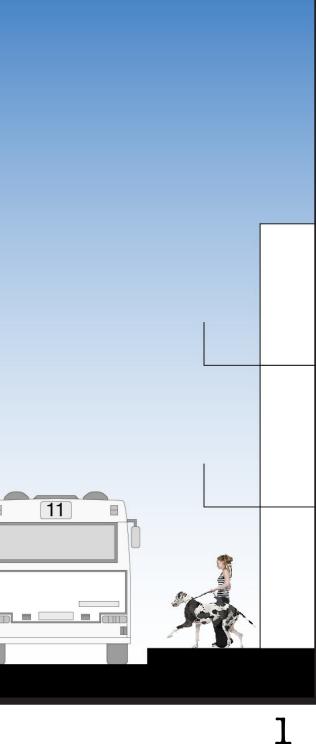




INTRODUCTION

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INTRODUCTION

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forces

- buffer area against periurban sprawl

#### INTRODUCTION

REALITY

## - recognition of natural elements as endogenous

## - linkage of fragments

## - promotes densification





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#### VISION

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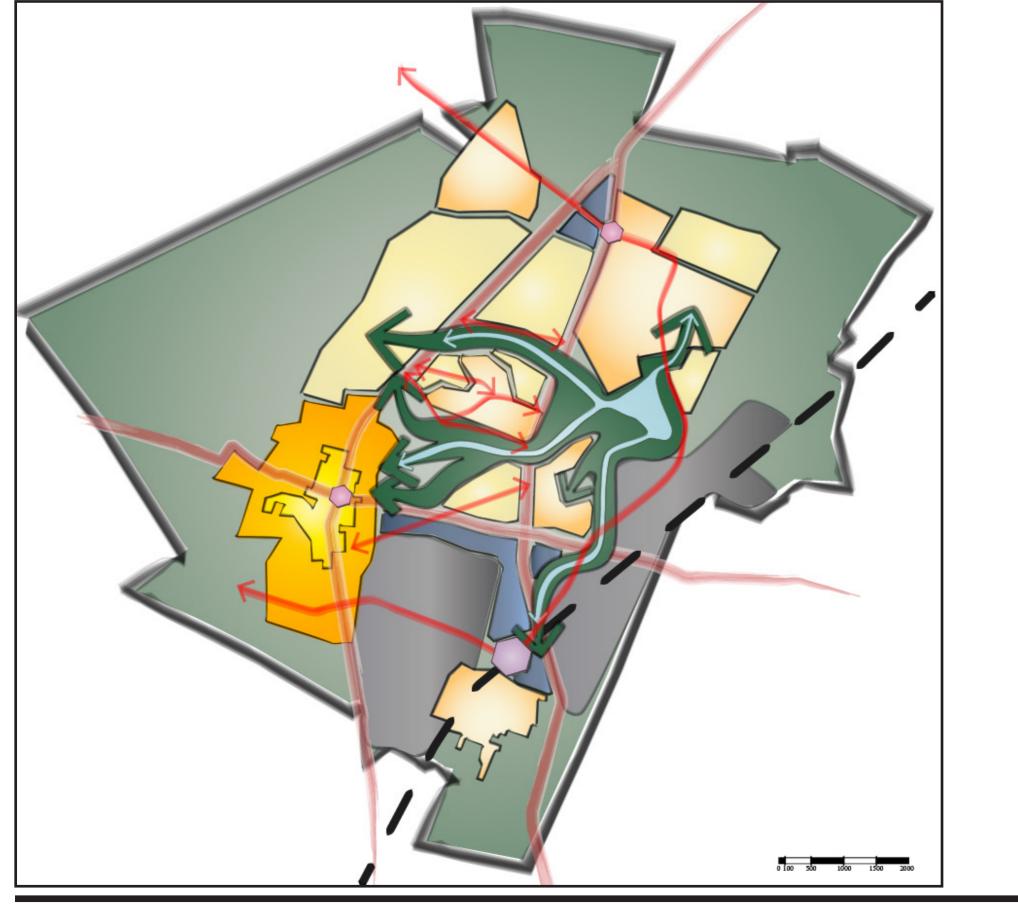






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### **REGIONAL CONCEPTION**



#### INTRODUCTION

REALITY

Centre of Tizayuca

Town of Tizayuca

Settlements

Industrial area

Possible expansion

**Business District** 

Central Park

Water

Agriculture land

Highways

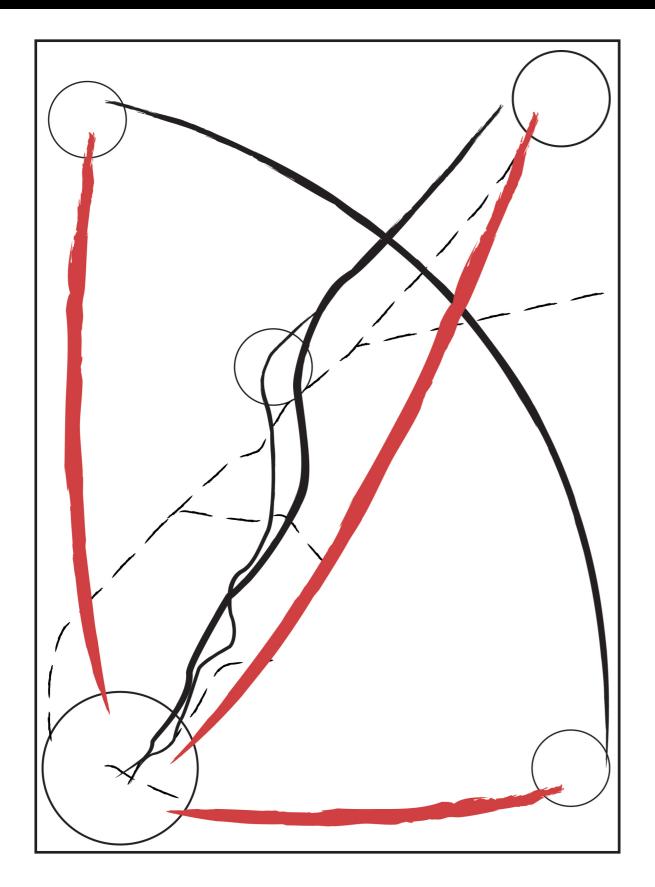
Projected roads

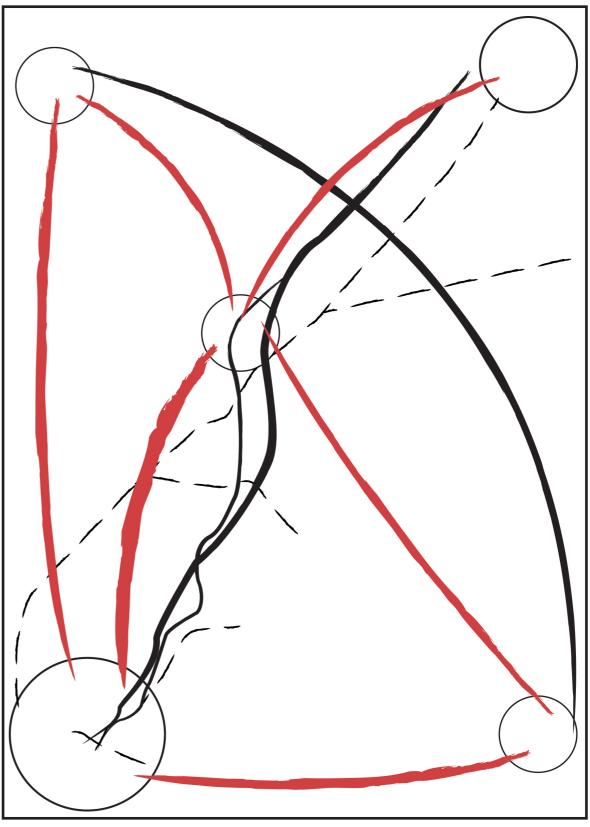
Train

Hub



### REGIONAL CONCEPTION



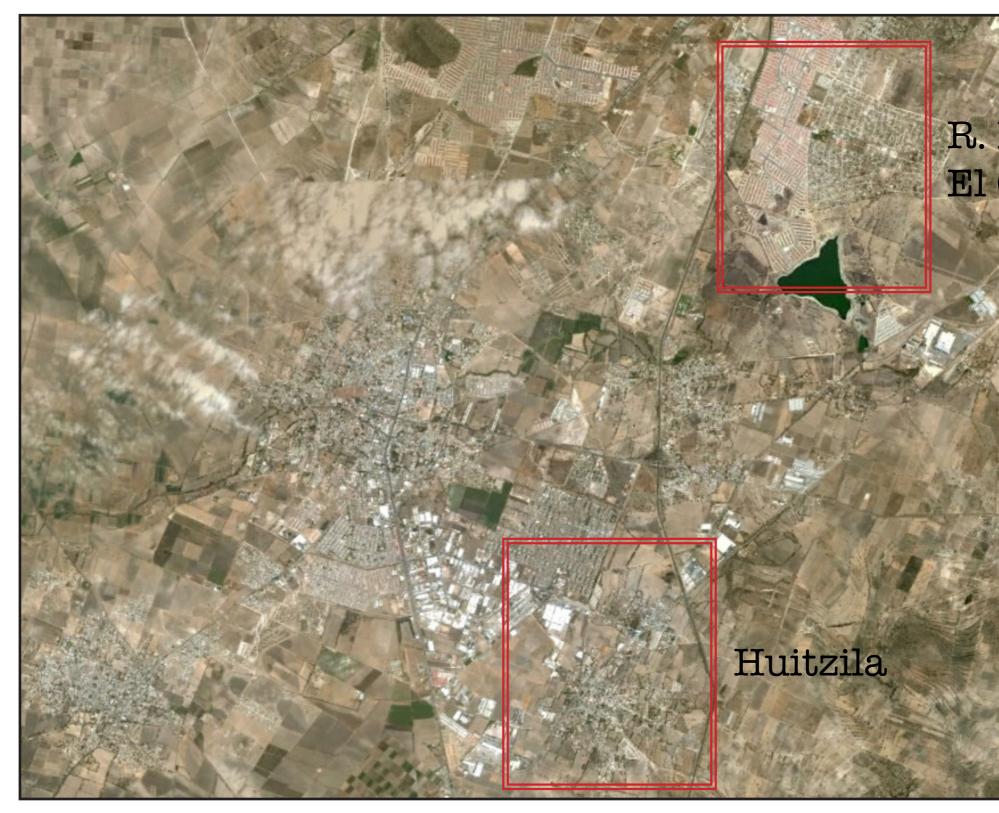


REALITY



#### VISION

source: Drawn by author





#### VISION

source: Google Earth







#### INTRODUCTION

REALITY





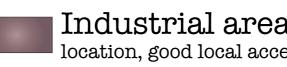




 $\operatorname{CBD}$ - close relation with the industrial area and easy accesibility form the highway and suburban train stop.



Suburban train stop- easy accesibility from the regional and local scales, in close proximity to the industrial areas, cbd and metropolitan park





Residential expansion- in empty plots, creating a boundary against informal expansion





Education- well connected plots of land in the local scale that will serve as educational & cultural centres



 $Commerce\- {\rm easy\,accesible\,plots\,of\,land\,in\,local\,scale}$ in which a number of local commercial activities can be present



Green public spaces- easy accesible plots of land in local scale in which a number of local recreational activities can be present

#### INTRODUCTION

#### REALITY

Industrial area expansion-strong regional location, good local accesibility via public transport

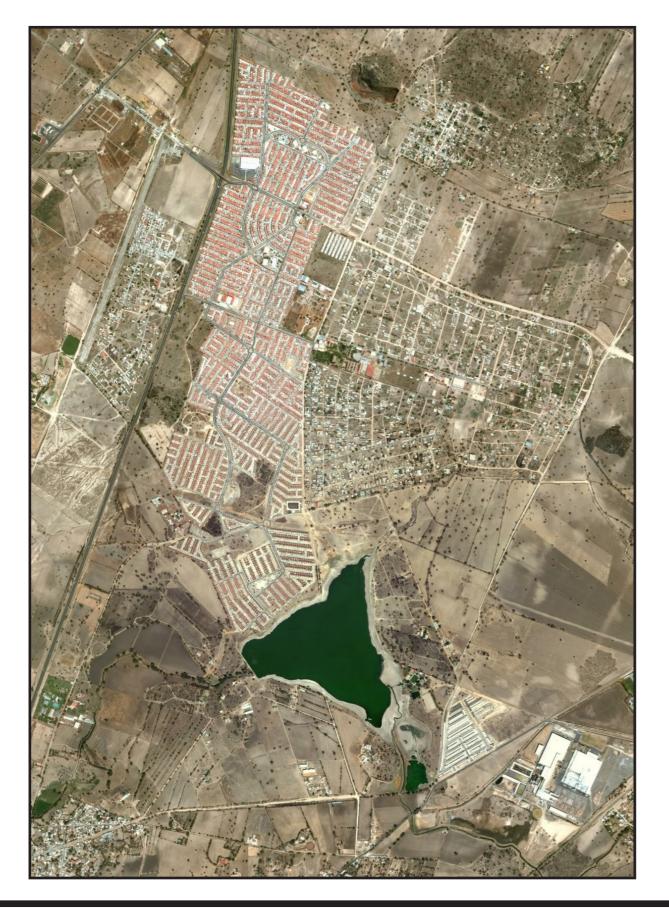
Agriculture- agriculture production & buffer zone

Highway



"Ringroad"







#### INTRODUCTION

REALITY





**Residential Expansion-** in empty plots, creating a boundary against informal expansiontrain stop.

Green Public Spaces- easy accesible plots of land in local scale in which a number of local recreational activities can be present

**Commerce-** easy accesible plots of land in local scale in which a number of local commercial activities can be present

Culture- easy accesibility by public transport and pedestrian routes.

Metropolitan Park- acts as a buffer and a connector in the regional scale as well as in the local scale

Water

#### ---- Pedestrian network

#### INTRODUCTION

REALITY



Highway

"Ringroad"



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#### INTRODUCTION

REALITY



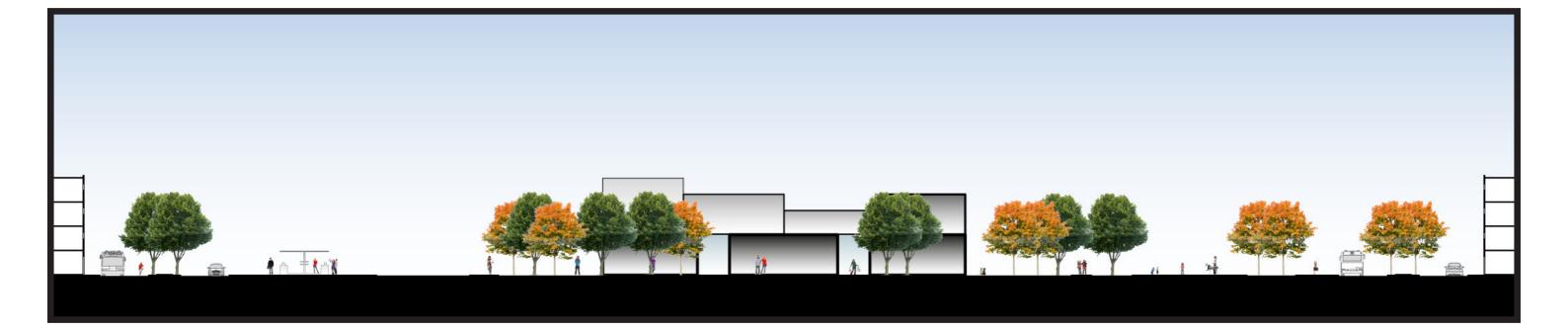
### - mix use area - pedestrian network



### - neighbourhood centre







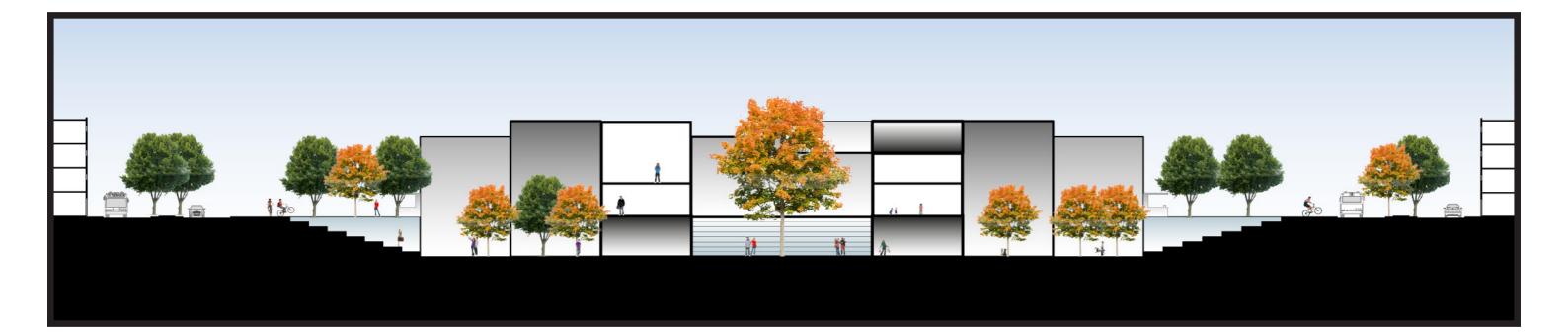
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#### VISION

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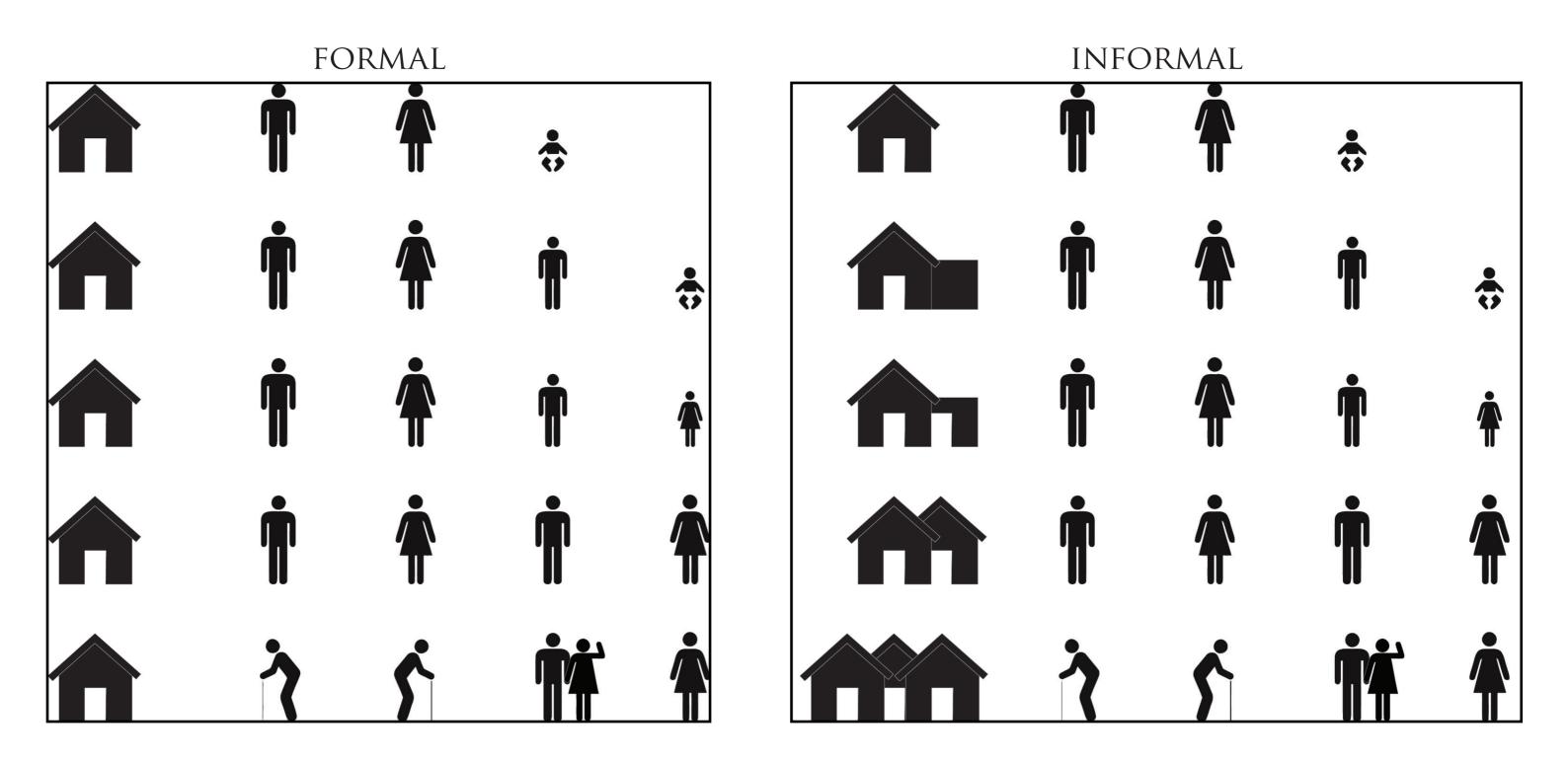


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- flexible housing

### - giving sense of belonging

#### - pedestrian network

### - "rurban" densification







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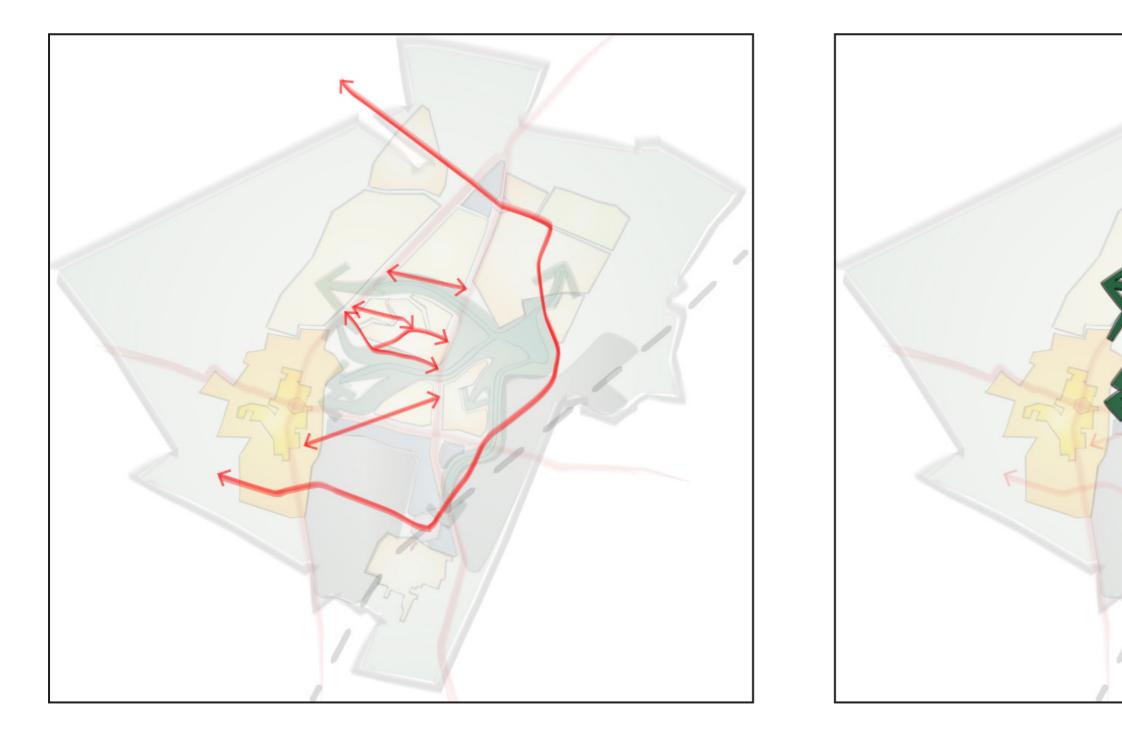


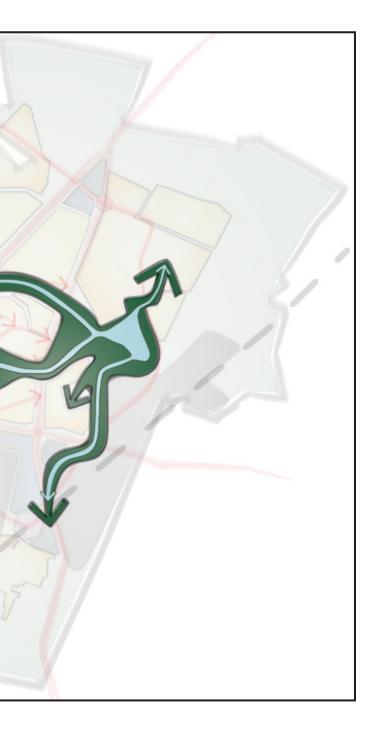
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### CONCLUSIONS

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Which metropolitan strategies can create the urban conditions to meet the local realities of the peri-urban fragments in MCMA?

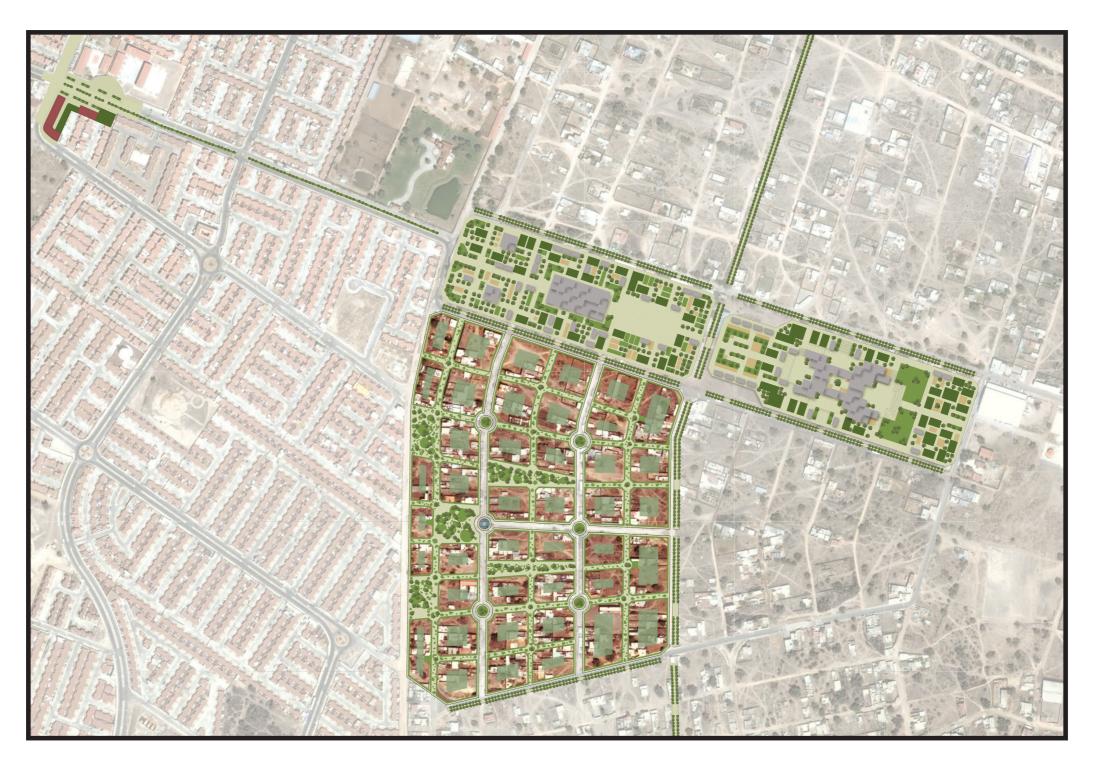






### CONCLUSIONS

Which spatial interventions can activate endogenous forces from peri-urban fragments (formal & informal) to achieve their physical and social interaction?





# igracias!