



CARLA MAIONE

PhD Student in Planning

Universita' *Mediterranea* di Reggio Calabria

Carla.maione@unirc.it

NETWORKS AND NEW URBAN HIERARCHY.

From TOD rational to the urban district

CARLA MAIONE

PhD Student in Planning

University *Mediterranea* of Reggio Calabria

REGGIO CALABRIA, CALABRIA, ITALY

Carla.maione@unirc.it

NORTH EASTERN UNIVERSITY

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- degree in Urban and Environmental Planning graduated *cum laude*, with thesis titled "Urban Regeneration Policies", supervisor Enrico Costa.
- Graduated in the degree inter faculty between engineering, economics and mathematics
- Masters in Industrial Design

"NETWORKS AND NEW URBAN HIERARCHY"

from TOD rational to the urban district

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GOAL: to connect the Strategy of the Transit Oriented Development (TOD) with the implementation of urban districts through urban regeneration process.

Hypothesis: TOD acts on the spatial configuration of urban systems, for new centers, and for a more equitable geographical distribution of urban services. In this way district becomes node / hub in the efficient distribution of benefits by the territorial *mileu*, that is the urban-rural connections. (rfr. New urban hierarchy)

DEFINITION

TRANSIT ORIENTED DEVELOPMENT (TOD) and CASE STUDIES
dominant paradigm of urban planning for growth in the United States.

State of the art

- ❑ THE NEW HIERARCHIES URBAN IN THE AGE OF GLOBALIZATION
- ❑ NETWORKS AND LOCAL SYSTEMS
- ❑ THE LOGIC OF THE URBAN DISTRICT AS A CONCEPTUALIZATION OF FORM BETWEEN URBAN AND RURAL INTERACTION.

FOCUS

Definitions and theoretical references

- The finality of the TOD
- The actions of the TOD
- The effects of TOD
- The actors

Urban districts

- PPP (Private Public Partnership)
- Service supply



What are the causes that have contributed to practice TOD?

- The processes of diffusion and urban sprawl;
- The growing crisis of congestion;
- The substantial investment in rail transport infrastructure in urban and regional;
- The role of rail infrastructure as an opportunity for urban regeneration and reorganization of settlement patterns (Dittman, 2004) , so the role of station areas in the organization as a determinant of urban systems (Bertolini 1999 and 2005).

Purpose of the TOD

Encouraging development "compact" influence areas of stations

- Improve the quality and live ability of the areas around the stations
- Encourage pedestrian access to stations
- Reduce urban sprawl
- Increase security
- To encourage economic development
- Promote investment opportunities for private



Maximize the use of public transport of iron:

- Reduce use of cars
- Reduce air pollution
- Increase revenues from transport companies
- Encouraging modal interchange

Intervention

In areas expanding or transformation:

construction of new urban centers with high accessibility and urban quality Pedestrian stations.

In areas of consolidated city:

fill existing gaps and interventions urban regeneration.

- Increase in density (new construction or urban regeneration)
- Redesign of the pedestrian access to stations
- Adding new features
- Inclusion of infrastructure

focus

**Public Private
Partnership
PPP**

**Urban Rural
Network**



Effect of the TOD

Primary Benefit

secondary Benefit

Public sector

Private sector

Increase in revenues for
the displacements and
transport companies

Increase in land values for
different us environmental

local economic development

Reduction of congestion and its costs
for (fuel consumption, pollution)

Revitalization and redevelopment of areas
urban

Reduction of congestion and its costs
for (fuel consumption, pollution
environmental)

Increase the attractiveness of areas for
private investors

Increased revenue through taxes

Reduction of urban sprawl and reduce
land consumption

Reduce costs associated with building
infrastructure for private transport

Strengthening of Institutional Relations

Increased competitiveness of
territorial

Increase safety of station areas

Fonte: Arrington e Parker, 2001

Effects of the TOD

| CITY | INCREASE OF REAL ESTATE VALUES (in ¼ mile from station) |
|--------------------|--|
| Philadelphia | +6.4% |
| Boston | +6,7% |
| Portland | +10,6% |
| San Diego | +17% |
| Chicago | +20% |
| Dallas | +24% |
| Santa Clara County | +45% |

Fonte: Cervero et al. 2002

Actors in the TOD and the interests of stakeholders (PPP)

Regions

- Improve the quality and live ability of regional territorial system
- To promote a polycentric territorial system of regional and reduce urban sprawl
- To promote the economic development of the regional system

Local Governments:

- To promote the economic development of local communities
- Reduce air pollution
- Place the interests of the residents of the station areas

Transportation agencies:

- Increase the number of passengers
- Increase the quality of the service
- Encourage development of areas around the stations owned

Other stakeholders:

- Local communities: increase the livability and quality of life
- Environmentalists: reduce pollution

CASES STUDY TOD

The different cases of TOD:

1. Integrated development of rail infrastructure and urban development (Boston, New York, Philadelphia, Copenhagen; Stockholm, Paris ...)
2. Urban development in areas of existing stations, thanks to the attractiveness of station areas by private investors. The development is encouraged by public policies, incentives and zoning to high density.
3. Urban development in station areas supported by market forces and transportation agencies (Transit Joint Development)

Bart-San Francisco



Dallas

The construction of the station Mockingbird was the first TOD project in Texas, where the construction of the station have been accompanied by the construction of residences, offices, theaters and restaurants



BOSTON

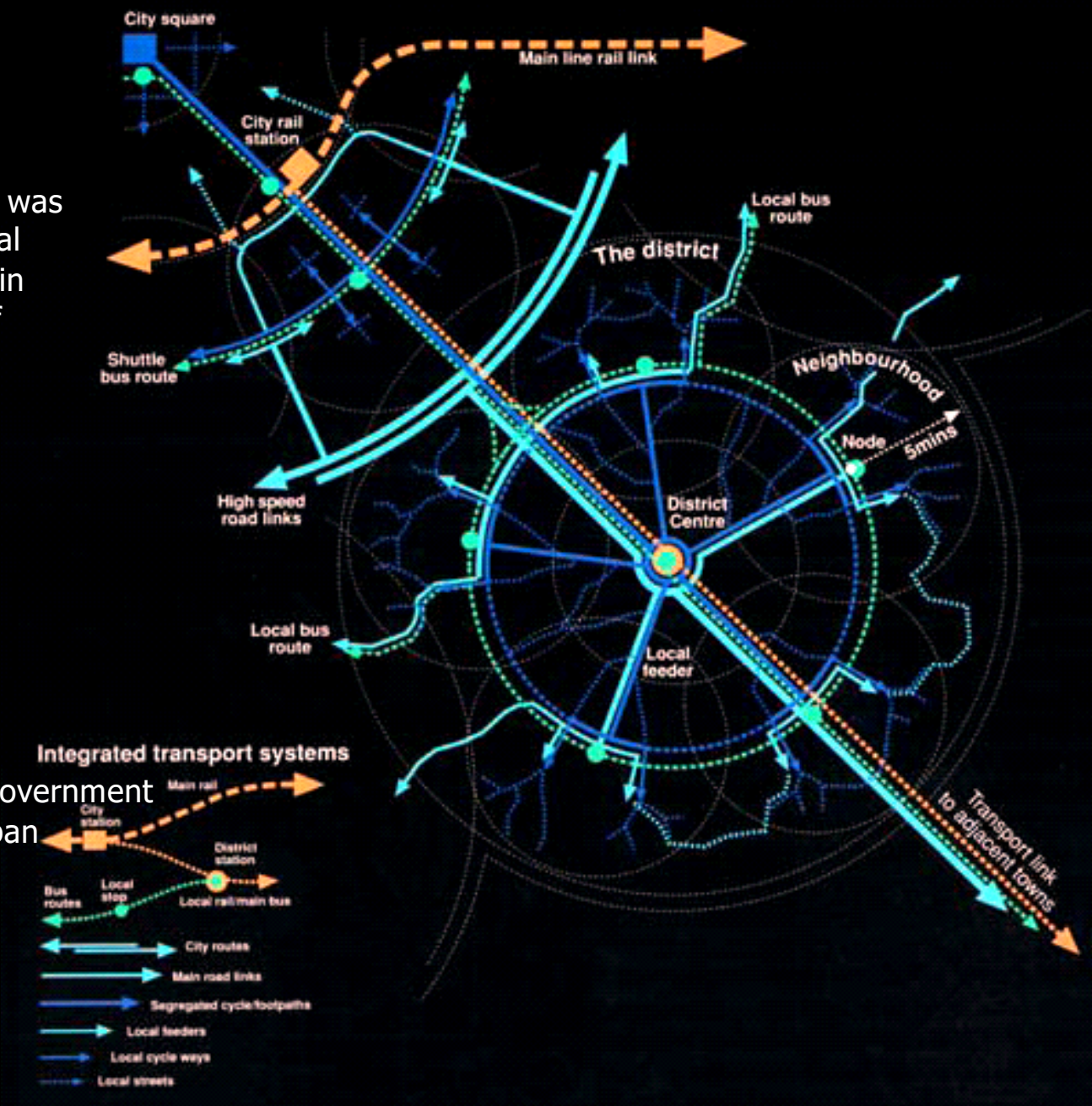
- Redevelopment around the urban central stations.
- Insert new residences in tertiary activities in areas of a former area Industrial.
- Densification around new semi-central stations



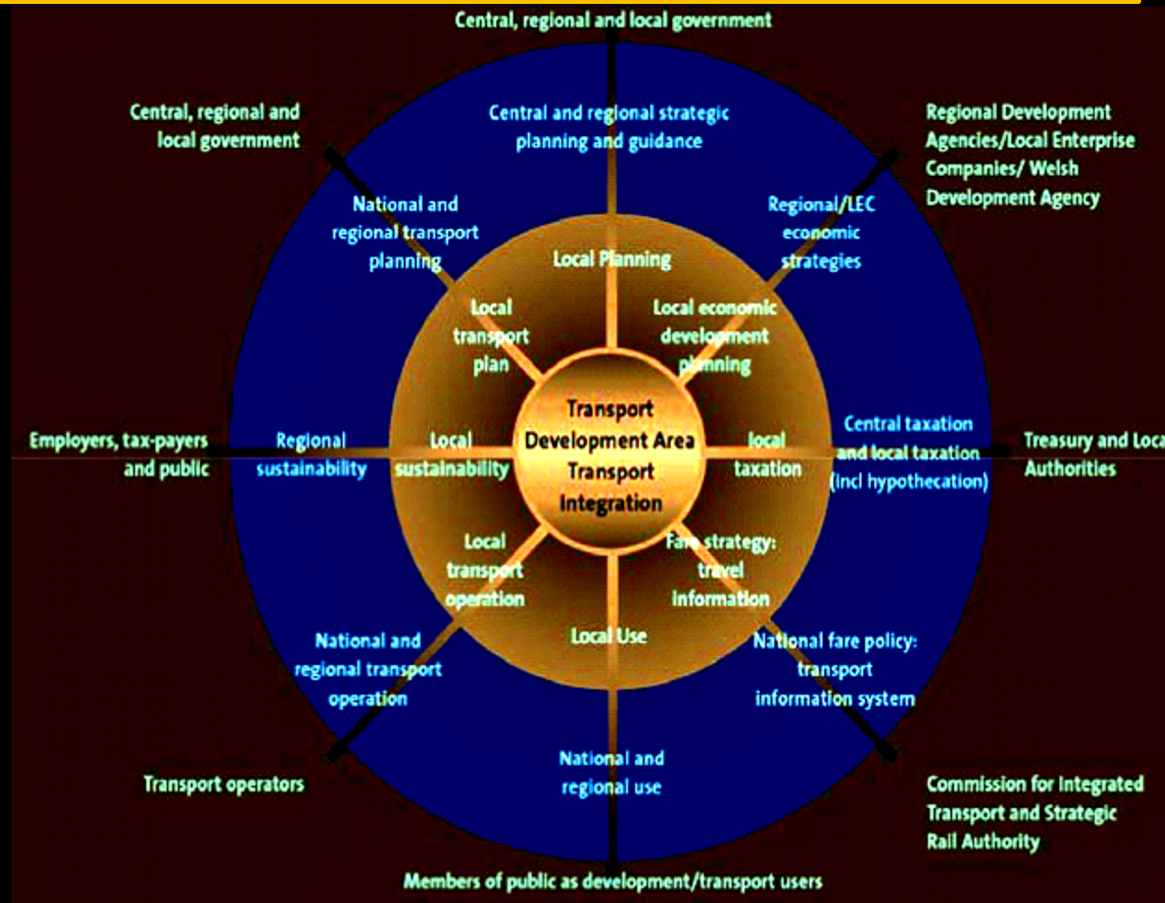
Transport Development Areas TDA

The European response to the TOD was proposed in 2000 by the RICS (Royal Institution of Chartered Surveyors) in Great Britain with the publication of preliminary study on the Transport Development Areas (TDA).

ADT is synonymous with a new integrated approach between the Government mobility and the Government of urban transformations that application in the transport nodes public and in all strategic places to high accessibility.



Transport Development Areas TDA



The "TDA approach" was translated into operational terms in the definition for each level of planning (national, regional and local) strategies, guidelines, methods and techniques to follow and implement the principles of the new approach to integrated planning

TOD Opportunities



- The TOD should be based primarily on criteria of regional interconnection and development of the area.
- Interventions of densification must be routed through a logic of territorial coherence of a larger scale (wide).
- Posts must be defined in co pianification between experts discipline different
- The TOD should be directed to the construction of centrality for encourage the creation of polycentric structures of the territory

Arrington, G.B. e Parker, T. (2001) *Factors for Success in California's Transit-Oriented Development*.

Sacramento: California Department of Transportation, Statewide Transit-Oriented Development Study.

- Bertolini L. (1999) Spatial Development Patterns and Public Transport: the Application of an Analytical Model in the Netherlands, in *Planning Practice and Research*, 14, 2: 199-210
- Calthorpe, P. (1993) *The Next American Metropolis: Ecology, Community, and the American Dream*. Princeton: Princeton Architectural Press.
- Cervero, R. e Duncan, M. (2002) Transit's Value Added. *Urban Land*, Vol. 61, No. 2., pp. 77-84.
- Robert Cervero, Christopher Ferrell, and Steven Murphy, (2002) *Transit-Oriented Development and Joint Development in the United States: A Literature Review*, TCRP Project H-27, Research Results Digest October 2002-Number 52 [http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rrd_52.pdf].
- Huang, H. (1996) The Land-use Impacts of Urban Rail Transit Systems in *Journal of Planning Literature*, Vol. 11, No. 1, pp. 17-30
- OIKOS Centro Studi (2003) "Trasporti e Qualità urbana. Il rinnovo delle stazioni come occasione di riqualificazione urbana", Regione Emilia Romagna.
- Porter D.R. (1997) *Transit-Focused Development: a Synthesis of Transit Practice*. TCRP Committee for Project J-7
- Reconnecting America (2007) *Why Transit Oriented Development and why not?* Center for Transit-Oriented Development
- RICS (2000) "Transport Development Areas: Guide to good practice"