Fostering Urbanity in a Mobile Society: Linking Concepts and Practices
Luca Bertolini *
* AMIDSt, Amsterdam institute for Metropolitan and International Development Studies, University of Amsterdam, Amsterdam, The Netherlands

Online Publication Date: 01 October 2006

To link to this Article: DOI: 10.1080/13574800600888269
URL: http://dx.doi.org/10.1080/13574800600888269

PLEASE SCROLL DOWN FOR ARTICLE
Fostering Urbanity in a Mobile Society: Linking Concepts and Practices

LUCA BERTOLINI

AMIDSt, Amsterdam institute for Metropolitan and International Development Studies, University of Amsterdam, Amsterdam, The Netherlands

ABSTRACT  Fostering the distinctive qualities of cities, or ‘urbanity’, has been a continuing focus of urban design. However, the context has greatly changed: most notably, contemporary urban society is a highly mobile one, making it necessary to redefine urbanity, as well as the strategies to achieve it. This paper addresses this task in two steps. First, the aim of fostering urbanity is redefined as that of shaping spatial conditions conducive to diversity and exchange in the economic and in the socio-cultural sphere. Second, some concrete implications of this for urban design are explored. Experiences in Amsterdam, the Netherlands and Naples, Italy, serve as illustration of the general argument.

Introduction: Urbanity and Mobility

The questions of what are the distinctive qualities of cities, or ‘urbanity’, and of how to enhance them have been a continuing concern for urban designers and their critics (just consider classics as Jacobs, 1961, or Lynch, 1980). However, the societal context keeps changing, making it necessary to continuously redefine urbanity, as well as the strategies to achieve it. This paper addresses a specific aspect of this task, that is, the need to recognize the intrinsically mobile nature of contemporary urban societies, and to reframe the quest for urbanity accordingly.

This reframing is urgent. Mobility systems are ever more crucial in granting individuals and organizations the access to the spatially and temporally disjointed resources they need to thrive, or even just to survive. The continuing growth and diversification of mobility is both a consequence and an instrument of contemporary lifestyles, to the point that “the right to work, to accommodation, to training, now incorporates an implicit right to mobility” (Ascher, 2003, p. 23). The resulting activity patterns are increasingly diverse, as a growing variety of mobility options interact with a growing variety of individual needs, desires and constraints. Mobility may thus encompass immobility, physical movement at different spatial scales and virtual mobility, and be instant, daily, weekly, seasonal or life cycle based.

Correspondence Address: Luca Bertolini, AMIDSt, Amsterdam institute for Metropolitan and International Development Studies, University of Amsterdam, Nieuwe Prinsengracht 130, 1018 VZ Amsterdam, The Netherlands. Email: l.bertolini@uva.nl
On the policy side, these developments mean that there is a growing need to link effectively the debate about the transformation and expansion of infrastructure networks to the debate about the design of places and the more general debate about the cities we need and want, or ‘urbanity’. Schematically, we can currently distinguish two major streams of thought in this respect. A first, mainly North America-based stream focuses on the notion of Transit Oriented Development (TOD). The integrated development of public transport systems and ‘walkable’ neighbourhoods is advocated as alternative to a car dependent, sprawling urban reality and its adverse impacts on natural environments and human communities. This is a quite mature field of enquiry, which has engaged by now in a full range of conceptualizations, operational prescriptions, and practice evaluations. Recent examples include Cervero (2004), Dittmar & Ohland (2004), and Dunphy et al. (2005). A second, chiefly Europe-based, stream of thought is rather concerned with the new tasks of urban design in the face of an intrinsically mobile, ‘networked’ urban society. The perspective is broader here in that the approach is markedly multi-modal (accommodating the car or telecommunication technologies is, for instance, also a central area of concern) and the goal is more loosely defined (a generic ‘good’ city rather than sustainable urban development, as in TOD). It is also a less mature field in that it is still dominated by conceptualizations and is poor in prescriptions and evaluations. Recent examples include Houben & Calabrese (2003), Institute pour la ville en mouvement (2003), Grillet-Aubert & Guth (2003) and Hulsbergen et al. (2005).

This paper builds upon the second stream of thought, but it recognizes the need to be more precise. In order to achieve this, it will concentrate on two specific, albeit not exhaustive aspects of the relationship between urbanity and mobility. The first is that of the need to provide spatial conditions for diversity in the economic and social sphere. The second is that of the need to provide spatial conditions for exchange in the economic and social sphere. Both diversity and exchange can be seen as essential ingredients of urbanity (Bertolini & Salet, 2003). Experiences in Amsterdam (the Netherlands) and, for the second part, also in Naples (Italy) will provide material for illustrating the argument and drawing urban design implications.

The City as a Diversity of Mobility Environments

Amsterdam is a globally oriented but also comparatively small city. With 475,000 jobs within its municipal borders, and around 1 million in the whole of the agglomeration, it must rely on a certain degree of specialization in order to be internationally competitive. In particular, its strength lies in the global orientation of, and the rich interactions within and between, three definite clusters: a managerial, a creative, and a transport and distribution cluster, while a fourth, also thriving leisure cluster has a more ambivalent role (Tordoir, 2001). These different clusters, and different types of firms within the same cluster (e.g. start-ups and established, core and supporting), have shown markedly different location preferences in the last decades. Land use, transport and firm characteristics need to be jointly considered in order to capture these developments. The concept of ‘mobility environment’ introduced by Bertolini & Dijst (2003) can be usefully employed for this purpose. As a mobility environment a place is jointly identified by the interrelated characteristics of the available transport means, its land-use characteristics, and the characteristics of its users.
Six main types of mobility environments can be distinguished in Amsterdam (Figure 1). First is the historic city centre, with excellent accessibility by public transport at different scales (urban, regional, national), a great amount and variety of places of activity within reach of slow modes (walking and cycling), but a relatively weaker position as far as accessibility by car and by international air travel is concerned. Second are the emerging multi-modal nodes around railway stations adjoining the motorway corridors. These locations enjoy a unique combination of excellent accessibility by both car and public transport at different scales, but are less well placed in terms of accessibility by non-motorized modes. In between city centre and emerging nodes, is a ‘1850–1950 belt’, the third type of mobility environment. Here are densely and diversely used neighbourhoods where especially accessibility by slow modes (the bike, in particular) is comparatively high. On the other extreme is the airport area, with an exceptional degree of integration in long-distance, worldwide air networks, an excellent embedding in both regional and national, both car and public transport networks, but hardly any degree of slow-mode accessibility. Fifth is another unique mobility environment, the harbour area, with high accessibility by water on all scales (including direct connections to both the North sea and European continental waters) and land accessibility dominated by car and truck. The rest of the Amsterdam region can, some internal differences notwithstanding, be characterized as a sixth, largely car dependent mobility environment, with an excellent embedding in the local, regional and national road networks, but only a few well connected railway stations and/or dense and diverse urban areas.

These six mobility environments can help pinpoint the increasing spatial differentiation of the Amsterdam economic landscape, and indirectly the increasing differentiation in the accessibility requirements of distinct firms and

Figure 1. Mobility environments in Amsterdam and the region. Keys: 1 = City centre; 2 = Multi-modal nodes; 3 = 1850–1950 belt; 4 = Airport area; 5 = Harbour area; 6 = Car dependent.
sectors. Within the municipality of Amsterdam (Table 1) larger firms have tended to concentrate in emerging multi-modal nodes, often moving from a former city centre location. In these mobility environments they find a unique combination of ease of access to the region and beyond, and abundant space for expansion. Small-scale firms, including an important share of home-based start-ups, are on the contrary still mainly to be found in the city centre and increasingly also in the 1850–1950 belt, where they, while less directly connected to the region, can enjoy unique opportunities for rich, flexible interaction at short distances and travel times. A similar differentiation can be observed when considering the share of commuters: commuter-rich firms tend to concentrate in the multi-modal nodes (where they have the best access to the regional labour force), while firms in the 1850–1950 belt rely disproportionately on workers living within Amsterdam. Firms in the city centre lie in between these two extremes.

There is also an increasing sector specialization (Table 2, this time considering the whole region and all types of mobility environments). Financial and business services are concentrated in the city centre and in the emerging multi-modal nodes, with an ongoing shift from the former to the latter. On the other hand, the cultural, media and the small-size information and communication technology

| Table 1. Spatial trends in the Amsterdam economy, by firm size and share of commuters |
|---------------------------------|-----------------|----------------|-----------------|
|                                 | City centre     | Multi-modal node | 1850–1950 belt |
| Large firms (> 50 employees)    | 0               | +                | −               |
| Small firms (< 50 employees)    | 0               | −                | +               |
| High share of commuters (> 40%) | 0               | +                | −               |
| Low share of commuters (< 40%)  | 0               | −                | +               |

Notes: + = spatial concentration, and growing share; 0 = spatial concentration, but decreasing share; − = no clear pattern.

Source: Based on Straatemeier (2002).

| Table 2. Spatial trends in the Amsterdam economy, by sector |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                 | City centre     | Multi-modal node | 1850–1950 belt | Airport area | Harbour area | Car-dependent |
| Financial services              | 0               | +                | −               | −             | −             | −               |
| Business services               | 0               | +                | −               | −             | −             | −               |
| Cultural industry               | +               | −                | +               | −             | −             | −               |
| Media industry                  | +               | −                | +               | −             | −             | −               |
| Information and telecommunication | +            | +                | +               | −             | −             | −               |
| Leisure and retail              | +               | +                | −               | −             | −             | −               |
| Transport and distribution      | 0               | 0                | 0               | +             | 0             | 0               |
| Manufacturing                   | 0               | 0                | 0               | +             | 0             | +               |

Notes: + = spatial concentration, and growing share; 0 = spatial concentration, but decreasing share; − = underrepresented.

Source: Based on Adviesdienst Verkeer en Vervoer (1999); Straatemeier (2002); Noordvleugelconferentie (2005).
industries appear to prefer the interaction-rich city centre and the 1850–1950 belt. The retail and leisure cluster is largely concentrated in the historic city centre, with the exception of the regionally oriented shopping malls and leisure complexes that rather tend to locate in the emerging multi-modal nodes, and many small scale, locally oriented establishments that still thrive in the 1850–1950 belt. Yet a different dynamic is shown by the transport and distribution cluster and by manufacturing activities. They are still present in all parts of the city, most notably in the harbour area, but there is a marked shift underway towards the airport area and the southern motorway corridors, that is, the strategic locations at the interface of global and regional mobility flows.

These different spatial patterns and trends also help identify the urban design challenge. To allow further growth in the Amsterdam economy it is essential that adequate mobility environments are supplied for the development of all the main clusters and types of firms. While exploring the implications in detail goes beyond the scope of this paper, understanding different accessibility requirements (what needs to be within reach and how?) and effectively integrating them in the more general pursuit of quality of place is a prerequisite to meet this challenge. The effort should not be limited to economic activities. In Amsterdam, a similar diversification of location trends can be also observed in the housing market, with city centre, 1850–1950 belt, multi-modal node and car dependent mobility environments each catering to well-defined, specific households and lifestyles (Meulenbelt, 1997; Van Diepen & Musterd, 2001). These characteristically include the single and double-income-no-kids urban professionals (in the city centre and the multi-modal nodes), their younger and/or less mainstream counterparts (in the 1850–1950 belt), and the families with children and the elderly (in car dependent environments). But there is more. While vital cities must provide spatial conditions for the development of a diversity of economic activities and lifestyles, it is also essential that they grant enough opportunities for all these different worlds to interact with each other. Next to space for diversity, there must be also space for exchange and confrontation, that is, a city needs also a sufficiently developed public realm (Sennett, 1970, 1977; Crawford, 1995; Deutsche, 1996; Lofland, 1998; Hajer & Rejindorp, 2002).

Classic examples of places where this can occur are city squares and streets, parks and markets. However, many of these traditional public spaces are losing their public function as they are becoming increasingly dominated by a limited number of activities and users (in Amsterdam, this is most notably the case for the tourist dominated city centre, but also for the increasingly socially homogenous peripheral estates and suburbs). On the other hand, there may be new public spaces emerging. Next to up and coming virtual public spaces (such as on the Internet), in a highly mobile society it is especially locations where different mobility flows intersect, or multi-modal passenger interchanges, that would seem to provide opportunities for the development of new public spaces. This potential will be discussed in the sections below.

Enhancing Exchange in a Mobile Urban World

The growing flows that traverse multi-modal passenger interchanges — airports, railway and metro stations, motorway service areas or pedestrian zones — are the direct product of the increasing differentiation and interdependence of the urban system sketched above. The increasing spatial segmentation of places of activity
translates in a growing need for functional links and mobility flows between
them (for instance in terms of commuter travel, business to business exchange,
shopping and leisure visits, social contacts). All these different flows come together
in multi-modal passenger interchanges. Furthermore, and thanks to their
increasing centrality, multi-modal passenger interchanges are often no longer
mere transport centres as activities there are rapidly diversifying: hotels,
conference centres, commercial and entertainment centres are springing up
around airports; there are ever larger concentrations of offices and shops around
railway stations; restaurants, supermarkets and meeting facilities are developed
in motorway service areas; pedestrian zones specialize in services oriented
toward tourists and other occasional visitors, etc. The city, at least morphologically,
seems to be coalescing around these nodal points. But to what extent may we
speak of them as public places as well?

According to the French anthropologistAugé (1995), rather than public
places, multi-modal passenger interchanges are examples of anthropological
‘non-places’ that is, places devoid of social relations, sense of history and identity.
Certainly many of the alienating situations described byAugé can be found here,
but how much are they the attribute of a spatial object (the multi-modal passenger
interchange) and how much of experiences that can also be of a very different
nature? Let us take the case of railway stations. For those who work there, stations
are, instead of being non-places, places where socialization and/or conflicts take
place, just as at any other workplace. For homeless and other marginal groups,
stations are often among the few places where their physical presence is still
tolerated and in some cases even appreciated, such as in the case of street artists.
For young people in the suburbs of many metropolises, stations are typically
better appreciated meeting places than the public squares of the housing estates
where they live. For many recent immigrants, stations are preferred locations in
which they can meet their countrymen. Additionally, and crucially, for those who
are just passing through, stations do always, at least to a certain extent, qualify, or
have the potential to do so, as a ‘place’. Station visitors at least share a physical
space there with persons who may be very different from them (one of the few
places where this still happens). They have the opportunity to observe and be
observed, as individuals or as groups (think of adolescents who exhibit their
stunting arts or dressing styles, travelling activists on the way to a demonstration,
or football supporters returning from a match). In addition, an unexpected event,
such as a delay or a bizarre passer-by, may trigger off an entire conversation with
an unknown co-traveller (just consider how many novels and movies begin with
situations like this). The monthlyDutch Railwaysmagazine even runs a section
listing romantic relationships that began in stations!

On these grounds the thesis of the non-place may even be reversed, as has
been indeed done byHajer (1996), who rather sees multi-modal passenger
interchanges as a potential ‘heterotopy’ (a concept borrowed from the philosopher
Foucault), that is, as places “where the accumulation of claims and different types
of utilization mean that no one single group may dominate” (Hajer, 1996, p. 5). It
would not be difficult to show how even the condition of heterotopy cannot be
taken for granted at multi-modal passenger interchanges, or how it is often pure
fiction. But the discussion helps to focus on the real question, namely that of the
conditions that may allow a non-place to turn into a place, or even a heterotopy (or
vice-versa). Precisely these conditions, or better, their spatial dimension, will be
the focus of the discussion of the Amsterdam and Naples cases below.
Assessing the Potential of Passenger Interchanges

Multi-modal passenger interchanges are among the most intensely used places of the Amsterdam region (Table 3). Central Station hosts around 300,000 passengers per day, secondary stations between 30,000 and 60,000. Schiphol airport has more than 100,000 international passengers per day, and this is not counting the tens of thousands of non-flying visitors. The A10 motorway ring road is also a heavily used place, with around 180,000 vehicles, and more people, per day. These numbers are at least comparable to, and more often higher than those in the ‘traditional’ public spaces of the city. The main shopping street, the Kalverstraat, on average has about 100,000 visitors per day, the main park, the Vondelpark, in the order of 25,000–30,000. The most popular attractions in the city — the Zoo, the State museum and the Concert hall — have no more than 2000–3500 visitors per day. It is only major, once a year events that attract significantly larger crowds. Examples include the Uitmarkt (600,000 visitors on an average year) and Queen’s Day (around 550,000 visitors).

Table 3. Passengers/visitors per day of different sorts of public spaces in Amsterdam

<table>
<thead>
<tr>
<th>Passengers/visitors per day (rounded)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stations</strong></td>
</tr>
<tr>
<td>Centraal station</td>
</tr>
<tr>
<td>Amstel</td>
</tr>
<tr>
<td>Sloterdijk</td>
</tr>
<tr>
<td>Zuid</td>
</tr>
<tr>
<td>Bijlmer</td>
</tr>
<tr>
<td><strong>Airports</strong></td>
</tr>
<tr>
<td>Schiphol</td>
</tr>
<tr>
<td><strong>Motorways</strong></td>
</tr>
<tr>
<td>A10 ring</td>
</tr>
<tr>
<td><strong>Shopping streets/malls</strong></td>
</tr>
<tr>
<td>Kalverstraat</td>
</tr>
<tr>
<td><strong>Parks</strong></td>
</tr>
<tr>
<td>Vondelpark</td>
</tr>
<tr>
<td><strong>Attractions</strong></td>
</tr>
<tr>
<td>Zoo</td>
</tr>
<tr>
<td><strong>Museums</strong></td>
</tr>
<tr>
<td>State Museum</td>
</tr>
<tr>
<td><strong>Concert halls/theaters</strong></td>
</tr>
<tr>
<td>Concert Hall</td>
</tr>
<tr>
<td><strong>Day-events</strong></td>
</tr>
<tr>
<td>Uitmarkt</td>
</tr>
<tr>
<td>Queen’s Day</td>
</tr>
</tbody>
</table>

However, it is not just the intensity of use that makes multi-modal passenger interchanges interesting as potential public spaces. They also tend to contain, crucially, a high degree of diversity among their users and the purpose of their visit. Furthermore, intensity and diversity can be experienced here on a daily rather than exceptional basis. Table 4 captures some of this, by means of the visitor characteristics of Amstel railway and metro station area. Station area visitors appear diverse in their place of residence, age (even though the elderly are under-represented), gender, purpose of the visit and are frequent users. The intensity and diversity of visitor populations of multi-modal passenger interchanges are certainly favourable conditions for the development of a public realm there. They are not sufficient, though. How all these visitors use them is just as, if not more important.

Table 4 captures some of this too. The length of the visit is in most cases very short, pointing at a crucial limitation to the development of meaningful interaction there. While the airport would perform better in this respect (but less as far as diversity of visitors and frequency of visits are concerned), users of the A10 motorway ring road are for the great part, and quite literally just ‘passing through’.

The high degree of co-presence in multi-modal passenger interchanges does thus not necessarily mean that different individuals and groups also interact with, or are even aware of each other there. As Table 4 shows, volatility seems indeed characteristic of the use of places that by their very nature have a built-in ‘zero-

**Table 4. Profiles of visitors of Amstel railway and metro station area. Source: BRO (2001)**

<table>
<thead>
<tr>
<th>Place of residence</th>
<th>Municipality (66%)</th>
<th>Rest of agglomeration (9%)</th>
<th>Outside of the agglomeration (26%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>16–25 (30%)</td>
<td>26–35 (26%)</td>
<td>36–45 (20%)</td>
</tr>
<tr>
<td></td>
<td>46–55 (13%)</td>
<td>56–65 (6%)</td>
<td>&gt;65 (5%)</td>
</tr>
<tr>
<td>Sex</td>
<td>Male (57%)</td>
<td>Female (43%)</td>
<td></td>
</tr>
<tr>
<td>Main purpose of visit</td>
<td>Transfer (25%)</td>
<td>Work (25%)</td>
<td>Visiting (12%)</td>
</tr>
<tr>
<td></td>
<td>School (10%)</td>
<td>Sport/leisure (9%)</td>
<td>Shopping (8%)</td>
</tr>
<tr>
<td>Length of visit</td>
<td>&lt;10 min (77%)</td>
<td>10–30 min (19%)</td>
<td>&gt;30 min (4%)</td>
</tr>
<tr>
<td>Frequency of visit (Thursday visitors)</td>
<td>&gt;5 per week (68%)</td>
<td>1–5 per week (14%)</td>
<td>&lt;1 per week (18%)</td>
</tr>
<tr>
<td></td>
<td>Frequency of visit (Saturday visitors)</td>
<td>&gt;5 per week (47%)</td>
<td>1–5 per week (21%)</td>
</tr>
</tbody>
</table>
friction’ tendency (Hajer, 1999). However, such co-presence does provide a unique potential for the interaction with different others, a constitutive feature of the public realm, as we have seen. Therefore, in what ways could this potential be realized and what could the role of urban design in this be? Lofland’s (1998) distinction between public realm frustrating design counter-strategies and public realm enhancing design strategies provide a useful reference against which to assess experiences and discuss possibilities.

Design Strategies and Counter-Strategies

In the words of Lofland, design counter-strategies are strategies for ‘destruction’ or ‘sanitizing’ public spaces. Strategies contributing to the ‘destruction’ of public spaces include the design of: (1) large, mono-functional neighbourhoods, because in such places the odds of meeting strangers are minimal; (2) streets entirely devoted to the automobile, but also pedestrian-only streets, because they discourage entire categories of people, respectively the non-drivers and those dependent on motorized modes, to come there; and (3) mega structures, such as large shopping malls, hotel and conference centres, or entertainment complexes, that concentrate life inside and subtract it from the street. Conversely, design strategies aimed at enhancing the public realm should provide for the multiple use of neighbourhoods and streets and for plentiful opportunities of interaction between life inside and outside buildings. Applied to multi-modal passenger interchanges this means that the diversification of and exchange between activities and flows should be a central goal.

A second family of design counter-strategies discussed by Lofland are strategies attempting at ‘sanitizing’ public spaces, that is, hampering the public use of nominally public spaces. Such strategies include privatization in its various forms (because of associated restrictions of access and behaviour), extensive surveillance (which also, albeit more subtly, has an impact on access and behaviour), and what she calls the ‘hideaway’ approach, or physical design that communicates inaccessibility. Many of these strategies are outside the reach of urban designers, as they rather point at area management issues. However, designers could still make a difference. First, they could try and develop physical environments that allow for a more tolerant and casual self-policing by users rather than the typically more discriminatory and daunting enforcement by uniformed agents or closed circuit cameras. Relevant interventions towards this goal include a high degree of cross-visibility and the very presence of people at all times, which also points back to the need for diversification of and exchange between activities and flows mentioned above. Second, and more directly, urban designers could insist on the inclusion of enough, highly legible points of access to and exchange between different parts of the multi-modal interchange and its surroundings.

Moving from public realm frustrating counter-strategies to public realm enhancing strategies, Lofland summarizes the task as that of creating situations where people can contact others who are different in a significant way on a daily basis. At the same time, these situations should not be deemed too dangerous and keep people away. She defines the striving for this difficult balance as that of achieving a ‘highly regulated urban anarchism’. To a large extent urban design cannot directly determine this balance (again, area management strategies have a crucial role here). However, it is never neutral. First, it can help make the often volatile co-presence of people at multi-modal passenger interchanges more
durable. The first and most important way of achieving this is integrating non-transportation uses in the area, such as different forms of living, working and recreation. Second, if the different users have to get a chance to interact, it is also necessary that the mobility flows associated with the different activities actually overlap in space and time. Urban design may have a role here too. The internal structure of transportation nodes and the quality of the physical links with the immediate surroundings will have a direct influence on the degree of overlap between mobility flows. A high level of internal and external connectivity becomes even more important if put in the context of a strong in-built tendency of new urban clusters to form self-contained enclaves.

In Amsterdam, Centrumgebied Zuidoost is a poignant example of both the opportunities and challenges of developments of and around multi-modal passenger interchanges for the urban public realm. Between Bijlmer station and the A2 motorway (see Figure 1) a diverse array of functions, including offices, shops, entertainment and housing, is being developed. However, different activities are highly segregated within mono-functional mega structures with independent entrances and little or no contact with the wider surroundings. There is diversification, but not exchange. A similar conclusion can be reached when looking at transport. The area enjoys exceptional accessibility by different transportation modes in general terms, but on closer scrutiny it rather shows a collection of segregated infrastructure spaces, with very limited contact between the worlds of the private car, public transport, cycling and walking. The result is a bewildering contrast between inward-looking centres of activity and mostly deserted open spaces (Figure 2). Can perhaps experiences elsewhere provide some clues for how to better realize the potential for the urban public realm at multi-modal transportation interchanges? In the following section the case of Naples, in Italy, will be discussed with this question in mind.

Learning from Naples?

While developments in Naples are in many respects of a different order than those in Amsterdam, the conceptual strength and realization breadth of the joint transport and urban development under way in the Southern Italian metropolis can provide useful material for reflection.

Since the mid-1990s the municipality of Naples (approximately 1 200 000 inhabitants in 2003) and the region of Campania (approximately 5 750 000 inhabitants in the same year) have jointly embarked on an ambitious, far-reaching urban and regional metro development plan that by 2011 will give the city the highest railway to inhabitant ratio in Europe (see Table 5).

The entire undertaking, including new lines and stations and also extensive integration between existing and new transportation services, would deserve a discussion in itself (see for an introduction Cascetta, 2000, 2005). However, and in light of the objective of this paper, the focus here will rather be on the integrated development of metro stations and their urban surroundings. This is an unprecedented collaborative effort involving a diverse array of professionals (from civil engineers, to urban planners, urban designers, architects, artists and archaeologists) and stakeholders (including the municipal and regional government, the planning and transport departments, the construction and the transport industry, transportation providers and local institutions). While the process is still underway, there are already many concrete results
documenting both the potential of passenger interchanges in enhancing the urban public realm and, most importantly, specific ways in which urban design may help to realize it.

To demonstrate this, there is first another look at the main conclusions of the preceding section. In order to enhance the opportunities for developing a public realm at passenger transportation interchanges, design should provide for:

Figure 2. The Arena area, as prototype of the emerging multi-modal passenger interchange; a view of the outside (above) and of the inside (below). The critical mass of functions is there, but how public is this realm? Photo: the author.
Table 5. Main interventions according to the 1997 Municipal Transportation Plan.

Source: Cascetta (2000)

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metro lines (km)</td>
<td>8.3</td>
<td>89.8</td>
</tr>
<tr>
<td>Tram lines (km)</td>
<td>15.0</td>
<td>30.0</td>
</tr>
<tr>
<td>Total railway lines (km)</td>
<td>23.3</td>
<td>119.8</td>
</tr>
<tr>
<td>Cable car lines (m.)</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Stations</td>
<td>45</td>
<td>98</td>
</tr>
<tr>
<td>Rail-rail interchanges</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>Rail-car interchanges</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>New motorways (km)</td>
<td></td>
<td>13.7</td>
</tr>
<tr>
<td>New primary roads (km)</td>
<td></td>
<td>18.4</td>
</tr>
<tr>
<td>Demolished roads (km)</td>
<td></td>
<td>7.5</td>
</tr>
</tbody>
</table>

(1) multiple use, both in terms of activities and flows;
(2) plentiful opportunities of interaction between life inside and outside buildings;
(3) high visibility and presence of people at all times;
(4) enough, legible points of access to and exchange between different foci of activity;
(5) an internal structure favouring the overlap of mobility flows in space and time;
(6) links with the wider surroundings.

Realizations and projects in Naples show a full arsenal of practical ways of achieving this, including, and with reference to the list above:

(1) Multiple use is achieved by locating stations as close as possible to existing urban facilities (as with main museums), by locating new urban facilities (such as hospitals and universities) close to stations, and by providing as many points of exchange as possible between different mobility flows (rail and road-based, motorized and non-motorized: see the more than proportional growth of stations and interchanges in Table 5).

(2) Examples of ways to provide for interaction between life inside and outside stations are the opening of a direct entrance to the National Museum inside the homonymous station and the use of the same station as exhibition space; the full integration of Municipio station with the archaeological excavation site below and the public square and waterfront above; the preservation of existing public spaces (as at Dante station); and the creation of new public spaces (as most spectacularly at Salvator Rosa station: see Figure 3).

(3) The visibility and presence of people is enhanced by treating the station and the surroundings as one single public space (both in terms of details and materials, and most importantly in terms of visual and physical connections). This is particularly the case for the ‘art stations’ of Salvator Rosa (see Figure 3) and Mater Dei, where a team of internationally renowned contemporary artists has worked under the lead of architect-designer Alessandro Mendini. An even more daring project is under development: Montesanto station will literally be a piece of art, and the product of the unprecedented collaboration of British sculptor Anish Kapoor and the engineers of the local railway company.
(4) Access to and exchange between different parts of the station and the surrounding area are catered for by bringing metro entrances as close as possible to the main local existing activity centre (even when it means extra tunnelling), and by treating the inside of the interchange as a public space in its own right (in terms of materials and design, and by using it as an exhibition space).

Figure 3. The surroundings of Salvator Rosa station before (above) and after (below) the arrival of the metro, documenting how a non-place can become a place, due to (rather than in spite of) the realization of a transportation node there. Photo: Municipality of Naples.
The overall structure of station connections seamlessly links the world above and that below ground level, thus providing plentiful opportunities for the overlap of mobility flows, including both more targeted flows, for accessing the metro system below ground or the urban facilities above ground, and more casual flows, such as of those just enjoying the public space.

Links with the wider surroundings are enhanced by directly connecting pedestrian channels in the station and pedestrian channels in the neighbourhood. Pedestrian reach is maximized both within the station (by means of *tapis roulants*, escalators, etc.) and in the surrounding neighbourhood (for instance by obtaining public access to previously private passages, by building stairs and escalators to overcome major height differences as at Salvator Rosa station, by planting a new park on top of a railway ditch as at Trencia station, or by opening up a new pedestrian passage under a railway viaduct as at Piscinola station)

The combined effect of the urban design strategies described above and the enhancement of the transportation system as such are impressive. Public transport use in Naples is, in counter-trend with many other cities in Europe, sharply on the rise. Most importantly in the context of this paper, station developments appear to have reinforced, sometimes dramatically, the urban public realm, as a recent visit to the city, and also hard real estate market data, suggests. More of this is expected to unfold as new stations are opened. In the meantime, the philosophy of the Naples approach, employing transportation development as a means of re-connecting the urban fabric could be of inspiration for undertakings elsewhere.

Conclusions: Designing for Diversity and Exchange

This paper has begun to explore how urban designers’ and their critics’ enduring quest for urbanity can be reframed within the context of an intrinsically mobile society by focusing on some specific aspects of the broader theme. The limited focus has allowed for more detailed empirical underpinning, and a more explicit discussion of urban design implications than in other literature. There are three main conclusions.

First and more particularly, it has been shown how the accessibility requirements of different, and yet complementary types of activities are becoming increasingly varied, and how urban design needs to accommodate these. While the specific challenges in cities other than Amsterdam will differ, finding ways of developing a variety of ‘mobility environments’ matching the increasing variety of accessibility requirements of a vital urban society will have to be a central concern.

Second, the potential and the limits of multi-modal passenger interchanges as new public spaces have been explored, and some spatial conditions under which this potential can be realized have been pointed out. Positive conditions most notably include functional diversification on both the transport and land-use side, increasing the chances for actual space-time overlap of different mobility flows. The Amsterdam and Naples cases have been employed to illustrate both successes and failures in achieving these. As above, the specific challenges in other cities will be different, but the issue of finding ways of realizing, or at least not frustrating,
the public potential of multi-modal passenger interchanges will have to be a key one.

The two themes above are by no means exhaustive of the discussion on mobility and urbanity. However, they have started showing what may concretely be implied by the call for reframing urban designers’ and their critics’ search for urbanity within the context of a highly mobile society. Fostering urbanity essentially means creating positive conditions for economic and socio-cultural diversity and exchange. In a mobile society such conditions necessarily also relate to features of the transport and the telecommunication systems, as they combine with features of the land-use system and the needs and desires of different, mobile individuals and organizations. The third and more general conclusion (or is it rather an hypothesis?) is that only more joined-up thinking and acting by transport, telecommunication and land-use researchers, planners and designers, and more informed involvement of stakeholders and the wider public in the debate, can deliver this. While one case is too limited a base for any generalization, the achievements in Naples can only be understood in the context of such an extensive inter-disciplinary, inter-organizational, collaborative effort.

Acknowledgement

The stimulating comments of two anonymous referees and the editor are greatly appreciated.

References


