

# Bo Grönlund, Royal Danish Academy of Fine Arts, School of Architecture, Copenhagen: The informational city and the street as urban form - 4 new urban districts and their relation to urbanity

## Can 'cityness' or urbanity be built into new urban districts?

A quest for more 'cityness' - also in new urban districts - broke through in Scandinavia together with postmodernism 25 years ago. In Copenhagen well known examples are Egebjerggård in Ballerup and the new station district in Høje Tåstrup. In Stockholm the showpiece is Skarpnäck and later the Södra Station district. In Malmö there is also the new Bo01 exhibition area at the harbour front and in Copenhagen the Ørsted project is now under construction.

The goals about 'cityness' have typically been concerned with a more traditional urban pattern of blocks, streets and squares, a mix of functions and visible people in public space. Several architectural reviewers and social scientists have expressed disappointment with the result of the urban projects and interviews with residents show a preference for natural green environment in relation to the dwelling - not urbanity. The question of 'cityness' suffers from a relatively weak theoretical underpinning. Architects often see urban design as special formal typologies and floor area ratios, while other professions emphasise human actions, forms of life, public conversation, diversity, coincidence, the topology of the movement networks, etc. If goals for 'cityness' - or urbanity - shall be meaningful and possible to evaluate in practice, a greater agreement on the concept is needed, although it should not be too rigorous and probably never can be complete.

To **Johan Asplund**, a Swedish social-psychologist, urbanity is first of all a great potential for unplanned events and coincidences, which can create new possibilities and resources. To him the degree of urbanity also has to do with a readiness to let this kind of urban events have an influence on the further lifelines of the people involved.

**William Whyte's** empirical studies of US public spaces points in the same direction. People like a high density of other people and events, rich sensuous stimuli and also crowding.

**Henri Lefebvre**, the French Philosopher of space, is critical about modern urbanism, which has undermined urban life and contributed to an abstract space. To him, urbanity has to do with meetings of difference, life and play, speech and conversation - also with strangers - and the use of all the senses. The city, its buildings, art and human lives should be seen as unique works (in French 'oeuvre') - contrary to objects of routine production and profit.

**Richard Sennett**, the cultural sociologist of NYU and LSE, is concerned about the importance of urbanity for social coherence and development of solidarity. He sees the preconditions for a greater empathy in the confrontation with difference in real life. Situations where this can happen should be promoted. It will also give richer lives and more meaningful personal development.

**Bill Hillier**, UCL, et al, have found strong relationships between the relative number of pedestrians and spatial integration in the movement networks. In space syntax, a high average for spatial integration combined with a proper local variation is a common property of traditional Western cities and towns with deformed grids. This topology was discarded in modern urbanism.

The project 'The informational city and the street as urban form - 4 new urban districts and urbanity' investigates urbanity as the city of people and the city of 'works' respectively - and in relation to spatial topologies, e.g. with Hillier's methods. The focus is primarily on difference and possibilities of experience in public space, but also the mix of shops and private firms with other functions, which seems difficult to get. The competition of 'the urban' with other media is also part of the problem - the city have to be increasingly rich in information to get our attention today.

## Egebjerggård, Høje Tåstrup, Skarpnäck and Södra Station

The planning for Høje Tåstrup and Skarpnäck was initiated in the late 1970's, and for Egebjerggård and Södra Station in the 1980's. The first tenants moved in about 7 years later. Skarpnäck was almost fully developed around 1989, while construction continued into the late 1990's in the other districts. Høje Tåstrup still have some centrally located empty building lots.

The size of the districts is fairly similar. They all have elements of an urban block structure containing some 25 to 40 blocks, the least in Egebjerggård where the spatial pattern is most open. Maximum floor area ratios (FAR) permitted are 0.4 in Egebjerggård, 0.8 in Høje Tåstrup, 1.0 in Skarpnäck and 2.0 in Södra Station. Including traffic and green areas, the floor area ratio is lower - although not in the last case, which is an inner city infill. In Egebjerggård the floor area ratio as a whole is close to 0.25 only. The number of residents varies from in the hundreds in Høje Tåstrup to about 9000 in Skarpnäck. On the other hand, Høje Tåstrup has many privately employed people working there.

All the districts have had extraordinary excellent planning conditions: often publicly owned land for development, strong public planning offices, architectural competitions, planning consultants and contributing architects with a good reputation and eager politicians wanting the very best.

### Spatial structure

The inspiration for the new districts was meant to be spatial forms of the traditional European city. To some extent this can be seen in the built result. Many spatial solutions show a continued modern inheritance though - undermining urbanity. The new districts are often isolated islands in the urban landscape. Though fare is normally limited or stopped. Instead of a grid with 'ringiness', the traffic system is often fractal like the branches of a tree, at least for the cars. Space syntax analyses shows that the most integrated street in e.g. Skarpnäck is not the 'main street' in the middle, but a street at the edge with better connections to surrounding roads. Concerning pedestrians, the movement lines are often too many and too short, dispersing people as well as making them disappear visually in a few of seconds. In Høje Tåstrup the most important space faces inward and have a low spatial integration - the shopping centre square inside City2 - while the complex as a whole turns its backs and vast traffic areas towards surrounding districts all the way around. A diagonal connection to the railway station is also missing.

### People in public space

The attempted liveliness of people in public space is difficult to get in the new districts. The most central places in Høje Tåstrup close to the station, in Skarpnäck and in the Södra Station district have a throughput of pedestrians and bicyclists of a maximum of about 1000 people per hour, if all movement is counted. This coincides with Whyte's lowest observed level of experience of a being in a central place, but with the difference that the Scandinavian cases in question here mainly has people in a hurry on their way home - with little interest in unexpected meetings. In Egebjerggård the maximum number of people close to the shops are about 500 an hour. Most streets, roads and pedestrian lanes in the four districts have much less people though. On systematic observation walks the major impression is spaces empty of people.

### Services and businesses in the districts

The public services are by international standards very good: public transportation, schools and day care, cultural facilities and libraries, care of the old and weak. All of this can be determined politically, even if priorities to some extent varies - also through time. In the early 1990's Skarpnäck e.g. had about 1000 people locally employed in the public sector there - to serve 9000 residents. It was somewhat extreme with both a district community administration experiment and a high rate of special dwellings for people with disabilities, but the number indicates the important role of the public sector in the new urban districts not only as local services bus also as local employment - at least in the Scandinavian welfare economies with high income and sales taxes.

The dreams about many small businesses along the major streets or at streetcorners have greater difficulties becoming a reality, or the result is less interesting. Only food stores, hairdressers and restaurants thrive. Other shops close down either because of too few customers, typically shops with clothing, or because of restructurings as has happened to the banks and the post office. Some shops and office spaces are empty for long periods of time, especially in locations with little through movements of people or cars. Offices often have 'Venetian blinds', curtains, etc. permanently prohibiting view and contributes little to urban life. In Høje Tåstrup not even a little Netto discount supermarket can survive at the square just to the south of the station. This district has surrendered to big business in the form of the major Danish telecom (TDC) and Danske Bank, that occupies about half of the blocks - with glazed streets of their own at +15 feet and their own canteens, in order that people employed can stay indoor all day long.

### Architectural expression

The architectural variety is large in Egebjerggård, mostly through different clusters of 'low-density' housing. In Høje Tåstrup the program prescribes a straight angled, modest classicism with strict rules for a unified use of brick, colour and building height. Skarpnäck is planned as a rather enclosed whole with walls of red brick. The plan is straight angled here too, though in a less rigid way and with facades looking somewhat like the Nordic functionalism that superseded the 'white' international style of early modernism. The Södra Station district is built in several levels, a large part on a deck standing on rubber feet above a major railway and with buildings in several styles.

All the four districts show a willingness to promote urbanity through urban design, but the architecture as such have created few good meeting places. The 'urbanity' aspects of the architecture have become more formalistic than catalytic in relation to the promotion of human events, the unexpected and the different. More spaces of urbanity and a more intense use of these could have been created through an architecture more knowledgeable of essential urban issues today. When urbanity anyhow works to some extent, it sometimes happens in spite of the architecture - because of many people by the stations, multiethnicity, the provision of buildings for cultural purposes and the like. Only Fatbursparken in the Södra Station district and the linkage to Medborgarplatsen are major urban resources supported by the architecture. Some of the architecture in the rest of Södra Station, in Høje Tåstrup and Skarpnäck is rather monotonous or uninteresting and the urban spaces often too large, too small, too windy or mainly facing the wrong direction. Several blocks often look almost the same and the traditional division of one block into several building lots for different builders have been replaced by a habit of allocating several blocks in chunks to the same builder, especially in Skarpnäck and Høje Tåstrup. There is often too little of interest to look at.

## New strategies for urbanity outside of the old urban cores?

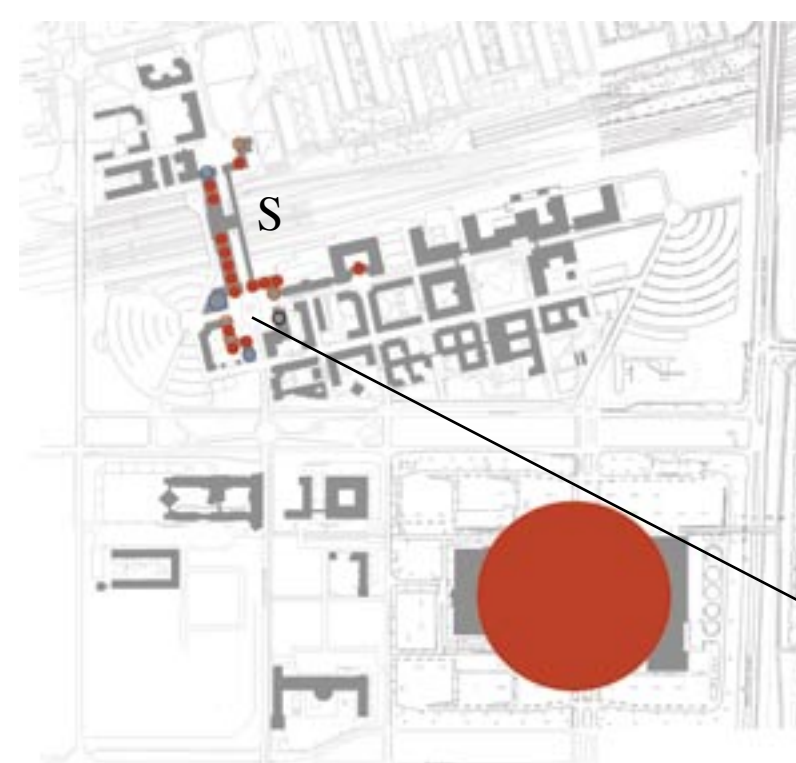
To promote urbanity demands a careful selection of qualified places and a programming that goes further than formalism combined with optimistic hopes for a functional mix, happening by itself if only permitted to do so. Difficulties with urbanity in new districts built at the edge or beyond push forward the question of other or supplementary strategies. Some Swedish towns, e.g. Karlstad and Västerås have started out on a route to increased urbanity that possibly can have a greater success - a gradual addition and restructuring of nodes and streets outside of the centre, where the preconditions for a development of the wanted qualities already exists to some extent. It is too early to evaluate those attempts at the moment though, as they have not come very far.

SSS4 presentation, London, June 2003

All axial maps show integration (n) and are in the same scale.



Egebjerggård in Ballerup, 15 km to the northwest of Copenhagen (red dots show shops - all contextual maps are in the same scale)



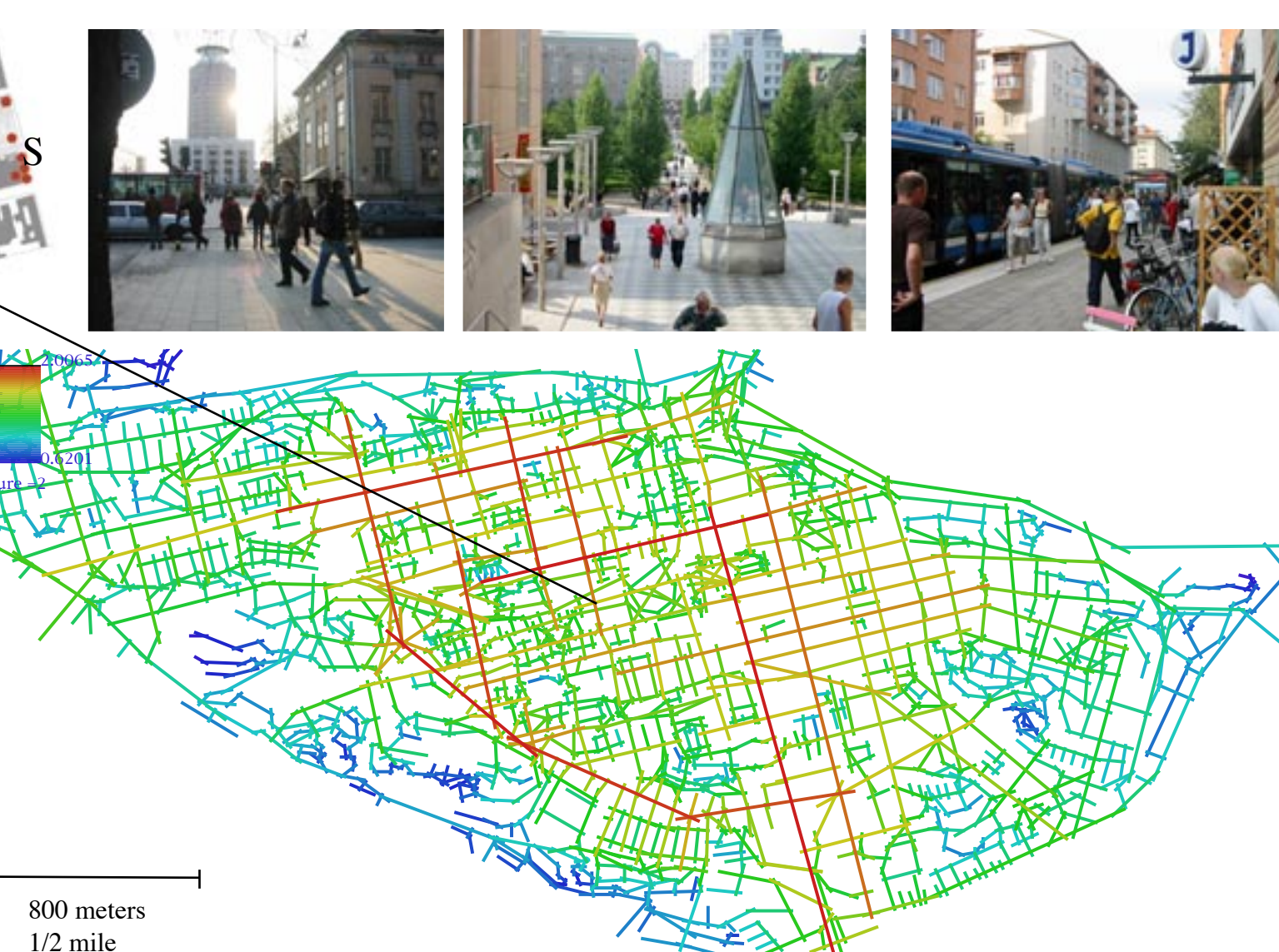
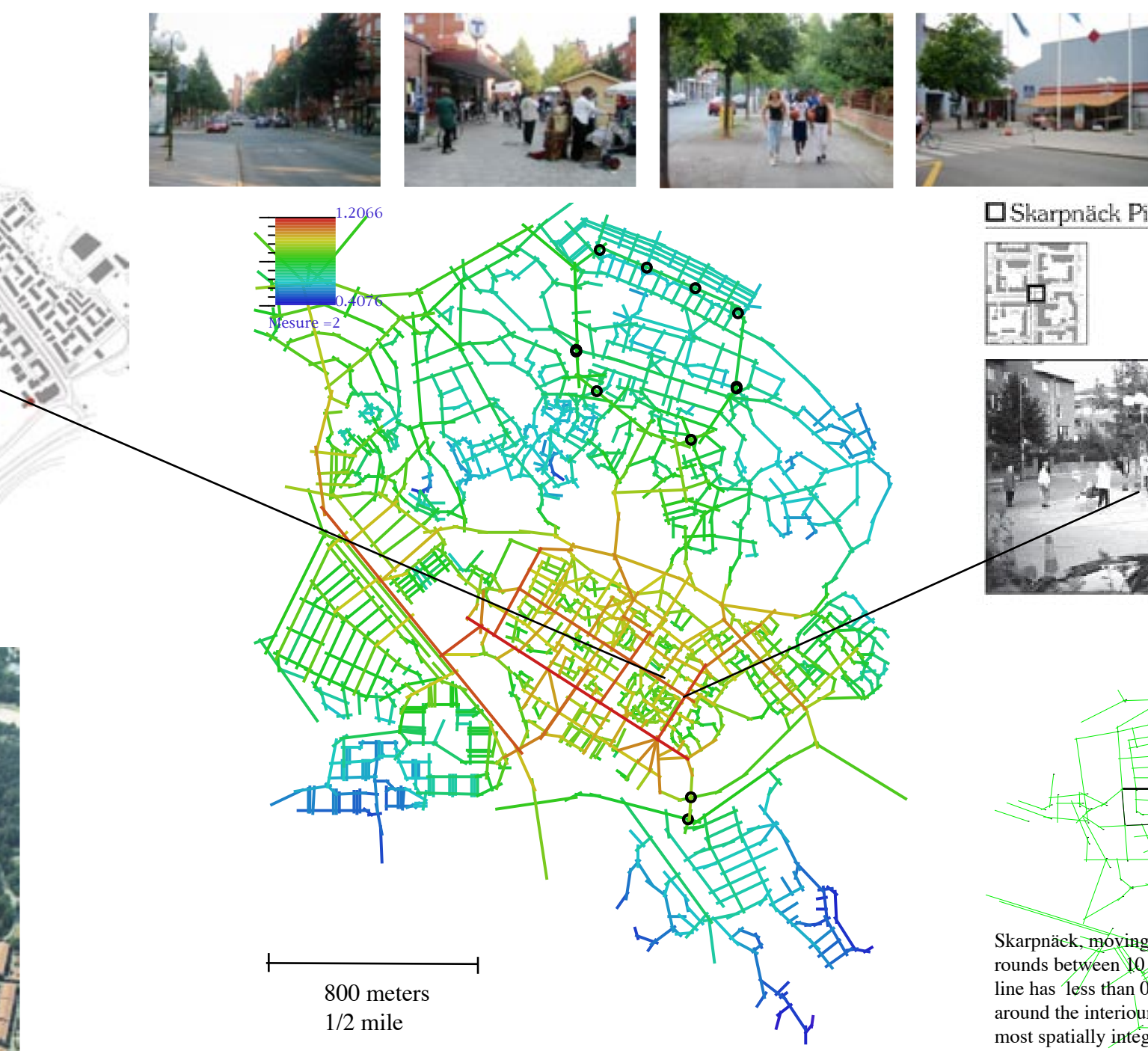
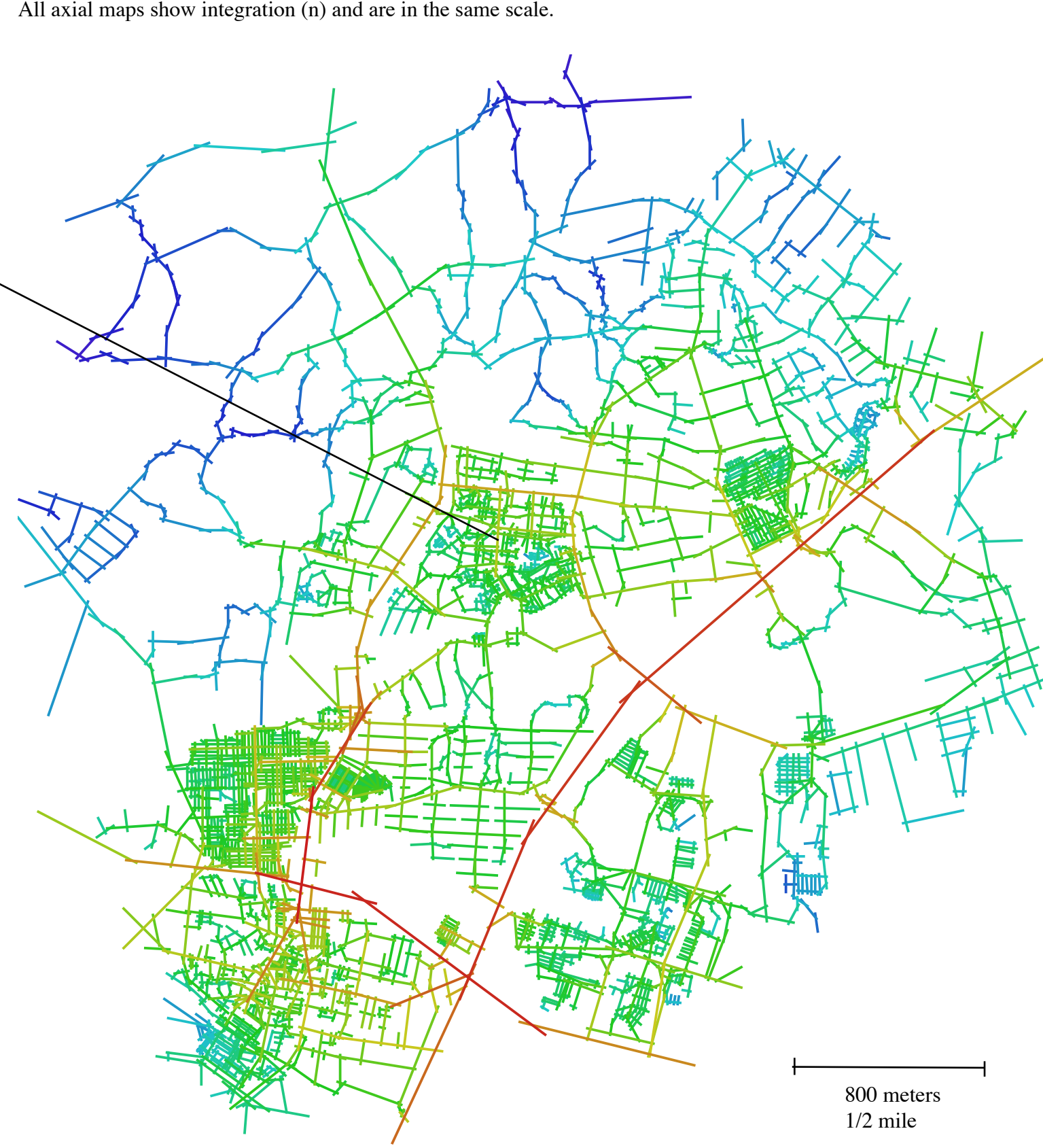
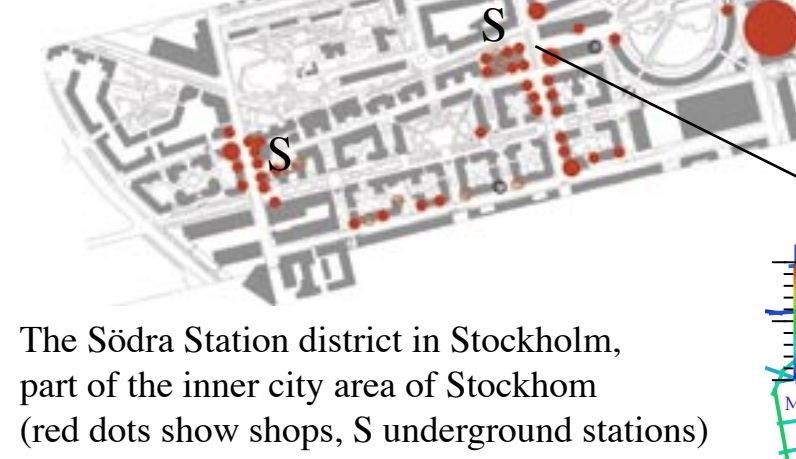
The Høje Tåstrup station district (S is station) 20 km to the west of Copenhagen (red dots show shops - the large one is the City 2 shopping mall)



Skarpnäck in Stockholm, 10 km to the southeast of the city core. (red dots show shops, S is underground station)



The Södra Station district in Stockholm, part of the inner city area of Stockholm (red dots show shops, S underground stations)



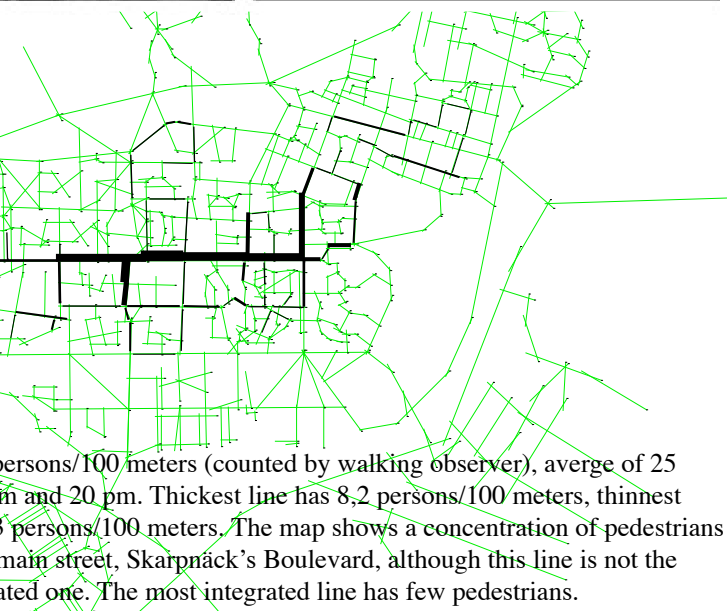
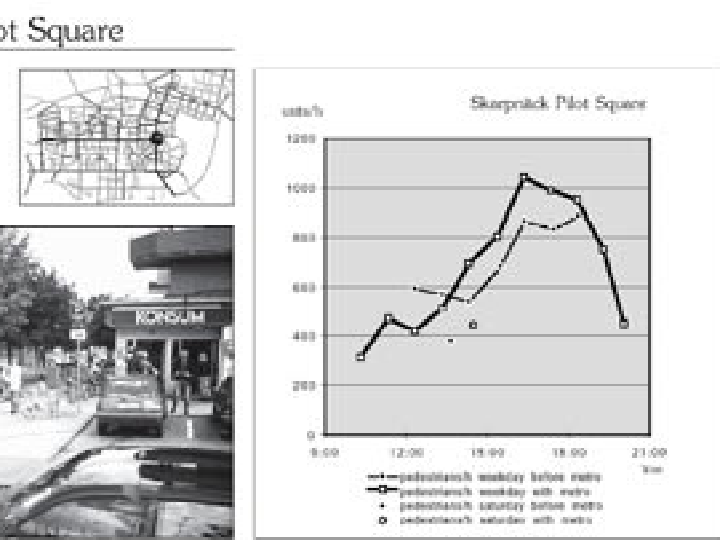
In Høje Tåstrup 75% of all streets and paths has less than 3 moving persons/100 meters average, while the shopping mall City 2 has 20,000 visitors a day. Baron Hausman's method of applying diagonals have been tested in Høje Tåstrup below, as well as a 'reordering' experiment of what has been built there since 1975.



The problem of liveliness in public space is not only about the spatial topology of the street pattern. The density of people living /km<sup>2</sup> has been lowered dramatically, the density of movement lines have increased, unique 'works' have decreased, children removed, etc.

| Aspect  | Inner city 1880-1900 | Suburb 2002           | Difference |
|---|----------------------|-----------------------|------------|
| Indoor dwelling space / person                | ca. 8 m <sup>2</sup> | ca. 60 m <sup>2</sup> | 7 times    |
| Floor area ratio (FAR)                        | ca. 2.00             | ca. 0.30              | 7 times    |
| Length of streets and paths / km <sup>2</sup> | ca. 20 km            | ca. 60 km             | 3 times    |
| Unique 'works' / 100 m street                 | ca. 25-50            | ca. 2-6               | 10 times   |
| Children in institution 0 - 20 years of age   | ca. 4000 hours       | over 20,000 hours     | 5 times    |
| Time spent on other media / day               | less than 1 hour     | ca. 6 hours           | 6 times    |

Although Skarpnäck is compact and inhabited by 9000 people, most of the streets and paths are empty most of the time. (More than 100 lines have been walked, counting, more than 25 times). People are not in the courtyards either. After the opening of the underground station, there is more people in the main street though.



Skarpnäck: moving persons/100 meters (counted by walking observer), average of 25 rounds between 10 am and 20 pm. Thickest line has 8.2 persons/100 meters, thinnest line has less than 0.3 persons/100 meters. The map shows a concentration of pedestrians around the interior main street, Skarpnäck's Boulevard, although this line is not the most spatially integrated one. The most integrated line has few pedestrians.

### Phase Transitions of Urbanity

Phase transition are like the transition points of H<sub>2</sub>O - from ice to water at 0 C, from water to steam at 100 C, from steam to plasma at very high temperatures. Maybe urbanity also has phase transitions, although less precise.

- Crowding starts, when the number of people in a space is so large that the average distance between people is less than an arm's length. Stress might happen when the consciousness can't cope with the amount of information. The limit of consciousness is 16 informations/second.
- The lower limit of centrality as an experience, is when the emotional center in the brain starts to get bored, i.e. when there is more than 4 seconds between emotional 'events'. A continuous stimulation demands at least about 1000 new inputs per hour (a mood can last longer).
- The largest social visual distance is about 100 meters, and 3 persons visible within that distance is the least complex social situation that is meaningful at all. 'Public space' less populated (average) than that cannot be considered urban seen as 'the city of people'. A street of unique, individual, 10 meters long houses with gaps no more than 10 meters can be considered as minimum urbanity of 'the city of works'.

| Urban phase change             | The city of people        | The city of works |
|--------------------------------|---------------------------|-------------------|
| Crowding - experiential stress | 10,000 / hour             | 10,000 / hour     |
| Centrality, lower limit level  | <4 m <sup>2</sup> /person | 1,000 / hour      |
| Urbanity, lower limit level    | 25 / 100 m street         | 25 / 100 m street |
| Urbanity, lower limit level    | 3 / 100 m street          | 10/100 m street   |

Read more at <http://bo.gronlund.homepage.dk>