Crime Prevention Trough Urban Design and Planning in Denmark

Questions of the Progress Circle

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member of

The Danish Crime Prevention Council, DKR
The Danish Safe Municipalities, DTK
The Swedish Safety Academy, Safer Sweden
The EU COST action TU1203 - Crime Prevention Through Urban Design and Planning
The International CPTED Association, ICA
CPTED / CP-UDP definition and starting points

- CPTED is a US term from 1971 by C. Ray Jeffery - Crime Prevention through Environmental Design
- CPTED is the proper design and effective use of the built environment that can lead to a reduction in the fear and incidence of crime, and an improvement in the quality of life.
- CPTED in North America has gone through several stages and now also includes social issues.

- CP-UDP is a European term, Crime Prevention through Urban Design and Planning, that avoids using the word "Environment" as this has a very wide meaning. CP-UDP is the term used e.g. by EU COST action TU 1203 which involves 24 countries in Europe. [http://costtu1203.eu/](http://costtu1203.eu/)

- CPTED/CP-UDP in Europe has included social issues from the beginning, and maybe especially so in the North European welfare states. The practical implementation of CP-UDP varies between the European countries.

This presentation has as it's starting points that:

- There exists a situational crime problem (as Clarke and Felson argues)
- Something can be done about it through urban planning, urban design and building architecture (CPTED, CP-UDP)
- Crime is place specific (as Weissburd argues)
- We have (some) toolboxes for analyses, processes and remedies (professional guidelines, etc.)
Crime and Place

- Crime is defined by laws of governments but also to some degree by more or less local moral values.
- Crime is expressed by police data (more or less efficient) and by victimization data (can be more accurate).

- Place is defined as a specific location with its built environment and spatial arrangements, the people there, its activities, and the history and stories of the place, i.e. it also includes the time dimension.

- Crime varies with Place much more than with demographic and socio-economic conditions.
- In Denmark, police reported crime varies per square kilometre and year from 6000 to zero.
- Including "dark numbers of crime" it varies from around 10,000 to zero.

Some of the critical factors of Places as a built environment are:

- Built density
- Closeness to city centres and stations
- Traffic flows, especially pedestrian flows, which in Denmark varies from 10,000/hour to zero
- The spatial layout of the infrastructure
- The specific functional mix
- Residential segregation
The conditions of CPTED / CP-UDP research and practice are very different – research has to split the reality into aspects and study how they affect each other – practice has to choose the right things to do in the specific planning and design case, often in very complex overall situations full of compromises and very little time.

With the exception of burglary protection, CPTED/CP-UDP research is still in its infancy – especially the cost-effectiveness of different approaches. The feedback from practice to research is also normally poor.

CPTED / CP-UDP guidelines and handbooks function as intermediaries between research and practice – practitioners don’t have time to read but a few research reports a year.

Place based CPTED / CP-UDP practice need more thorough analytical tools to be able to choose the best solutions – CPTED / CP-UDP is no longer a "one size fits all" – if it ever was.
Danish CPTED / CP-UDP History

- Denmark, a small country of 5, 7 million inhabitants, started with CPTED/CP-UDP in the mid 1980s, after the UK, but at the same time as the Netherlands
- For a long time very little happened in practice and our best built show cases are still from the 1980s
- The International Crime Drop was late in Denmark, but in 2009 the Danish government asked for remedies
- In 2011-2014 The Danish Crime Prevention Counsel carried out an urban planning project together with 5 of Denmark's 98 municipalities including education, study tours, a scientific meta-study, and planning tasks. The project showed the Danish planning law could be used for CPTED/CP-UDP even if it does not mention it
- The latest 5 years have also seen large renewal initiatives of 1950-70s social housing districts including crime and fear of crime reduction aspects. Some of the initiatives have had the form of architectural competitions including concrete CPTED/CP-UDP aspects in both the programs and the project reviews.
- I have had the opportunity to take part in much of what happened in this field in Denmark for 30 years.
Gellerup in Aarhus – Denmark’s 2. largest city – is a 1 km² social housing area from around 1970 with 6,700 inhabitants of which 80% are of non-Western origin. Its population has low employment, education and income. The crime rate is high relative to its rather peripheral and enclaved location. Gellerup is on both the Danish government’s and the Police’ official lists of ‘threatened’ housing areas.

In 2007 it was proposed that the area needed a major structural change, including new streets and another mix of buildings. Through a series of plans and involvement of residents the overall idea was decided and in late 2014 demolition of some of the dwelling blocks begun. The plan will take at least another 15 years to complete from now on.

In 2013-2014 there was an architectural competition for the future of the central green areas. For the first time in Danish history CPTED / CP-UDP was included in both the program and in the evaluation of the proposals. The program contained place specific CPTED / CP-UDP analyses and guidance. None of the proposals was CPTED / CP-UDP perfect in the first stage of the competition, but the one that won in the end adapted the design to better fit the CPTED / CP-UDP aspects.

Winner, SLA, first stage above, second below
The CPTED /CP-UDP Development Circle

1. Increased research and more useful research findings
2. Evolving CPTED / CP-UDP professionalism
3. Taught to planners, architects, etc.
4. Integrated into urban planning, urban design and building design
5. Access to relevant data
6. Tailored to the specific location / place

Backed by government and other crime prevention agents
1. Increased Research and More Useful Research Findings?

- R.V. Clake has said, that situational crime prevention has to look at one crime type and one kind of situation at a time. Even if his 25 techniques helps getting an overview, the working conditions for urban planners, architects and designers are very different as they have to consider the environment as a whole and make a lot of practical compromises.

- In Denmark CPTED / CP-UDP research is very weak. The national Building Research Research Institute has done some, but not very thorough. International research has not been made useful in Denmark in other ways than through rather general guidelines and some of those are now 25 years old.

- Except for international research on burglary prevention and issues mainly related to the security hardware industry, there are not enough useful research results – especially not concerning natural surveillance. The possibility in the built environment to really predict different outcomes of different solutions in different places is in reality almost non-existing.

- Last year I had a hope, that recent neuroscience and research on human empathy could give a more solid and general foundation for the question of natural surveillance, e.g. through the discovery of "mirror neurons", but I later found that this research still pose many unresolved questions.

- One of the dilemmas of CPTED /CP-UDP research is that natural surveillance mainly has been explained through the concept of "territoriality", which is neither very clear, nor an "universal".
2. Evolving CPTED / CP-UDP Professionalism?

- All professions need organisations: to promote their causes; to secure the members updated knowledge and methods; and to further reasonable economic interests of the profession.
- Internationally there are two organisations today, ICA - The International CPTED Association - and the EU COST action TU 1203 Crime Prevention through Urban Design and Planning. The latter is time limited to 4 years. Both depend almost completely on voluntary work. No CPTED /CP-UDP professionals are employed by these organisations.
- Nationally organisations are even weaker, if existing at all. In the Nordic countries there are no national organisations. In Denmark, the number of professionals are somewhere between 5 and 20, but nobody gets paid for working full time in the field. Most have to do other things most of the time.
- The market for CPTED / CP-UDP consultancy services is very, very weak. This is a clear indicator that most of the society not really see it as important.
- Of the Danish 1980s pioneers, I am the only one not dead or full time retired. My CPTED/CP-UDP income – including voluntary work – is less than the minimum wage for unskilled labour (as an average through the years).
- We need two kinds of CPTED /CP-UDP professionals: 1) Those working full time and dedicating themselves to be specialists, 2) Those with a good basic understanding of the field but working more generally with urban planning and design.
3. Backed by Government and Crime Prevention Agents?

- If CPTED/CP-UDP is useful, it should be recognised and promoted by governments, cities, the police, insurance companies, the hardware security business, crime prevention professionals in general, social workers, etc.
- In DK in 2015 the national government has initiated studies on better burglary protection, there are some money reserved for better infrastructure in large enclaved social housing, and 8 cities are using CPTED / CP-UDP to some degree. The support from the rest of the parties is weak or not existing.
- There is nothing about CPTED / CP-UDP in the planning law or in the building law (DK 20 years behind UK, NL, FR). There is no CPTED/CP-UDP certification (DK 20 years behind UK and NL). Sustainability certification has just started up (DGNB), but it is very weak on CPTED/CP-UDP.
- CPTED /CP-UDP is squeezed between the interests of the hardware security industry and the very influential social sector sector of the Danish welfare state.
- A terrorist shooting in February 2015 showed that the government is prepared to spend more than 100 million Euro more on counter-terrorism, although the risk of death by terror is less than death by lightning from the sky.
- 18 June there will be a parliamentary election – if the right wing wins, they will weaken the planning law and if possible sentence young criminals already from the age of 12.
4. Taught to Planners, Architects, Etc.?

- In Denmark today there is no CPTED/CP-UDP teaching for planning and architecture students, as far as I know.
- When I was employed at the Copenhagen Architecture School, I was not allowed to teach CPTED / CP-UDP – it was considered too specialised and too little artistic.
- An CPTED/CP-UDP architect wanting to do a Ph.d. does not get money and cannot begin.
- There are lectures on CPTED /CP-UDP at two Copenhagen University programs, but planners and architects are rare students here.
- There is still a lack of especially methodological handbooks, but Labqus at Politecnico di Milano has contributed in the last decade.
- Teaching is vulnerable - depending on single persons.
- COST TU 1203 will run an international summer school in Copenhagen in August this year.
5. Integrated into Urban Planning, Urban Design and Buildings

- CPTED/CP-UDP should be an integrated part of urban planning, urban design and building design - together with expertise on other aspects of the complete solution of the task in question.

- This is possible in principle, but difficult in reality
- The most complex tasks are long term developments – in Gellerup already 8 years and at least 15 more
- There is a very large number of different stake-holders involved
- The task is divided into many small pieces put up for biddings and competitions by private consultants and firms, with a lack of continuity and possible loss of knowledge in the process
- The integration and continuity therefore depends on an efficient municipal organisation covering several election periods for the municipal council
- Municipal staff changes through long processes
- You can't do anything today without involving the residents and the citizens

Above: Citizen participation in the planning for the new Gellerup. In Gellerup a majority of the residents have later voted for the the plan – including demolition of some of their own dwellings.

Below: 14 planning documents 2007-2014 relating to Gellerup – only the top of an iceberg: Municipal strategy plans, Overall municipal plans, Social plans, Urban district plans, Traffic plans, Architectural Policy, Detailed plans (e.g. for a park), Legally binding Local Plans, etc.
6. Access to Relevant Data

- Data availability has become much better in Denmark in recent years. On the internet anyone has direct access to: good maps; areal photographs; angled areal photographs; street-view images; crime data on crime-types / square kilometre / quarter year since 2007; all urban plans at all levels of planning in all municipalities in a central national database. Then - in the major cities there is much more, in some cities including also victimisation studies and measures of fear of crime.

- In the last 2 years, for municipal tasks, I have got access directly to the police recordings with geographical plots of crimes down to a 50x50 meter grid (these data cannot be published). The data is not GPS based though, which means not all data maps correctly.

- In principle, for confidential municipal work, it is possible to get access also to a lot of other statistical data (demographic, social, etc.) all the way down to individuals and single addresses. In practice, at the "Place" level, this is normally too time consuming and costly for CPTED / CP-UDP tasks.

- It is possible to construct Space Syntax Maps, but it is still quite time consuming

- Most lacking is data on pedestrian and bicycle flows and mapping of where urban life takes place throughout the day, week, season and year. You normally have to get out there and count yourself, which is quite time consuming and often not done or not done well enough.

- Interactive mapping tools for popular participation exists, but has not yet been used in Denmark (but e.g. in Finland)
7. Tailored to The Specific Location / Place?

- Finally, at this point of the circle, it should now be possible to tailor CPTED/CP-UDP to the specific locality and place and do it in a cost-efficient way.

- For Gellerup in Aarhus not all the conditions were the best on the the previous points in the circle, but over all the process and the plans are more CPTED/CP-UDP conscious than anywhere in Danish reconstruction projects so far.

- There should have been more advanced analyses of the existing movement network in comparison with the proposed new one, e.g. through space syntax studies and there should have been pedestrian and bicycle movement counts as well as a mapping of outdoor life – this would both possibly have made the plans better, and made it possible to better evaluate the efficiency of the results later on.

- For the park competition the available data was a little bit better and the struggle for place based solutions succeeded in getting a better movement system in the park, especially in the quite critical south-east to north west direction (the plan at the bottom right).
Any Weak Point Slows the Progress of CPTED / CP-UDP in Practice!

LET US GET BETTER AT ALL THE POINTS IN THE CIRCLE – BUT THINK ABOUT WHICH POINTS ARE MOST CRITICAL IN YOUR OWN CASES!
Thanks for the attention

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Some recent publications below – in Danish, Swedish and English (if you copy the internet links to your browser, they will work):


City of Copenhagen Place Based Reports (with place methodology)