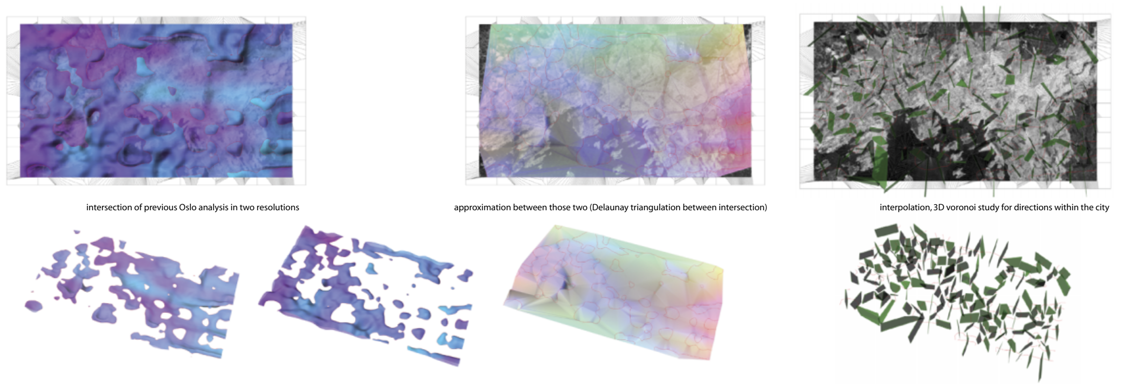
large scale study . . . . working process in the large scale . . . . processing information of Oslo large . . . .

several visual analisis, including population, topographical information, build up areas, greenery, etc. were basis for generating 2 surfaces
the surfaces are results of the same data, made in diferent resolution

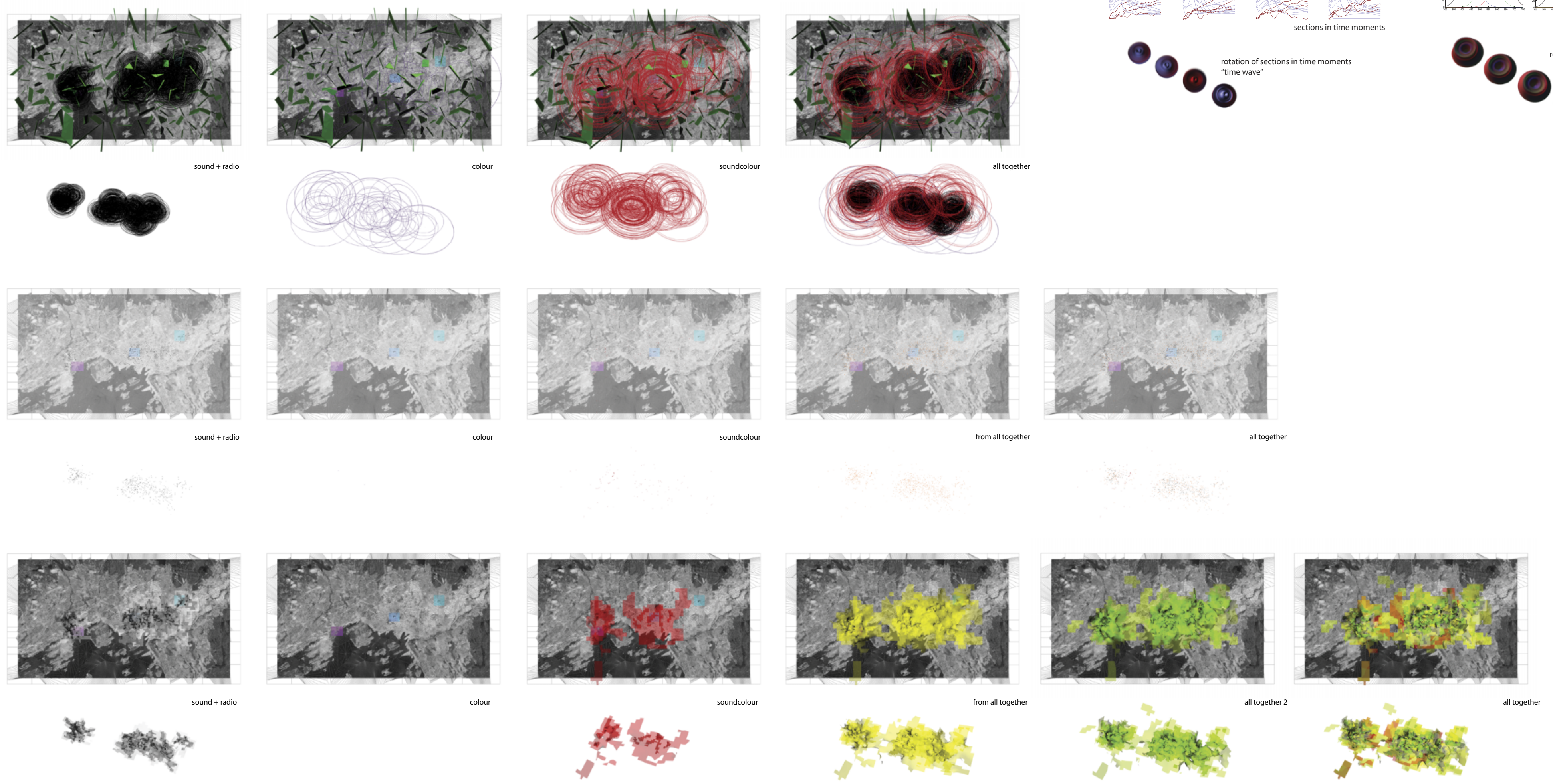


large scale study . . . . working process in the large scale . . . . the processing results from the local scale studies (on the right side) are applied to the processed information of Oslo large

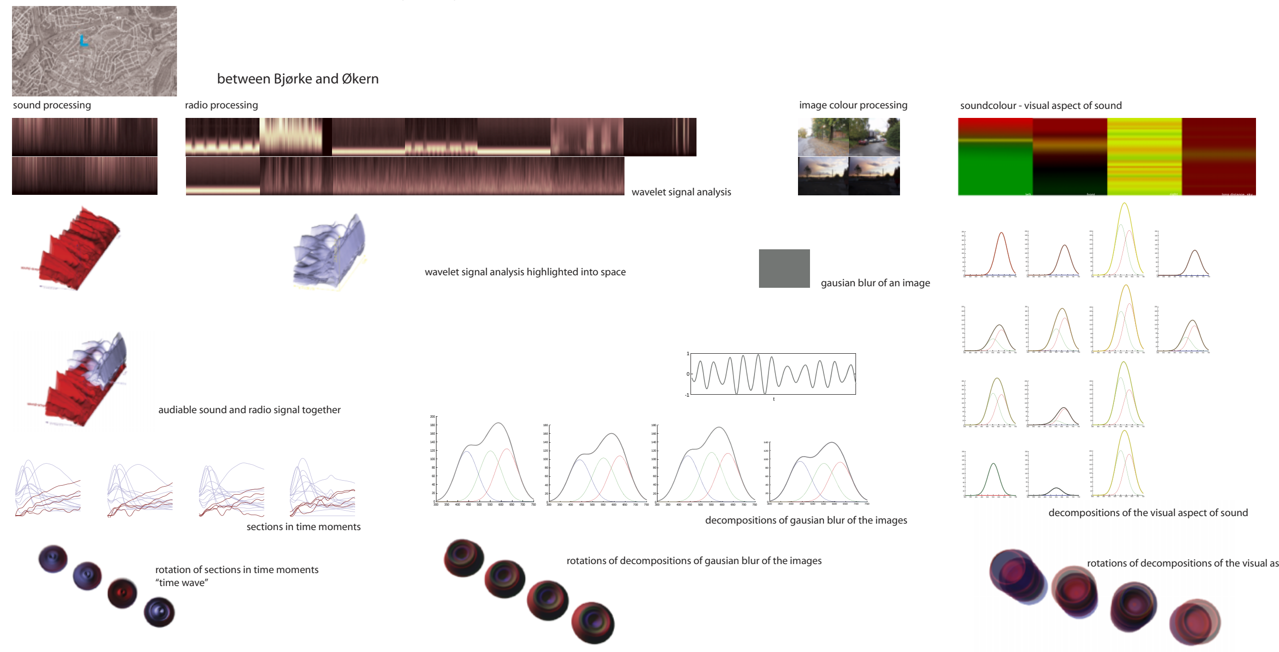
placing the sound, colourlight and soundcolour waves intersections into directions

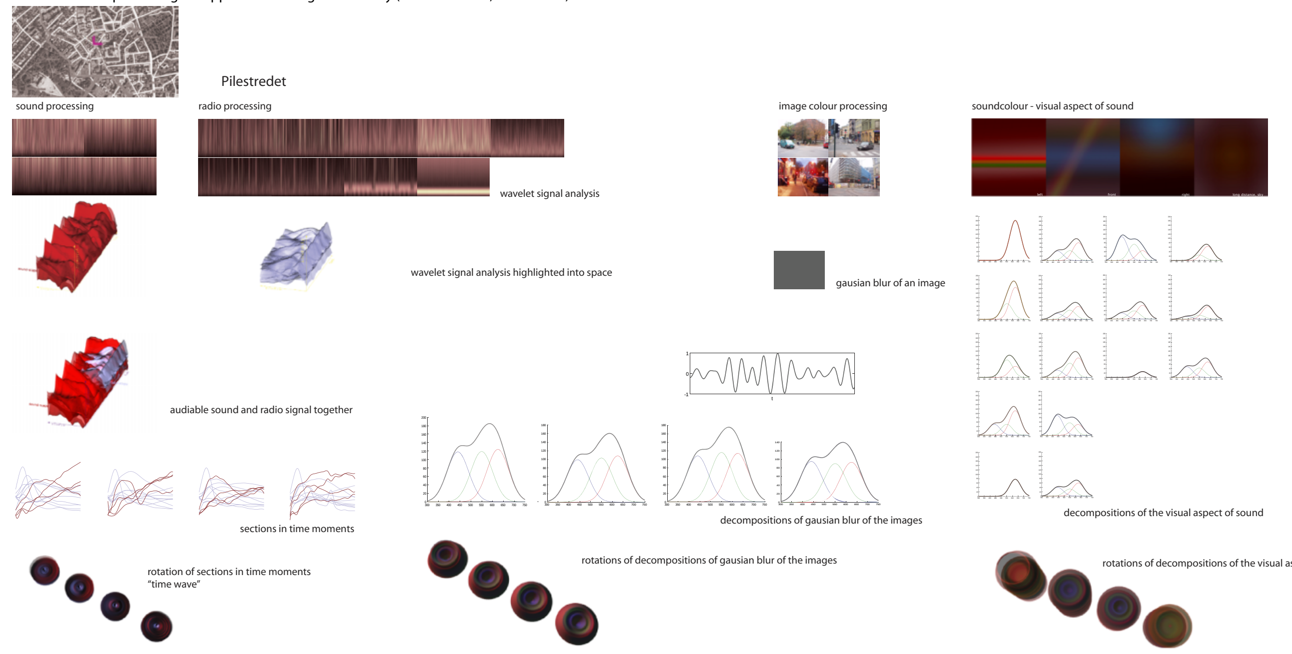
approximation, intersection points of waves intersections

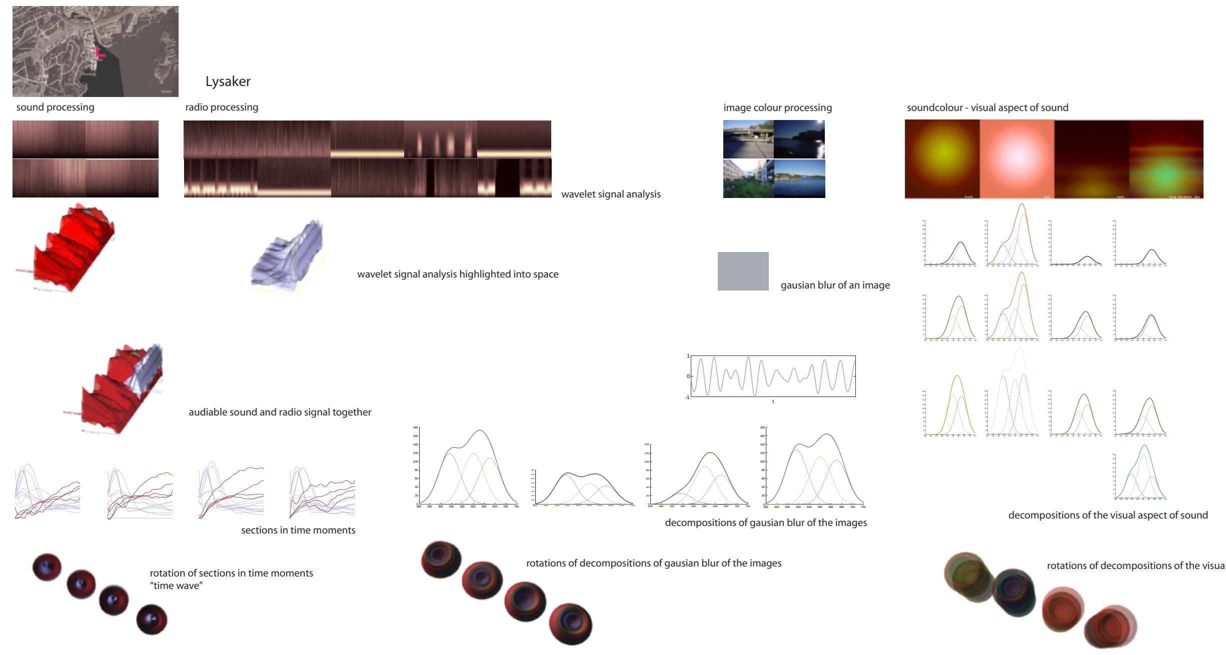
interpolation of intersection points in three scales;
The layers of the system of instalations within the city



local scale studies . . . . processing of registered samples in selected locations . . . . the results of the local scale data processing are applied to the large scale study (on the left side, second row) . . . .







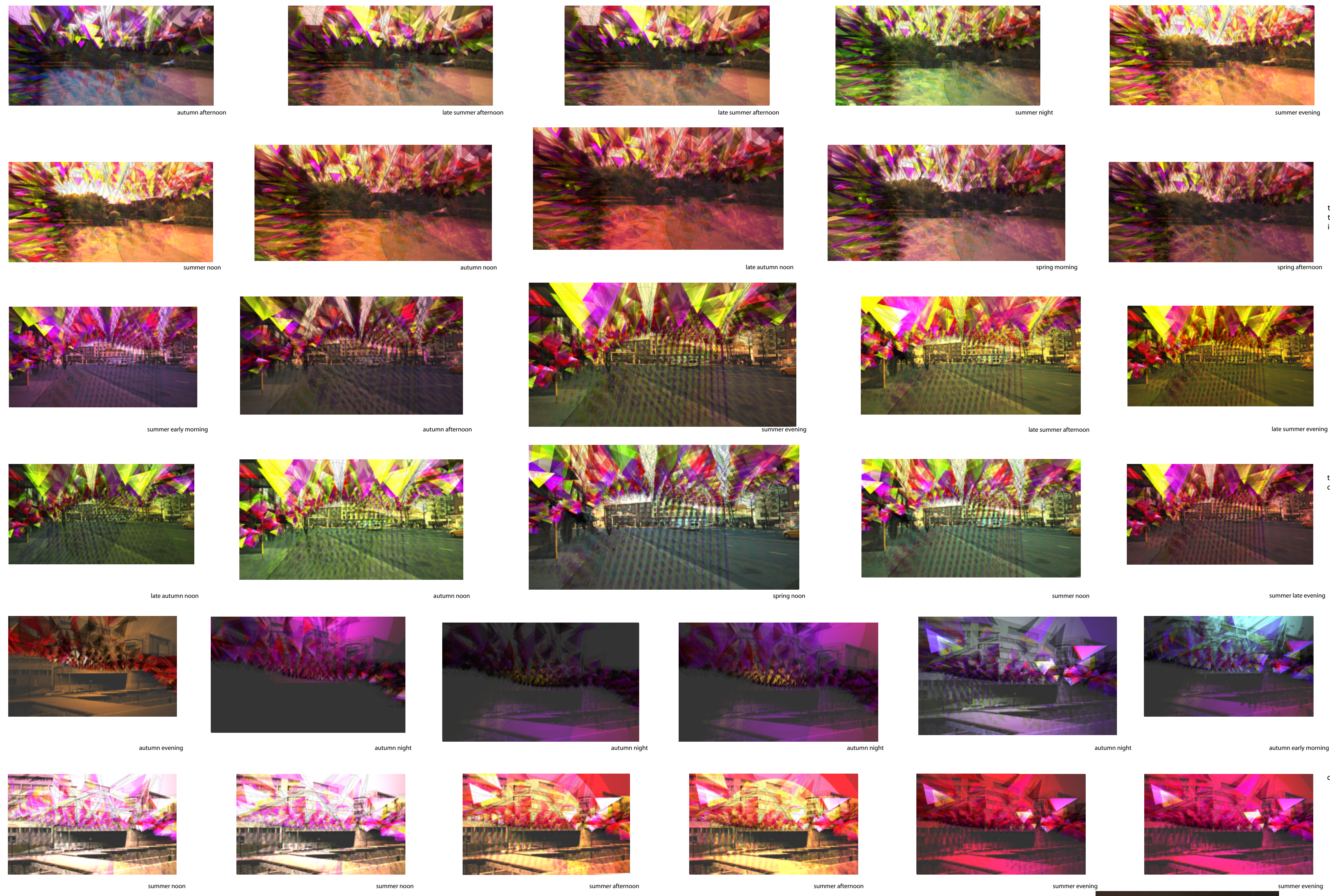
vizualisations of "protoscapes" (instalations and their light reflection efects) in different settings . . . the structures are applied according to the large scale studies all over the city while having a local settings . . . . they parazites on the existing infrastructure, fasades of the buildings, etc.

in a suburbia, the structure has strong role in integration
and/or identification with the city
there was registered very strong radio waves activity, while the sound condition has more detail character (leafs, grass, wind, etc.) with the only exception of ubiquitous background sound of the motorway
on the other hand the vizual stimuli is oriented to the long distance view of surrounding nature and city landscape, the quality of detail and urban scale is lacking

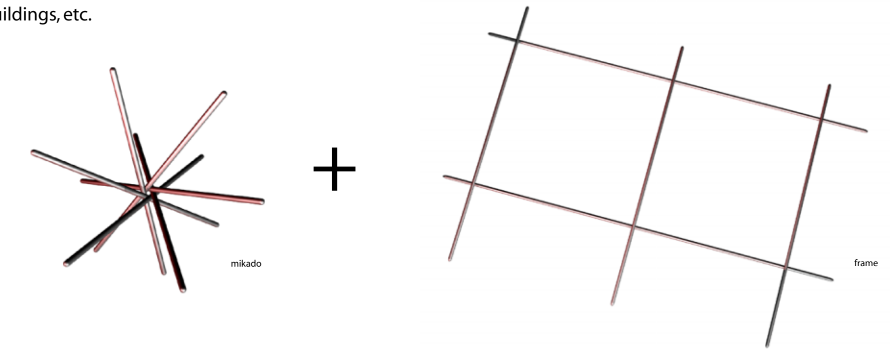
this sample is from Bjørke, the area is build up by carpets of uniform small familly houses and large size buildings, motorway, etc.
the scale inbetween is lacking
how ever Bjørke is not one of the most critical/extreme example of this type of suburbia,
it is indentical for being the border line and/or diffusion between an idealistic idea of living in the "nature" and slum

this is a crossing on the way to Bjørke from the city,
it is a border line of the city and periphery and serves as a crossing of public city transport for both of those two while the housing is developed in urban character, the traffic building already reminds suburbia

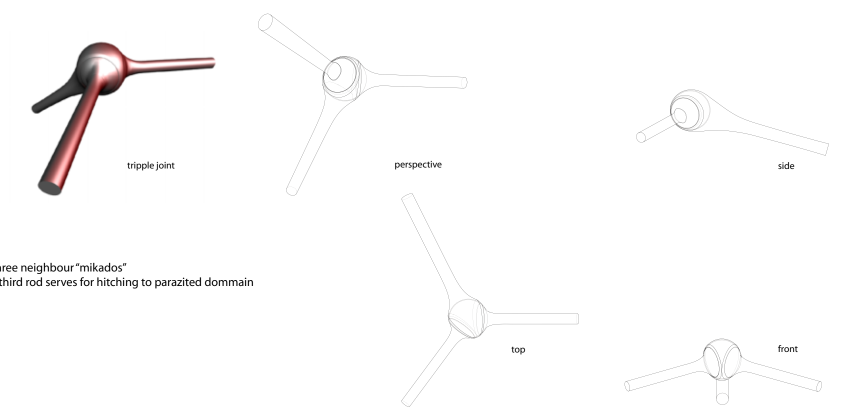
this is an entrance to the tunnel at Lysaker,
the area has mainly dwelling character, there is strong contrast between the previous familly houses character and the new yuppie build up environment that is a result of its position between the city and Fornebu
this place is overloaded by large administration buildings and traffic



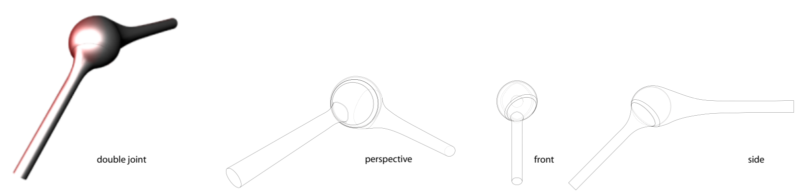
the system of moving structure . . the system of moving structure is developed by the combination of micado folding and frame structure



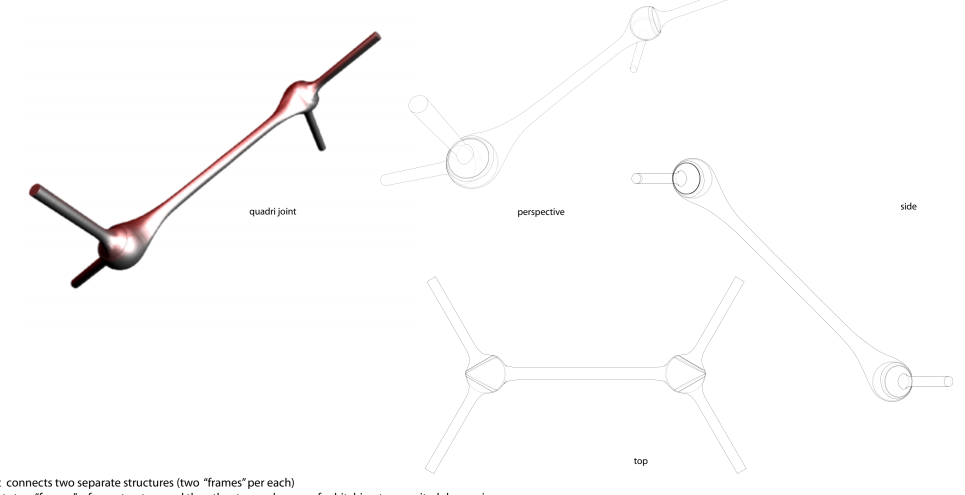
the metal rods are supporting each other in their position, thanks to that the rods from "the mikado" are conected only per three
the frame parts are using the same or similar types of joints
in the case of tripple joint on "the frame", the third rod serves hitching to parazited dommain



tripple joint connects the rods of three neighbour "mikados"
or it connects two "frames" and the third rod serves for hitching to parazited dommain



double joint connects two "frames"



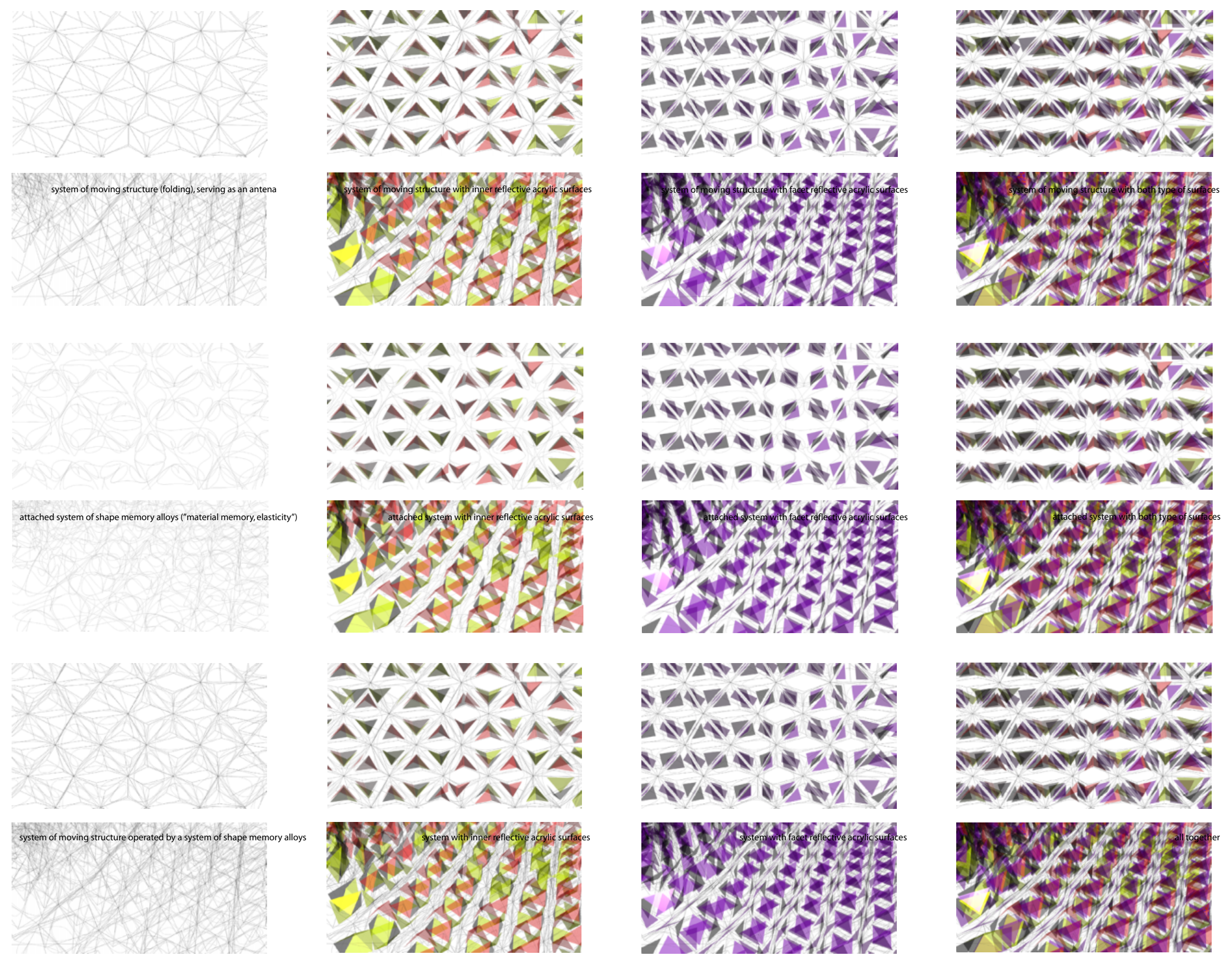
quadri joint connects two separate structures (two "frames" per each)
or it connects two "frames" of one structure and the other two rods serves for hitching to parazited dommain

pattern . . . . the interrelated systems within the structure . . . . . all the systems are generated from one structure and they are mechanically as well as functionally interrelated

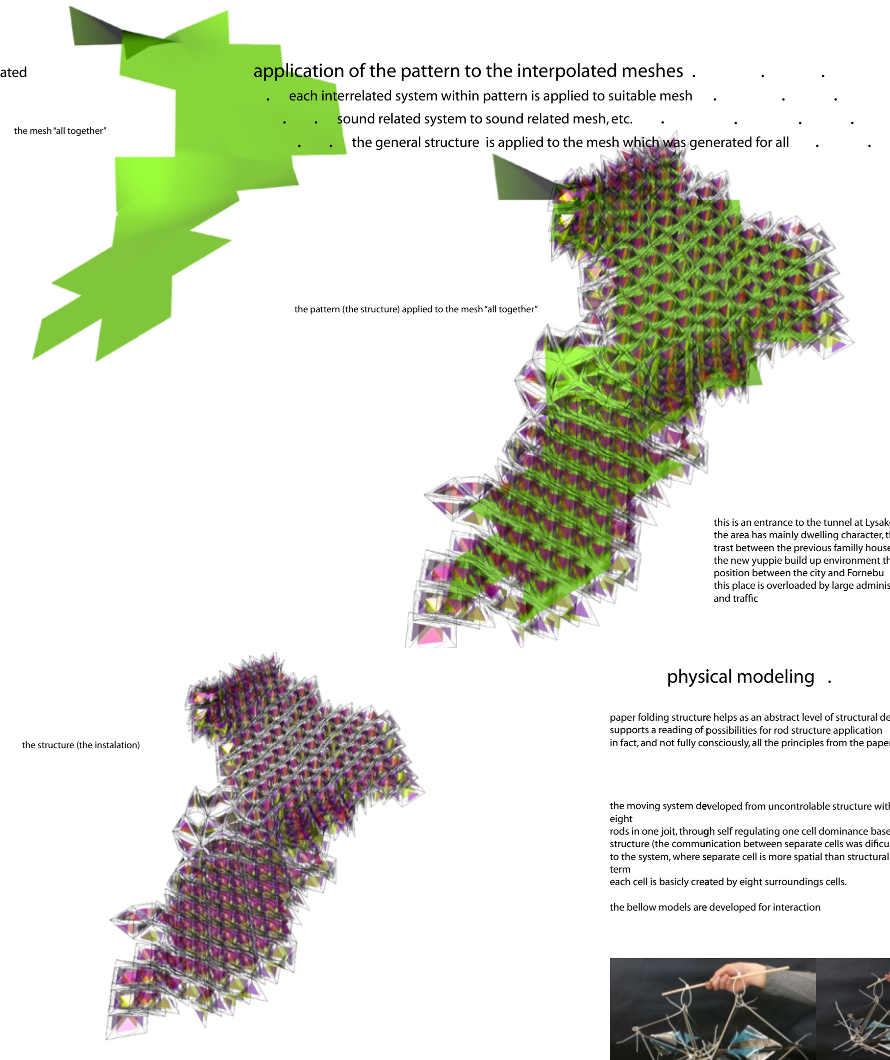
system of moving structure, both types of the surfaces are created by various ways of scaling the system with partially random element;
the partially random element is also used for making some of the surfaces parabolic, while the others are flat, which creates more effective distortion

system of shape memory alloys was designed by partly random 3 degree curve interpolation of the system of moving structure,
the different settings of randomness represents different stages of shape memory alloys in various teperature

system of moving structure is operated by the system of shape memory alloys that has different stages in different temperature,
which means that the structure moves according to the weather conditions in relation to its self geometry, material, etc.



application of the pattern to the interpolated meshes . . .
. each interrelated system within pattern is applied to suitable mesh . . .
. . sound related system to sound related mesh, etc. . . . .
. . the general structure is applied to the mesh which was generated for all . . . .



physical modeling . . . . development of the structure and interaction in more scales . . . . . the higher level ofinterdependency ofers both, more possibilities as well as necesairy regulation . . . . .

paper folding structure helps as an abstract level of structural development and understanding,
supports a reading of possibilities for rod structure application
in fact, and not fully consciously, all the principles from the paper folding developement line are applied in final metal rods structure

at the end, the final design structure requires only flexible tripple- joints
these ware designed on siple hyerarchical system

the moving system developed from uncontrolable structure with eight
rods in one joit, through self regulating one cell dominance based structure (the communication between separate cells was dificult), to the system, where separate cell is more spatial than structural term
each cell is basicly created by eight surroundings cells.

the bellow models are developed for interaction