ACTOR NETWORK

1958
SEAGRAM

FROM MASS PRODUCTION OF THE SAME COMPONENTS

2013
LIWA TOWER

TO MASS CUSTOMIZATION OF UNIQUE BUILDING COMPONENTS

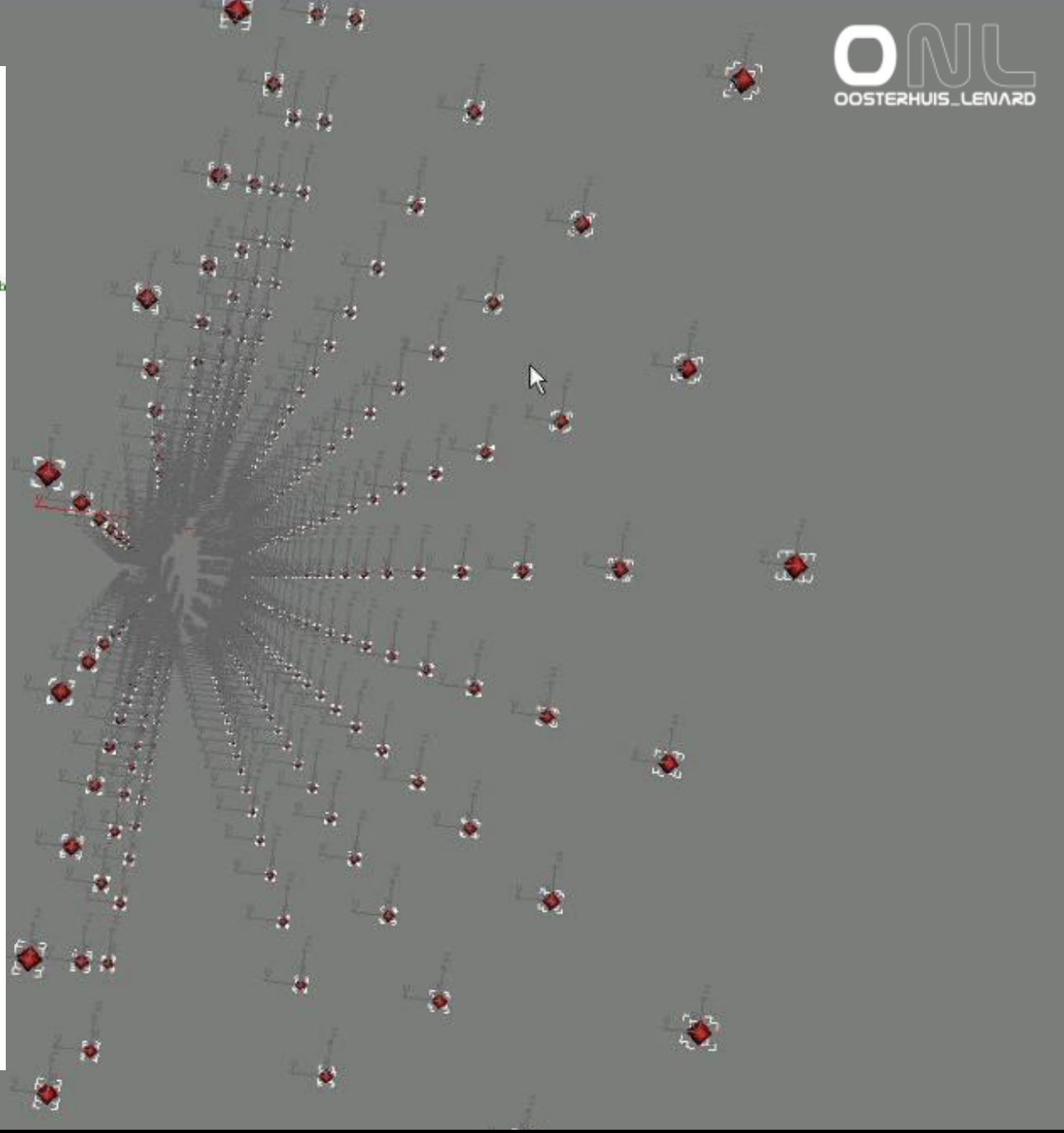
BUILDING COMPONENTS ARE ORGANIZED LIKE BIRDS IN A SWARM

2013
CET BUDAPEST

OONL
OOSTERHUIS_LENARD

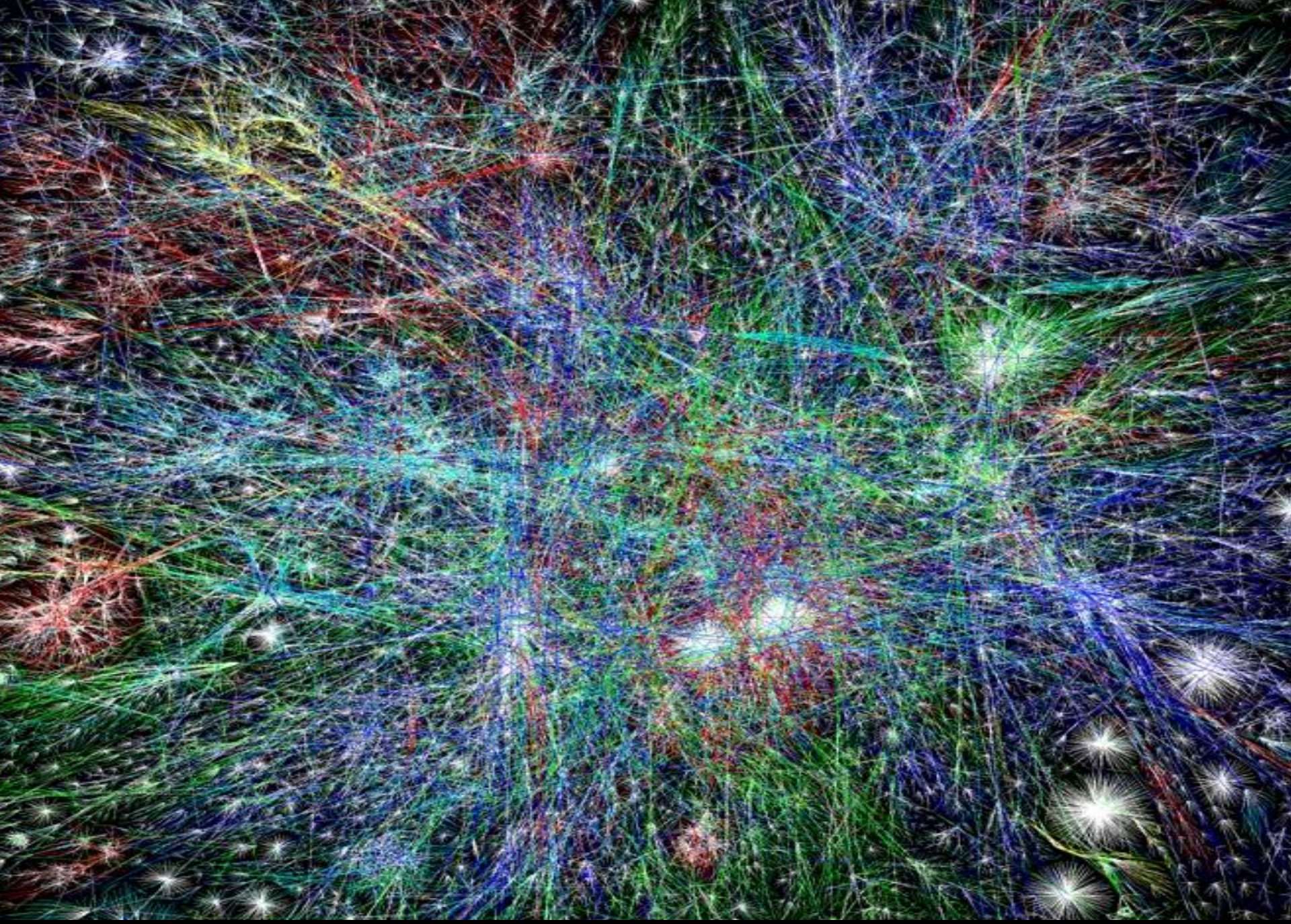
THE INTERNALLY CONSISTENT SWARM_SUBJECT TO EXTERNAL POWERLINES

```
 nrc=(ceil((k*2+ll+(h-1)*24)/2)+1) as integer
 nrc-=1
 c=nrc as string
 if c.count==1 then c="0"+c

 ss3.name="axis3Dglass"+c
 updateshape ss3
 l8.addnode ss3
 ss3.wirecolor=l8.wirecolor
}

--5.5 builds closed splines into layer "p glassplates b

 da2=(da^2+db^2-dc^2)/(2*da)
 dh=sqrt(abs(db^2-da2^2))
 np1=[0.0,0.0,0.0]
 np2=[da,0.0,0.0]
 np3=[da2,dh,0.0]
 gp1=splineshape()
 addnewspline gp1
 addknot gp1 1 #corner #line np1
 addknot gp1 1 #corner #line np2
 addknot gp1 1 #corner #line np3
 addknot gp1 1 #corner #line np1
 close gp1 1
 updateshape gp1
 gp1.wirecolor=color 0 255 0
 gp1.pos.x=b[2][1].pos.x+(k-1)*3500
 gp1.pos.z=b[1][1].pos.z
 move gp1 [0,(2000+1500*(g-1)),0]

 la2=(la^2+lb^2-lc^2)/(2*la)
 lh=sqrt(abs(lb^2-la2^2))
 np2=[0.0,0.0,0.0]
 np1=[la,0.0,0.0]
 np3=[la2,-lh,0.0]
 gp2=splineshape()
 addnewspline gp2
 addknot gp2 1 #corner #line np1
 addknot gp2 1 #corner #line np2
 addknot gp2 1 #corner #line np3
 addknot gp2 1 #corner #line np1
 close gp2 1
 updateshape gp2
 gp2.wirecolor=color 0 255 0
 gp2.pos.x=b[2][1].pos.x+(k-1)*3500
 gp2.pos.z=b[1][1].pos.z
 move gp2 [0,(2500+1500*g),0]

 if k!=1 then
 {
 da=distance b[g][k] bx[g][k-1]
 dc=distance b[g][k] bx[g-1][k]
 db=distance bx[g-1][k] bx[g][k-1]
 la=distance b[g][k] bx[g][k-1]
```



THE POINT CLOUD OF REFERENCE POINTS IS AN ACTOR NETWORK

ACOUSTIC BARRIER AND COCKPIT ARE SCRIPTED_NOT DRAWN OR MODELLED



GLOBAL INTERNET IS AN ACTOR NETWORK

THE CONTENT OF MY BOOK TANKOB IS AN ACTOR NETWORK

Towards a New Kind of Building

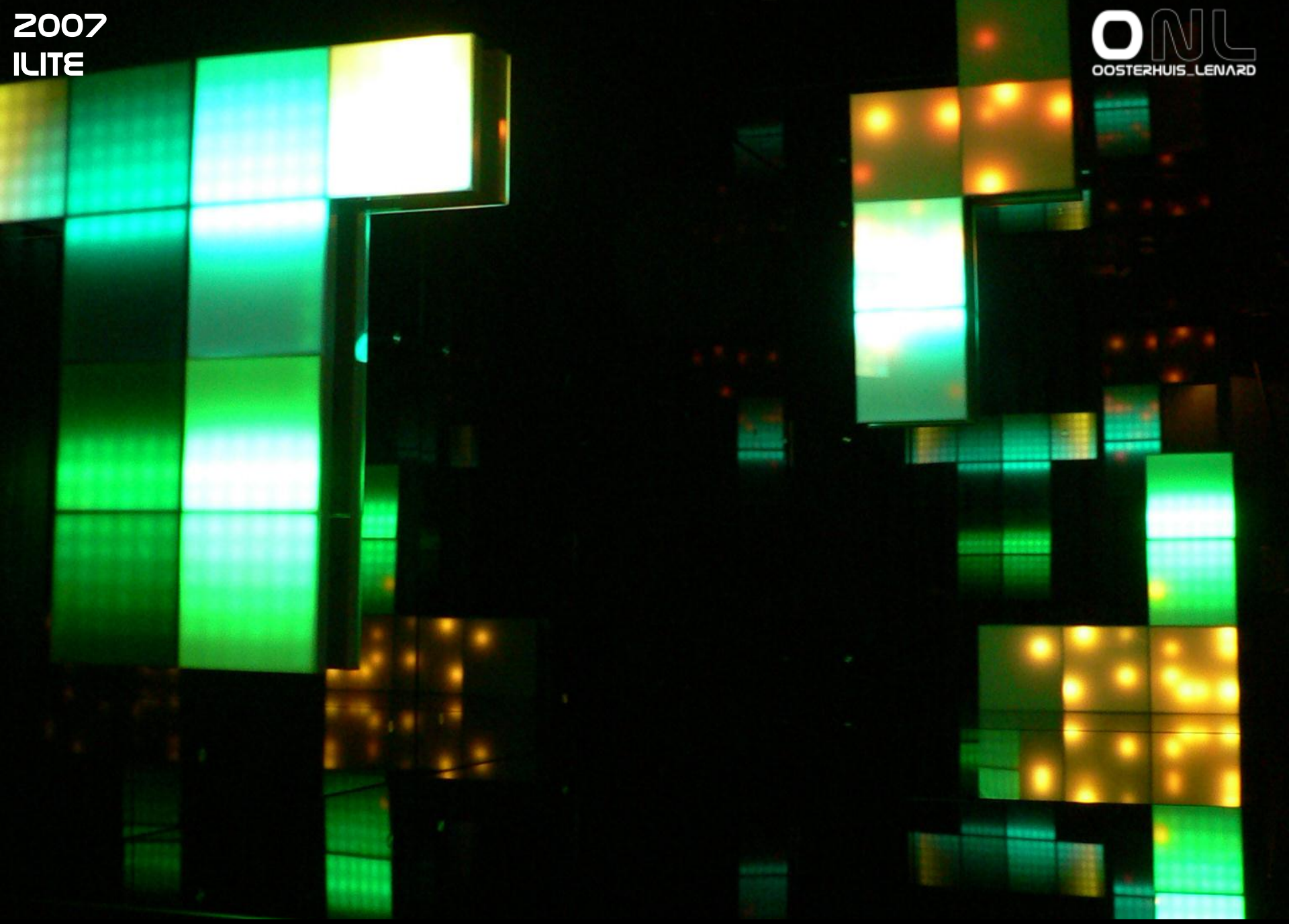
KAS OOSTERHUIS

A Designers Guide for Nonstandard Architecture

NAi Publishers

PROTODECK IN PROTOSPACE IS A DISTRIBUTED ACTOR NETWORK

2007
ILITE

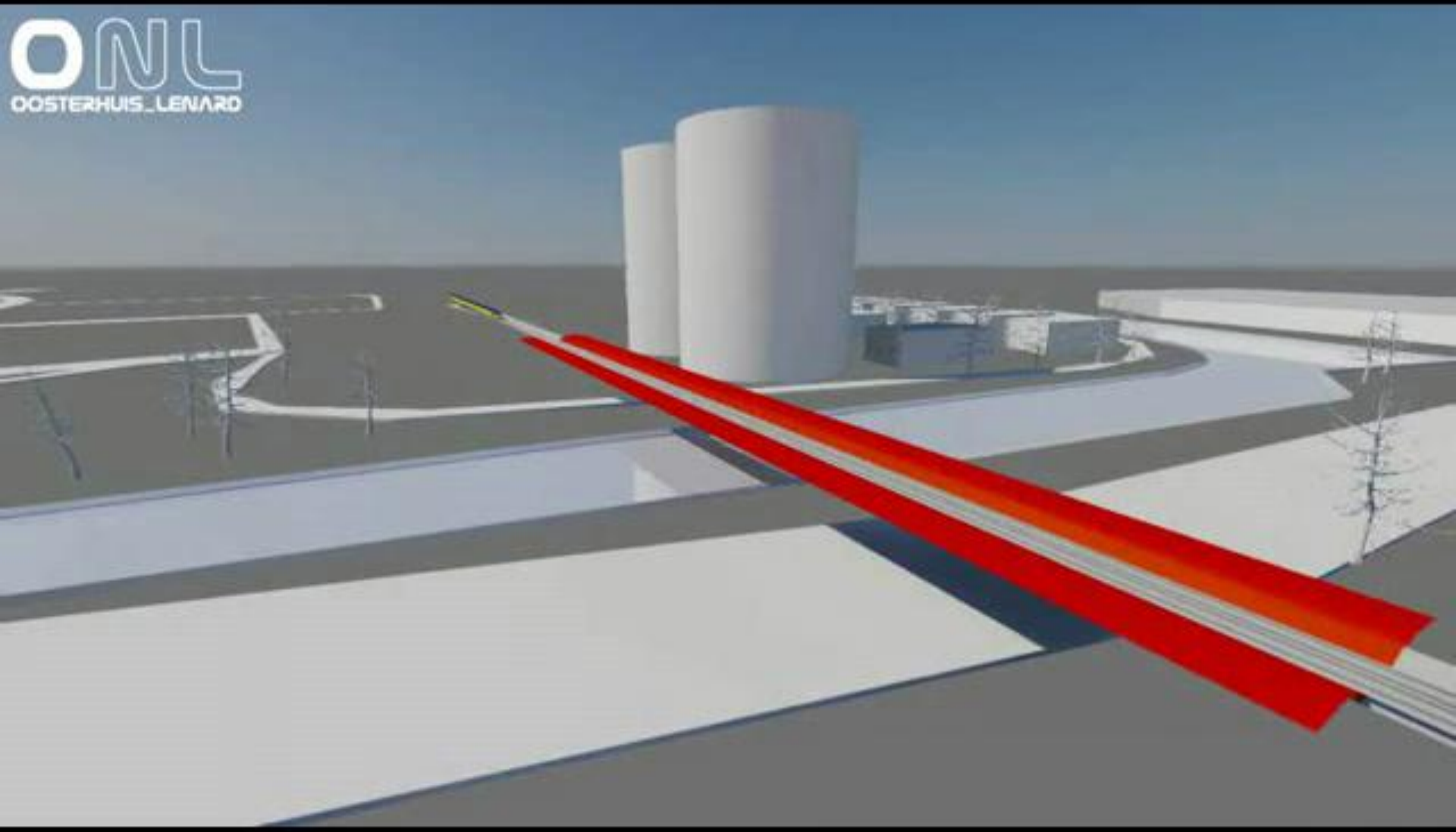


MAGNETIC LIGHT TILES HAVE A BRAIN THAT TALKS TO NEAREST NEIGHBOR

2009
INTERACTIVE WALL

ACTOR NETWORK WITH ACTUATING / MOVING BUILDING COMPONENTS

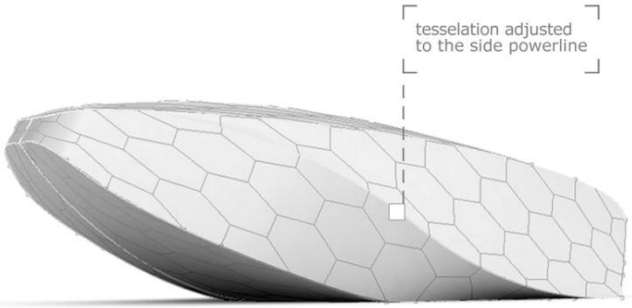
2010
BARRIER IN MOTION



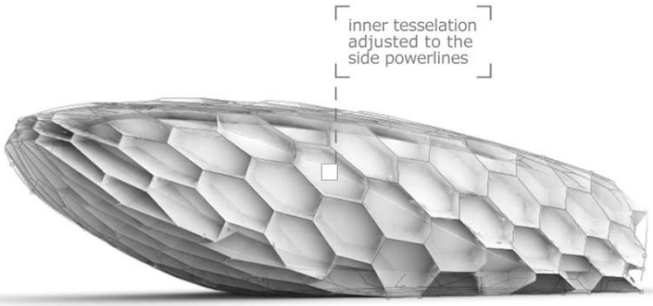
THERE IS ONLY A BARRIER WHEN THERE IS SOUND

2010
HYPERBODY MSC2

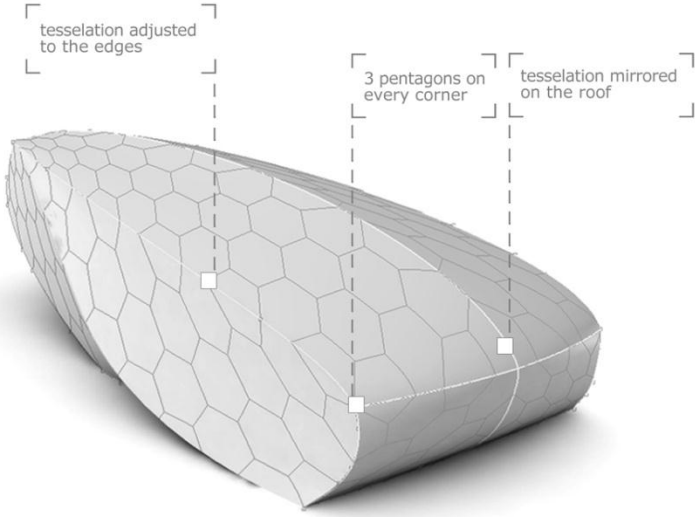
01. outer tesselation on the final shape - human perspective



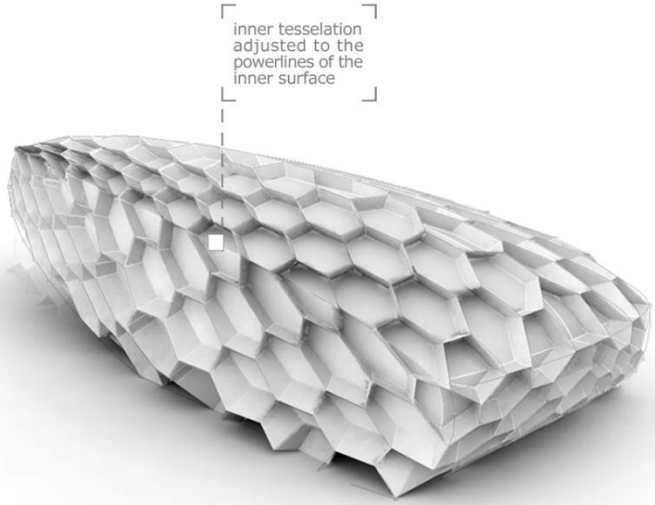
02. relation between outer and inner tesselation - human perspective



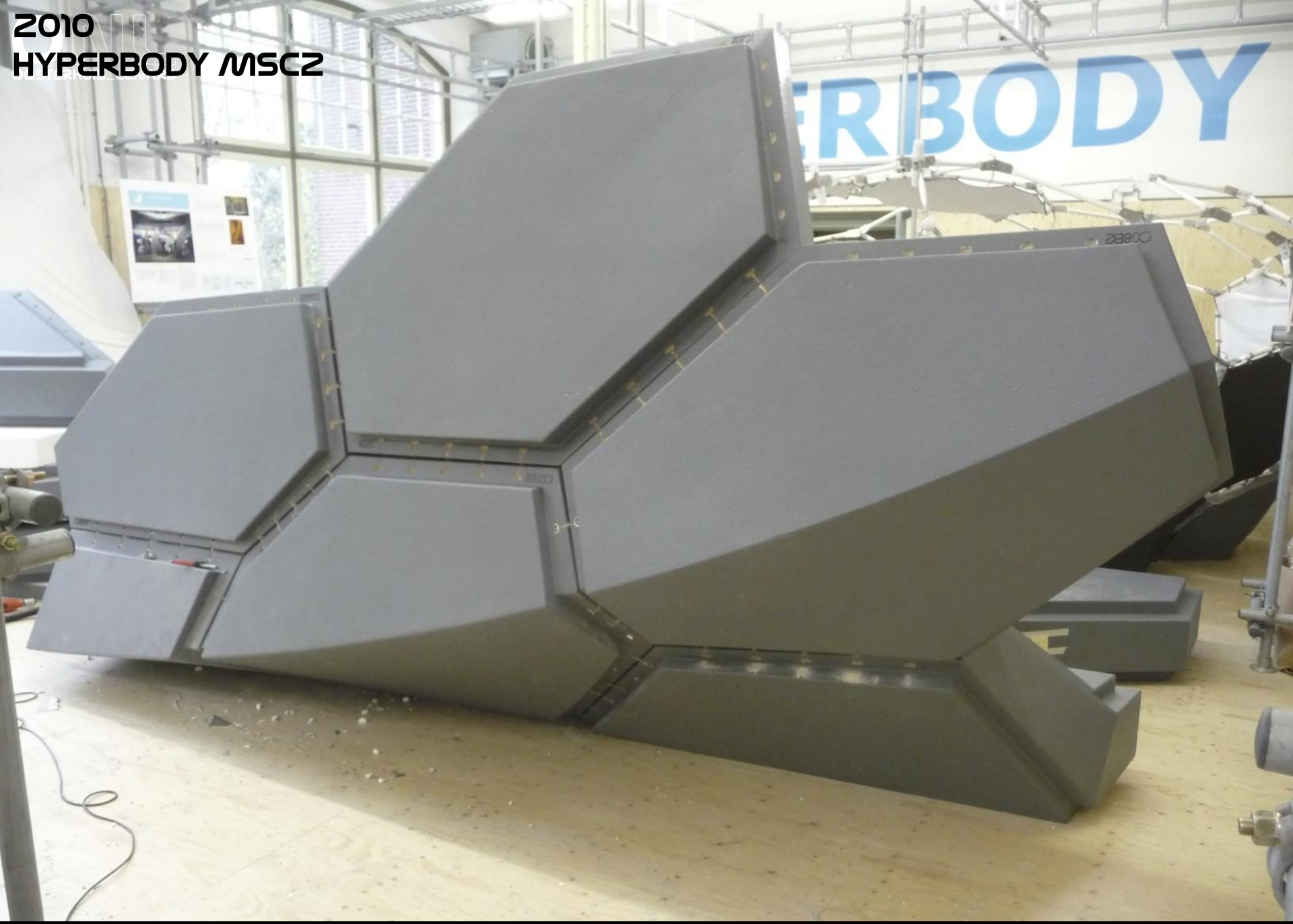
03. outer tesselation on the final shape - upper view



04. outer tesselation on the final shape - upper view



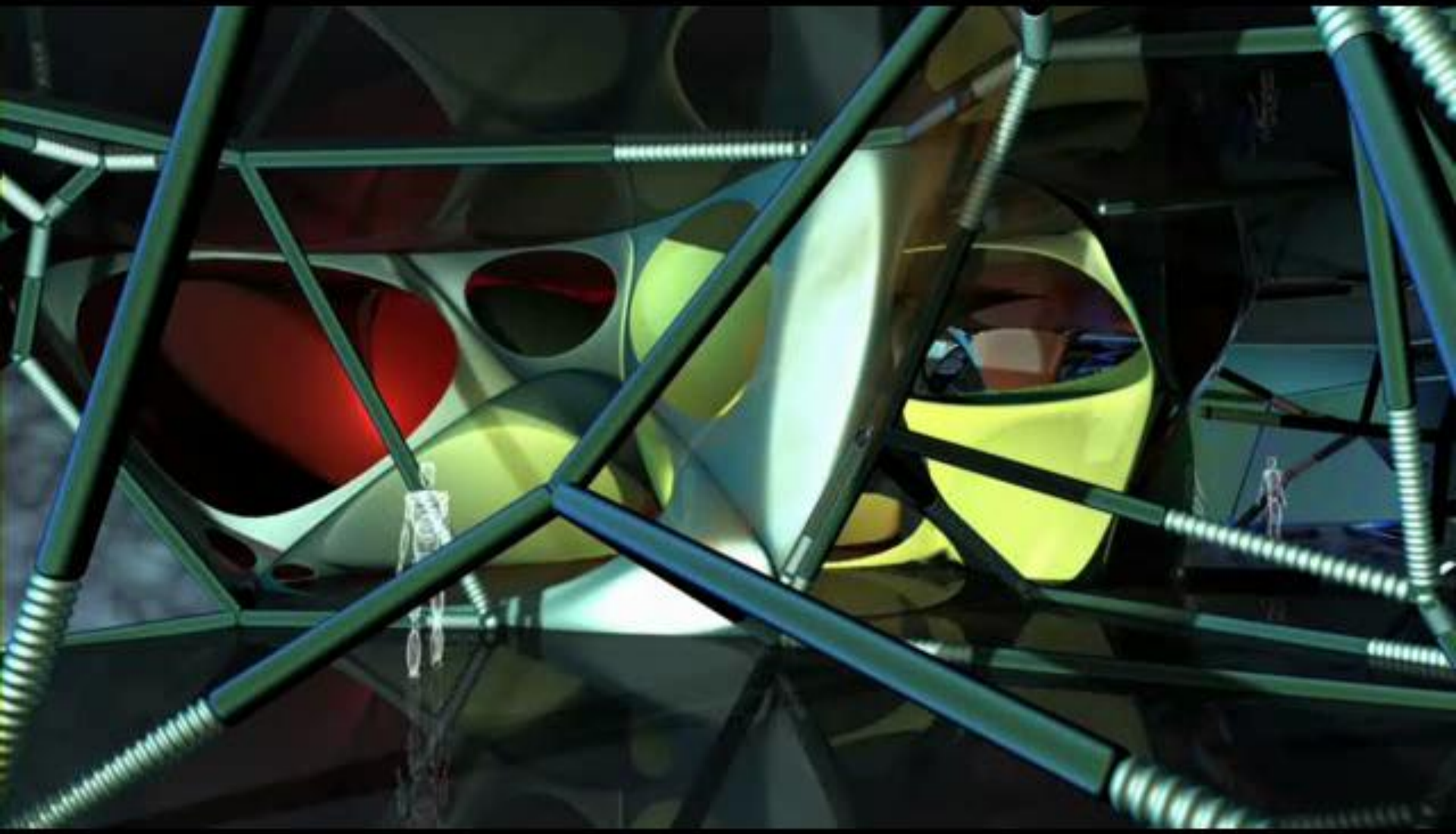
2010
HYPERBODY MSC2



POWERLINE STYLING IMPOSED ON SPECIALIZED BUILDING COMPONENTS

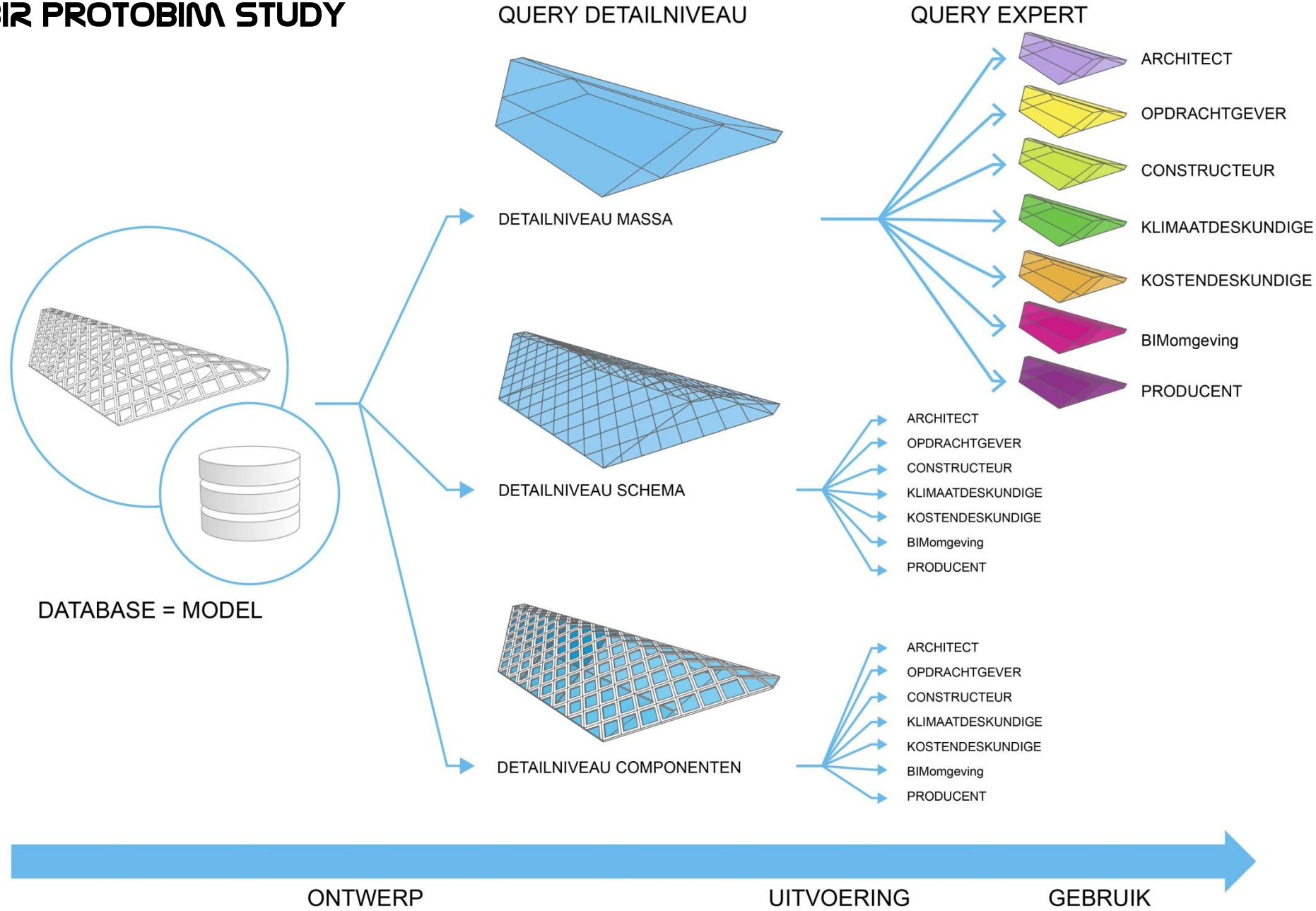
MUMBAI_INTERACTNG SWARMS OF DIFFERENT SPECIES

2010
DIGITAL PAVILION



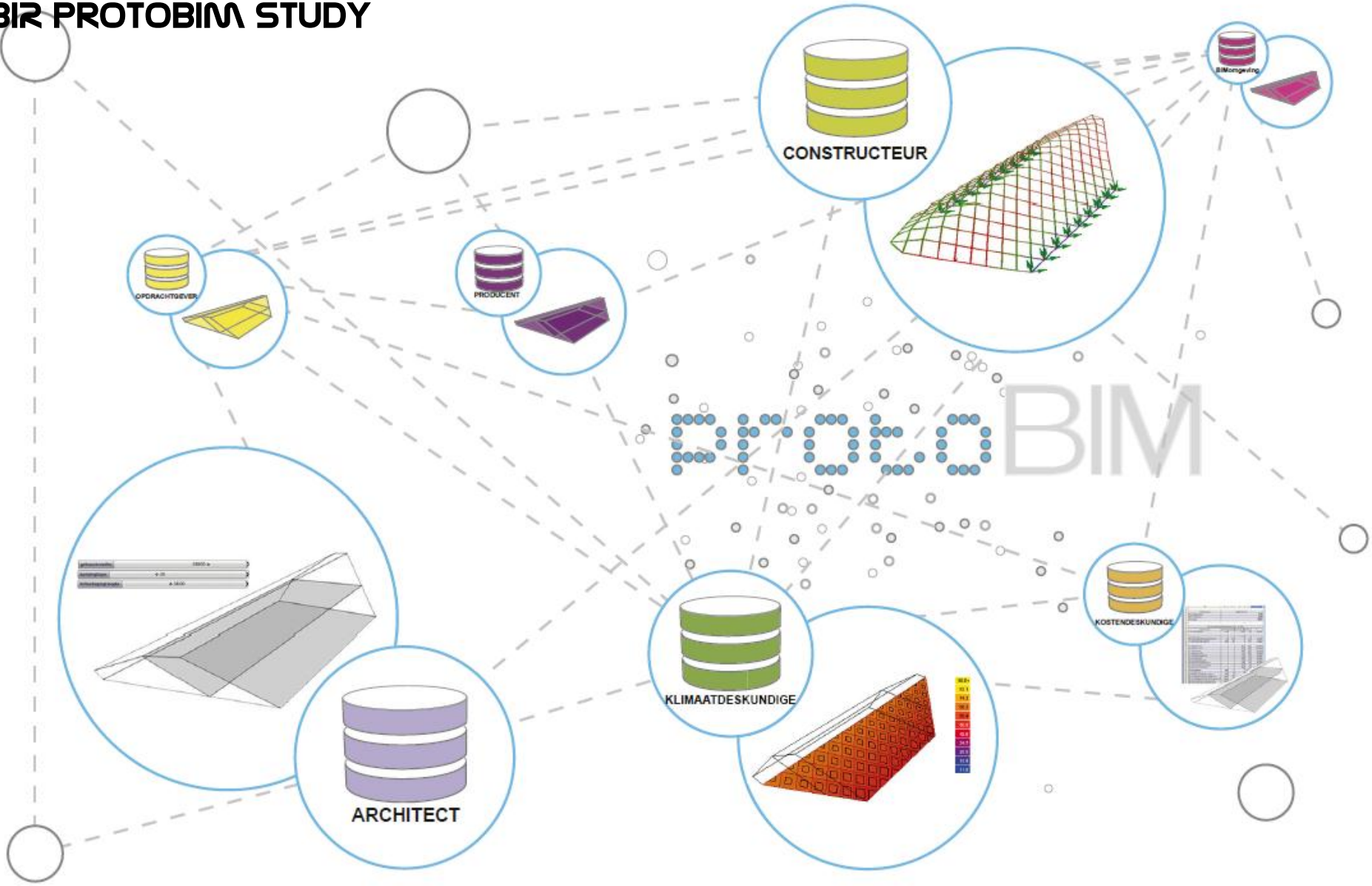
ACTUATING STRUCTURE INTERACTS WITH THE PUBLIC

2012
3IR PROTOBIM STUDY



ALL EXPERTS INCLUDING THE CLIENT AND THE USERS ARE DESIGNERS

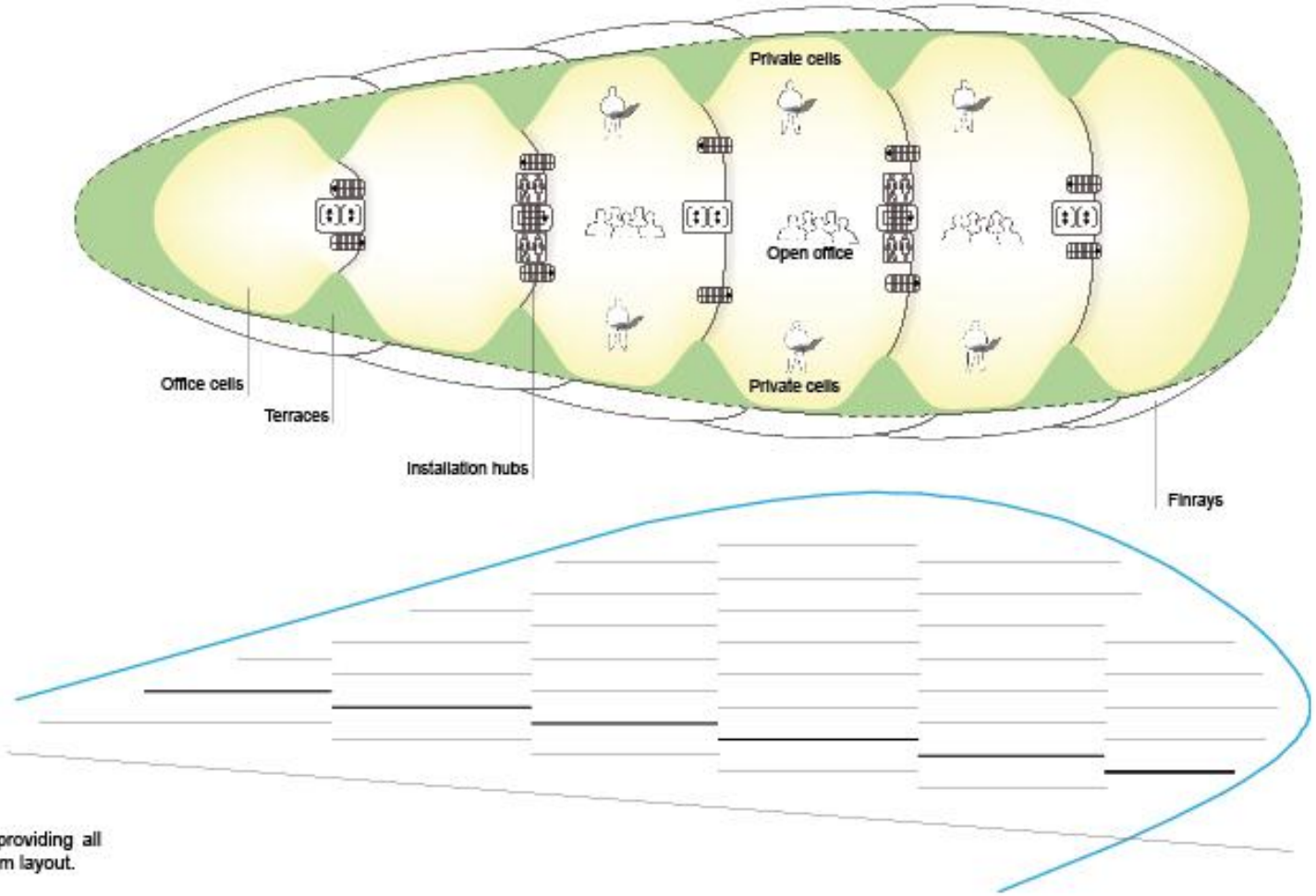
2012
3IR PROTOBIM STUDY



DESIGNERS INTERACT IN A DISTRIBUTED NETWORK_THE ACTOR IS LEADING

2008
FESTO HEADQUARTERS
STUTTGART

Adaptive Content - Typical Office Layout



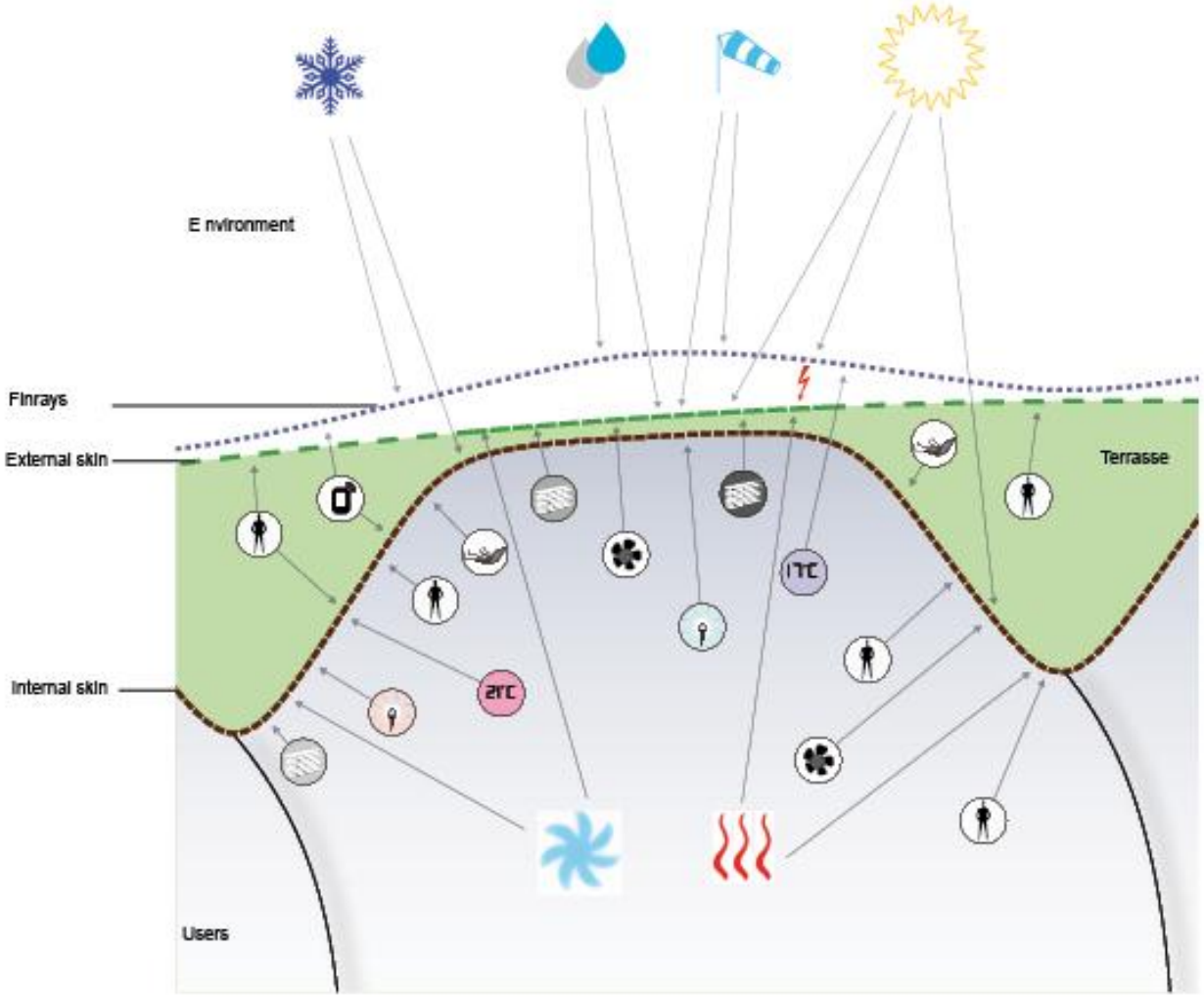
The cores alternate functionally providing all services for every two cells in a slim layout.

Die Kerne alternieren in ihrer Funktion, Dadurch können sie schlank gehalten werden und bieten alle Services für je zwei Zellen.

SKIN AND WORKSPACES ADAPT TO CHANGES IN REAL TIME

2008
FESTO HEADQUARTERS STUTTGART

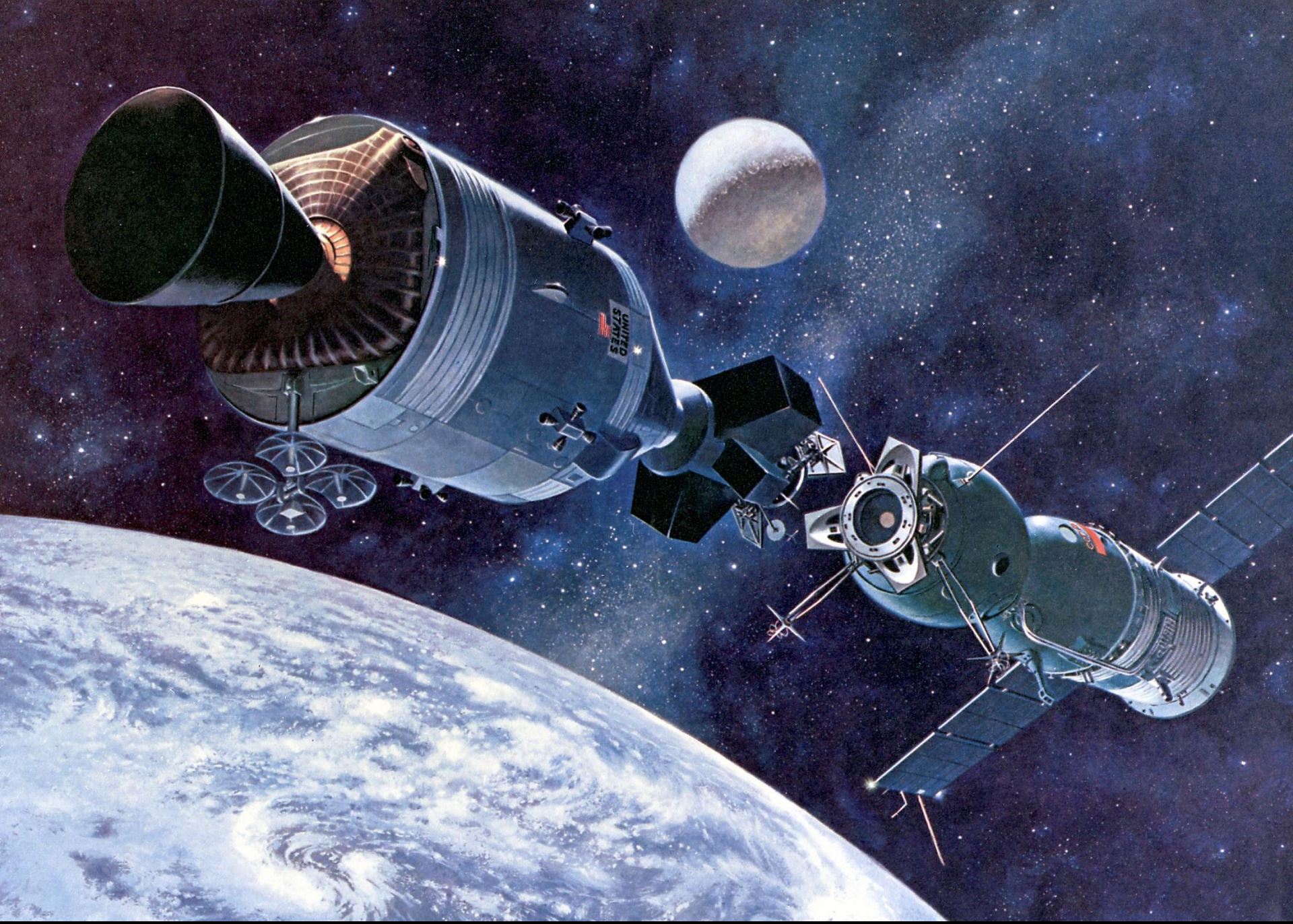
Shell - Skin is the Interface



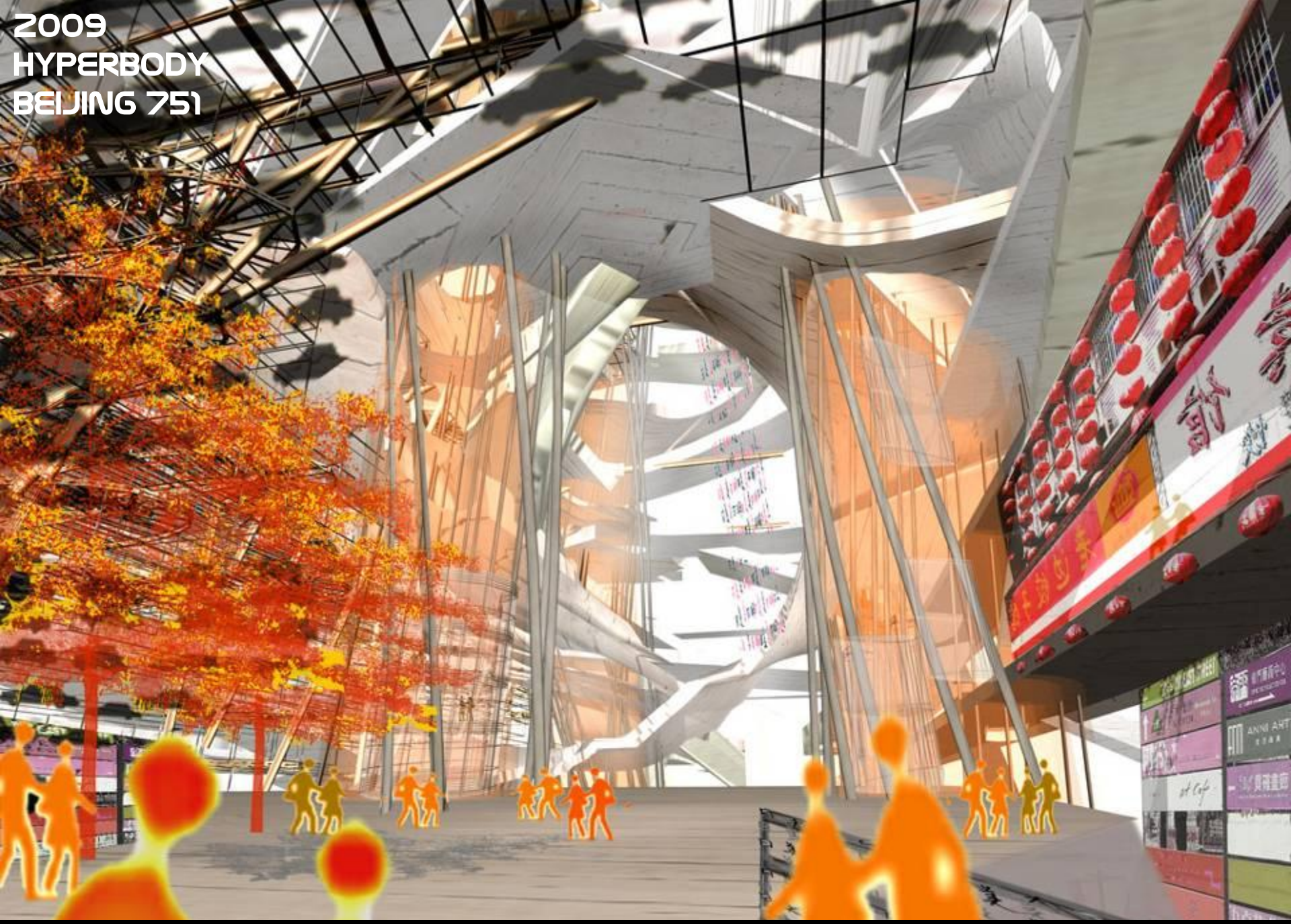
The skin has a crucial role as adaptive supplier of all kind of services, the enclosure being just one of its tasks.

Der Gebäudehülle kommt eine besondere Rolle als anpassungsfähiger Versorger für alle wesentlichen Services zu. Die Umhüllung ist nur eine Aufgabe unter vielen.

LEAN DATA EXCHANGE_COLLABORATION ON BASIS OF MINIMAL AGREEMENT



APOLLO-SOYUZ_THEY AGREED ON THE CONNECTION



COLLABORATION DESIGN IN A SPATIALLY DEFINED ACTOR NETWORK

2013
CLIMBING WALL
AMSTERDAM

OOSTERHUIS_LENARD

PARTICIPATORY DESIGN_THE CLIMBING EXPERT IS CO-DESIGNER / CO-CREATOR

2013
CLIMBING WALL
AMSTERDAM

PARAMETRIC BUILDING COMPONENT INCORPORATES THE DESIGN RULES

2013
CLIMBING WALL
AMSTERDAM

ONL
OOSTERHUIS_LENARD

SCRIPTED_CNC FABRICATED_RAPID ASSEMBLY_DEMOUNTABLE

THE SWARM OF BUILDING COMPONENTS IS SELF-SUPPORTING

NEXT GENERATION BUILDING

01/2013

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