

# *computer as design medium*

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[www.co-de-it.com](http://www.co-de-it.com)



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*founders*



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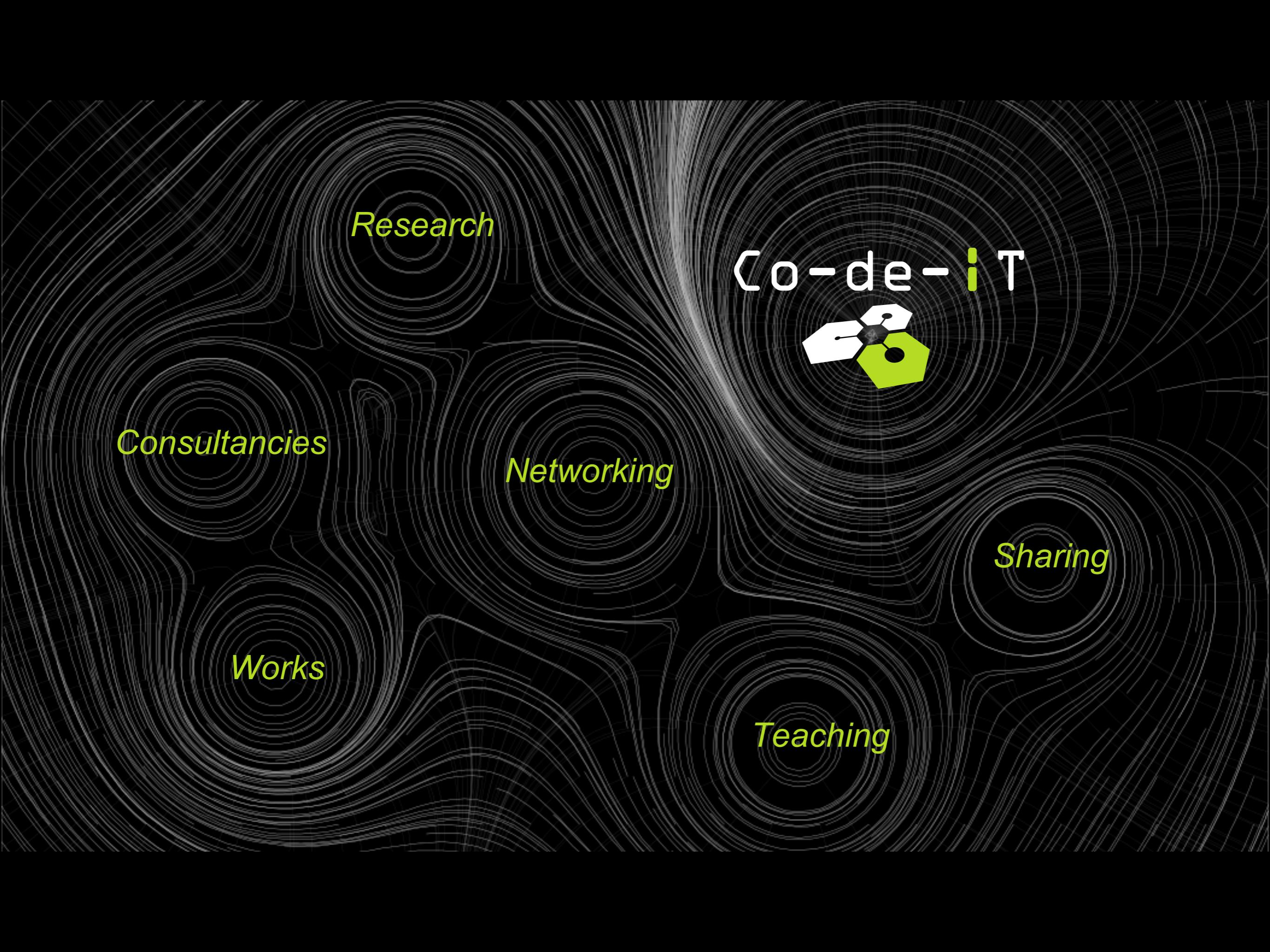
Mirco Bianchini



Domenico Di Francesco

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*collaborators*



*Research*

*Consultancies*

*Works*

*Networking*

*Teaching*

Co-de-iT



*Sharing*

*An algorithm must be seen to be believed.*

*Donald Knuth*

*design* | perspective

*tooling*



**In the computer  
It's so simple**



## Utility functions

```
51       + Utility functions
77
78       + ****
83       - Private Sub RunScript(ByVal x)
84           Dim pt As New Point3d(x, y, 0)
85           Dim pts As New List(Of Point3d)
86           pts.Add(pt)
87
88           For i As Int32 = 1 To n
89              pt = NextPoint(pt)
90              pts.Add(pt)
91           Next
92
93           A = pts
94
95       End Sub
96
97       Function NextPoint(ByVal pt As Point3d)
98           Dim xn, yn, zn As Double
99           xn = Math.Sin(pt.Y * 2.01) - Math.Cos(pt.Y * 1.61)
100          yn = Math.Sin(pt.X * 1.61) - Math.Cos(pt.X * 1.61)
101          zn = Math.Sin(pt.Z - 1)
102
103          Return New Point3d(xn, yn, zn)
104
105       End Function
106
107       End Class
```

*craft*

accumulated knowledge  
that becomes

**sensibility**



*embedded* | logic



*It is hard to believe that something as mindless and mechanical as an algorithm could produce such wonderful things. No matter how impressive the products of an algorithm, the underlying process always consists of nothing but a set of individually mindless steps succeeding each other without the help of intelligent supervision: they are “automatic” by definition: the workings of an automaton.*

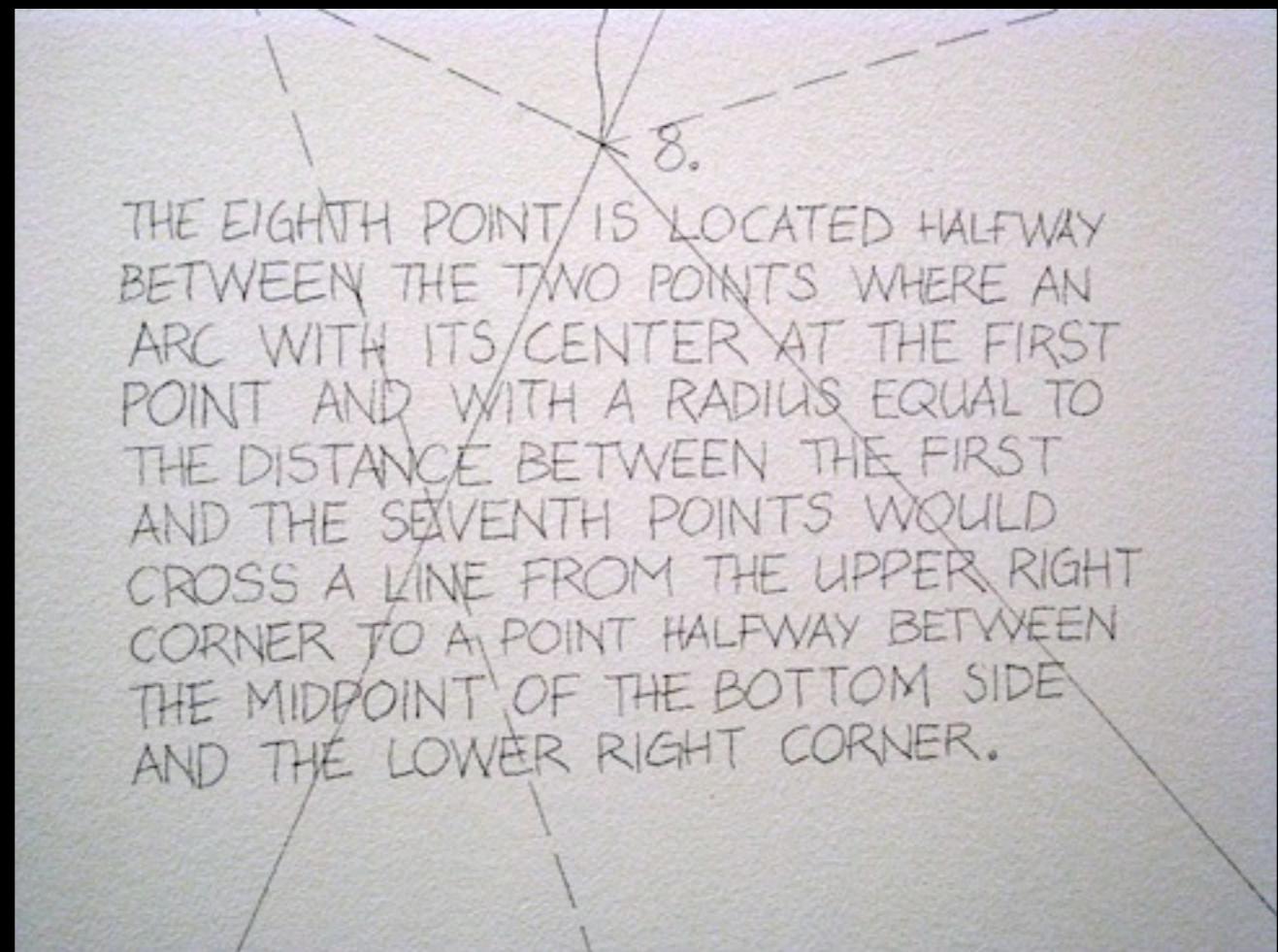
*Daniel Dennett*

*Give me order... and time, and I will give  
you Design.*

*Daniel Dennett*

*"The idea becomes a machine that makes the art"*

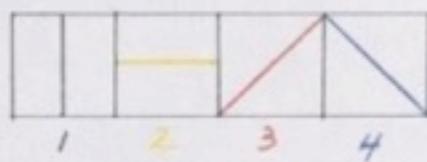
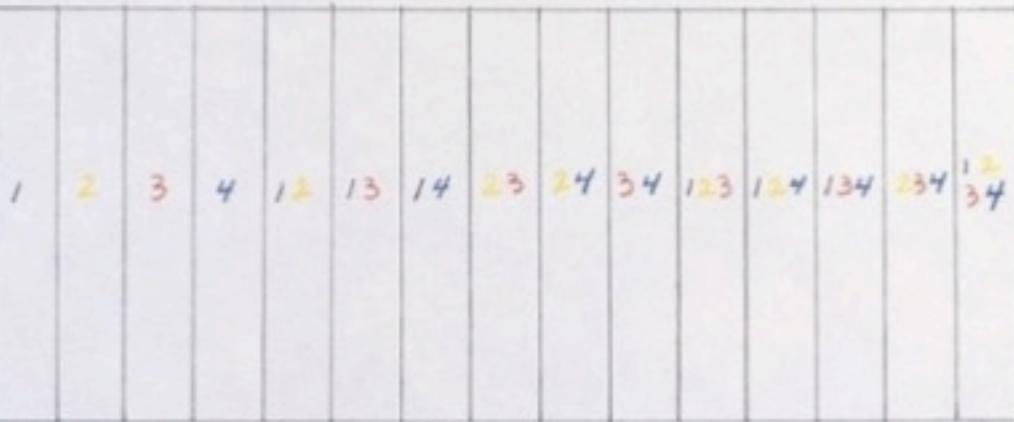
*Sol Lewitt, Paragraphs on conceptual art, 1967*





Sol Lewitt - wall drawings

## DIAGRAM



This is a diagram for the Sol LeWitt wall drawing number 49. It should accompany the certificate if the wall drawing is sold or otherwise transferred but is not a certificate or a drawing.

## CERTIFICATE

This is to certify that the Sol LeWitt wall drawing  
number 49 evidenced by this certificate is authentic.

A wall divided vertically into fifteen equal parts, each with a different line direction and color, and all combinations.

Red, yellow, blue, black pencil  
First Drawn by: Chris Hansen, Nina Kayem,  
Al Williams  
First Installation: Jewish Museum, New York, NY.  
June, 1970

This certification is the signature for the wall drawing and must accompany the wall drawing if it is sold or otherwise transferred.

Certified by

*Sol LeWitt*  
Sol LeWitt

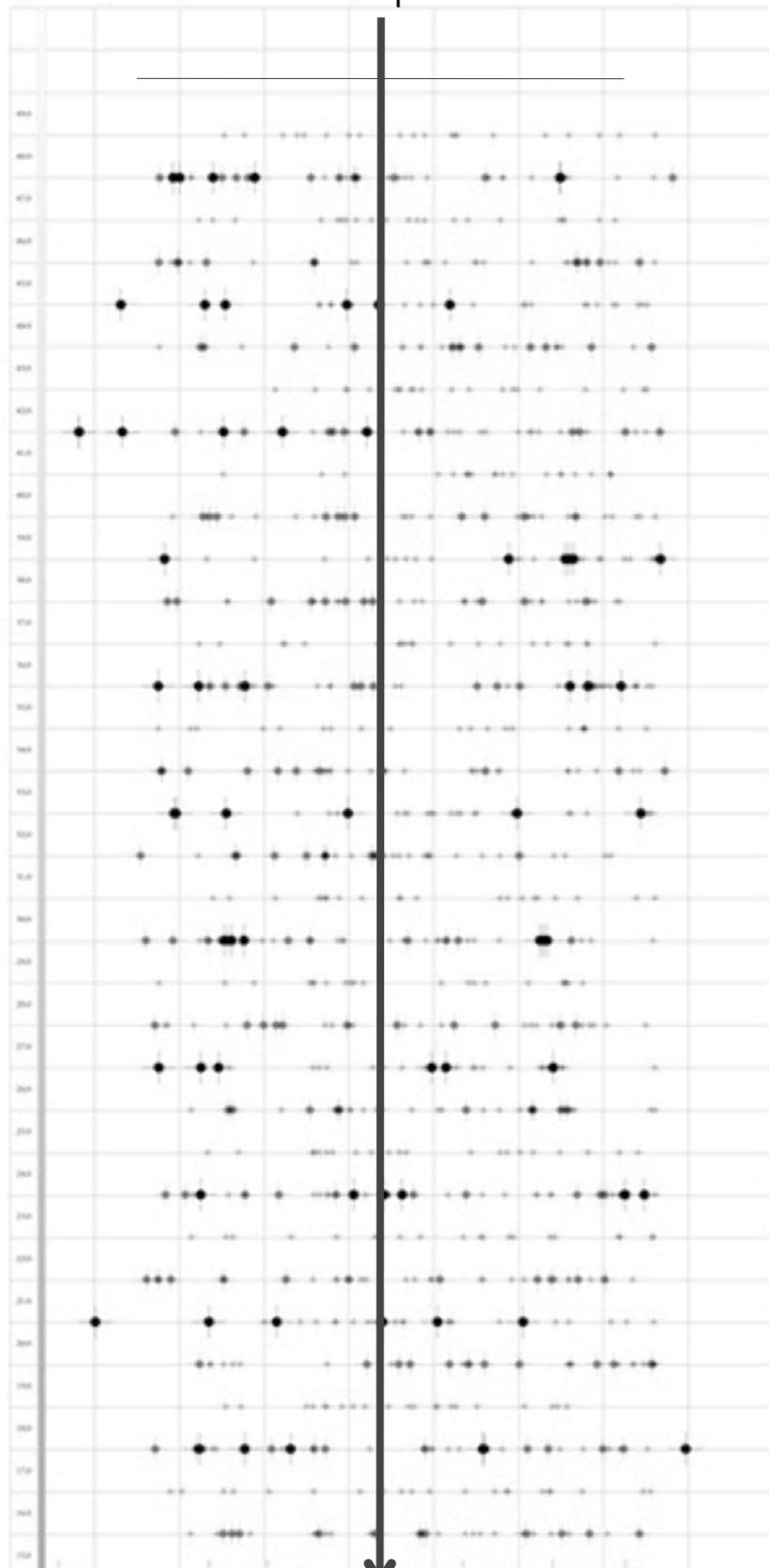
© Copyright Sol LeWitt

Date

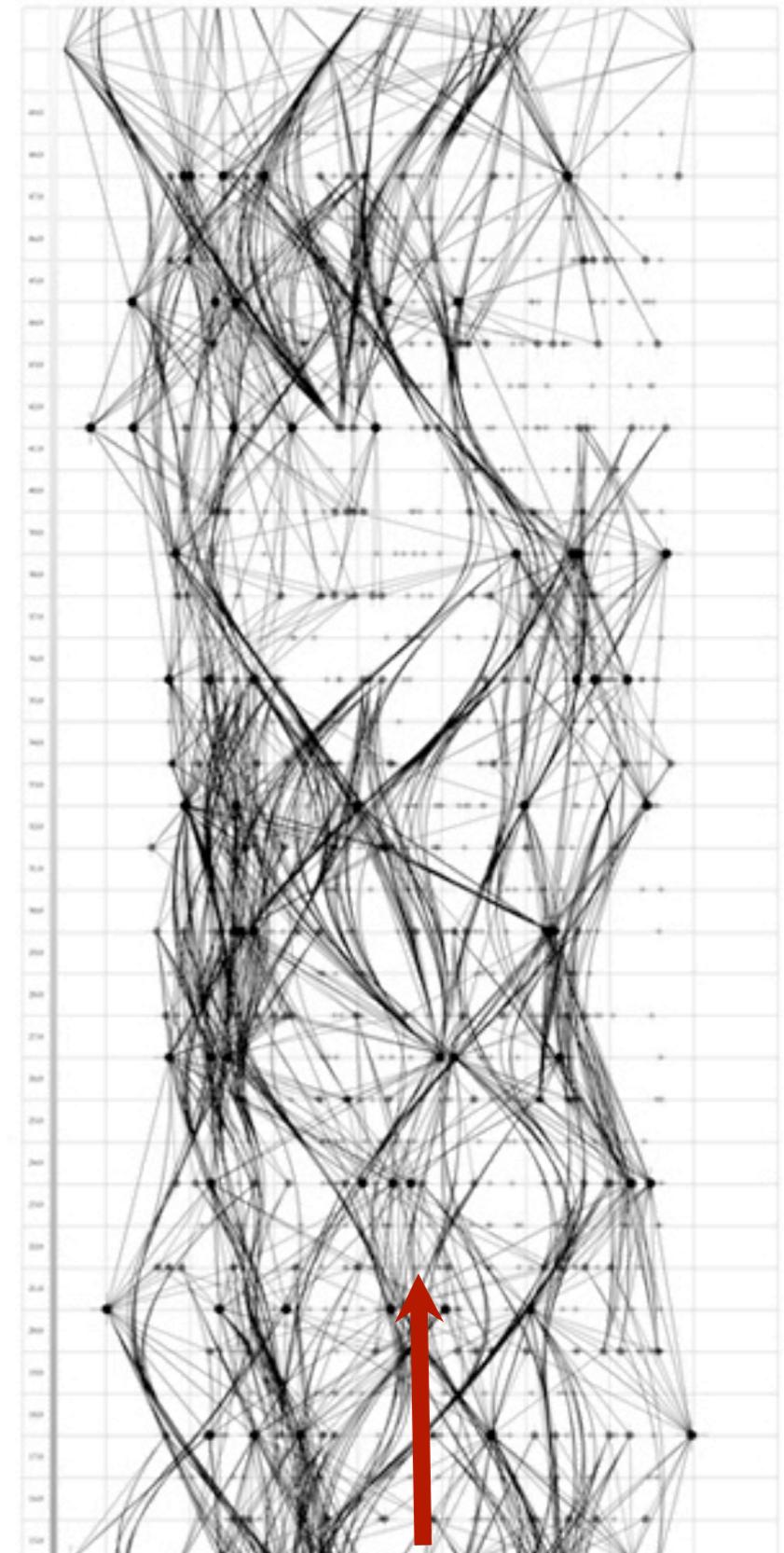
*"The code designs machines that grow the architecture"*

*paraphrasing Sol Lewitt*

conception



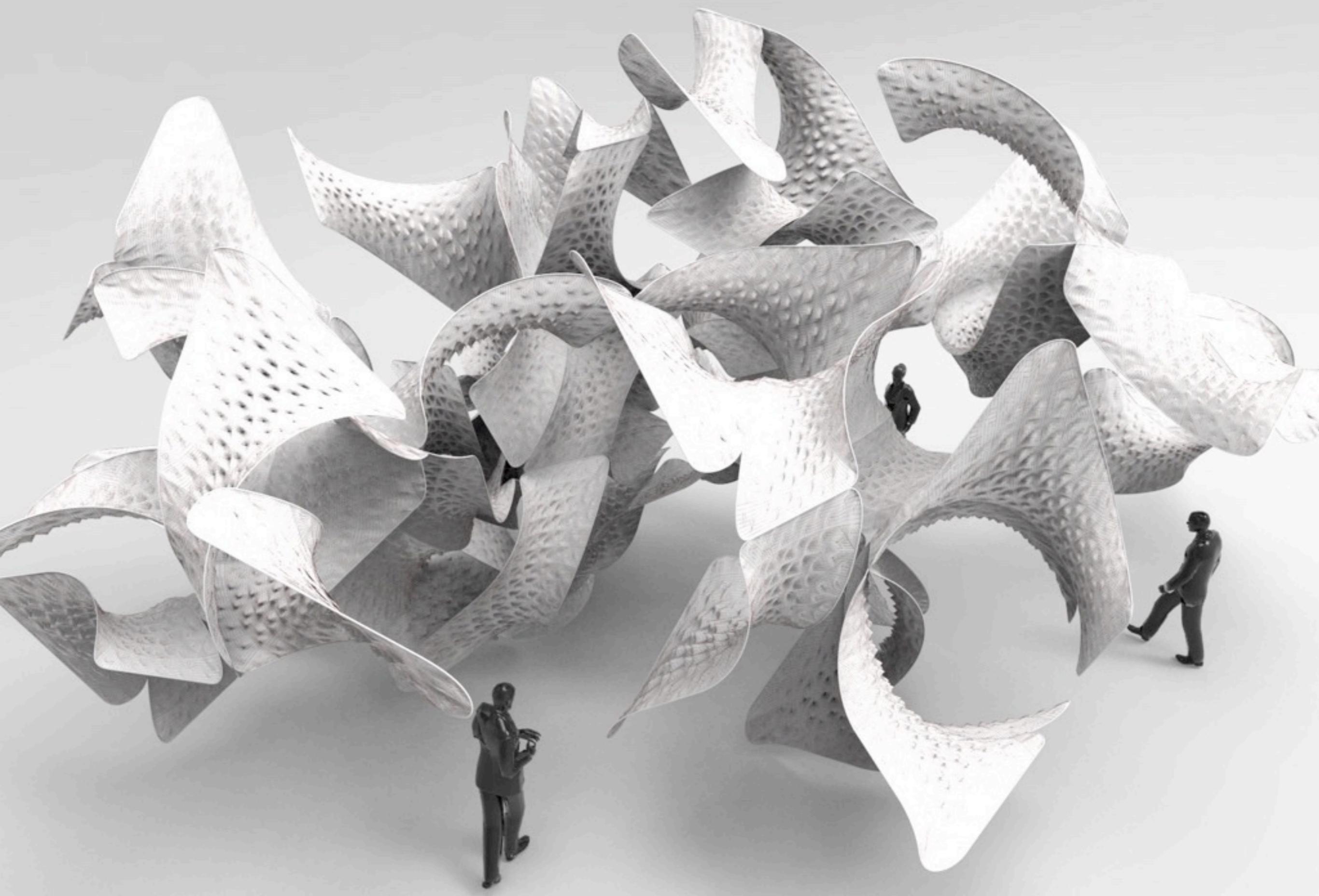
realization

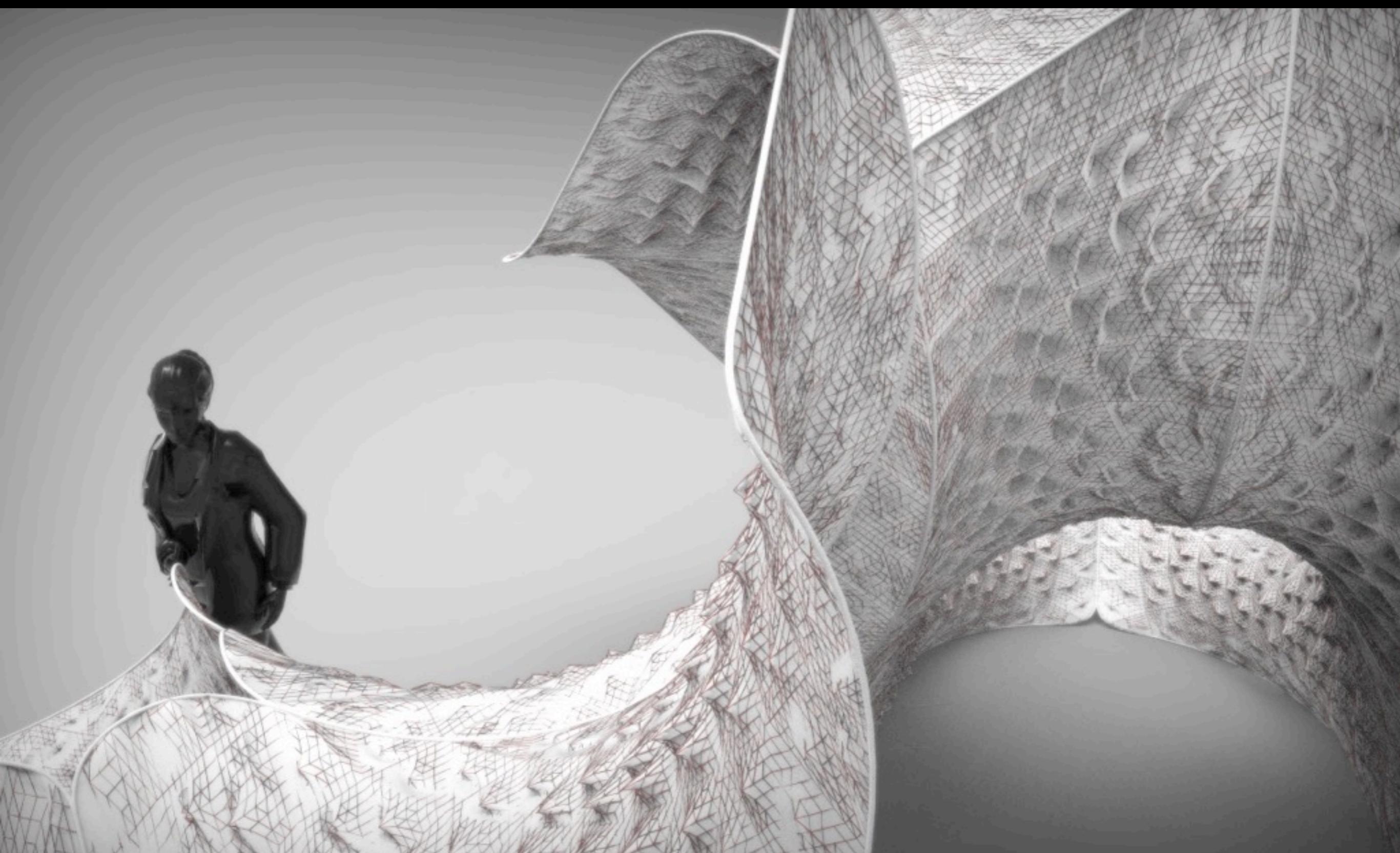


inception

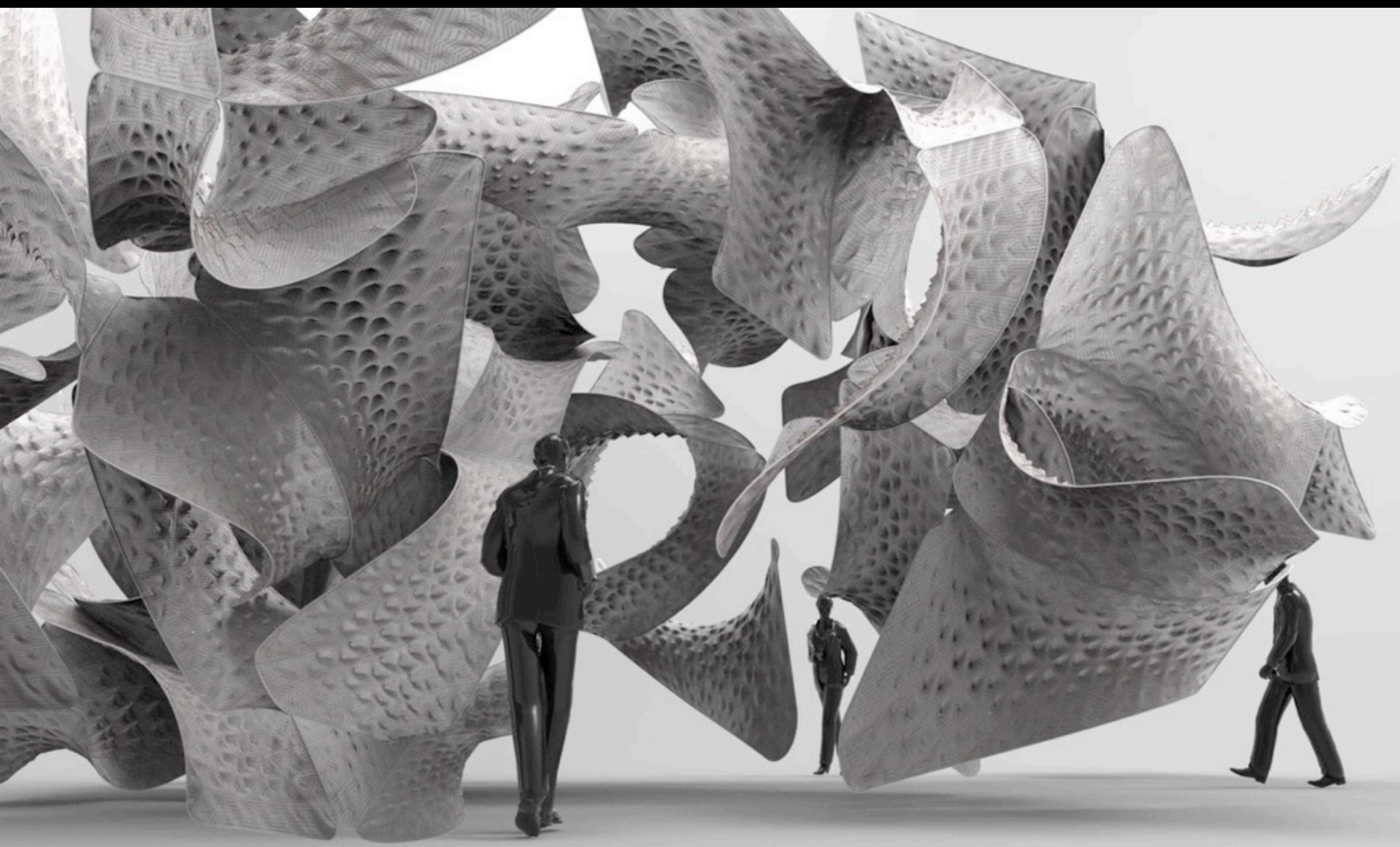
an *aesthetic of decision* within a  
framework of self-organization and  
complex adaptive systems

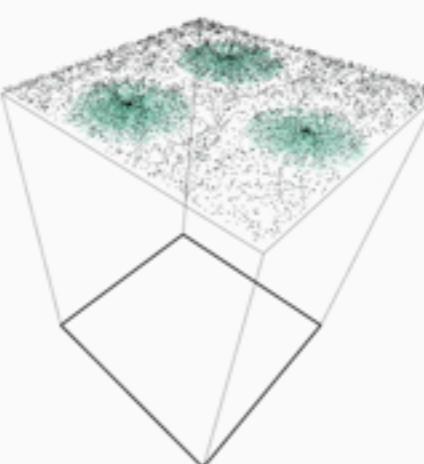
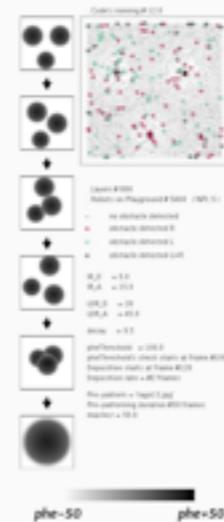
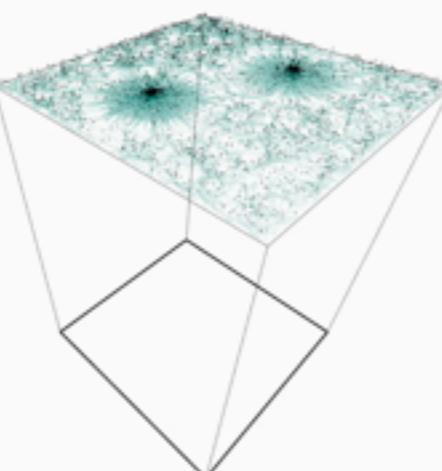
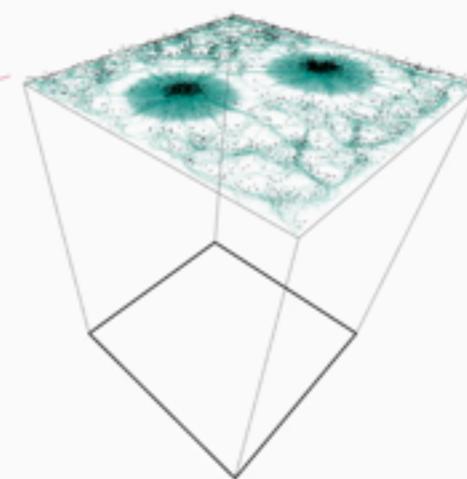
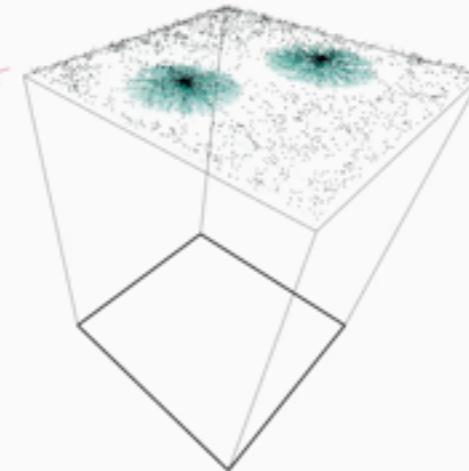
Steven Shaviro

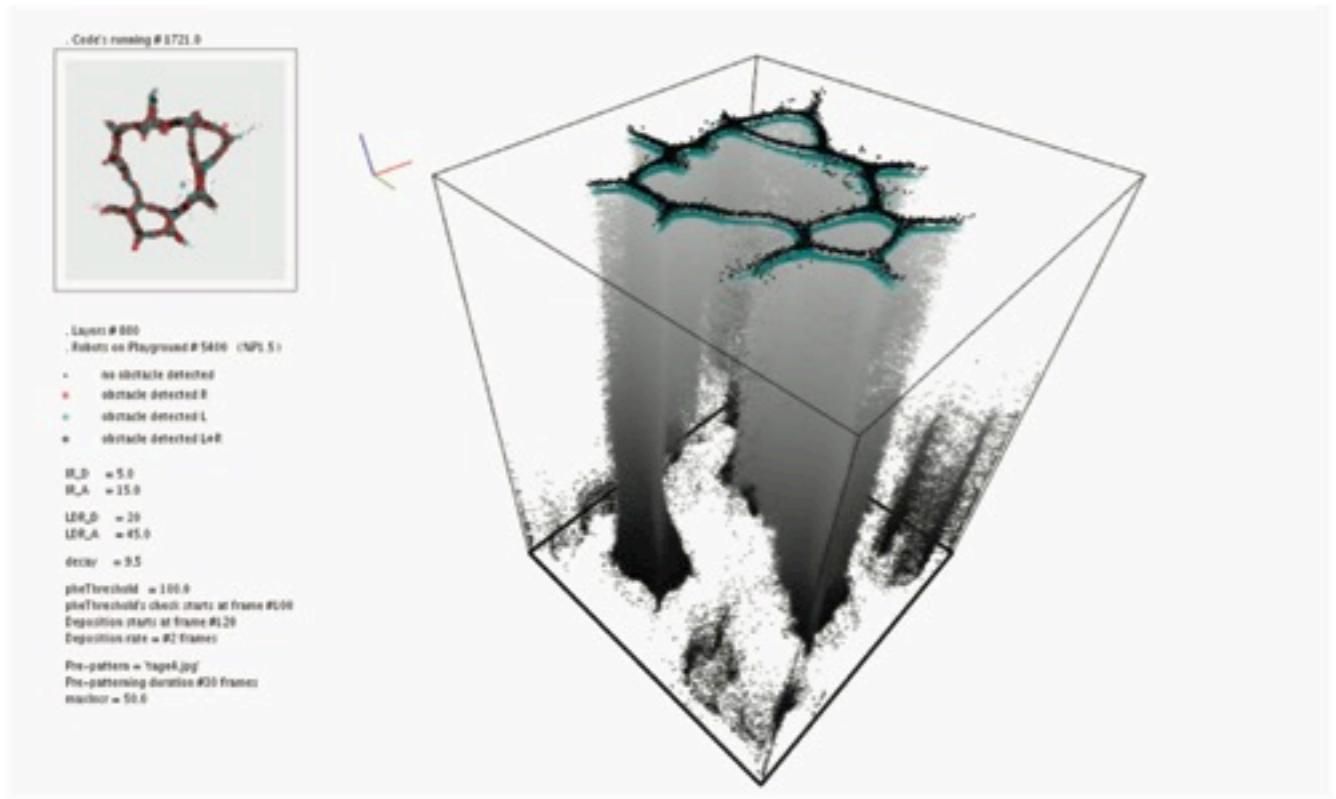


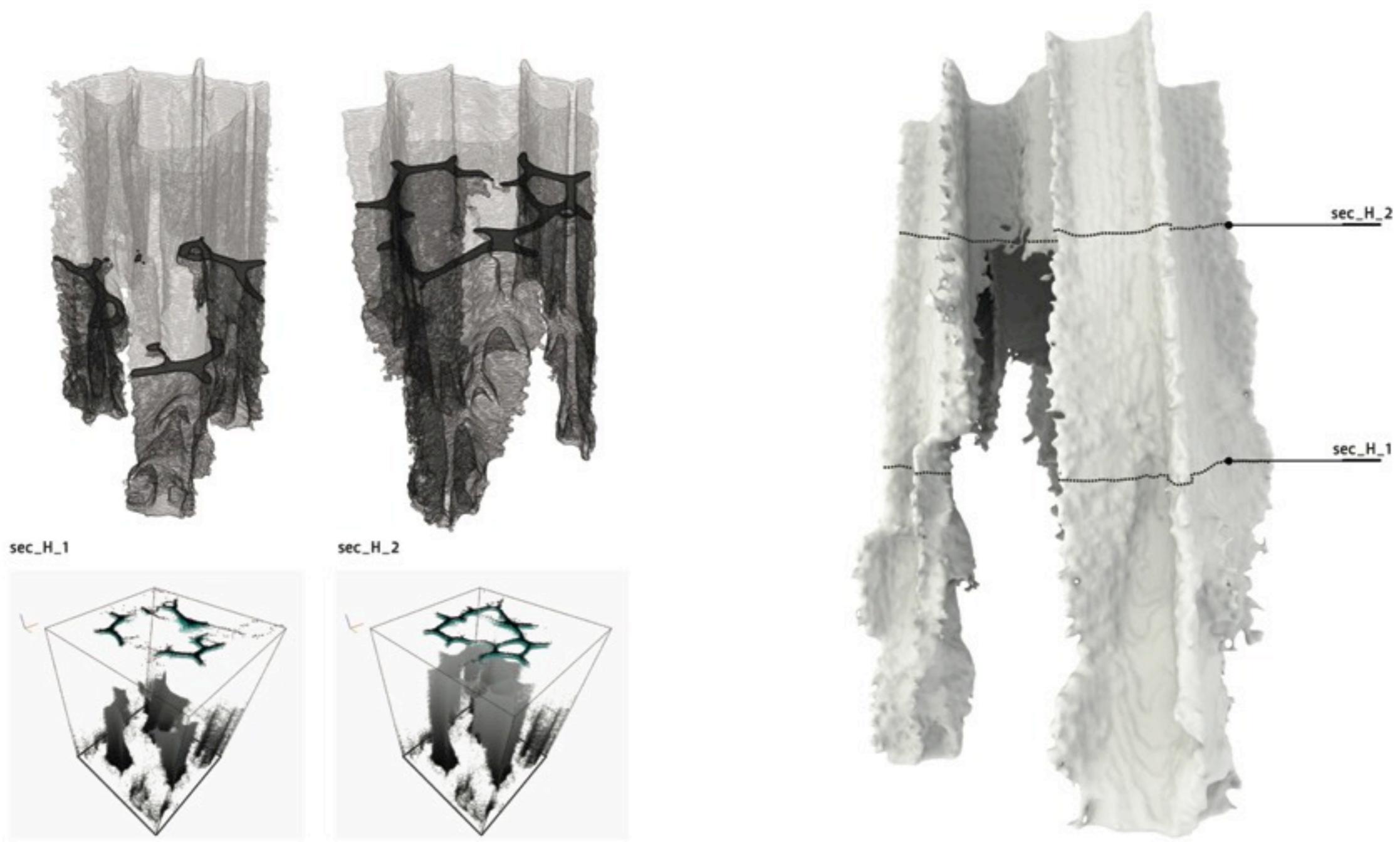


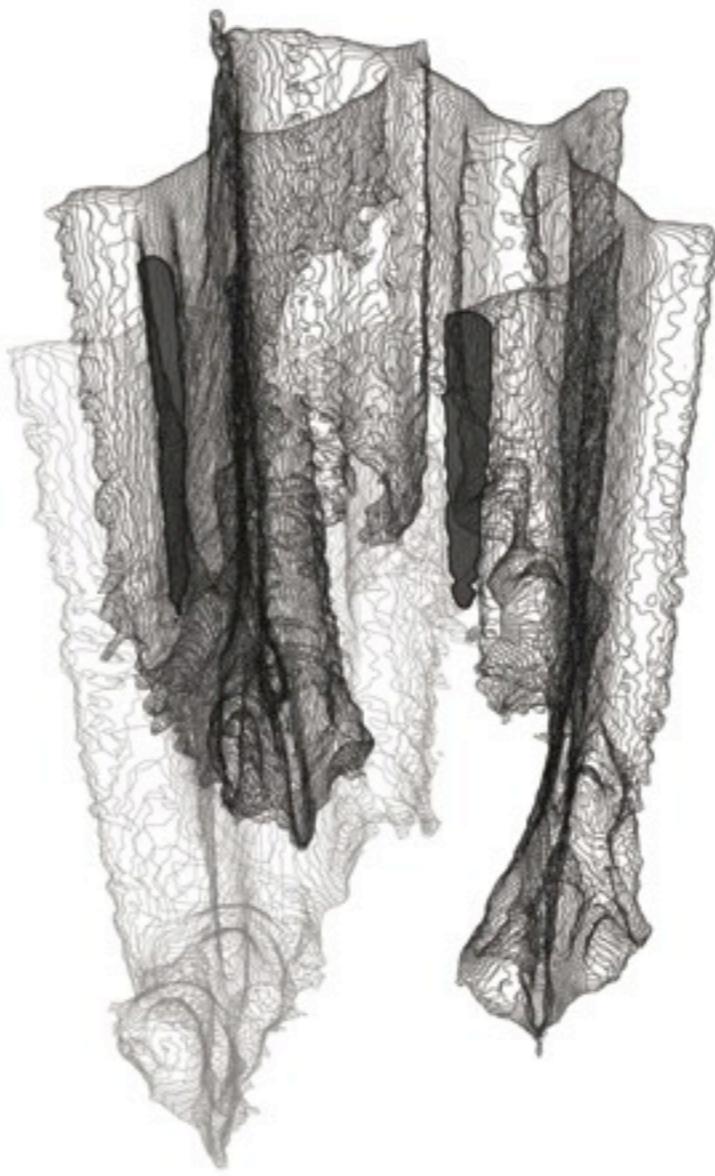
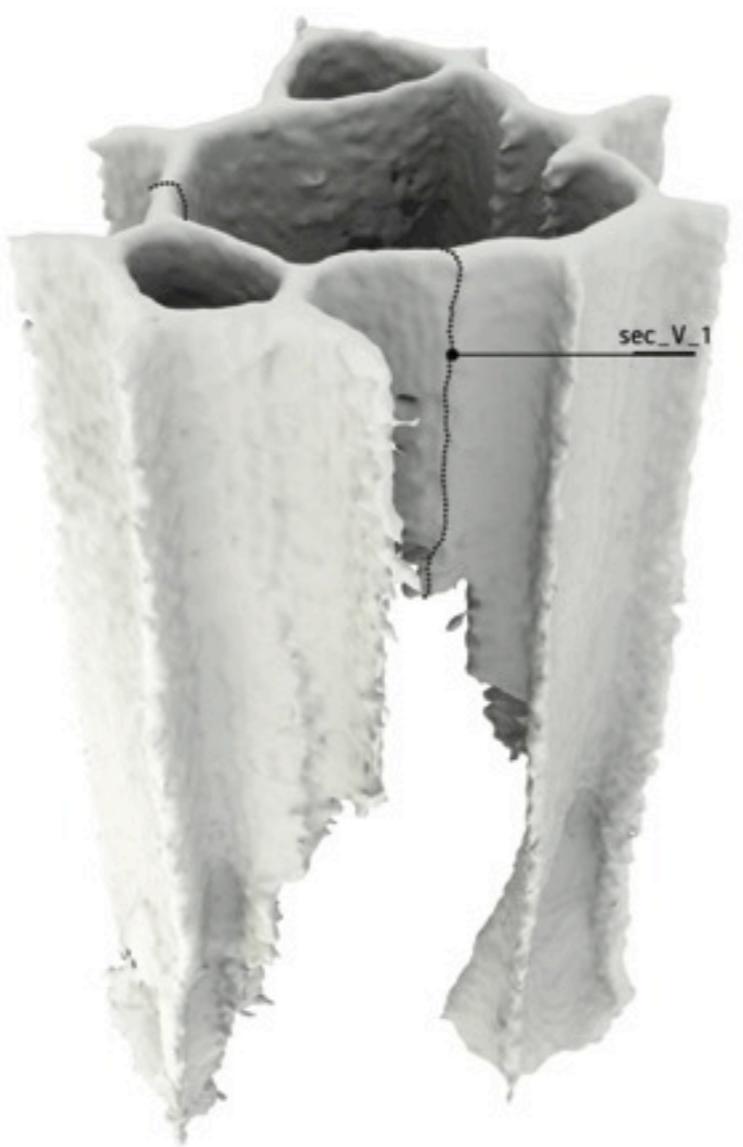


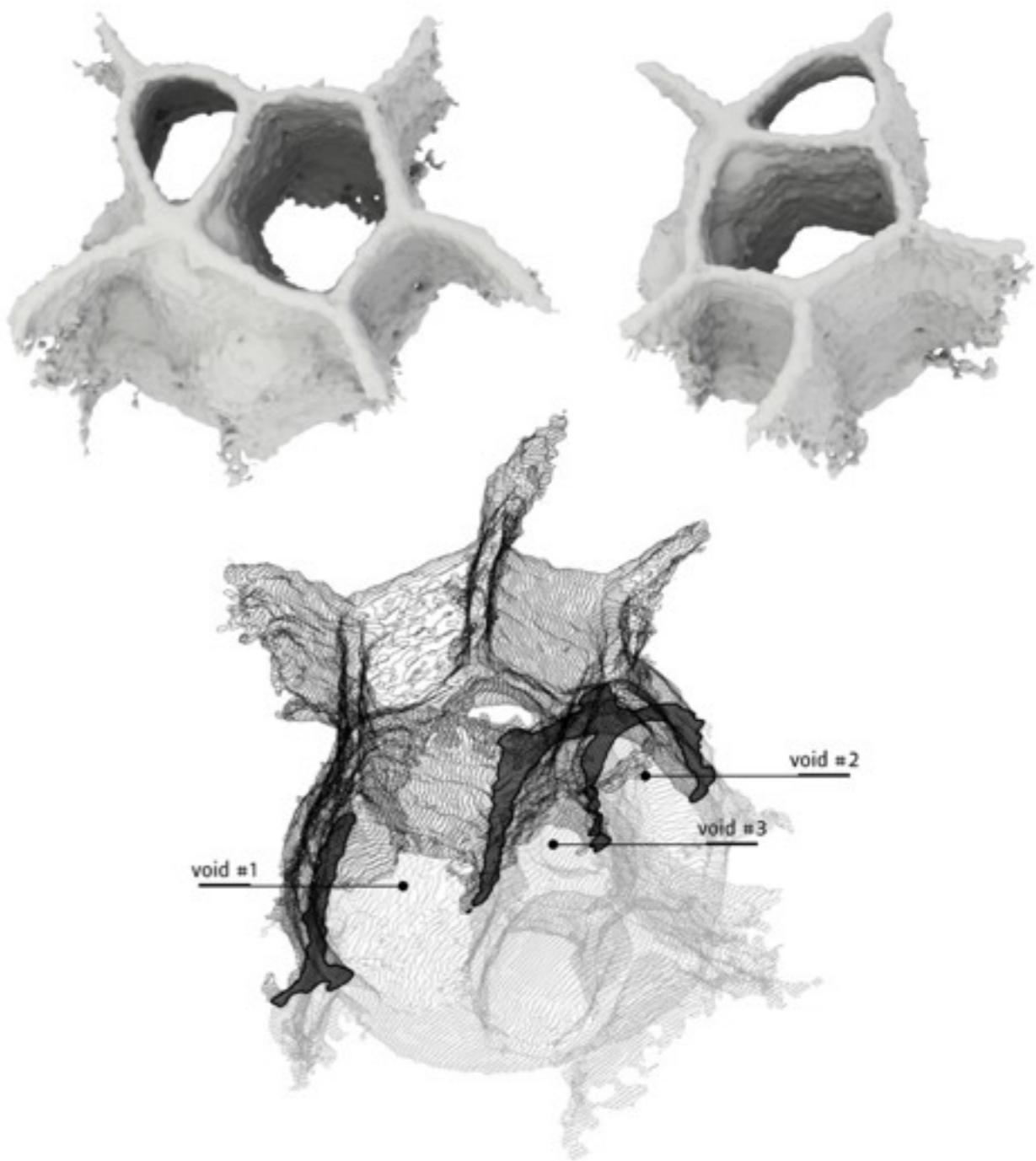
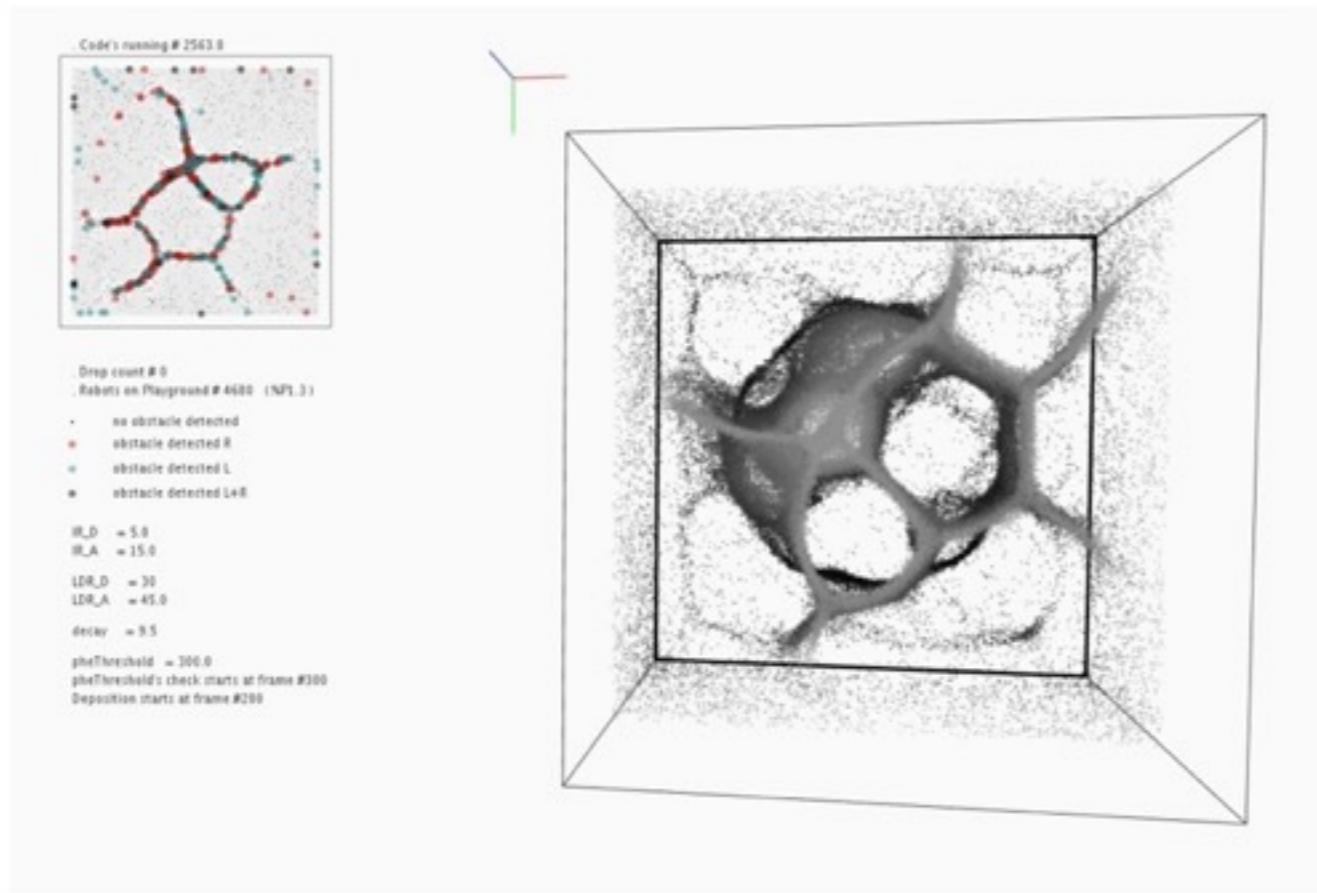


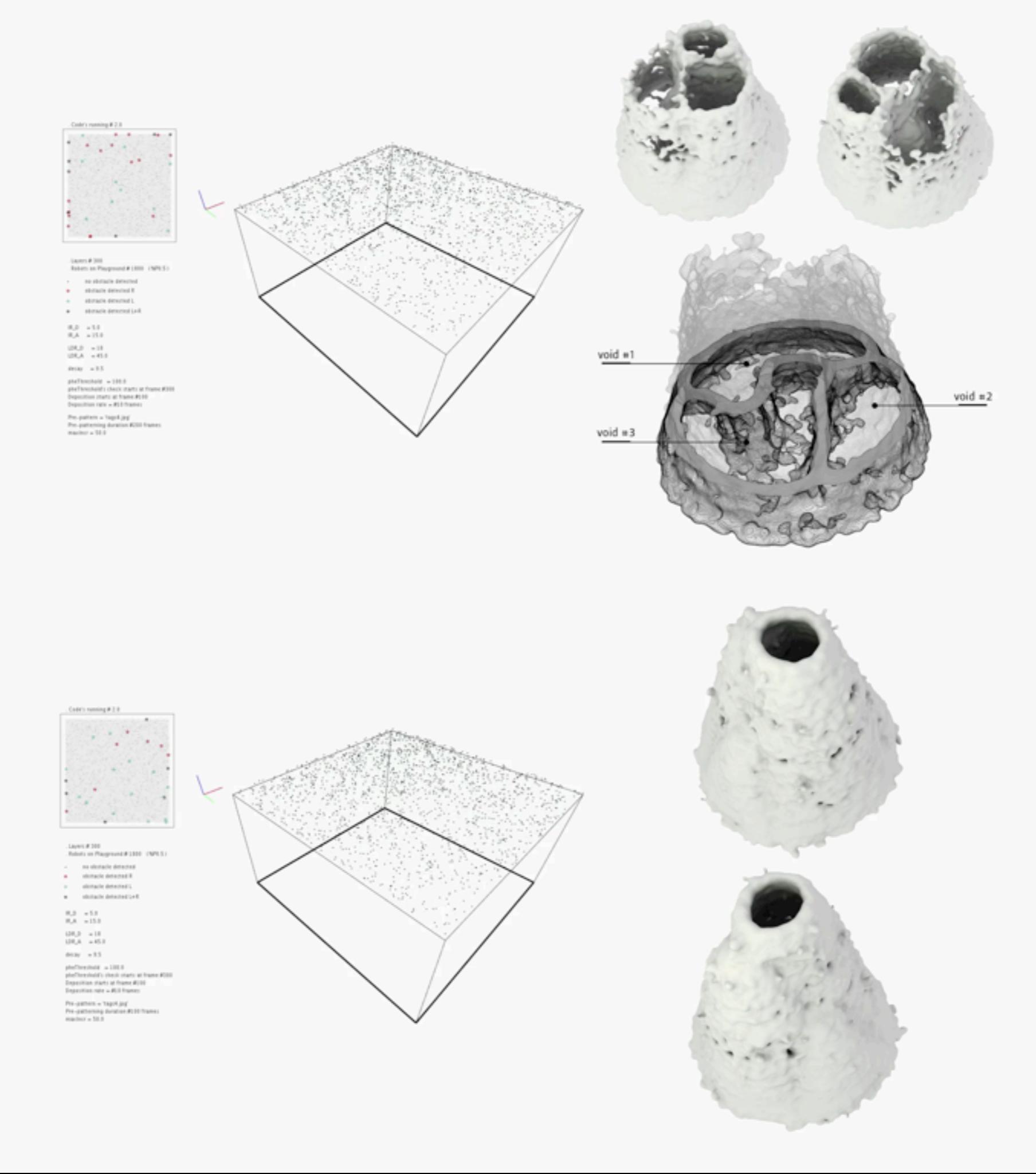


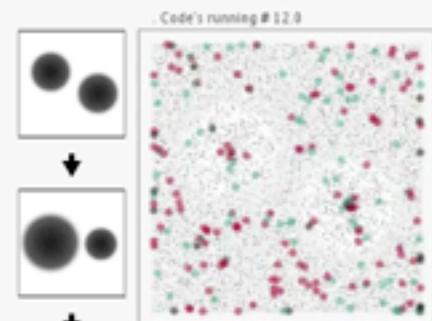












Layers # 800  
Robots on Playground # 5400 (NP3.5)

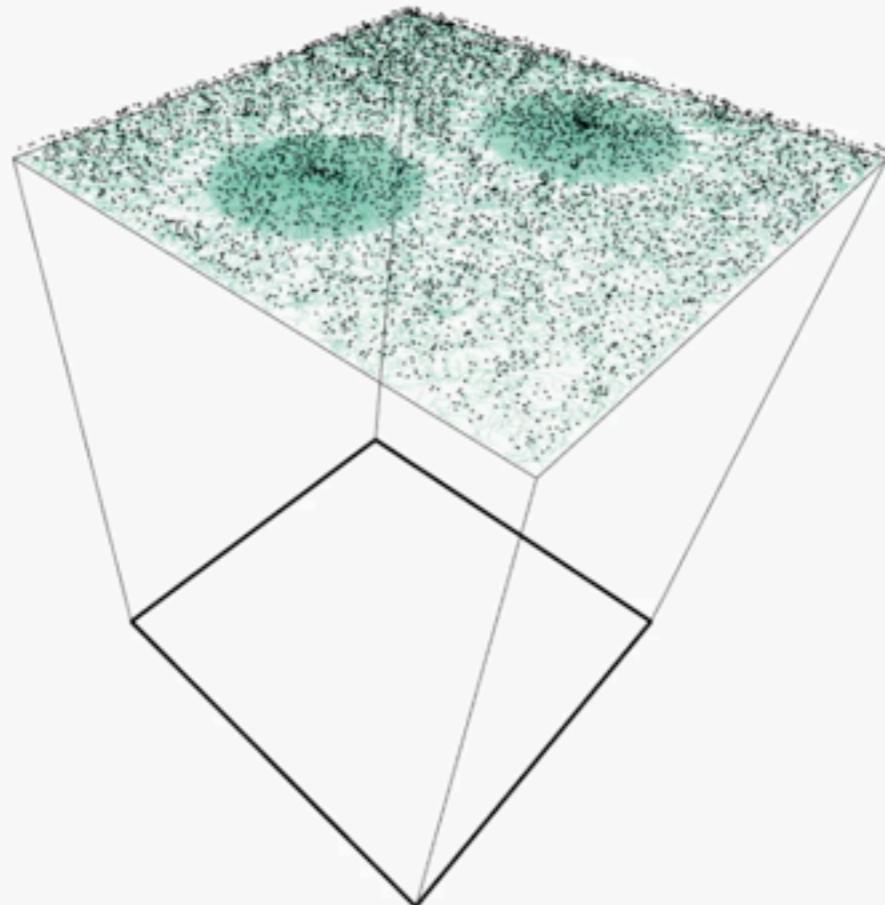
- no obstacle detected
- obstacle detected R
- obstacle detected L
- \* obstacle detected L+R

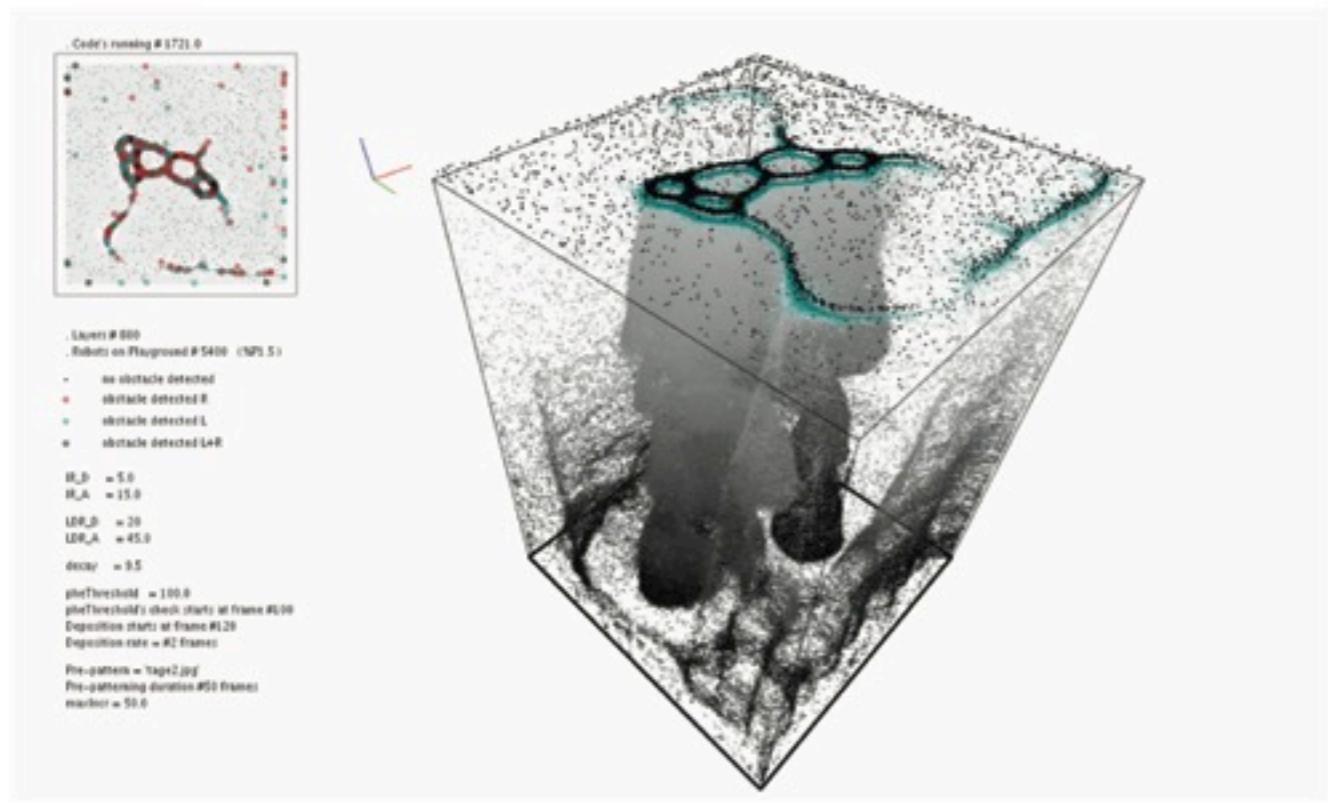
IR\_D = 5.0  
IR\_A = 15.0  
LDR\_D = 20  
LDR\_A = 45.0  
delay = 9.5

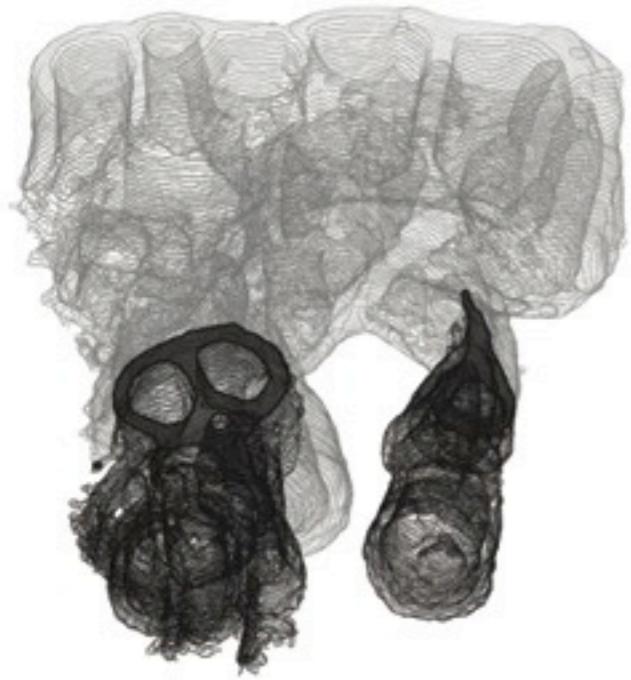
pheThreshold = 100.0  
pheThreshold's check starts at frame #100  
Deposition starts at frame #120  
Deposition rate = #2 frames

Pre-pattern = 'tage3.jpg'  
Pre-patternning duration #50 frames  
maxIncr = 50.0

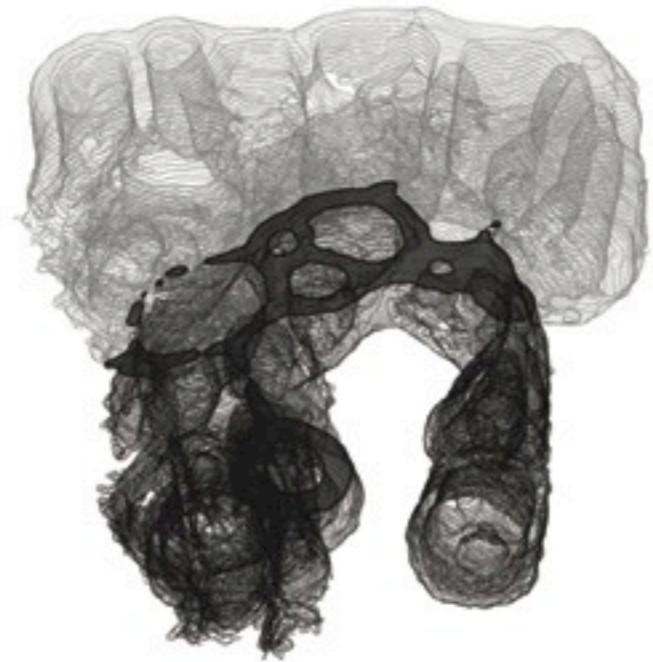
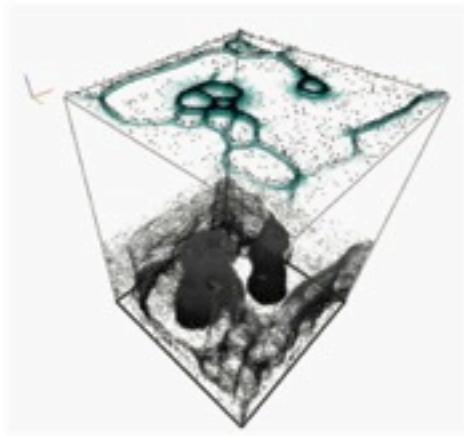
*phe+0*      *phe+50*



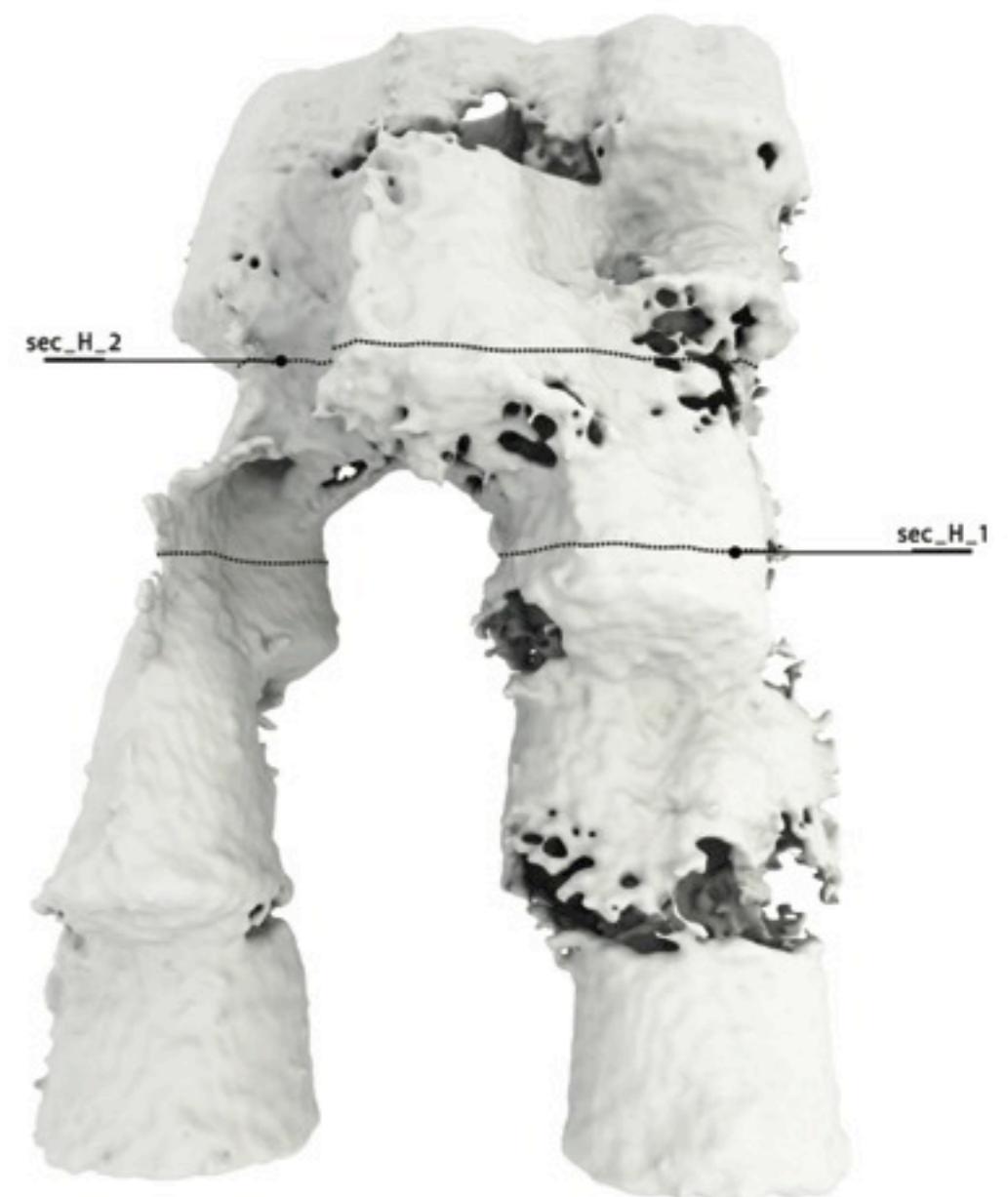
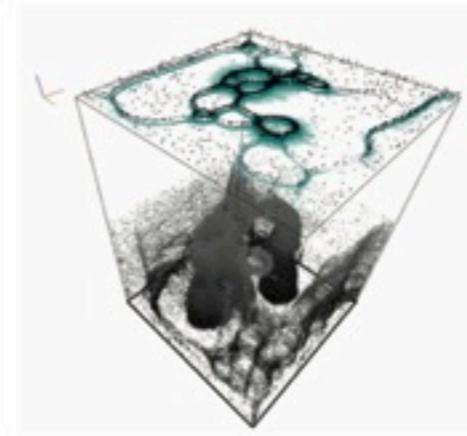




sec\_H\_1

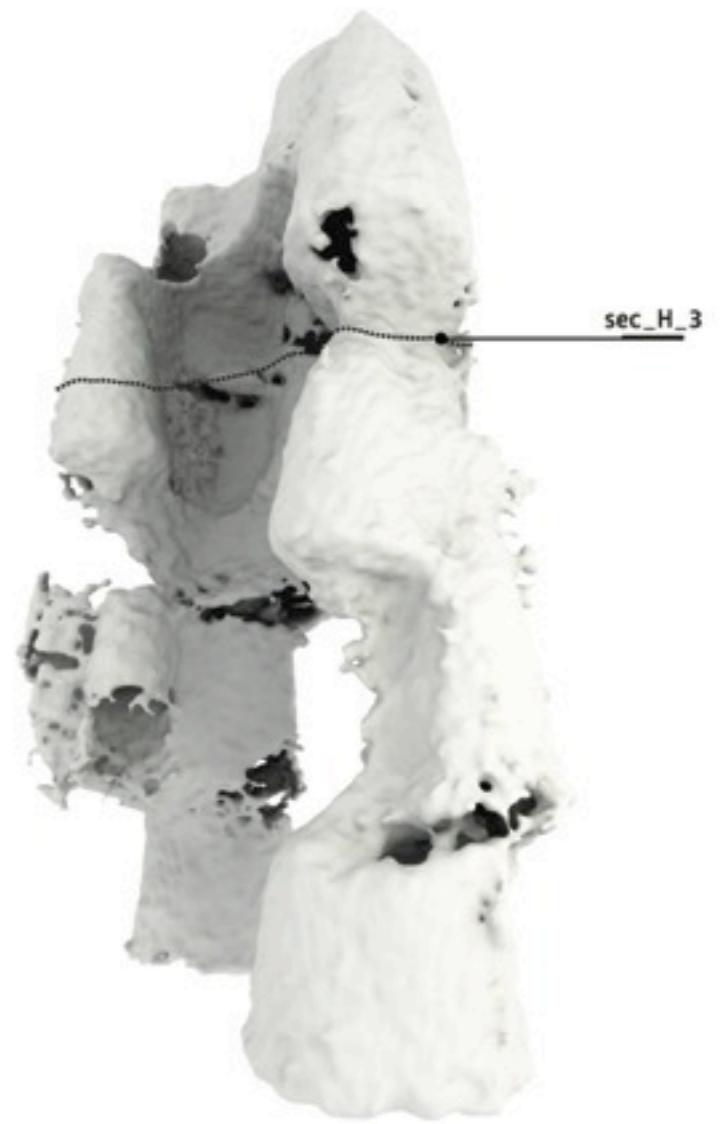


sec\_H\_2





sec\_H\_3



sec\_H\_3