

honeybee ecology  
annemie maes



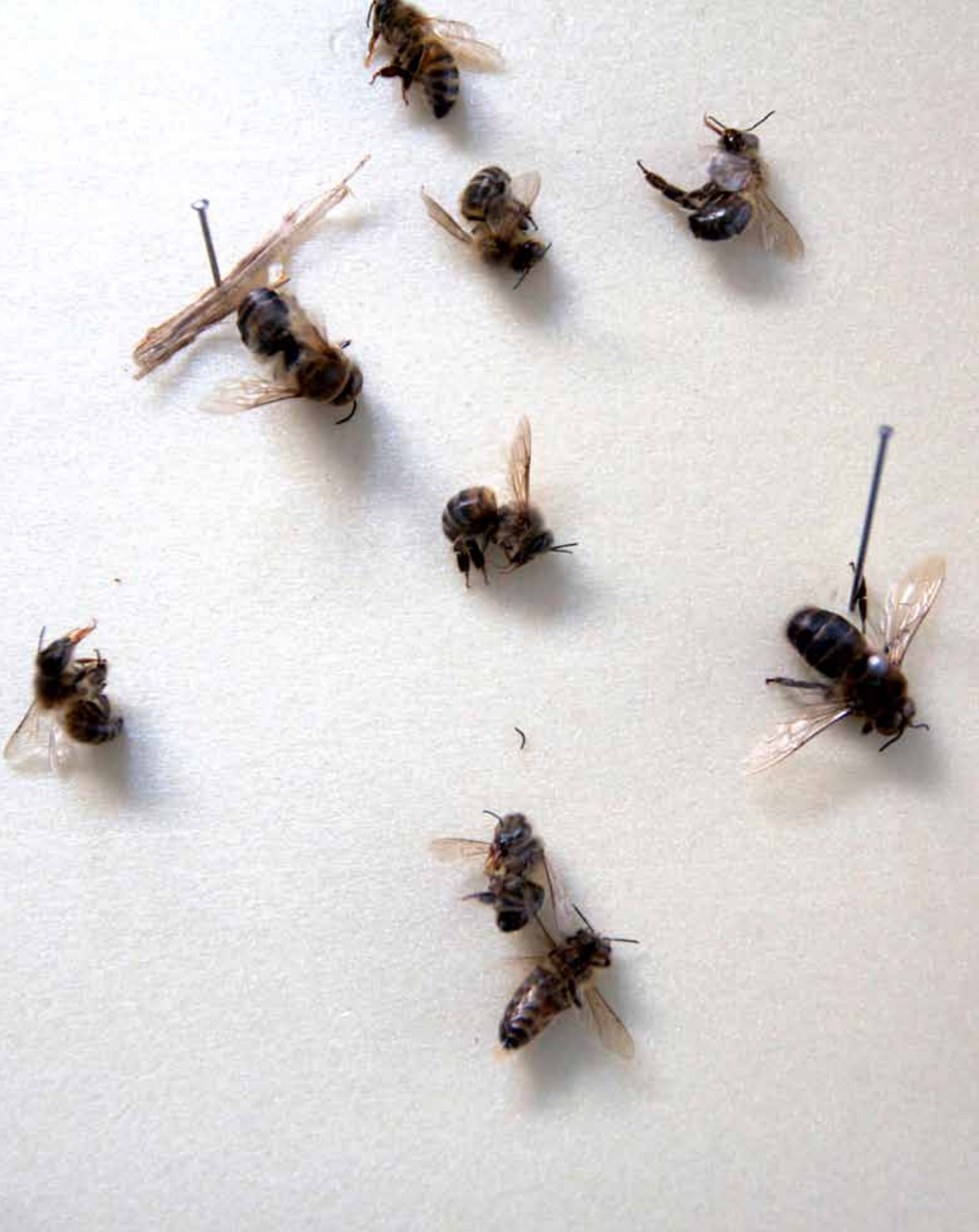


# honeybee ecology

annemie maes





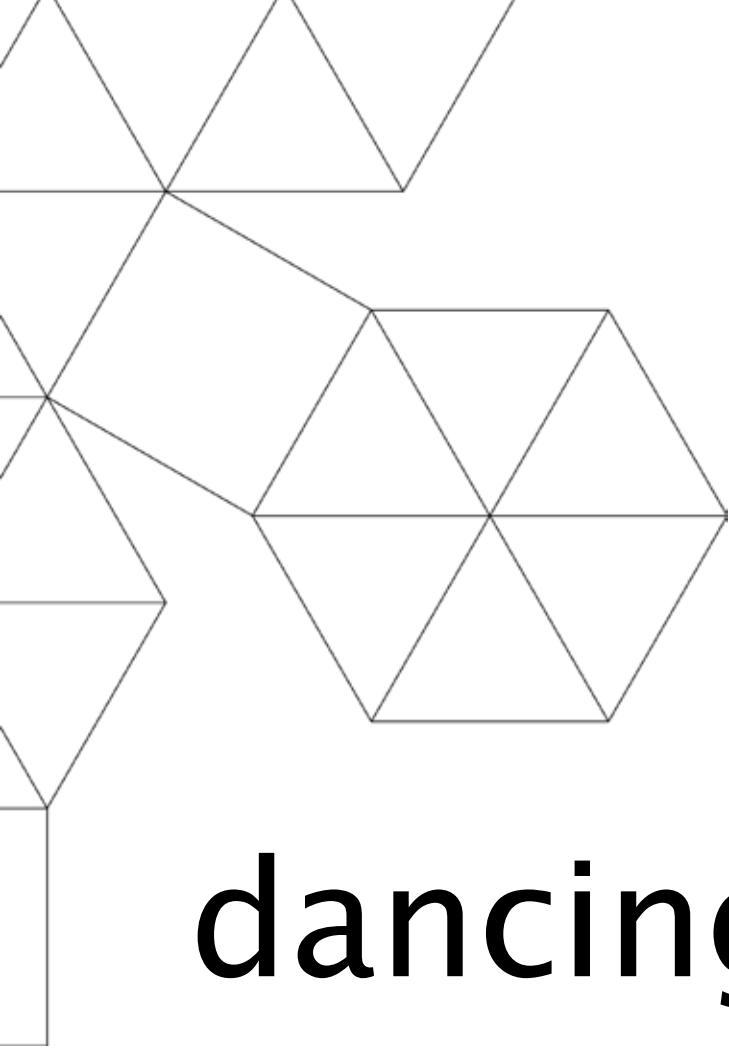


a bee  
is a bee  
is a bee

*art History  
and  
archaeology*

Professor Dr. Aslıhan Yener  
Assistant Professor Dr. Gül Pulhan

bee cultus  
bee queen



# dancing bees









"Beehive 2012-04-30 18:20:09"



"Beehive 2012-04-30 18:20:36"



"Beehive 2012-04-30 18:21:24"



"Beehive 2012-04-30 18:21:44"



"Beehive 2012-04-30 18:21:59"



"Beehive 2012-04-30 18:22:30"



"Beehive 2012-04-30 18:22:50"



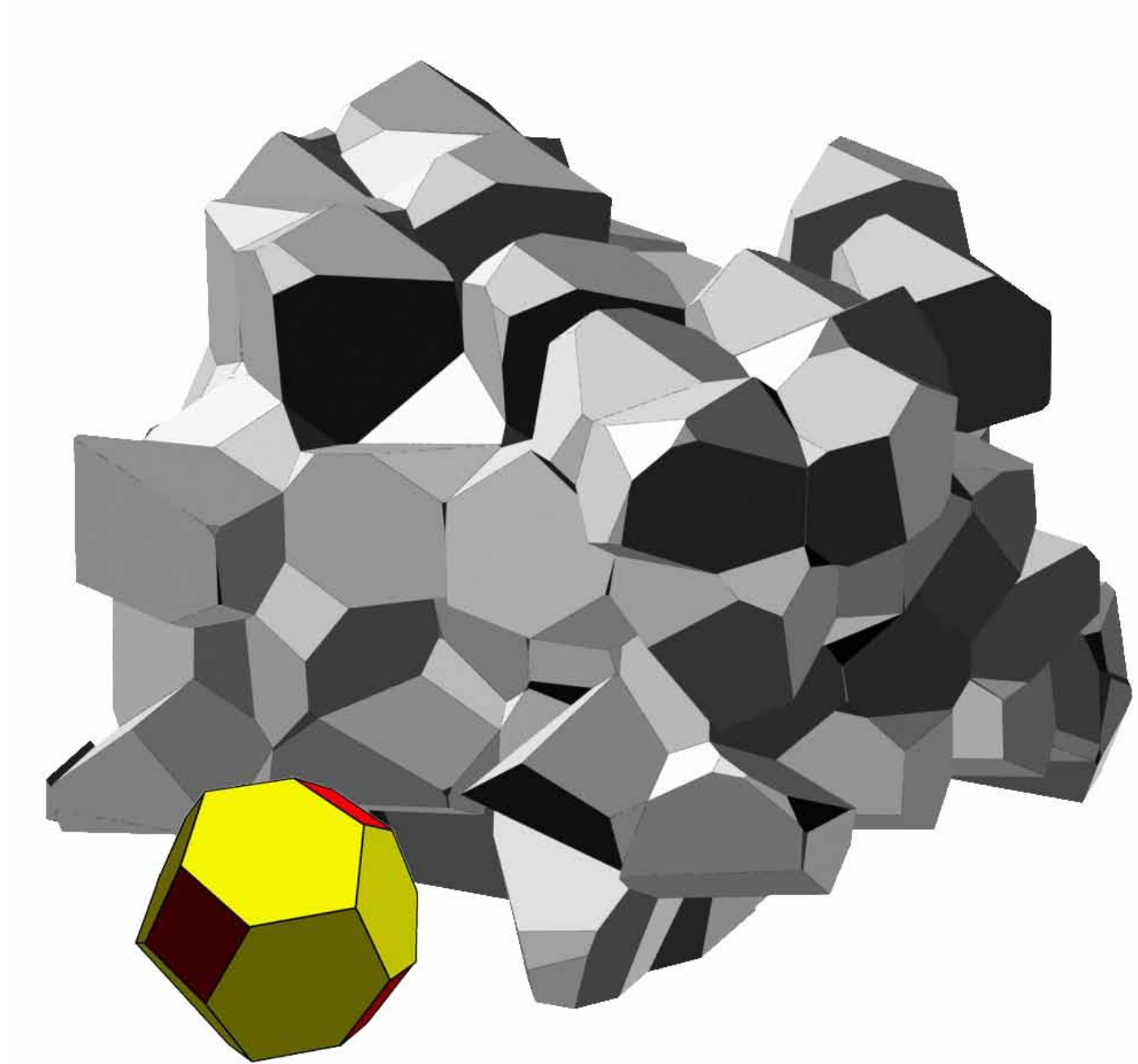
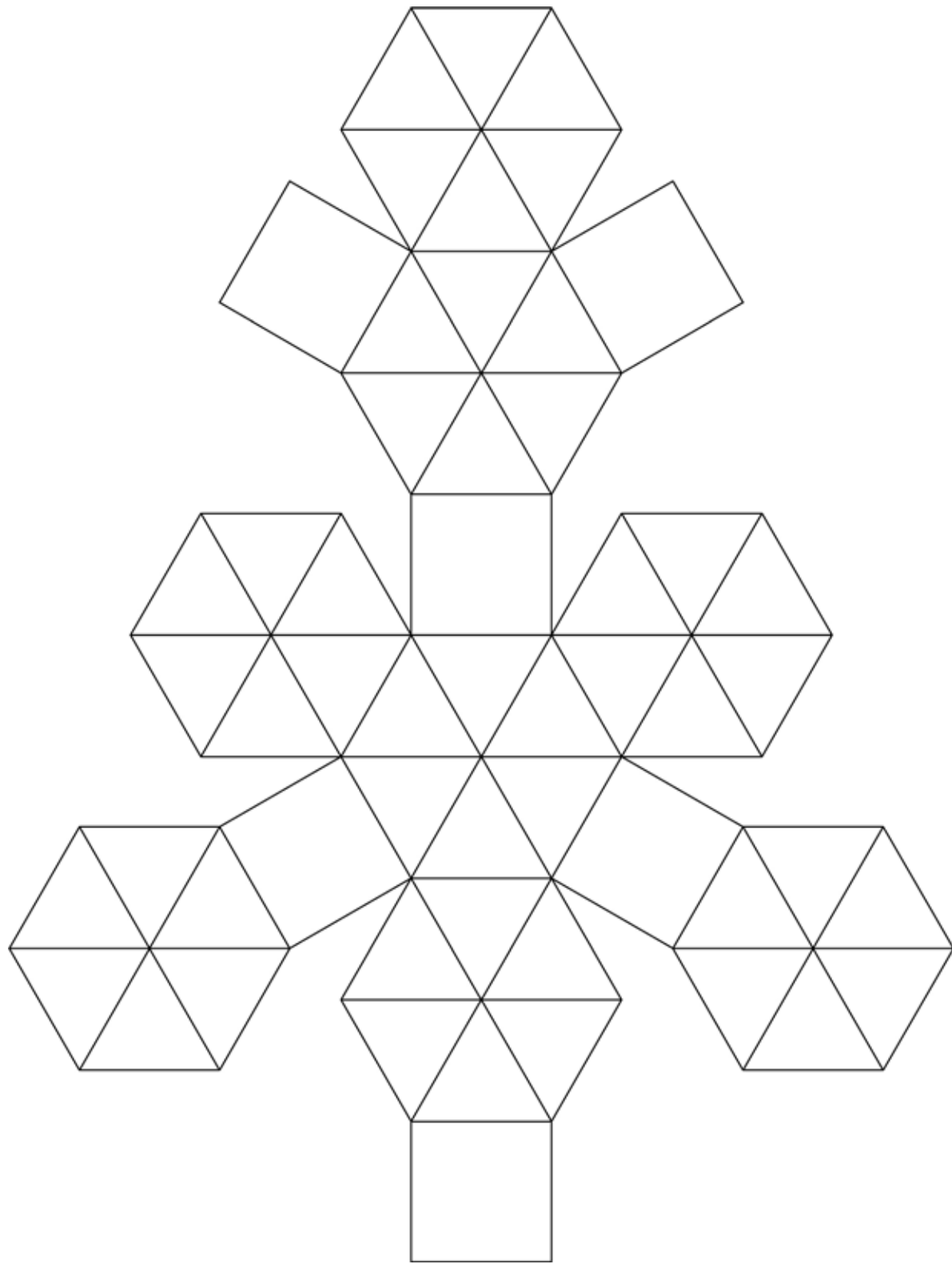
"Beehive 2012-04-30 18:24:06"





*gender  
studies*

matriarchal  
society  
feminism







impossible  
topo-  
graphies

the ambition  
of  
the territory





① beehives  
② homey plants  
③ flight routes



# *electrical & electronics engineering*

Professor Dr. Hakan Ürey

biomimetics  
micro and nano  
electro-mechanical systems  
micro/nano optics  
and photonics  
micro and nano sensors  
and actuators

insect compound eyes  
hookson wings and legs  
tongue as pump  
antennae receptors









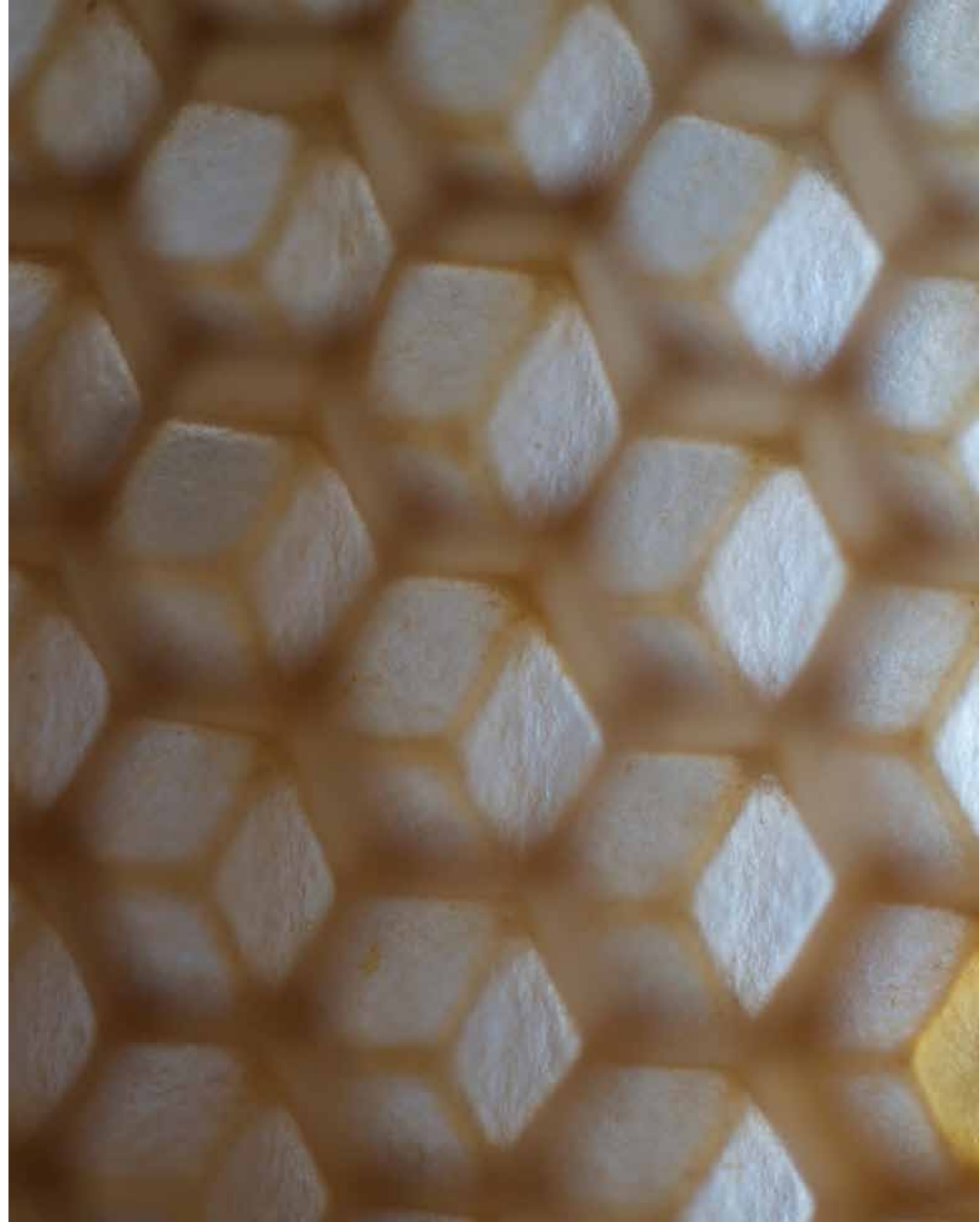
0 1 km

sea of Marmara  
Istanbul, Turkey

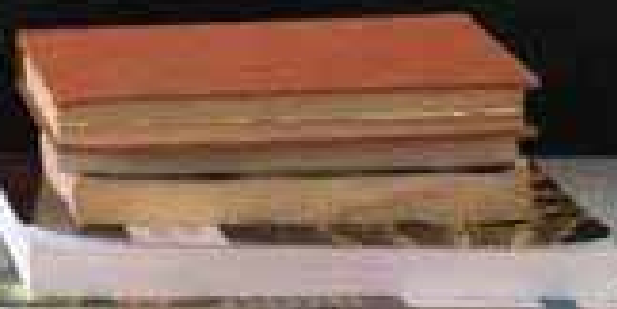
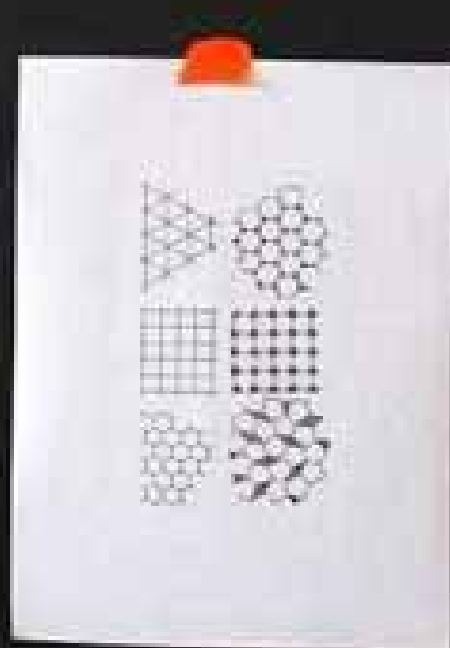
# sensory maps



# memory architecture



observe the activity  
and the life in the hive  
through generalisation









*physics*

Assistant Professor Dr. Alkan Kabakçioğlu

complex  
relations  
emerging  
patterns





sepes



# *sociology*

# *economics*

Assistant Professor Dr. Murat Yüksel  
Associate Professor Dr. Levent Koçkesen

models of organisation  
network culture  
distributed intelligence  
communication  
social media

social insects  
swarms  
democratic decision  
waggle dances



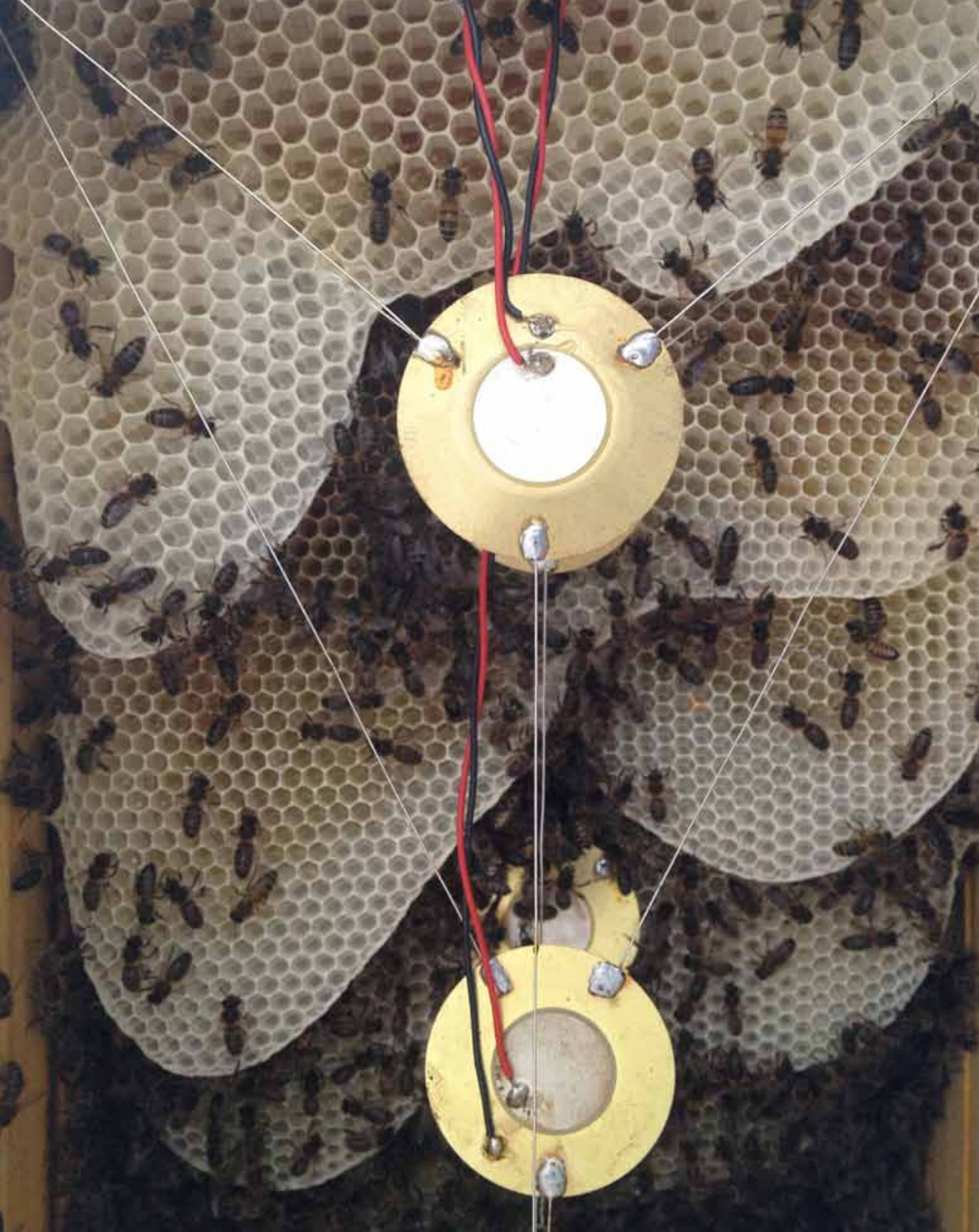
# PUB LIC

**ATENCIÓN:  
LA PERCEPCION  
REQUIERE  
PARTICIPACION**

novels by  
CAMILLA BARESANI, ANDREA BRANZI, KONSTANTIN  
CRISTIANO DE MAJO, LUCA RICCI, LUC SANTI, JERSZY SEYMOUR







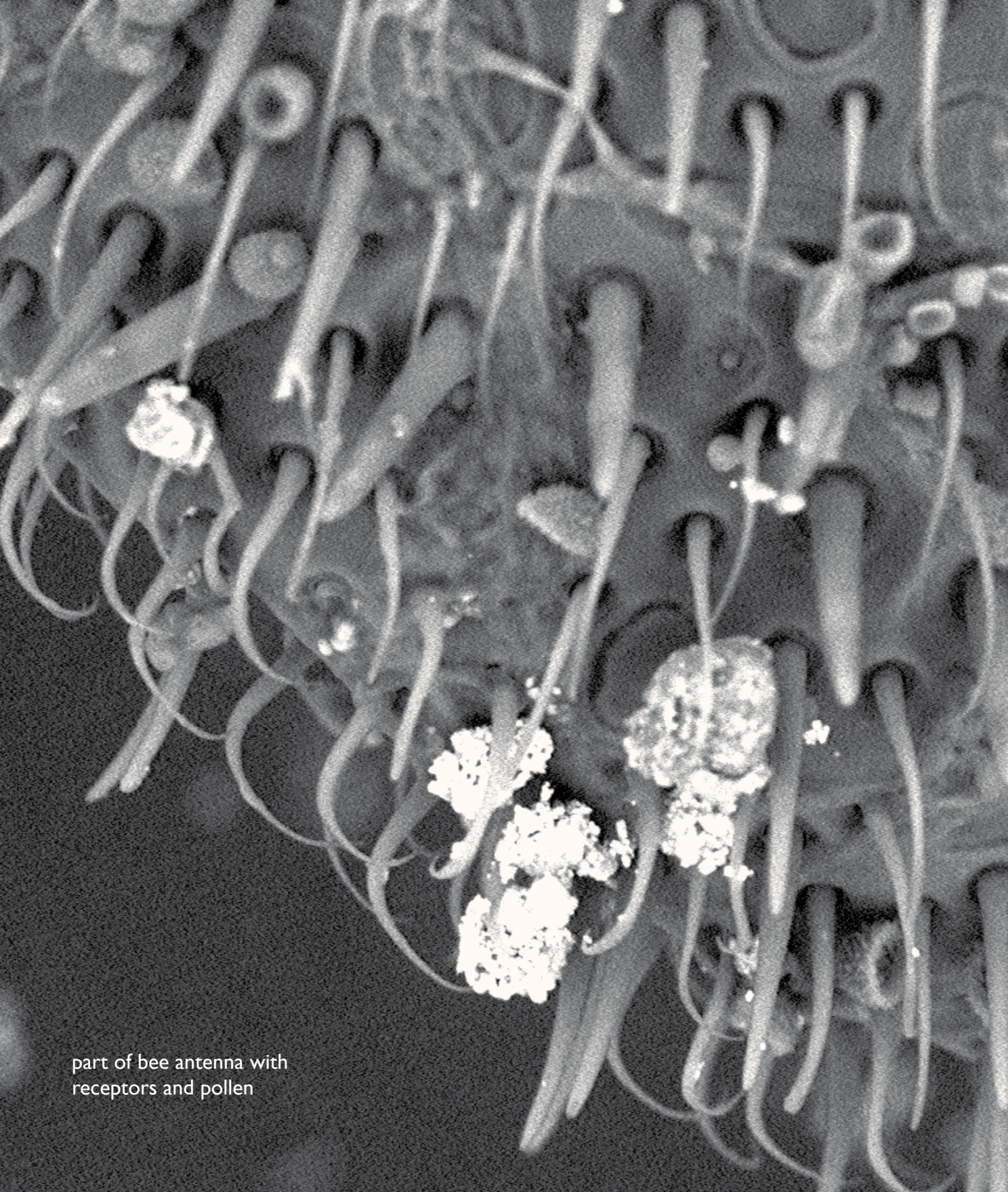
# *mechanical engineering*

Associate Professor Dr. Çagatay Basdogan

sensors  
actuators  
receptors

insect touch  
recognition  
of edges





part of bee antenna with receptors and pollen

30  $\mu\text{m}$  |-----|

3600x  
74.5  $\mu\text{m}$









