

18TH
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Education Kit
Artist package: Daan Roosegaarde

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18TH BIENNALE OF SYDNEY EDUCATION KIT

Produced by the Biennale of Sydney
Virginia Mitchell, Head of Public Program and Education
Jessica Haly, Public Program and Education Coordinator
Todd Fuller, Education, Events and Online Learning Coordinator

With thanks to:
Studio Roosegaarde

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Daan Roosegaarde, *Dune*, 2007–11 (installation view)
Hundreds of fibres, steel, microphones, sensors, speakers, software and other media dimensions variable
Courtesy Studio Roosegaarde
Photograph: Studio Roosegaarde

Daan Roosegaarde



Look and engage: first impressions

- What is the work made of?
- What type of artwork is it?
- What does the artwork remind you of?
- How does the audience interact with the work?

“The audience becomes an essential element of the identity of the work itself. All this happens in a supernatural environment; you are walking through a corridor. It is here that all the technology merges with your body, as a realtime extension of your skin – feeling like an “Alice in Technoland””

Interview with Daan Roosegaarde, *Regine*, 2006

Interpretation of practice

Daan Roosegaarde’s interactive environments transport audiences into a space of sensory stimulation.

Roosegaarde is an innovative Dutch artist and architect who explores the limits of art and architecture by delving into ideas of **responsive** and **interactive** public spaces, extending both from existing architecture and from the human form. He is interested in igniting connections between audiences and constructed environments in public spaces.

Roosegaarde’s **installations** often incorporate a hybrid of nature and technology. As presented in past projects, Roosegaarde explores a fusion of human behaviour, technology and nature. *Lotus 7.0*, is a smart wall with small geometric foil structures, inspired by lotus flowers that respond to audiences by slowly opening and closing, revealing a private void behind them. Similarly *Flow 5.0* is a smart wall with ventilators that interact with passing audiences, creates an awareness of space and the flow of air around the visitor.

For the 18th Biennale of Sydney, Roosegaarde’s *Dune* will transform part of the Dog-Leg Tunnel on Cockatoo Island.

The constructed environment reacts to a myriad of sounds and movements transforming the landscape according to the behaviour of audiences in the space. Several microphones and sensors enclosed in the installation recognise human activity. The unique software learns and adapts to the human behaviours that occur while exploring this **receptive** environment.

Critic quote

*“Roosegaarde’s works function as a documentation of the dynamic relation between architecture, people, and technology. His sculptures, such as *Dune* and *Intimacy*, are tactile high-tech environments in which viewer and space become one. This connection, established between ideology and technology, results in what Roosegaarde calls “techno-poetry””*

Netherlands Media Art Institute

About the artist

'Artist and architect Daan Roosegaarde (1979) explores the dawn of a new nature that is evolving from technological innovations by creating interactive landscapes that instinctively respond to sound and movement. Roosegaarde's remarkable works of art function as a documentation of the dynamic relation between architecture, people and technology.'

Roosegaarde has won the Dutch Design Award (2009), Design for Asia Award (2011) and China's Most Successful Design Award (2011). He has been the focus of exhibitions at the Tate Modern, London, the National Museum, Tokyo, the Victoria and Albert Museum, London, and presented works in various public spaces in Rotterdam and Hong Kong.'

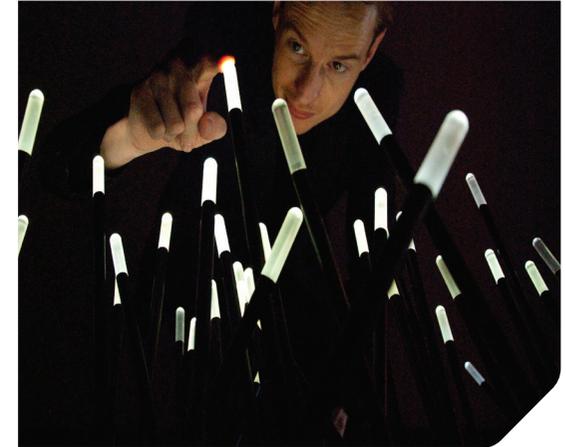
Studio Roosegaarde

'Dune is an otherworldly environment which draws viewers in almost effortlessly, creating a magical space embedded within the city. Using emerging technologies, Daan's work creates opportunities for a seamless transition between everyday experiences and contemporary art ... Daan's futuristic interventions examine the potential for technology to enhance human understanding of our behaviour and our environments – both built and natural. In occupying this vibrant intersection of invention and responsive, multi-sensory design, the immersive, high-tech poetry of Daan Roosegaarde's work reminds us that art is the infrastructure of innovation.'

Alice Gray Stites, Director of artwithoutwalls, 2009, Louisville, Kentucky

'In a time where tech is so important we should be reinventing what reality looks like. Can we make sustainable highways that generate electricity when cars drive over it? What would Facebook Square look like? These are the questions that need to be asked and answered. I feel that is not happening – and that's the roles of artists, designers and architects.'

Daan Roosegaarde



Daan Roosegaarde, artist portrait with *Dune*, 2011. Courtesy Studio Roosegaarde. Photograph: Studio Roosegaarde

Artist voice

'The output of Dune is based 70% on the motion and 30% on the sounds of the visitor. The beauty of the software is that it is constantly tuning itself dynamically; if there is a ventilator making a "zooming" noise all the time, the software realises it has been there for a while and starts to ignore it. This way the installation always stays fresh for new input of the visitor. All this addresses the hundreds of fibres. According to human activity we have 128 steps in tuning the lights. So no on nor off – its all about making a scape which moves with you. There are several moods within the landscape; when nobody is there, it will fall asleep – glooming softly – but then as soon as you enter Dune light appears where you walk, as an extension of your activities. But it's not all soft and gloomy; when you make a lot of noise the landscape goes crazy – lightning crashes.

As a sculptor/architect, making installations is like having a taste in your mouth of which you do not know the ingredients. It is here where you start to explore – reading, writing, travelling, building – whatever is necessary to get those bloody ingredients. For me technology became a tool just as a piece of crayon could be. It is a physical consequence of this exploration; of the making which makes me.

For me the interaction with the visitors is the best part of making these kind of installations. There is a hard construction (the materials, the present architecture) and a soft construction (the software and the human behaviour). Where they meet, form begins to arise. While watching how people react on the work I realised this: the main ingredient is the human interaction itself. I have been talking about this earlier, that I would like to invite the visitor to become a participant instead of an observer. Yesterday there was an old lady making barking sounds. And not one time but several times, pretty loud. I asked her why she was doing this and she replied that she had a little dog at home. She was wondering how Dune would react when her dog would bark and that's why she was testing the sounds.

In 2006 I launched Studio Roosegaarde which explores the dynamic relation between architecture, people and new media. Together with software engineers, material manufacturers and cultural foundations we are capable to develop interactive installations which have a healthy balance between fantasy and budget.

I learn from making projects and you want this knowledge to 'copy-morph' (not copy-paste!), in a constant attempt to make works which are more sensitive towards the visitor in a public environment. The main goal is to make work which acts as a second layer of information and experience, over the existing architecture.'

Interview with Daan Roosegaarde, *Regine*, 2006



Daan Roosegaarde, *Dune*, 2007–11 (detail), hundreds of fibres, steel, microphones, sensors, speakers, software and other media, dimensions variable. Courtesy Studio Roosegaarde. Photograph: Studio Roosegaarde

Engage

- Imagine you are walking through the installation. Explain your interaction and experience of *Dune* in a detailed review.
- What is the role of the audience in this artwork? Investigate installation art in public spaces.
- Discuss: What is the role of technology in contemporary art?
- Daan Roosegaarde states in an interview 'I'm not interested in talking about me and my teddy bear and my personal emotions, I'm interested in how our world is changing ... how to make people aware of those changes ... this is where the real magic is'. Compare and analyse Roosegaarde's comment with another artist's practice who is influenced by their subjective experience. Compare and analyse Roosegaarde's response to the world with Yun-Fei Ji's representation of the world.
- Consider *Dune* by Roosegaarde. What is more important: the artwork or the audience's interpretation of it?
- Explore the blurred boundaries of architecture and art in public spaces. How can they inform each other? How could current architectural structures in your surrounding neighbourhood be extended to respond to inhabitants in new and inventive ways?
- How does landscape and nature inform contemporary art practices? Consider Roosegaarde's work and that of other 18th Biennale artists, for example Subhankar Banerjee, Philip Beesley, Binh Danh and Alec Finlay.
- Analyse and compare Roosegaarde's 18th Biennale work *Dune* with his previous work. Write a critical review exploring his conceptual and material practice.

Create

- Construct a large-scale dune work with each student's reactions to their experience of the installation written on each reed. This could be constructed out of paper as a 2D work for the wall or a sculptural piece out of cardboard or natural objects like sticks secured into foam.
- Create a performance inspired by *Dune* at school. Divide the class into two. One group takes on the role of the exhibition audience and the second group takes on the role of representing the artwork using their body. The artwork group responds to the different actions, sounds and emotions that the audience group makes. Assign an emotion to each audience student to represent. They choose a sound or movement to express that emotion. The artwork students create two lines making a corridor in the middle and each hold a torch or light object in a dark room. The artwork students move their bodies like a reed in the wind as one member of the audience group moves down the corridor of the artwork students. The artwork students respond to the emotion (through making a different sound and/or movement to that emotion) that the audience group is providing. Create the performance in different locations and with different audiences. Document the performances through photography or filming. Compare and analyse the differences and/or similarities.

- What animal hybrid of nature and technology would live in the tunnel dunes? Think of three different animals and draw them side-on, landscape format. Cut each drawing into three sections and reconstruct into a unique hybrid animal. Draw your final design adding machine, technology sections to it. For example replacing a leg with a mechanical form. Then create your hybrid as a ceramic sculpture. Explore the history of hybrid animals in art from Ancient Egypt and examples of them in popular culture (e.g. Avatar).
- Explore light, emotion and movement in a darkened room with torches and create photograms as the documentation of the movement of light. If colour photography is available in your darkroom, experiment with colour photograms by using coloured liquids and light (torches) projecting through them.
- Investigate the buildings and structures in your neighbourhood and surrounding environment. Choose one structure and sketch it. Think of its relationship with its current inhabitants. Choose an area of the structure which needs to extend, respond and improve the lives of the inhabitants. Draw your designs with explanations on the new and improved innovative functions and features of the structure. Create a model or sculpture of it. Be inspired by past, present and future architecture.



COMPARE the installation of interactive landscape
Dune in a range of LOCATIONS

How does the site of the installation change the audience's interaction
and response to the work?



Daan Roosegaarde, *Dune*, 2007–11 (installation view), hundreds of fibres, steel, microphones, sensors, speakers, software and other media, dimensions variable. Courtesy Studio Roosegaarde.
Photograph: Studio Roosegaarde

Glossary

Interactive: Interacting with a human user, often in a conversational way, to obtain data or commands and to give immediate results or updated information

Installation: An artwork responding to and engaging with a space.

Receptive: Able or quick to receive knowledge, ideas, etc.

Responsive: Responding especially readily and sympathetically to appeals, efforts and influences.



Daan Roosegaarde, *Dune*, 2007–11 (installation view), hundreds of fibres, steel, microphones, sensors, speakers, software and other media, dimensions variable. Courtesy Studio Roosegaarde. Photograph: Studio Roosegaarde

Further reading

Details on Studio Roosegaarde, the artwork *Dune* and other works
<http://www.studioroosegaarde.net/project/dune/>

Interview with Daan Roosegaarde about his practice and *Dune*
<http://we-make-money-not-art.com/archives/2006/12/dune-40-develop.php>

Article on Daan Roosegaarde's practice
<http://www.creativehunt.com/shanghai/articles/shanghai-daanroosegaarde>

Interviews and articles on *Dune* all around the world
<http://www.studioroosegaarde.net/project/dune/stories/#564>

Further watching

Footage of audiences engaging with *Dune*
<http://www.studioroosegaarde.net/project/dune/>

Dune installed alongside the Maas River in Rotterdam
<http://www.studioroosegaarde.net/project/dune-4-2/>

TEDx lecture from Daan Roosegaarde, exploring interactive landscapes
<http://vimeo.com/14826423>

Marquette of a developing project, *Lotus Dome*
<http://vimeo.com/27653981>

Interview with Daan Roosegaarde discussing a previous *Dune* installation
<http://vimeo.com/22329812>

Video on Daan Roosegaarde's work, *Lotus 7.0*
<http://vimeo.com/18002972>

Interview with Daan Roosegaarde exploring his practice
<http://vimeo.com/16386303>