

21-28 MAY 2019

THE WORLD OF SAND

TUESDAY 21 MAY

CREATION OF A SAND SCULPTUREEvent
Forum, South Entrance • from 10.00 hrs**THE SAND ARTIST & 'SAND WARS'**Performance and screening
Forum, Room 222 • 20.00-21.30 hrs

WEDNESDAY 22 MAY

THE CODE OF SANDPresentation by Dr. Sytze van Heteren
Forum, Room 034 • 12.30-13.15 hrs**RUNNING OUT OF SAND**Lecture by Vince Beiser
Impulse • 20.00-22.00 hrs

THURSDAY 23 MAY

SANDCASTLE BUILDING CONTESTEvent
Forum, South Entrance • 12.30-14.30 hrs**SAND SCARCITY - IN SEARCH OF SOLUTIONS**Lecture by Prof. dr. Pascal Peduzzi
The Spot • 20.00-22.00 hrs

FRIDAY 24 MAY

WATER & SAND DYNAMICS LABORATORY TOURGuided tour by Dr. Suleyman Naqshband
Kraijenhoff van de Leur Laboratory
(behind Gaia) • 12.00-12.20 hrs**'SAND WARS'**Screening and discussion with
Prof. dr. Ton Hoitink
Art Cinema Movie W, Wilhelminaweg 3a
20.00-21.30 hrs

MONDAY 27 MAY

THE SOUNDS OF SANDLecture and screening by
Prof. dr. Saskia van Ruth & Lotte Geeven
Impulse • 12.30-13.30 hrs**THE RELATIVITY OF SCARCITY**Lecture by Dr. Michiel van der Meulen
The Spot • 20.00-22.00 hrs**WORLD SOIL MUSEUM GUIDED TOUR**Guided tour by Stephan Mantel
Entrance Gaia • 14.00-14.45 hrs

TUESDAY 28 MAY

EXPERIENCE THE SUBSURFACE IN VIRTUAL REALITYActivity guided by Rob van Ede
Forum, Room 034 • 9.00-11.30 hrs**SAND, SEA AND SECURITY**Lecture by Ad Stolk
Impulse • 20.00-22.00 hrs**WORLD SOIL MUSEUM GUIDED TOUR**

12.30-13.15 hrs

17 - 31 MAY

THE BEAUTY AND DIVERSITY OF SAND

Exposition in Impulse

21-28 MAY 2019

THE WORLD OF SAND



Sand. Ordinary and incredibly diverse. Beautiful. Omnipresent and becoming scarce. The most consumed raw material on earth after fresh water. Your smartphone wouldn't exist without it. This week Studium Generale explores the many aspects of this versatile material. What it looks like, how it sounds, how we source it, what you can do with it and, especially, its growing scarcity and the consequences this has.

TUESDAY 21 MAY

EVENT: CREATION OF A SAND SCULPTURE

Forum (Droevendaalsesteeg 2, WUR building 102), South Entrance
10.00 hrs onward

Sand is all around us, whether you can see it or not. And not all sand is created equal – the way it can be applied depends on its characteristics. Today, sand artists will kick-off the sand week by creating a beautiful sand sculpture. Watch them at work and get inspired!

PERFORMANCE: THE SAND ARTIST & SCREENING: 'SAND WARS'

Forum (Droevendaalsesteeg 2, WUR building 102), Room 222
20.00-21.30 hrs

Performance by the Sand Artist (Gert van der Vijver)

Tonight, we welcome the Sand Artist ("De Zandtovenaer") to officially open the sand week. He is master in a fascinating art form: drawing with sand on a light box. Experience how moving and impressive sand can be in a magical spectacle of light and dark. Prepare for an enchanting sand performance!

Eco-thriller 'Sand Wars' (Denis Delestrac, documentary, 52 min.)

Sand is everywhere around us, also if we never visit a beach or desert. Houses, skyscrapers, bridges, airports, sidewalks, computer chips, even many cosmetics are basically made of sand. And it's getting scarce. Based on encounters with sand smugglers, barefoot millionaires, corrupt politicians, unscrupulous real estate developers and environmentalists, this movie takes us around the globe to unveil a new gold rush and a disturbing fact: the 'sand wars' have begun.

WEDNESDAY 22 MAY

PRESENTATION: THE CODE OF SAND

Forum (Droevendaalsesteeg 2, WUR building 102), Room 034
12.30-13.15 hrs

Dr. Sytze van Heteren (TNO)

Did you realize that sand is a very broad term for a special resource that is highly diverse in its manifestations? And that these different manifestations – in shape, size and colour – determine the way sand can be used? Admire wonderful magnified photographs of grains of sand, and discover the beauty they hold. The photographs have been made in the context of a project by the Royal Belgian Institute of Natural Sciences and the Geological Survey of the Netherlands, and will be introduced and discussed by dr. Sytze van Heteren. Experience how something as ordinary as sand can be highly enchanting upon closer examination.

LECTURE: RUNNING OUT OF SAND

Impulse (Stippeneng 2, WUR building 115)
20.00-22.00 hrs

Vince Beiser (freelance journalist, Los Angeles)

Usable sand is a finite resource. The worldwide urbanization boom is devouring sand in unprecedented quantities: more than 40 billion tons every year. The demand for sand is wrecking environmental havoc around the world, with riverbeds and beaches being stripped bare, ocean beds denuded, and landscapes devastated. Governments are cracking down in response, which in turn has spawned a worldwide black market in sand, complete with violent gangs battling for market share. Award-winning journalist Vince Beiser, author of 'The World in a Grain', gives an overview of those growing, but relatively unknown problems. How does the scarcity of sand affect us all?

THURSDAY 23 MAY

EVENT: SANDCASTLE BUILDING CONTEST

Forum (Droevendaalsesteeg 2, WUR building 102), South Entrance
12.30-14.30 hrs

Take part in a tough competition, while becoming a sand sculpture master! Apply with a group of four WUR-students and battle for a great prize: a team outing to a beach club, lunch or dinner included! Guided by experts you create a beautiful sand sculpture. Those experts will determine which team can call itself the lucky winner.

Register at info.sg@wur.nl. Limited participation!

LECTURE: SAND SCARCITY – IN SEARCH OF SOLUTIONS

The Spot (WUR building 103, Bronland 1)
20.00-22.00 hrs

Prof. dr. Pascal Peduzzi (University of Geneva & UNEP)

In 2014, the United Nations Environment Programme (UNEP) put the sand crisis on the agenda with its report 'Sand, rarer than one thinks'. The use of sand increases rapidly; right now every person on the planet 'uses' 18 kilograms a day! This has significant environmental impacts. On 7 May 2019, UNEP launched the report 'Sand and sustainability: Finding new solutions for environmental governance of global sand resources'. Professor Peduzzi is the author of both reports and Director of GRID-Geneva, a center within the Science Division of UNEP. He leads a team of scientific researchers to quantify the effects of global change on population vulnerability and impacts on ecosystems. We are very happy professor Peduzzi is willing to present the main findings of the latest UNEP report.

FRIDAY 24 MAY

GUIDED TOUR: WATER & SAND DYNAMICS LABORATORY TOUR

Kraijenhoff van de Leur Laboratory for Water and Sediment Dynamics (behind Gaia)
12.00-12.20 hrs

Dr. Suleyman Naqshband

The 'hydraulic jump' is a natural phenomenon which causes huge variations of water depths due to abrupt changes in the river bed. But how does it work in practice? And how does this relate to sand extraction? Find out at the Kraijenhoff van de Leur Laboratory!

Maximum 10 participants.

SCREENING AND DISCUSSION: 'SAND WARS'

Art Cinema Movie W (Wilhelminaweg 3a)
20.00-21.30 hrs

Denis Delestrac, documentary, 52 min, Q&A with Prof. dr. Ton Haitink (WUR)

This screening of eco-thriller Sand Wars (see Tuesday 21 May, 20.00) is introduced by Professor Ton Haitink (Environmental Fluid Mechanics), expert on flow processes and river bed changes in deltas. After the movie there is a Q&A with Professor Haitink.

Free entrance.

MONDAY 27 MAY

LECTURE AND SCREENING: THE SOUNDS OF SAND

Impulse (Stippeneng 2, WUR building 115)
12.30-13.30 hrs

Prof. dr. Saskia van Ruth (WUR) & **Lotte Geeven** (multimedia artist)

Did you ever realize that sand can have a sound? And that it can even sing? During this lunch event, a scientist and an artist share their fascinating experiences of discovering and examining the sounds of sand.

The Sounds of Sand from the Dutch Shores

Saskia van Ruth, Professor Food Authenticity and Integrity, reveals how listening to the sounds of sand from Dutch shores using sound spectroscopy provides information on its provenance. Why does sand from North Holland sound very differently from sand from Zeeland?

Singing Sands

Lotte Geeven examined the special phenomenon of acoustic sand: sand that sings, whistles, whines and roars. She went on a quest around the world for this 'singing sand', and invited an orchestra to interpret its sound – with a mesmerizing result. Watch 'Score', her short film story of this adventurous artistic endeavour, and experience the magic of singing sand.

LECTURE: THE RELATIVITY OF SCARCITY

The Spot (WUR building 103, Bronland 1)
20.00-22.00 hrs

Dr. Michiel van der Meulen (TNO)

Where do the Dutch get their sand from and how do they organize this? Geologist Michiel van der Meulen shares his insights on sand supplies in the Netherlands. Are the Dutch currently confronted with sand scarcity, as suggested by the media, or is this to be expected in the future? Van der Meulen argues that scarcity is a matter of your definition of scarcity, and that sand availability does not equal sand accessibility. What economic and ecological issues should we take into account when conceptualizing scarcity? Find out why sand scarcity is more than a technical matter, and explore its political and governance dimensions.

MONDAY 27 & TUESDAY 28 MAY

GUIDED TOUR: WORLD SOIL MUSEUM

Entrance of Gaia (Droevendaalsesteeg 3, WUR building 101)

Monday 27 May, 14.00-14.45 hrs
Tuesday 28 May, 12.30-13.15 hrs

Stephan Mantel (World Soil Museum and ISRIC)

Do you actually know what sand is? Sand is simply defined by size. Yet, there is a large diversity in colour, grain sizes and mineral content of sands. These differences are reflected in sandy landscapes, and explain variations in ecology and land use history. Enjoy the stories of the sand during a guided tour to the World Soil Museum!

Maximum 30 participants, so be on time!

TUESDAY 28 MAY

EVENT: EXPERIENCE THE SUBSURFACE IN VIRTUAL REALITY

Forum (Droevendaalsesteeg 2, WUR building 102), Room 034
9.00-11.30 hrs

Rob van Ede (TNO)

How much sand is beneath our feet? Experience it by putting on virtual reality goggles! Dive into lithostratigraphic layers, and see what they look like when you zoom in and out and move around in the subsurface. See the sands and other sediments below Wageningen from a whole new perspective: as piles of little Lego blocks!

LECTURE: SAND, SEA AND SECURITY

Impulse (Stippeneng 2, WUR building 115)
20.00-22.00 hrs

Ad Stolk (Rijkswaterstaat)

Did you know that a large amount of the sand used in the Netherlands – as in many other countries – is sourced from the sea? Why is this the case? And did you realize that half of the sand 'mined' from Dutch sea areas is used for coastal defence? Time to focus on these important and easily overlooked territories! Learn how marine sand extraction is embedded in large-scale policy considerations on spatial planning, and involves fine-tuning and trade-offs between different interests and marine activities. What do we know about the (ecological) effects of marine sand extraction? And what about the anticipated sea level rise?

17-31 MAY

EXPOSITION: THE BEAUTY AND DIVERSITY OF SAND

Impulse (Stippeneng 2, WUR-building 115)

Enjoy our planet's richness of sand colours and appearances in this exposition organized in collaboration with the World Soil Museum and Impulse. Be fascinated by different sand profiles, photos of sandy landscapes and jars filled with sand from the corners of the earth.

