Atlas,
the human dimension of changing space

Iris Casteren van Cattenburch
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Please note that the interviews used in ‘Atlas’ took place between May and November 2013. Meanwhile, changes may have occurred in positions and arguments.
INTRODUCTION

HAMLET: To be, or not to be, that is the Question.

Hercules’s entrances

Early modern theatre
Theatre was a popular form of entertainment in early modern England. The poor and the rich alike gathered in public or private playhouses to see plays performed, and theatrical entrepreneurs based at theatres in London created thriving businesses. One of the leading playing companies was the Lord Chamberlain’s Men, founded in 1594. The company comprised an impresario, James Burbage, and a core of actors, each of whom had a share in the enterprise. They were largely self-supporting. As a joiner, Burbage had built The Theatre in Shoreditch in 1576, which had housed several theatrical productions, before it became the first home base to the Lord Chamberlain’s Men. The sharers of the company performed in the plays, employed hired men for minor roles and behind the scenes, and were responsible for the management. One of them, William Shakespeare, had a talent for writing: his history plays, depicting English and European history, and tragedies were much in favour with the paying audiences.

The Globe
In 1599, the Lord Chamberlain’s Men opened a new theatre on the south bank of the Thames, for whose construction they used the timbers of the old Theatre in Shoreditch. This new theatre was called The Globe. The name may have alluded to the circular shape of the playhouse, or to a popular gadget of the Elizabethan age: the three-dimensional scale models of terrestrial and celestial bodies, which provided an insight into Earth’s dimensions and its place in the cosmos. Such sense of perspective was important, and not only from a scientific point of view. It might also have helped people to broaden their horizons, so as to make space for critical thought and reflection on issues that concerned everyone every once in a while: economic, social or personal questions of sustainability.
The entrance flag

The flag waving across the entrance of The Globe depicted an image of the ancient Greek hero Hercules, carrying the globe on his shoulders. The image reminded of the ancient Greek myth in which Hercules, commissioned by King Eurystheus of Tiryns, has to accomplish twelve impossible labours, all of which, surprisingly, he brings to favourable conclusions.

The eleventh labour takes Hercules to Hera’s orchard: The Garden of the Hesperides, in the western border of Libya, a desolate region that the ancient Greeks perceived as the ‘ends of the earth’. He must fetch three immortality-giving golden apples from a tree protected by the never-sleeping, hundred-headed dragon Ladon. The only one able to fetch the golden apples in that dangerous place was believed to be Atlas. Atlas was a Titan, and father to the Hesperides. He had been the leader of the Titans in the Titanomachy, a series of battles fought between two camps of deities long before the existence of mankind. The Titans revolted against the Olympians, who were led by Zeus, when the latter demanded absolute power over the universe and took Mount Olympus as the home of the gods. When, after ten years, the Titans lost the battle, Zeus imposed on Atlas the punishment of bearing the celestial vault upon his shoulders, to perpetually hold and support the sky and the entire cosmos. Atlas (whose name comes from the Greek verb τληναι: to endure, to bear, to sustain) thus forms a literal barrier between heaven and earth, insurmountable for human beings, so that humans would always be relegated to the material, physical, earthly realms, and never be able to enter the spiritual dominions where the gods exclusively reign and wish not to be disturbed.

To bear the weight of the cosmos demanded Titan strength, of which Atlas by birth disposed, and which Hercules undoubtedly approximated, but (despite his heroic stature, still human) was never able to fully match. So, when Hercules came around, and kindly asked Atlas to fetch the golden apples on his behalf, proposing to for a moment step into Atlas’s shoes, Hercules indeed took over the load, but was only able to hold position with the help of Pallas Athena, who had a soft spot for Hercules.

Athena descended from Heaven to help Hercules maintain balance until Atlas would return, and as she pulled from above while Hercules supported underneath, firmly resting his feet on the Earth (his grandmother Gaia), Heaven and Earth were reunited; but only for a moment. According to the myth, Atlas soon returned with the apples, and having enjoyed his freedom, happily suggested to bring the apples to Eurystheus and leave the load in Hercules’s gentle care; but smart Hercules, sighing ostentatiously, asked Atlas to kindly demonstrate just once more how to be a genuine World-bearer. Of course, fate then caught up on
William Shakespeare

William Shakespeare was born in April 1564, as the son of a glove maker from Stratford-upon-Avon, Warwickshire, where he spent his youth and his early married years with his eight-year older wife Anne Hathaway, their eldest daughter Susanna and their twins Judith and Hamnet. His son died at age 11 in 1596, when Shakespeare had already begun a successful career in London as an actor, writer, and part owner of a playing company called The Lord Chamberlain’s Men. His surviving works consist of two long poems, 37 plays, 154 sonnets and several other poems. Shortly after he wrote The Tempest, the last play attributed to Shakespeare alone, he appears to have retired to Stratford, where he died three years later on 23 April 1616, his supposed fifty-second birthday.

Shakespeare lived and wrote in a period of transition. The European Renaissance had just marked the ending of the Middle Ages, and heralded the beginning of the early modern time. Learning based on ancient sources had resurged; so, Shakespeare, too, interspersed his plays with Greek-Roman mythology. Recent scientific discoveries, such as Nicolaas Copernicus’s heliocentrism, and Johannes Kepler’s assertion that the planets follow elliptical orbits around the sun (with the sun at one focus point), inspired early modern scientists, philosophers and artists to scrutinise and pursue the implications of this ‘new Philosophy, which calls all in doubt’ — including Shakespeare.

Shakespeare’s audiences varied from the common people in The Globe, to the high English nobility and the royal family at Whitehall Palace or outside London. There were court performances before Queen Elizabeth I; and after his coronation in 1603, King James I became patron of Shakespeare’s company, from then on called The King’s Men. Although the playwright enjoyed royal recognition, he did not shun working witty allegorical critiques into his plays, often directed at royal authority, yet always in anticipation of sustainability debates regarding social welfare, politics, economics, agriculture, technology, or mining.

Shakespeare’s interest in sustainability is not surprising. Perhaps first, because sustainability is a healthy economical concern of every successful entrepreneur aspiring to the growth of his business, in every day and age. Sustainability is in fact an ancient human concern, of global dimensions, but whose focal point may locally differ. Kings have been concerned with questions of sustainability regarding succession; the commodity market has been concerned with questions of agricultural and economical sustainability; mothers have been concerned with questions regarding the sustainability of their children; philosophers have been concerned with questions of sustainability in proportion to existence. The humanities, which are concerned with the study of the arts and their cultural manifestations, have pointed out since ancient times that the human concern about sustainable development was, and is, about value; that questions of sustainability deal with what is of value. Shakespeare’s concern about sustainability is also inspired by value; and in more than one way.

LEAR:

but for true need:
You Heauens, giue me that patience,
patience I need.

Sustainability theory

In his recent book on sustainability theory, Sustainable Civilization, Klaas van Egmond poses that ‘crises of unsustainability’ originate in a unilateral approach of what is of value to one. He therefore pleads for an integral understanding of what is of value to us, so that we can facilitate sustainable development. To illustrate his argument, he has proposed a theoretical model in the shape of a wheel, which rotates anticlockwise through time. Its four quadrants represent the different world views that oscillate between the four extremities of the circle’s imaginary cross, whose foot represents a focus on the material, its top a focus on the mental and spiritual, its left arm a focus on the ‘Other’ and its right arm on ‘I’. Van Egmond argues that an integral understanding of what is of value can be found around the centre of the circular theoretical playing field.
Introducing allegories

Like ancient myth, Shakespeare’s plays work as mirrors. They represent daily reality by putting it into perspective. This perspective is not black-and-white, because Shakespeare’s mirror refrains from final judgement; it simply shows what is. Thus, parallels can be drawn between what happens in the plays and what happens in reality, but never literally, since Shakespeare was no historian: he was an allegorist. His works are ‘allegories’: extended metaphors that prompt the reader to recognise analogies, and to order and to deepen them, because ‘allegory invites to quests for values worthy of pursuit’ (Clifford, 1974). Allegory inspires to manifest these retrieved values, serving as an active principle of human understanding for a fruitful interaction between reality and imagination.

As an author of allegory, Shakespeare also applied the skills of a memory artist, who sought to ‘memorize through a technique of impressing ‘places’ and ‘images’ on memory’ (Yates 1966; 2001). His plays and poems offer a profusion of such memory images, which serve to train our memory, to learn to reason by analogy. The ancient memory artist Simonides of Ceos explained that we can ‘train our memory by paying attention, repeating what we hear, and then by placing what we hear on what we know’. This is, in broad outline, how the application of Shakespeare’s sustaining allegory works. Shakespeare’s plays and poems can be interpreted and applied as memory plays.

The author of allegory believes in pattern, he believes that it is valid to talk about human experience in terms of repetition and generalisation, and he assumes that his readers will understand his narrative, not just as the record of a unique human experience (…) but as an expression of larger kinds of truth. (Clifford, 1974)

As an author of allegory, Shakespeare further built his works upon a recognisable, human pattern, which looks very much like Klaas van Egmond’s practicable sustainability model, but is not the same. Shakespeare’s allegorical pattern rests on ‘O’, which is Shakespeare’s continuity principle. It is an allegorical portal into a subconscious dimension, which we can raise into focal awareness by ‘paying attention, repeating what we hear, and then by placing what we hear on what we know’. Thanks to its immanent resilience, Shakespeare’s ‘O’ keeps inspiring to square allegory’s circle, to ‘find values that traditional culture has so far [or for long, my addition] occluded’ and to effectuate culture as ‘a self-corrective ethical route’ (Iovino, 2010).

Thus, in Shakespeare’s ‘O’, Van Egmond’s theoretical playing field finds the play and its players, in order to explore its bounds and limits; and then to level up beyond.
ATLAS,
THE HUMAN DIMENSION
OF CHANGING SPACE

Not for nothing did Shakespeare and his company choose the memory image on the flag of their theatre, The Globe. Having crossed its threshold, Shakespeare’s audiences did not only enter into a world where Heaven and Earth were for a moment reunited, as the flag had just told them that Hercules and Pallas Athena were now joining forces to replace Atlas until his return. They also entered a ‘spherical body’: into a world where the in Elizabethan times generally feared and respected ‘Wheel of Fortune’, alias the circle of life, would for a moment turn into a sphere, simply because a new dimension was added: the dimension of consciousness.

In this place, where ‘All the world’s a stage’ and the playwright and his players would ‘hold as ’t were, the Mirror up to Nature’, their audiences were invited to allow the playwright and his players to breathe life into everyone’s imagination; so that they, for a moment, would perceive a new perspective. With the blessing of Hercules and Pallas Athena, they had entered the sphere that would allow dream and reality to for a moment merge. And that very moment – two, maybe three hours, real time? – could be inspiring; it could be invigorating; it could be regenerative. It could shed light on questions that absorb everyone every once in a while. It could shed light on a path into virgin territory: the path of our common future. It could empower people to manifest their new perspectives, and ‘suit the action to the word’: by figuratively squaring allegory’s circle.

Ancient geometers posed that it is impossible to solve the problem of squaring the circle. Other ancient teachers suggested that one mythological figure could perform any impossible task. In the European Renaissance of this and many more ancient lessons, one English playwright found out how this one mythological figure did it. So, let’s follow his lead. Let’s give Atlas a break. Let’s invite Hercules to take over. And while he and Pallas entrance the gateway, let’s enter the playing field, and play ‘Atlas, the human dimension of changing space’.
Atlas # mobility

Connekt
Connekt is an independent public-private network for sustainable mobility, aiming at the development of markets for companies in pre-competitive co-operation, and the implementation of policies in an effective way. Thus, Connekt intends to contribute to social and economic welfare in The Netherlands. Economic growth without depletion of natural capital requires smart and integral mobility solutions.

Connekt focuses on themes relating to mobility such as ITS, logistics and public transport, organising activities that facilitate the exchange of knowledge and co-operation between Connekt’s members: 125 authorities, companies and knowledge institutions. In addition, Connekt keeps contact with international organisations such as ERTICO, EIRAC, UITP or the European Commission. Reliability, recognition of shared values, and a personal approach are key to the success of Connekt’s programmes.

Lean & Green
One of the Connekt programmes is Lean & Green, initiated in 2008. Lean & Green stimulates public and private organisations to realise higher sustainability levels, by taking practical measures for the reduction of both costs and CO₂. If an organisation can demonstrate through a plan of action that it will be able to reduce its CO₂-emissions by 20% in five years’ time, it becomes eligible for the Lean & Green Award. If the objective in the plan of action is actually achieved, the organisation is awarded its first Lean & Green Star, and it can earn two, three, four or eventually five Stars for zero emission. The Dutch Lean & Green Community has nearly 350 members. Lean & Green is expanding in Europe and Asia.
A Midsummer Night’s Dream, or: Lean & Green, Too Good To Be True

Starting point
As a communications strategist, I have been involved in Lean & Green since January 2010. Later that year, I began my PhD-research at Utrecht University, aiming to demonstrate how Shakespeare’s works inspire to sustainable development. Nico Anten, managing director of Connekt, allowed me to test the tentative results of my research in Lean & Green. From early 2011 to late 2013, I have given several presentations on Shakespeare and Lean & Green, together with my Connekt colleagues. This empirical process taught me a lot about the applicability of Shakespeare’s sustaining allegory. I discovered how it can put our daily reality into perspective, and incite profound sustainability debates; and how it enhances an understanding of internal differences and correlations in organisational and substantive issues regarding our professional environment.

Respondents
Atlas # mobility comprises short personal reflections of my client Nico Anten and three Lean & Green Ambassadors, Frans van den Boomen (former Value Chain Manager Mars Nederland now Open Value Chain), Mark Haverlach (Customer Service Director Interface NL) and Liane Philipsen (European Sales Director Mainfreight/Wim Bosman Group), on the effectiveness of the sessions.1 I include a short introduction to possible allegorical implications of Shakespeare’s Midsummer Night’s Dream for Lean & Green.

Case
The Scene is Lean & Green, period 2011 - 2013. The Play is Midsummer Night’s Dream: the starting point of a two-day session with the Lean & Green Ambassadors in June 2011. We invited them to dream their personal Lean & Green dream for the next five years, as we sent them in couples into the woods adjacent to our conference location, where they could share and discuss their dreams. The Ambassadors ‘fell in love’ with the business opportunities they had seen in their dream. They knew that the consummation of this ‘love’ would result in the birth of some healthy ‘babies’, who would potentially grow into a second Lean & Green Star (they

1 NB: copies of the full text of the interviews (in Dutch) can be obtained by sending an e-mail to the author.

A Midsummer Night’s Dream – abstract 1

Theseus, duke of Athens, is preparing for his marriage to Hippolyta, queen of the Amazons, with a four-day festival of pomp and entertainment. He commissions his Master of the Revels, Philostrate, to find suitable amusements for the occasion. Egeus, an Athenian nobleman, marches into Theseus’s court with his daughter, Hermia, and two young men, Demetrius and Lysander. Egeus wishes Hermia to marry Demetrius (who loves Hermia), but Hermia is in love with Lysander and refuses to comply. Egeus asks for the full penalty of law to fall on Hermia’s head if she flouts her father’s will. Theseus gives Hermia until his wedding to consider her options, warning her that disobeying her father’s wishes could result in her being sent to a convent or even executed. Nonetheless, Hermia and Lysander plan to escape Athens the following night and marry in the house of Lysander’s aunt, some seven leagues distant from the city. They make their intentions known to Hermia’s friend Helena, who was once engaged to Demetrius and still loves him even though he jilted her after meeting Hermia. Hoping to regain his love, Helena tells Demetrius of the elopement she and Lysander have planned. At the appointed time, Demetrius stalks into the woods after his intended bride and her lover; Helena follows behind him.

In these same woods are two very different groups of characters. The first is a band of fairies, including Oberon, the fairy king, and Titania, his queen, who has recently returned from India to bless the marriage of Theseus and Hippolyta. The second is a band of Athenian craftsmen rehearsing a play that they hope to perform for the duke and his bride. Oberon and Titania are at odds over a young Indian prince given to Titania by the prince’s mother; the boy is so beautiful that Oberon wishes to make him a knight, but Titania refuses. Seeking revenge, Oberon sends his merry servant, Puck, to acquire a magical flower, the juice of which can be spread over a sleeping person’s eyelids to make that person fall in love with the first thing he or she sees upon waking. Puck obtains the flower, and Oberon tells him of his plan to spread its juice on the sleeping Titania’s eyelids. Having seen Demetrius act cruelly toward Helena, he orders Puck to spread some of the juice on the eyelids of the young Athenian man. Puck encounters Lysander and Hermia; thinking that Lysander is the Athenian of whom Oberon spoke, Puck afflicts him with the love potion. Lysander happens to see Helena upon awakening and falls deeply in love with her, abandoning Hermia. As the night progresses and Puck attempts to undo his mistake, both Lysander and Demetrius end up in love with Helena, who believes that they are mocking her. Hermia becomes so jealous that she tries to challenge Helena to a fight. Demetrius and Lysander nearly do fight over Helena’s love, but Puck confesses them by mimicking their voices, leading them apart until they are lost separately in the forest.

When Titania wakes, the first creature she sees is Bottom, the most ridiculous of the Athenian craftsmen, whose head Puck has mockingly transformed into that of an ass. Titania passes a ludicrous interlude doting on the ass-headed weaver. Eventually, Oberon obtains the Indian boy. Puck spreads the love potion on Lysander’s eyelids, and by morning all is well. Theseus and Hippolyta discover the sleeping lovers in the forest and take them back to Athens to be married—Demetrius now loves Helena, and Lysander now loves Hermia. After the group wedding, the lovers watch Bottom and his fellow craftsmen perform their play, a fumbling, hilarious version of the story of Pyramus and Thisbe. When the play is completed, the lovers go to bed; the fairies briefly emerge to bless the sleeping couples with a protective charm and then disappear. Only Puck remains, to ask the audience for its forgiveness and approval and to urge it to remember the play as though it had all been a dream.
achieved this goal in May 2014). Based on these dreams, we then designed a concrete plan of action for the Lean & Green programme in 2012 and 2013.

Two years later, we organised another Midsummernight workshop. This time, we asked the Lean & Green Ambassadors to reflect on their 2011 dreams in relation to the development of the programme, and subsequently, to dream their next Lean & Green Dream. Of course, that dream was, again, ‘too good to be true’, like Shakespeare’s ambiguous allusions in his Midsummernight’s Dream; but we should be glad for it, because such a dream alerts to new opportunities.

The Lean & Green cast list provided insight in the development of Lean & Green: what we were heading for, and how we related to one another. This was the situation in the autumn of 2013, when I found myself married to the King of the Fairies, Oberon, who is my colleague Herman Wagter at Connekt: like a married couple, we are always at odds, but if we work to understand each other, we can be very fruitful together. And that’s our job, as Herman and I learn from Oberon and Titania, who usually take care of nature’s blossoms and society’s flourishing. They forget about this duty when they quarrel about a beautiful Indian boy, so the rivers flood, and the crops fail. It takes the whole night, and a lot of confusion, before order is restored. The Lean & Green Ambassadors are Hermia, who is in love with Lysander: the allegorical business opportunities. The other Lean & Green Award Winners, Helena, mirror the ambition of the Ambassadors, because Helena is in love with Demetrius: profit. In the midsummernight confusion, Demetrius chases Hermia, whose father Egeus is the Dutch economy: he is worried about the financial ups and downs of his daughter. Eventually, all ambitions merge in the confusion of the Lean & Green Dream: Ambassadors, Award Winners, business opportunities and profit make for the growth of Lean & Green, as Connekt keeps stimulating companies to search for new business opportunities and altogether realise them, to see beyond limited short-term profit, and to develop more sustainable business strategies.

In the last act of Midsummernight’s Dream, we come out of the forest, ready to implement new ideas in reality. But that can be a real let-down, because reality is based upon many diverse interests and relations, which came about long ago, never disappeared since, and should not be denied. This is an allegorical lesson we can learn from Theseus. In ancient myth, he has had a few relationships before his marriage with Hippolyta, and he owes these women. Theseus, alias Nico Anten or Connekt in the Lean & Green allegory, has entered into obligations towards people and organisations to whom he remains accountable. Perhaps Perigouna ceased to exist – as did the programme Sustainable Logistics in 2012 – and Ariadne disappeared – the Ministry of Agriculture, Nature and Food Quality actually fused with the Dutch Economic Department in 2010 – but Aegles and Antiopa are still on the ball: The Departments of Economic Affairs, and Infrastructure and Environment remain important business partners. Yet Theseus has now got hold of an exceptional bride: The Queen of the Amazones, Hippolyta. She is the bride we all may want to marry, and love for life: our mobility.

**DRAMATIS PERSONAE**

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<th>Role</th>
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<td>Other Fairies attending on Oberon and Titania</td>
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<td>Lords and Attendants to Theseus and Hippolyta</td>
<td>Connekt Members; &amp; Lean &amp; Green Steering Committee</td>
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**The Scene: Lean & Green**

**Nico Anten, Connekt:**

Our conversations and your presentations on Shakespeare also led to the insight that much has been thought and written, apparently, to be discovered and rediscovered, simply because we’ve been there before. History cannot repeat itself, but we can recognize analogies, and be sensible. If we don’t want to relive the fourteenth century, we should make high demands on the quality of the decisions we make. It helps to rethink our value system, and take responsibility for it together. We need independent thinkers, and we need co-operation, because we cannot leave it to politics. I agree with you that Shakespeare can help, and I think that many other writers, philosophers and musicians can help, too, because they capture our emotions. Let’s use them to find new routes. As we go, I like to keep asking myself the question: how can we develop Lean & Green, and what can we learn from everything that has been written before? That question is important to keep each other alert at why we do what we do.

**Frans van den Boomen, Mars Netherlands**  
(at the time of the interview; currently OPEN Value Chain):

Use Shakespeare in a presentation about the value chain for a group of logistics coordinators and they will be attentive, because they just don’t expect that. Then show them that Shakespeare worked with recognisable patterns, and they will be wide awake. They will be prepared to think of more sustainable ways of organising their business. You have shown us that there’s nothing new under the sun, only that we tend to forget about that. Didn’t Shakespeare write: ‘All the world’s a stage’? That’s a cliché, but it’s true. If you see that, you can lift yourself, and take on a wider perspective, so you can make long-term decisions, preferably together. That’s what happens in Lean & Green. And Shakespeare helps to acknowledge our arena of transition.

**Mark Haverlach, Interface Netherlands:**

I think that people like to work with Shakespeare in the way you suggest, because these parallels tell them a lot about who they are and what they value. Still it’s not scary: they don’t have to identify with the characters of the play, because a play is not a mathematical, self-evident model; it’s true to life.

**Liane Philipsen, Mainfreight Europe:**

As you start talking, I always wonder where you’re going. Then, at a certain moment, it suddenly clicks. Your approach to Shakespeare and sustainability makes me think differently. It trains my brain, because it’s unconventional, and I like that. You invite me to take a step outside of my own business, so I can reflect on my business from a fresh point of view, urging me to think of relevant connections and to find new inspiration.
Without dikes, this part of The Netherlands would be under water
(Planbureau voor de Leefomgeving, 2009)

Flooding risk management in The Netherlands

² http://www.deltacommissie.com/advies_en

ANTIGONUS: I neuer saw
The heauens so dim, by day.
A sauage clamor?
Well may I get a-boord:
This is the Chace,
I am gone for euer.

Exit pursued by a Beare.
measures for water safety in The Netherlands in the coming decades, such as for-
tification and improvement of dikes now unfit for protection. The standard is also
revalued and adapted. Environmental law is simplified: one Environmental Law
will comprise the former ‘Waterwet’, the ‘Wet beheer Rijkswaterstaatwerken’ and
the ‘Wet Milieubeheer’. All these changes in the system have confronted admin-
istrators with a transition. How to determine the new standard? Which consider-
ations are relevant, and on the basis of which knowledge and experiences? Who
is going to make these qualifications? What is the new ‘legger’ – the standard for
dikes – going to look like, and what is its impact? What are the consequences of
these statutory changes for administrators and others involved?

Respondents

Two dilemmas occasioned my working sessions with Ellen Tromp, senior consult-
ant Geo Engineering & Public Administration at Deltares, and Sybe Schaap, mem-
ber of the Senate of the Dutch Parliament:

On 2 July 2013, Senator Sybe Schaap posed in the Eerste Kamer debate on the ‘Wet
Basissnet’, that the starting points of the proposed amendment regarding risks, risk anal-
yses and preventive safety measures were inadequate. He urged the Secretary of State
to consider an integral safety law. How can we realise a balanced cost-benefit analysis
for financial investment regarding prevention?

On the recommendation of the Commission Wijffels, NGO Deltares was founded on 1
January 2008. It was a fusion of GeoDelft, WLDelft Hydraulics, TNO-departments and
sections of the former Specialist Services of Rijkswaterstaat, the executive agency of
the Dutch ministry of Infrastructure and the Environment. GeoDelft (formerly: Labora-
torium voor Grondmechanica), WLDelft Hydraulics (formerly: Waterloopkundig Labo-
ratorium) and the three Rijkswaterstaat Specialist Services had closely been involved
with the standard, ever since the 1953 flood disaster in Zeeland. Deltares, as an inde-
pendent institute for applied research in the field of water, subsurface and infrastruc-
ture, now plays the role of ‘knowledge broker’ in the transition. What were the changes
in the standard since 1953, how do all parties involved grow into their new role, and
how can they perform accurately, in close co-operation with other partners?

The Winter's Tale, or sustainability at risk

Shakespeare’s The Winter’s Tale alludes to unsustainable risk management of a
Sicilian King, Leontes, who suspects his pregnant wife, Hermione, of having been
unfaithful to him with his best friend, Polixenes, the King of Bohemia. Leontes’s
radical measures do not only lead to the death of his eldest child, but also to the
estrangement of his wife, and the exile of her alleged lover; to the deportation of
the new born daughter and her miraculous rescue at the expense of the life of a
Sicilian Lord; and to a Sicilian winter lasting sixteen years. Not before some vital
values have been retrieved and acknowledged, does summer return to Sicily. Sub-
sequent intrigues, intrigants and other instruments prepare for a reversal in the
fourth act, and a remarkable reunion in the fifth.

Case

We paralleled the stagnated situation on Sicily with water governance in The
Netherlands in the four decades following the flood disaster of 1953, resulting in
the old standard; and the revival and reunion in the fourth and fifth act with the
consequences of the recent Flood Protection Programme for the new standard.

One of the great ambivalences in The Winter’s Tale is the ‘sustaining’ value of im-
agination. Too much imagination leads to false securities and treatment of symp-
toms, and eventually to stagnation and death, as King Leontes demonstrates. Suf-
ficient imagination is needed to reanimate the seasons, as Perdita demonstrates:

PERDITA  O Proserpina,  
For the Flowres now, that (frighted) thou let'st fall
From Dysses Waggon: Daffadilis,
That come before the Swallow dares, and take
The windes of March with beauty.

As we drew analogies between Leontes and Rijkswaterstaat, between Polixenes
and politics, and between Perdita and technological and social innovation, the
analogies showed a progress in Dutch water governance similar to that in The
Winter’s Tale. Perdita first needs a foster father: The Shepherd alias Deltares, who
is to raise and educate her, before she can stand on two feet and propagate. Her-
mione, alias The Netherlands, needs her lost daughter Perdita, innovation, to mar-
ty the person who is the personification of the new standard: Florizel is the new
appropriate imagination. Too much imagination leads to false securities and treatment of symp-
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ficient imagination is needed to reanimate the seasons, as Perdita demonstrates:

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ty the person who is the personification of the new standard: Florizel is the new
general map and definition of the position, size and construction of dikes in the
new Flood Protection Programme, injecting new life into The Netherlands. This

http://www.rijkswaterstaat.nl/water/veiligheid/bescherming tegen het water/waterkeringen/leggers/

3 Legger: general map and definition of the position, size and construction of dikes.
http://www.rijkswaterstaat.nl/water/veiligheid/bescherming_tegen_het_water/waterkeringen/leggers/

4 NB: copies of the full text of the interview (in Dutch) can be obtained by sending an e-mail to iris@cvv.nu

5 Debate in the Senate on 2 July 2013: http://www.eerstekamer.nl/nieuws/20130705/debat_over_wet_basissnet

6 Huib de Vriend, Deltatechnologie dankzij verbondenheid, in Vise, Deltares Magazine (Delft: 1 januari
2009), p. 3.
‘new life’ is only given when Leontes alias Rijkswaterstaat, finally shakes hands with his old friend Polixenes alias politics; while Time, alias risk analysis, never refrains from progressing. Meanwhile, many helpers turn up: The Shepherdesses Mopsa and Dorcas alias the contractors and engineering firms; the other Shepherds and Shepherdesses alias the dike improvements; Autolycus the Rogue, alias the calculating software of Deltares, whose immorality alias impartiality uncovers a vital ingredient for the restoration. Autolycus eventually directs the Shepherd and his Son (Deltas and the Flood Protection Programme) to the ship for Sicily, alias The Netherlands in 2018.

**DRAMATIS PERSONAE**

[Sicilia]

- **Leontes, King of Sicilia**
- **Mamilius, young prince of Sicilia**
- **4 lords of Sicilia**
- **Camillo**
- **Clohernes**
- **Dion**
- **Antigonus**
- **Hermione, queen to Leontes**
- **Perdita, daughter to Leontes and Hermione**
- **Paulina, wife to Antigonus**
- **Emilia, a lady-in-waiting to Hermione**
- **Gadger**
- **Gentleman; Roger, a gentleman, STEWARD, servant to Paulina**
- **Markbier, Officers at Hermione’s trial**
- **Servant to Mamillius**
- **Loren and Ladies**
- **Loren, &c. [Actus Quintus, Scena Tertia]**

[Bohemia]

- **Polixenes, King of Bohemia**
- **Florizel, prince of Bohemia**
- **[at first under the assumed name of Doricles]**
- **Shepherds, reputed father of Perdita**
- **Clown, his son**
- **Autolycus, a rogue**
- **Architamus, a lord of Bohemia**
- **Servant**
- **Mopsa and Dorcas, shepherdesses**
- **Tim, as Chorus**
- **Other Lords, [Ladies] and Gentlemen, and Servants**

Rijkswaterstaat
The old standard
Other dike administrators
Water knowledge and experience
District water (control) boards
Province of Groningen
Province of Zeeland
The Netherlands
Ellen Tromp [technological & social innovation]
The Delta Commission
Dike profile
Statutory Evaluation Instrumentarium (WTI)
Dike rings
Public Works Act,
Environmental Protection Act,
Reorganisation Road Management & Water Act
Environment & Planning Act
Sybe Schaap [The Senate; politics]
The new standard
Deltas
Flood Protection Programme
Calculating software Deltas: Dare to Share
Environmental law
Communication Department Deltas
Contractors and engineering firms
Risk analysis
Dutch population

**The Winter’s Tale - abstract 2**

King Leontes of Sicilia begs his childhood friend, King Polixenes of Bohemia, to extend his visit to Sicilia. Polixenes protests that he has been away from his kingdom for nine months, but after Leontes’s pregnant wife, Hermione, pleads with him he relents and agrees to stay a little longer. Leontes, meanwhile, has become possessed with jealousy—convinced that Polixenes and Hermione are lovers, he orders his loyal retainer, Camillo, to poison the Bohemian king. Instead, Camillo warns Polixenes of what is afoot, and the two men flee Sicilia immediately.

Furious at their escape, Leontes now publicly accuses his wife of infidelity, and declares that the child she is bearing must be illegitimate. He throws her in prison, over the protests of his nobles, and sends to the Oracle of Delphi for what he is sure will be confirmation of his suspicions. Meanwhile, the queen gives birth to a girl, and her loyal friend Paulina brings the baby to the king, in the hopes that the sight of the child will soften his heart. He only grows angrier, however, and orders Paulina’s husband, Lord Antigonus, to take the child and abandon it in some desolate place. While Antigonus is gone, the answer comes from Delphi—Hermione and Polixenes are innocent, and Leontes will have no heir until his lost daughter is found. As this news is revealed, word comes that Leontes’s son, Mamillius, has died of a wasting sickness brought on by the accusations against his mother. Hermione, meanwhile, falls in a swoon, and is carried away by Paulina, who subsequently reports the queen’s death to her heartbroken and repentant husband.

Antigonus, meanwhile abandons the baby on the Bohemian coast, reporting that Hermione appeared to him in a dream and bade him name the girl Perdita and leave gold and other tokens on her person. Shortly thereafter, Antigonus is killed by a bear, and Perdita is raised by a kindly Shepherd. Sixteen years pass, and the son of Polixenes, Prince Florizel, falls in love with Perdita. His father and Camillo attend a sheepshearing in disguise and watch as Florizel and Perdita are betrothed—then, tearing off the disguise, Polixenes intervenes and orders his son never to see the Shepherd’s daughter again. With the aid of Camillo, however, who longs to see his native land again, Florizel and Perdita take ship for Sicilia, after using the clothes of a local rogue, Autolycus, as a disguise. They are joined in their voyage by the Shepherd and his son, a Clown, who are directed there by Autolycus.

In Sicilia, Leontes—still in mourning after all this time—greets the son of his old friend ef-fusively. Florizel pretends to be on a diplomatic mission from his father, but his cover is blown when Polixenes and Camillo, too, arrive in Sicilia. What happens next is told to us by gentlemen of the Sicilian court: The Shepherd tells everyone his story of how Perdita was found, and Leontes realizes that she is his daughter, leading to general rejoicing. The entire company then goes to Paulina’s house in the country, where a statue of Hermione has been recently finished. The sight of her wife’s form makes Leontes distraught, but then, to every-one’s amazement, the statue comes to life—it is Hermione, restored to life. As the play ends, Paulina and Camillo are engaged, and the whole company celebrates the miracle.
or 18,000 m³/s near Lobith, but I worry about a longer period of 14,000 m³/s drainage. That's dangerous. That's why I'm in favour of overtopping dikes, because the inner slopes of such dikes prevent erosion by wave overtopping. But 18,000 cubic fires the imagination, and one day longer means little to people. This is what we need sufficient imagination for. We don't even know what happens in the situation of an extended flooding period.

Ellen Tromp: That's what we need to test, so we can adapt our calculating rules. These calculating rules will be valid for the entire country. For every region and section of dikes we have to enter location specific data, regarding subsoil and other local characteristics. That's going to cost a lot of time and money. This is part of the story the district water boards should tell the people, so that they understand why they pay for water safety.

Sybe Schaap: The Dutch never complain about flood protection taxes. But it's up to the government to tell the full story, without stirring up the fear for disasters.

Iris Cvc: The bear in The Winter's Tale, alias imagination in your allegory, would lick its lips over disaster stories. Because a big bear wants a plateful, and then it wants more. The more we fire the imagination, the bigger the bear grows, and it will never stop eating. It will devour anything it can get, so that we will soon be unable to control the bear's impact. Then disaster stories may even lead to the wrong decisions, and more dikes might give way. Fortunately, Leontes had a faithful Lord, Camillo, who warns Polixenes against Leontes's irrational anger, and accompanies him in flight to Bohemia. Camillo cannot go back immediately; he stays in Bohemia for sixteen years, preserving his knowledge, and knowing out of experience that patience and caution are needed to eventually restore the situation by innovation. Therefore, he keeps watching over Perdita, her growth to maturity, and her betrothal to Florizel, promising new life – in your allegory, promising a new 'legger' for The Netherlands. Eventually Camillo's values need to be recognized, both in The Winter's Tale and in your allegory, because old knowledge and experience should always be connected to innovation. So, when Camillo finally returns to Sicily with the motley crew, he has a good deal to contribute. He remains loyal to Polixenes, but has all the while remained loyal to Leontes, too. And it is remarkable that it is a thief who helps to unfold the plot: Autolycus, the pickpocket, who is used to hide behind the bushes and overhear vital scraps of conversation. He's the calculating software in your allegory: as Deltares is calculating the new standard, the arithmeticians know what goes in and what comes out, but they don't know what happens in between. That's a black box.

Ellen Tromp: Deltares has a wide range of knowledge, which eventually – partly – lands in our calculating software: our commercial product. Of course, we con-
stantly keep updating our product, to anticipate every new need and question of our customers. Our product is ambivalent because it helps the government to adapt the standard, whereas the product’s changes are dependent on the new standard, too. It works two ways.

**Sybe Schaap:** But the standard is a calculated needful reduction of probability.

**Ellen Tromp:** The standard is a political decision.

**Sybe Schaap:** Which is always based on the reduction of probability. You set a norm for a dike; the dike should be so strong that there’s a thousand to one chance of anything disastrous. On which basis do we determine the reduction of probability, and thus the standard? What are the consequences, both in terms of human losses and in terms of economy? That’s still a big black box. We need a socio-economical starting point for our risk analysis, and we need to integrate interests that eventually affect us, too. Suppose Nordrhein-Westfalen neglects flood maintenance; then we’d better take care of their dikes along the Rhine, because The Netherlands has a huge economic interest.

**Iris Cvc:** This is why I recognised Autolycus as the calculating software in your case. A pickpocket has a simple perspective. He perceives black and white, which, to him, equally exist; he just uses whatever presents itself. That’s what your calculating software does: it just works towards the second version of the Flood Protection Programme. Any pickpocket will stick to practicability; he will not contemplate values we might also appreciate. Neither will your calculating model go that way, unless you rearrange its variables.

**Sybe Schaap:** Exactly. Go and talk with the companies in those areas. What do you find in the attic? Their value storage goes way beyond direct economic calculations. You will not only find 500 million seeds, but also the basis material for flourishing new businesses. That’s what our risk analysis should include.

**Ellen Tromp:** Then Shakespeare’s narrative may actually help to equip us with these new variables. I find it interesting to recognize analogies with my own practice. The analogies may even help me to anticipate actual developments in the field, so we can make more inclusive decisions. I think that’s a challenge we all should face in our global, interconnected twenty-first century.
The work gave her the calm she needed; she had not noticed how she began it or why; she had started without conscious intention, but she saw it growing under her hands, pulling her forward, giving her a healing sense of peace. Then she understood that what she needed was the motion to a purpose, no matter how small or in what form, the sense of an activity going step by step to some chosen end across a span of time. The work of cooking a meal was like a closed circle, completed and gone, leading nowhere. But the work of building a path was a living sum, so that no day was left to die behind her, but each day contained all those that preceded it, each day acquired its immortality on every succeeding tomorrow. A circle, she thought, is the movement proper to physical nature, they say that there’s nothing but circular motion in the inanimate universe around us, but the straight line is the badge of man, the straight line of a geometrical abstraction that makes roads, rails and bridges, the straight line that cuts the curving aimlessness of nature by a purposeful motion from a start to an end.

Ayn Rand, *Atlas Shrugged*

I think there is only one conclusion to Shakespeare, and in fact it is Ovid’s: ‘Everything changes, nothing perishes.’ We perceive time’s cyclical, as we make lines from A to B to C to D. Shakespeare helps to integrate motions, and to acknowledge that there is not just one right path, but many. At best, we find focal points in some values we share, so we can be regenerative. If we relate this thought to our economic system, we may say that our economic system should serve such values, and the financial system should serve the economic system. But in the past decade, the financial system seems to have isolated itself. If you don’t know which values you serve, the means you choose may justify less sustainable ends.

From my interview with Dirk Jan van Swaay (ING Bank), July 2013

**Respondents**

Shakespeare alluded to unsustainable economic practices of the time in *The Merchant of Venice*, *Measure for Measure* and *Timon of Athens*. I took these plays as a starting point for discussions on twenty-first century economical challenges in relation to the global energy transition, which also requires financial innovation. My respondents were Dirk Jan van Swaay, director Energy Transition and Public Private Partnerships of ING Netherlands, and Robert Goevaers, independent economist, and sustainability expert. We first focused on the Dutch energy transition to Zero Emission Bus Transport, 2011-2025, and *Measure for Measure*. In a second interview, Robert Goevaers reflected on the allegorical implications of *The Merchant of Venice* for the transition to a circular economy.
Case
Air quality, noise pollution and climate targets are serious challenges for cities all over the world. In the Netherlands, the financial scope for public transport is under pressure. On top of that, the Dutch subsidy culture has fragmented innovation in the field of public transport, while at the same time major developments in the field of decental energy generation and smart loading and storage techniques have taken place. Zero Emission Bus Transport, a public-private mobility platform, may prevent expensive infrastructural measures against noise and air pollution, if public and private partners join forces for chain innovation. In short, the Foundation Zero Emission Bus Transport aims at a ‘Quiet, Emission-free Revolution’.7

Three points of attention for a financial chain transition.8

- 90% of available energy is lost in the chain: through wastage, noise, emission and warmth. Preventing waste yields direct profit.

- The ministry of Finance has a great interest in energy because of the levy taxes. The levy also determines the country’s financial health. This requires financial innovation for the social cost benefit analysis, and insight in the total cost of ownership (TCO) at every point in the value chain.

- The transition to renewable energy is still a loss-making activity for banks (because of the size of the sector responsible for greenhouse gas emissions). Cars in urban areas are polluting and noxious; electric powered vehicles can be a solution. But these two segments do not have much in common. An ad hoc change is out of the question.


8 Based on my conversation with Dirk Jan van Swaay, 3 July 2012, Amersfoort.

These three points ground the foundation of Zero Emission Bus Transport in 2011. The foundation aims to have 4800 zero-emission public buses in The Netherlands by the year of 2025. Renewable energy sources will be used for efficient power supply. The total costs in the future situation should not exceed the current situation of Euro5-buses. If this chain transition succeeds, the principle can be applied to other sectors, and contribute to a circular economy.

How?
1. Moderate control of the chain: from a mature value chain (in which optimisation can only achieved in small steps: innovation in marginal optimisation) to an immature value chain (big innovation steps) and again to a mature value chain.

2. Set a target: what is the new situation? Pilots in The Netherlands and Europe; a shift from the individual responsibility of the banker to a shared responsibility with other partners in the chain.

3. Substantial cost control of the programme.
A Quiet Emission-free Revolution or, Measure for Measure; a Comedy?

Shakespeare’s Measure for Measure and the Foundation for Zero Emission Bus Transport share a similar target: ‘A quiet, emission-free revolution’. If the transition to Zero-emission Bus Transport succeeds, a ‘quiet, emission-free revolution’ is literally going to take place in The Netherlands, as by 2025, all 4.800 Dutch public buses will be electric powered, reducing noise and diminishing noxious emissions to zero. Conditions required for such revolutionary success are co-operative public-private partnerships, and insight in the total costs and benefits of the value chain. To this end, ING Bank developed a financial tool, the Total Cost of Ownership (TCO), to help all partners involved determine the direct and indirect costs of the transition to zero-emission bus transport. The development and application of this tool is vital to the success of the transition.

Shakespeare’s Measure for Measure also culminates in a ‘quiet and emission-free revolution’. After the demasqué in the fifth act, the Duke invites Isabella to marry him:

**DUKE**

Dear Isabel,

I have a motion much imports your good; whereto if you’ll a willing ear incline, what’s mine is yours, and what is yours is mine.

Since the Duke literally has the last word in the play, we do not know how Isabella is going to answer the Duke: will she, or will she not ‘a willing ear incline?’ Directors and editors often take the view that there is no getting away from this marriage for Isabella, because of the Duke’s powerful versus her own subservient position: hence Measure for Measure’s predicate of a ‘problem play’. But what if Isabella does not follow the Duke at this point, but remains standing on centre stage? What if she then seizes the opportunity to invite her audience to an inspiring discussion on the play just performed? Then it would be possible to altogether reflect on what has happened, in order to retrieve some ‘values worthy of pursuit’ of this allegory, as a starting point of what, in reality, comes next. Then this is how Isabella may pave the way for a ‘quiet and emission-free revolution’: by inviting Shakespeare’s audience to take off every disguise, because ‘the hood doesn’t make the monk’. Such a revolution would be quiet, because Shakespeare does not give Isabella any line for it; and it is emission-free, because Isabella will not receive the Duke’s ‘emissions’, as she decides not to marry him, therefore no marriage is consummated.

The ‘quiet, emission free revolution’ is one of many possible analogies between Measure for Measure and Zero-emission bus transport. Inspired by earlier conversations on the financial dilemma’s regarding the transition to zero-emission bus transport, I proposed a new cast list based on Shakespeare’s Measure for Measure, as a guide to reflect on the play’s allegorical implications for new sustainability strategies.

**Measure for Measure – abstract 3**

Shakespeare’s Measure for Measure centres around the fate of Claudio, who is arrested by Lord Angelo, the temporary leader of Vienna. Angelo is left in charge by the Duke, who pretends to leave town but instead dresses as a friar to observe the goings-on in his absence. Angelo is strict, moralistic, and unwavering in his decision-making; he decides that there is too much freedom in Vienna and takes it upon himself to rid the city of brothels and unlawful sexual activity. Laws against these behaviours and institutions already exist, and Angelo simply decides to enforce them more strictly. Claudio is arrested for impregnating Juliet, his lover, before they were married. Although they were engaged and their sexual intercourse was consensual, Claudio is sentenced to death in order to serve as an example to the other Viennese citizens.

Isabella, Claudio’s sister, is about to enter a nunnery when her brother is arrested. She is unfailingly virtuous, religious, and chaste. When she hears of her brother’s arrest, she goes to Angelo to beg him for mercy. He refuses, but suggests that there might be some way to change his mind. When he propositions her, saying that he will let Claudio live if she agrees to have sexual intercourse with him, she is shocked and immediately refuses. Her brother agrees at first but then changes his mind. Isabella is left to contemplate a very important decision.

Isabella is, in a way, let off the hook when the Duke, dressed as a friar, intervenes. He tells her that Angelo’s former lover, Mariana, was engaged to be married to him, but he abandoned her when she lost her dowry in a shipwreck. The Duke forms a plan by which Isabella will agree to have sex with the Angelo, but then Mariana will go in her place. The next morning, Angelo will pardon Claudio and be forced to marry Mariana according to the law.

Everything goes according to plan, except that Angelo does not pardon Claudio, fearing revenge. The provost and the Duke send him the head of a dead pirate, claiming that it belonged to Claudio, and Angelo believes that his orders were carried out. Isabella is told that her brother is dead, and that she should submit a complaint to the Duke, who is due to arrive shortly, accusing Angelo of immoral acts.

The Duke returns in his usual clothes, saying that he will hear all grievances immediately. Isabella tells her story, and the Duke pretends not to believe her. Eventually, the Duke reveals his dual identity, and everyone is forced to be honest. Angelo confesses to his misdeeds, Claudio is pardoned, and the Duke asks Isabella to marry him.
On pattern recognition

Dirk Jan van Swaay: I often use pattern recognition to order my thoughts. What is power? That’s when you recognize a pattern, and you can predict its development. You can do this with human behaviour: if I provide a person with a set of information, and I know his pattern, I know how this person is going to deal with the information. Give a child 100 Euros; if you know the child, you’ll be able to tell what he is going to do with the money. Shakespeare and other writers invite to pattern recognition. That’s what you are analyzing in your research project. You are looking for internal patterns in Shakespeare’s works, and for similar external patterns, and then you deduce how these patterns in reality come together. Once you combine Shakespeare’s play and reality, you can learn. Pattern recognition requires sociology, because it is about understanding human behaviour. If we see the world as a chain of patterns, pattern recognition will help us navigate.
On Measure for Measure’s ‘Game over. Press start.’

Dirk Jan van Swaay: Take, for instance, a mature value chain, whose confidence level is high. If you ask someone: in what way are you successful? Whether they’re a dancer, a singer or a businessman, many will answer: “I’m the best, I’m the most qualified person, I’m unassailable, I’m in the right top position of your model because I don’t do anything else than that.” We are programmed to move towards that position. But if we want to start a new value chain, we’ll need to cross back down and start from scratch. So, if we have an economic system, serving our capabilities, it is a threat to leave our comfort zone. People usually don’t do anything that doesn’t yield enough. People invest because they think it’s good for them. Likewise, the new start you suggest for Isabella at the end of the play is not an easy one. But it might be a more sustainable one.

On Isabella’s TCO

Dirk Jan van Swaay: A TCO provides insight into mutual reactions within the chain, the eventual costs and benefits of the end users. Stimulation measures are taken to compensate the user for extra costs of electric driving. We want the transition, so we make money available to people, to cover their extra costs. You will not choose to drive an electric car if the TCO shows you that it will cost you 20k extra. If the government grants you 20k for driving an electric car, you are more likely to make that choice. But a growing amount of people now tend to make use of the grant scheme. That affects the national budget of the Treasury, so the minister of Finance will demand to adjust the scheme. It’s all TCO: simple sums. There’s your analogy with Shakespeare’s Isabella again: you say that she simply provides insight in the relations between the characters of Measure for Measure.

The Merchant of Venice:
not an allegory of love, but an allegory of futures

Starting point

My second respondent for ‘Atlas # economy’, Robert Goevaers, was prepared to reflect on my argument that The Merchant of Venice is not an allegory of love, but an allegory of futures. Both plays work towards the disclosure of what ‘masks the deeper collapse’ (Mason, 2012). Shakespeare’s allegorical ‘O’ in The Merchant of Venice is dominated by the Roman god Janus, who invented the concept of contradiction, and therefore was two-faced. Thus, contradiction is at the heart of The Merchant of Venice, which is not an allegory of love, but an allegory of futures, in which value creation takes place along the ‘lines’ of usury and hypocrisy, and the genuine third way is categorically overlooked. Shakespeare did, however, work a number of keys into the text to re-invent the linear ‘take-make-dispose’
lock is entitled to the merchant’s flesh. Shylock ecstatically praises her wisdom, but as he is on the verge of collecting his due, Portia reminds him that he must do so without causing Anthonio to bleed, as the contract does not entitle him to any blood. Trapped by this logic, Shylock hastily agrees to take Bassanio’s money instead, but Portia insists that Shylock take his bond as written, or nothing at all. Portia informs Shylock that he is guilty of conspiring against the life of a Venetian citizen, which means he must turn over half of his property to the state and the other half to Anthonio. The duke spares Shylock’s life and takes a fine instead of Shylock’s property. Anthonio also forgoes his half of Shylock’s wealth on two conditions: first, Shylock must convert to Christianity, and second, he must will the entirety of his estate to Lorenzo and Jessica upon his death. Shylock agrees and takes his leave.

Bassanio, who does not see through Portia’s disguise, showers the young law clerk with thanks, and is eventually pressured into giving Portia the ring with which he promised never to part. Gratiano gives Nerissa, who is disguised as Portia’s clerk, his ring. The two women return to Belmont, where they find Lorenzo and Jessica declaring their love to each other under the moonlight. When Bassanio and Gratiano arrive the next day, their wives accuse them of faithlessly giving their rings to other women. Before the deception goes too far, Simón simply realises he is as much a persona non-grata like Shylock, because homosexual people were tolerated just as little as Jews in those days. This causes Shylock’s deep vexation regarding Anthonio, so much so that he even wants to kill him, so they enter into a dangerous agreement:

**SHYLOCKE**

let the forfeite
Be nominated for an equall pound
Of your faire flesh, to be cut off and taken
In what part of your bodie it pleaseth me.

We learn from Shylock that you will not accomplish sustainable value creation if you only concentrate on usability; we learn from Anthonio that you cannot accomplish this, either, if you hypocritically disassociate from yourself, and if you are not transparent about your own targets. So once Anthonio comes out, or once he simply realises he is as much a persona non-grata like Shylock, they may put out their hands to each other, instead of increasing the chasm, and finally fail to take the bend. Fortunately, these taboos have minimized in most western societies. Still we are aware of their historical reality. Which is why I think that this allegory might show the way to sustainable value creation.

**ROBERT GOEVAERS:** It may help, if only because the transition to a circular, transparent and stable sustainable economy is very complicated. I’ll give you an example. We now have a fossil economy, and we may substitute LNG by Bio-LNG if sufficient parties are willing to co-operate. So, I facilitate the co-operation between the retailer Albert Heijn, and Aben, a farmer; Rolandé, the owner of Bio-LNG filling stations; and IVECO, a truck manufacturer. Now Albert Heijn says: ‘We are going to deliver our waste to Aben.’ Because Aben, the farmer, can ferment many types of waste by gasification and fermentation technologies. The product of this process is the basis for Rolandé’s Bio-LNG, used by IVECO to fill up the trucks for Albert Heijn, who then compliment their hauliers for deriving energy out of the waste from Albert Heijn stores. That’s an example of a circular economy; of how you can again create value together.

**IRIS CVC:** Why is it so complicated?

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model of the usurer & the hypocrite, alias twenty-first century linear economies, and to create competitive advantage by designing a ‘circular economy, restorative by intention’ (Van Egmond, 2014; MacArthur, 2010).

**Interview**

**Robert Goevaers**, economist, sustainability expert,
(photographer Hannah Anthonysz, Nationaal LNG Platform)

**Robert Goevaers**: An important economic and social target is to achieve sustainable value creation. Sustainable value creation does not only require our purchasing of sustainable goods, but also an open communication with our partners, for the sake of more transparency in the chain.

**Iris CvC**: That’s one of the insights *The Merchant of Venice* wakes up to. The play alludes to Christian hypocrisy in Shakespeare’s time. Christians were not allowed to lend money at interest, but Anthonio, the rich Christian merchant, has a boyfriend, and he is so fond of him that he wants to give him anything. But when, at a certain moment, Anthonio’s capital is fixed, he has no liquid assets at his disposal, and his catamite needs money, Anthonio needs to ask a usurer for money. This usurer is Shylock the Jew, who in contrast to Anthonio is allowed to charge interest. More than that: Shylock is a professional usurer. Anthonio, the Christian homosexual merchant, has no scruples to make use of the allegedly forbidden practice of a Jewish usurer, whereas he keeps frustrating their business, by never charging interest for his loans, and openly criticising the Jewish people! Anthonio is not only a hypocrite; he is a persona non-grata like Shylock, because homosexual people were tolerated just as little as Jews in those days. This causes Shylock’s deep vexation regarding Anthonio, so much so that he even wants to kill him, so they enter into a dangerous agreement:

**SHYLOCKE**

let the forfeite
Be nominated for an equall pound
Of your faire flesh, to be cut off and taken
In what part of your bodie it pleaseth me.
Robert Goevaers: Imagine Albert Heijn has to pay the waste processing company €10 per ton waste, because the waste processing company will have to unwrap every apple Albert Heijn has not sold, and they will have to grind it before it goes to Aben. Imagine Aben buys it for €15 per ton. Then someone in the chain between Albert Heijn and Aben is making money. Of course, everyone in the chain should make money. But if you consider the total value chain of this case, you will see a disbalance at some points. Aben says: ‘OK, we will process this stuff to biogas, but we will oblige Albert Heijn to buy our biogas, for which we charge Albert Heijn €1 per kilogram, because we will need to pay for our investment in Air Liquide (the supplier of the gas transformation technique), so we can supply Rolande with liquid gas.’ Rolande says: ‘Fair enough, we will buy your gas for a fixed price: €1, and never more than that. Why not? Because the price of fossil fuel in Zeebrugge and in Rotterdam is the same. So, if you exceed €1, we will not purchase your gas. Moreover: we will have to recover our costs for the trucks: each €35,000 extra. If your price for biogas rises, then it will not be attractive for a haulier to buy such a car. And if the haulier does not buy the car, biogas is useless.’ In other words: if the price exceeds €1, the chain will never get off the ground. Then Albert Heijn says: ‘OK, we want this, but the price of this car can never exceed the price of a diesel truck, so we can still afford to pay our hauliers.’ The total chain contains sufficient value for a tidy sum. Eventually, all partners in the chain should not only acknowledge that value, but they should also be prepared to see that they need each other.

Iris CVC: So, you intend to figure out costs and benefits for every party in the chain, and then work towards redistribution?

Robert Goevaers: Everyone should make reasonable profit. If one makes a lot of money, and the other does not earn anything, the latter will quit.

Iris CVC: Then the initiative never gets off the ground.

Robert Goevaers: It will crash down.

Iris CVC: Implose?

Robert Goevaers: Yes.

Iris CVC: Really! This is what happens in *The Merchant of Venice*!

Robert Goevaers: Yes, this is the parallel I read in your chapter on *The Merchant of Venice*. In the current transition to a circular economy, the situation becomes very complex. These transactional relations have always been simple: I supply you with something, we agree on the price, and then you’ll see if you can find a well-paying customer in the chain. We never took the entire circle into consideration. In this deal we do, which means that everyone’s a winner, except the waste processing company. But that’s how business models work: if you can’t offer added value, you’ll have to tighten your belt.

Iris CVC: What if the waste processing company slips off, and puts off the others?

Robert Goevaers: No problem for the chain. Albert Heijn works with forward contracts.

Iris CVC: But the waste processing company becomes a Shylock. He is going to come back, and claim something anyway.

Robert Goevaers: Then Albert Heijn will say: ‘I’ve got 45,000 tonnes of waste ready for processing this year. And I’m going to call for tenders.’ Now, Albert Heijn has piles of waste, for whose processing Albert Heijn still has to pay. So now Shylock is still in control. But this is soon going to change, unless Shylock thinks up a new strategy. That’s how it works.

Iris CVC: Smart. And funny: I see how we can place your outline on *The Merchant of Venice*. Think of what your Shylock is going to do, this waste processing company in your chain. He turns away, but he’s going to return soon to claim his pound of flesh. Then think of your recent argument about the pork cycle in economic theory: when the market becomes saturated because everybody has invested in pork, there’s going to be a decline in prices. When this happens in *The Merchant of Venice* – the moment when Jessica goes over to Lorenzo: to Christianity – then Launcelot says: ‘This making of Christians will raise the price of pork.’ Jews don’t eat pork. Christians do. So, the price for pork is sent up when Shylock positions himself outside of the chain, whereas the chain needs the reconnection. But Shylock refuses to connect. His behaviour does not only lead to an explosion of the price; he also prices himself out of the market.

Iris CVC: Yes. But eventually, the market mechanism will rule. One man’s death is another man’s breath.

Iris CVC: Exactly. And that’s Portia, she’s the market mechanism! She simply rolls on, and that’s how she can take the sting out of the question. That explains why she does not create Utopia straight away, although she can see it, and even indicates the position:
PORTIA: This night methinkes is but the daylight sicke,  
It lookes a little paler, ’tis a day,  
Such as the day is, when the Sun is hid.

Portia alludes to the rare cosmic phenomenon of the solar eclipse, the conjunction of sun, earth and moon, which provides us all with a new and wider perspective: one of the great gifts of Shakespeare’s theatre. But Portia is not the conjunction, and she never will be, because she represents daily reality. She is the market mechanism, she can only describe that beautiful symbol of cyclicality, invitingly but intangibly hanging just above the Earth, making you forever crave for its riches if you place yourself outside of the chain. Like Jessica and Lorenzo.

ROBERT GOEVAERS: Yes. And it’s the same mechanism at work in the financial crisis of the early twenty-first century.
Atlas = culture

When an individual appears before others, he knowingly and unwittingly projects a definition of the situation, of which a conception of himself is an important part.  
Erving Goffman (1959)

At the heart of my PhD thesis, I posed that William Shakespeare, the allegorist, invites ‘to quest for values worthy of pursuit’, and that this is why, and how, Shakespeare’s allegories foster sustainable development. During the four years of my research into the relation between Shakespeare’s works and questions of sustainability, I found that this allegorical ‘quest for values’ first invites to self-knowledge. What/ who is of value to me? Why? How do I sustain what/ who is of value to me? How does this relate to my cultural roots, my preoccupations? How can I take responsibility for the values I foster? How does Shakespeare inspire me on my allegorical quest for values? What do I see if I look in the mirror Shakespeare ‘holds up to nature’? How does Shakespeare’s allegorical ‘O’ sustain me? How do I sustain Shakespeare’s allegorical ‘O’?

Questing for ‘O’

My personal quest took me to cross wild rivers, slay dreaded dragons, and open heavy gates. Time and again did I find myself on virgin territory. I found companions, who helped me regain my strength, and keep going. As I looked in Shakespeare’s allegorical mirror, I tried to implement what I had seen. I realised that my allegorical quest was one out of many, because it was only human, and it was (Western) cultural repertoire.

Then I realised that Shakespeare does not only offer a mirror to ‘hold up to nature’. Shakespeare also offers a compass to set the course. Allegory’s ‘O’ is a simple orientation instrument, which has an allegorical needle turning freely on the pivot embedded in our existence, irrespective of our position. An analysis of ‘O’ gives a glimpse of the working of the allegorical pivot. And Shakespeare introduced a great synonym, in his Tragedie of Anthony and Cleopatra:

CLEOPATRA: His face was as the Heau’ns, and therein stucke
A Sunne and Moone, which kept their course, & lighted
The little o’th’earth.

Memory play
When I look in this allegorical mirror, and pay attention to what I see, then repeat what I hear, and finally place what I hear on what I know – then this process first trains my memory. It does so because I must remember or look up many historical, mythological and biblical narratives and cultural symbols, which Shakespeare applies to his texts, and with which I am, or am not yet familiar.

Secondly, this process challenges my memory to see and acknowledge analogies between patterns in Shakespeare's texts, and patterns I perceive in day-to-day reality. Drawing such analogies helps me to look at things from a new perspective, and to pick up stitches at points where my view lacked coherence. These analogies shed light on how I relate to other people, to individual and collective interests. They also help me recognise what or who is of value to me and why, so that I can mature a conception of myself. Such ‘memory play’ eventually helps me to anticipate personal questions of sustainability. In plain English: Shakespeare makes me grow.

Shakespeare and sustainable development
My personal growth process happens within the ‘circle’ of allegory: within the conceptional lines of Shakespeare’s ever-changing ‘O’, as it bubbles with antagonisms, conjunctions and opportunities that I gradually learn to acknowledge, pick up and value. This is no guarantee for success or happiness. Nor does it lead to the Holy Grail, or a final answer to my questions of sustainability. It just leads to ‘sustainable development’ of myself, and life. ‘Sustainable development’ is my subjective experience that I am moving in and from Shakespeare's allegorical ‘O’.

My PhD project has sought to demonstrate Shakespeare's relation to concepts of sustainable development. I proposed that he anticipates, but does not determine sustainability debates, in many fields: from economics and ecology, politics and social issues, to scientific and scholarly innovation, entrepreneurship and the public domain. I upheld the thesis that Shakespeare anticipates sustainability debates for the same reason that grounds my personal quest for ‘values worthy of pursuit’. This reason is to be found from the ‘purpose of Playing’, as Hamlet explains:

HAMLET: For any thing so ouer-done, is frõ the purpose of Playing, whose end both at the first and now, was and is, to hold as 'twer the Mirrour vp to Nature; to shew Vertue her owne Feature, Scorne her owne Image, and the verie Age and Bodie of the Time, his forme and pressure.

Key: culture
As I continued my personal quest for values, I realised that culture is my vehicle:

Culture (Oxford English Dictionary): The cultivation or development of the mind, faculties, manners, etc.; improvement by education and training; (...) The distinctive ideas, customs, social behaviour, products, or way of life of a particular nation, society, people, or period. Hence: a society or group characterized by such customs, etc.

I realised that culture is Shakespeare's vehicle, too; and that I subsequently use Shakespeare's works as a vehicle to inspire personal growth and change. This is key to the working of Shakespeare's sustaining allegory. What I see when I hold the allegorical mirror up to nature, is influenced by my culture.
We only need to be prepared to look in the allegorical mirror, pay attention to what we see, repeat what we hear, and finally place what we hear on what we know. That will not only train our memory and incite independent thinking. It will also enable us to descry old value patterns, which may help to ripen conceptions of ourselves, without projecting exclusive answers.

CONCLUSION

If we are prepared to apply Shakespeare’s sustaining allegory, it will help us to ‘redesign our future scenarios in more inclusive terms – ethically as well as culturally’ (Iovino: 2010). This is not only a great global challenge in the twenty-first century. It is also a great opportunity for the Humanities, the ‘academic branch of learning concerned with human culture’, to demonstrate how we can pay ‘renewed critical attention to the physical dynamics’ of the world of today, based on critical thinking of the past.

Such demonstrations expose what Atlas sees when he is having a break, as Hercules and Pallas Athena take over his load, and Heaven and Earth are for a moment reconnected. What Atlas sees is the ‘human dimension of changing space’, which my Atlas respondents in this Atlas have for a moment seen, too.

Now it is up to the industry, the academy, politics and society – ourselves – to sustain this dimension, including its change and its space. All we must do is to accept Shakespeare’s invitation: to square allegory’s circle, and to manifest the inclusive value of ‘O’.
BIBLIOGRAPHY

All abstracts used are from SparkNotes, [http://www.sparknotes.com/shakespeare/](http://www.sparknotes.com/shakespeare/). Please note that the application of Shakespeare’s ‘O’ is based on the original full texts (1623) as discussed in my PhD thesis: [https://dspace.library.uu.nl/handle/1874/313689](https://dspace.library.uu.nl/handle/1874/313689).


Eerste Kamer der Staten-Generaal, [www.eerstekamer.nl/nieuws/20130705/debat_over_wet_basisnet](http://www.eerstekamer.nl/nieuws/20130705/debat_over_wet_basisnet).


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Dr. Iris Casteren van Cattenburch works as an independent communications strategist in the field of water management, mobility and logistics since 1999, currently at Connekt, an international network for sustainable and smart mobility in Delft. Her communications strategies are inspired by literature, theatre and philosophy to guide organizations in articulating and developing their values and identity.

She studied English Literature and Culture at Utrecht University, where she graduated in 1996 and earned her doctorate in 2015. Her dissertation ‘The little o’th’earth, Shakespeare’s sustaining allegory’ demonstrates how Shakespeare’s works anticipate contemporary sustainability debates. As an enterprising scholar, she continues her research for the applicability of early modern allegorical works in 21st century sustainability debates, in cooperation with Erasmus University Rotterdam. She is a research affiliate at Utrecht University and pursues an MA Cultural Astronomy and Astrology at the University of Wales.

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This is why it is thought impossible to be a builder if one has built nothing or a harpist if one has never played the harp; for he who learns to play the harp learns to play it by playing it, and all other learners do similarly.

Aristotle, *Metaphysics*