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*“Everything that is new or uncommon raises a pleasure in the imagination, because it fills the soul with an agreeable surprise, gratifies its curiosity, and gives it an idea of which it was not before possessed.”*

— Joseph Addison, 1712 —



# 1.1 WORLDS OF WONDER

what are they and what  
can they do for you?

Narrative spaces are created by different types of organisations, but their purpose is one and the same: conveying an idea or a story. Because visitors literally walk around in that story, all sorts of subjects can be made accessible. In this chapter, we are going to investigate the architecture of wonderment. In this context, space doesn't only represent the story, but conveys a sense of delight about that story. It's like walking around in the imagination of a curious mind. Hopefully, this will fuel your own curiosity, one of the greatest human faculties. It makes Worlds of Wonder very suitable for strengthening engagement.



## RE-VISION

When ideas are discussed or debated, their self-evident nature vanishes – once we stop agreeing about which future to pursue, for example, or which version of history we identify with. The same happens when ideas become too abstract, too subtle, or too complicated to pick up easily, or when there are simply too many ideas to choose from. When self-evident ideas stop working, it's time to revise them. Time for new ideas, or for renewing our current ideas. In essence, this means we are all faced with a creative challenge.

**Create a space for your visitors to engage with the story creatively and attentively: turn it into an adventure.**

It doesn't take much to argue that this is the case in our current age. At all levels of our world, ranging from our private lives to the organisations we deal with on a daily basis and the society we live in, values, rules and plans are discussed and questioned every day. The stories we have shared for ages are now being re-evaluated. The time in which we accepted ideas imposed upon us by authorities is squarely behind us. In essence, that's good news, especially when you consider that there's an abundance of creativity in the world and that it's easier than ever to exchange ideas. All we have to do is filter out the right ideas and apply some sense and structure. To do so, we need new tools.



food innovation worlds for nest

## ATTENTION SPACE

Suppose that you want your organisation to tell a new story, because you think it's relevant to other people. In that case, the situation we sketched above applies to you: you're an institution with a fresh, new idea. It's up to you to ensure that your story is sexy enough to awaken and attract curious minds. To do so, you might create a space for your visitors to engage with the story creatively and attentively: you turn it into an adventure. To that adventure, you add beautiful moments that appeal to all the senses. Finally, you give your visitors the freedom to create their own take on it. If you do that, there'll come a time at which they start sharing their own powerful insights with you.

As said earlier, Worlds of Wonder can be seen as a reconstruction of the mind of a curious person. They not only revolve around providing information, but seek to immerse visitors in a wonderful environment. These visitors don't consume fixed, preconceived stories, but use their experiences in these spaces to create their own. This requires some degree of flexibility on the part of the visitors. Our everyday minds, occupied with our everyday worries, have to be prepared, as it were, to receive big news. Gaining truly new insights, understanding the scope of an idea or the relevance of history, literally requires more attention space.

That sounds a bit like magic, and in a sense it is. All great new insights seem magical at first: hunches that are just as attractive as they are incomprehensible. What might follow is the sudden experience of a broadened perspective. This is what we call a WoW moment, which we'll talk about in greater detail at a later stage. It's only a fleeting moment, but if it's a good one, you'll never be the same again. You'll have gained an insight and be ready to explore it.



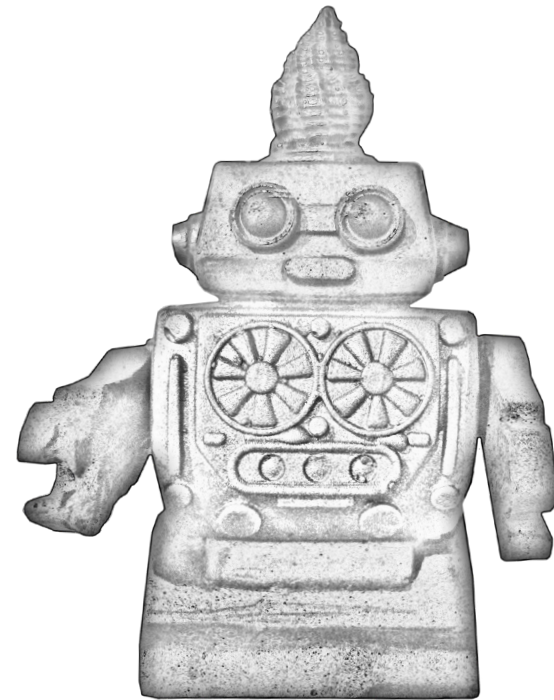
a network of cells in a network of neurosystems in a network of brains in a network of communities in a network of telecommunication is a global mind?

een netwerk van cellen in een netwerk van zenuwstelsels in een netwerk van breinen in een netwerk van gemeenschappen in een netwerk van telecommunicatie is een wereldbrein?

interactive wall about network philosophy

## ARTIFICIAL INTELLIGENCE

The authors of this book met in 1990, when they were studying Artificial Intelligence (A.I.) at the University of Utrecht in the Netherlands. Artificial Intelligence studies human knowledge processes and models them, so that they can be input into a computer. This lets machines perform complex tasks, such as playing chess, translation and independent car driving. By the time you have your degree, you're a *knowledge engineer*. Breakthroughs in robot technology, facial recognition and automated speech frequently make it to the news: these are all examples of A.I. Machines are starting to show hints of intelligence and it's only a matter of time before there'll be a machine that can keep you company whilst predicting the weather as well. If you use Spotify, or frequently find yourself using Google, you're making use of Artificial Intelligence. This is why these platforms can suggest songs for you to listen to or find the right answers to your questions. Artificial Intelligence, as a field of research, connects psychology with technology. When we started this course, we were both interested in science and humanities. Officially, this field is a mix of psychology, philosophy, computer science, linguistics and neuroscience, and we were taught all of these subjects. For young people with a broad interest, it was one big intellectual playground. In the process, we were given the opportunity to tinker with systems to make them display intelligent behaviour. It's no surprise that the student population was a diverse crew of tech dreamers, part-time philosophers and whizz kids, and the same applied to the lecturers.



**Artificial Intelligence, as a field of research, connects psychology with technology.**

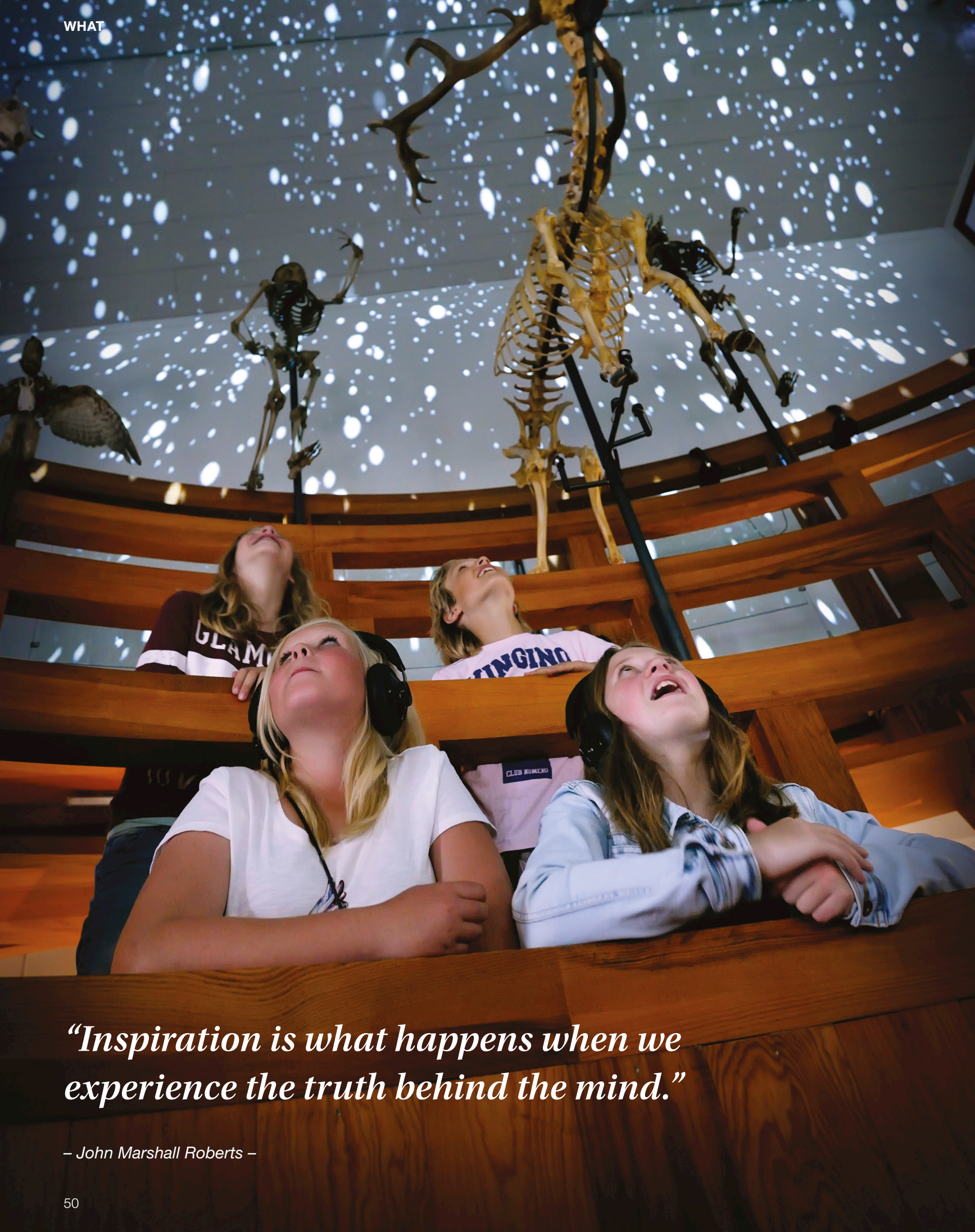
## PARALLEL UNIVERSES

Because we were interdisciplinary students visiting monodisciplinary faculties, we gained impressions that you might call superdisciplinary: we saw things that our lecturers did not. It turned out that each faculty was living in its own realm of thought and actively sought to maintain it. The faculties all claimed to operate under the guise of an objective world view – it was scientific, after all – but on closer inspection, it emerged that they all had their own, specific way of looking at the world around them. Remarkably, all these faculties taught us about the same subject: intelligence. Psychologists believed that intelligence was an essentially human feature, whereas computer scientists thought it came down to computing power and algorithms, and linguists tried to find intelligence in the deep structure of language. Apparently, you can interpret the same phenomenon in different ways, even if you're trying to be genuinely objective. The philosophy lecturers added to this confusion by stating that the relationship between human cognitive capacities and external reality has been a subject debated by philosophers for about 2500 years, without any prospect of yielding a result that will appeal to everyone. It's just very difficult to explain precisely how intelligent beings – people, animals or machines – experience reality. Besides, philosophers are annoyingly precise: they love pointing out that you can never be sure that your reality is shared by others. In the meantime, we students tried to seem as intelligent as possible, seeking to understand all these different perspectives.

The various perspectives taken by all these faculties taught us something about how people think in groups. We found that realms of thought really do exist: mental spaces that have their own words, meanings and logical rules. We also saw that multiple domains of thought can exist side by side, like parallel universes. These universes were created by groups of brains thinking together, thus forming a large network. The domains are actively maintained by their members, protecting them from outside influences. This process is primarily unconscious, because all members have a coherent world view that automatically confirms the world view held by their colleagues. Strikingly, this rich insight was given to us by lecturers who were trying to explain something completely different.

**Multiple domains of thought can exist side by side, like parallel universes.**





*“Inspiration is what happens when we experience the truth behind the mind.”*

– John Marshall Roberts –

# 1.4 THE WOW MOMENT

inspiration as a core element  
of experience design

When you enter a World of Wonder that carries out its task properly, you’ll feel an almost physical sensation of awakening and enthusiasm: a WoW moment. These moments can be directed and are the highlight of any visit. All other elements are neatly grouped around it. A WoW moment is meant to entice people to open up to new ideas. That’s why WoW moments are perfect in situations where you want to transfer a rich and nuanced story in a short amount of time. This chapter explains how to create these moments and use them to your advantage.





## BODY

The body refers to everything that stimulates the senses. It might be the aesthetics of a building or a beautiful piece of music. This external component comes first in experience design. In a spatial environment this is fairly easy to direct because almost all the senses of the audience can be activated: immersion is the trump card of Worlds of Wonder. As soon as you enter the space, you should be able to perceive the subject. Visitors don't have to understand it immediately, but what they see should get them invested. Essentially you're showing the attraction of the subject.

How can the subject appeal to the senses?



## MIND

The mind is about the content or the *story*. What is it about? Is it interesting? Am I being challenged? Challenging the mind is crucial because people are critical when they are faced with new information. We live in a world of permanent information overload, which is why most of us are now capable of deciding which information is worthwhile in a matter of seconds. Dwell on an issue too long, and you'll have lost your visitor's attention. The trick is to communicate the story in such a way that it activates people. Preferably, it has multiple layers, so that your visitors can approach it in several ways.

What is interesting about the subject?

## HEART

The heart makes a story feelable, it knows how to strike the right chord. Exhibitions may look appealing, be very interesting, address a major issue and yet they might still fail to move you. It's often the emotional aspects that hit close to home, redefining your relationship with the subject in question. WoWs are ideally suited for personal encounters. Due to their experiential nature, places are much better at making you feel something than words or images alone. Initiators have an endless range of channels at their disposal to connect with their visitors. It's important to be authentic, and everything that goes along with it. Showing openness and honesty allows for a much better connection than just telling any story.

What moves visitors, and how can we make it feelable?



## SOUL

Soul finally, relates to the personal relevance of the idea. It should create a sense of purpose and drive people to do the right thing. The question is: do they feel like it is a tool that can help them achieve what they believe is good? The soul originally represented the moral side of the story. In times past, Worlds of Wonder contained all sorts of guidelines for living a good life. Nowadays, we can decide for ourselves what is good and what is not; we've gained a lot of freedom and autonomy. It does not, however, make matters easier, as we all have to find out what is the best life for us. This has led to a great demand for life experiences that give meaning. WoWs contain small pieces of the answer. What matters is that visitors realise that their experiences are part of a larger whole.

Why is this topic meaningful for both the organisation and the visitor?





## UPLIFTING EXPERIENCES

All in all, you could say that we help people to move from one state in the wonder zone to another, sometimes by guiding them step by step and sometimes by enticing them to take a leap of faith. The end result is what you could call an uplifting experience: one that leaves you a bit 'elevated'.

The good thing about the word 'uplifting' is that it implies a positive outcome, but also a balanced approach: people are carefully lifted up from their daily experiences. Whereas creating WoW moments may feel like performing magic, designing uplifting experiences is like applying the art of wonder.



escape helicopter in Ronald McDonald house

Whereas creating WoW moments may feel like performing magic, designing uplifting experiences is like applying the art of wonder.





*“Experiences are as distinct from services as services from goods.”*

– Joseph Pine –

## 2.1 DESIGNING FOR THE EXPERIENCE ECONOMY

the added value  
of experience design

Experience design has the power to support organisations in expressing their mission. In museums and leisure venues, it supports the core business of inspiring and educating audiences. In other organisations, it helps raise the organisation’s profile and can play a valuable role in their public communications. In this chapter, we will explore these various roles in some detail, along with the economical added value of WoWs.

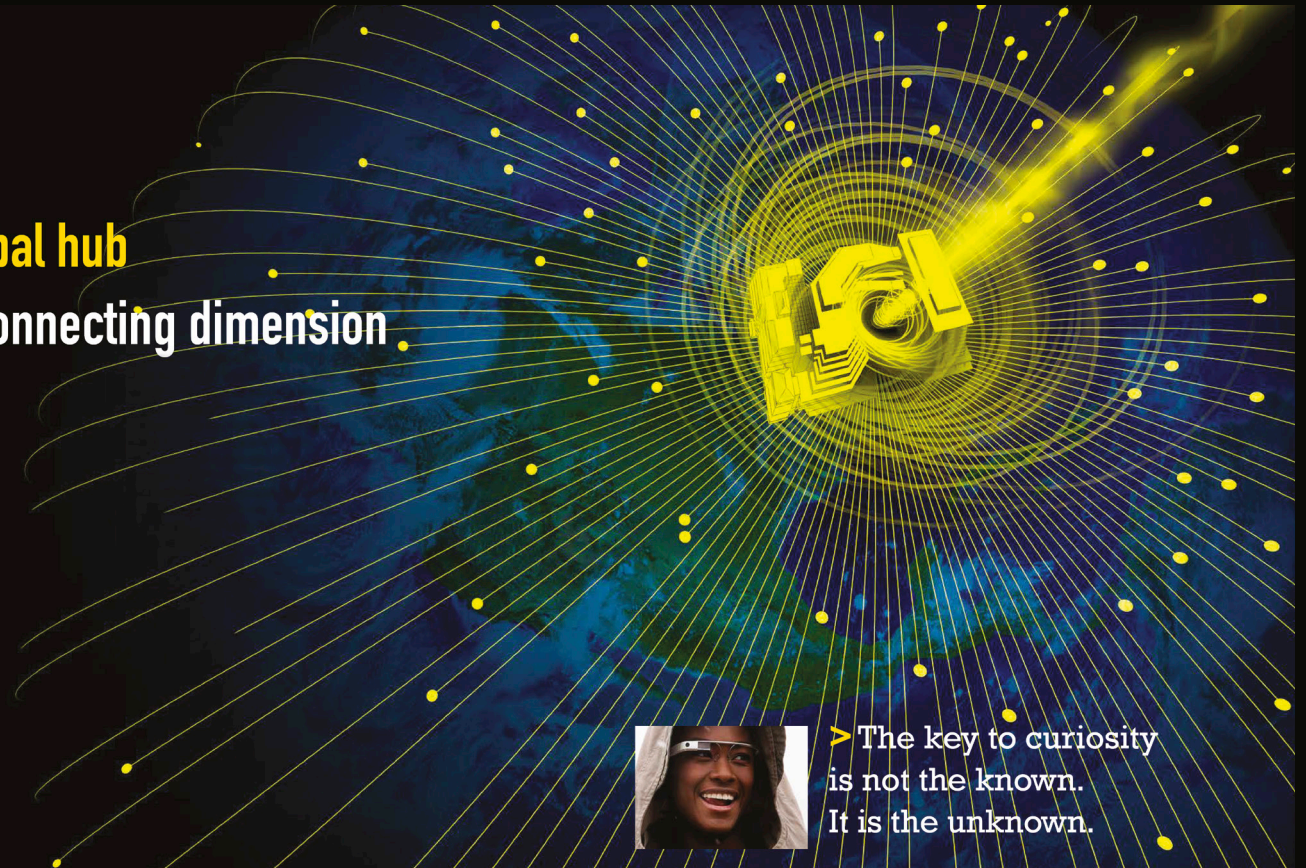




We're building a **campus** for those who have a **passion** for **adventures**, new **discoveries** and all things real and amazing.

We believe **anyone** can be an **explorer**. And all of us can make a **difference**.

a **global hub**  
the **connecting dimension**



> The key to curiosity is not the known. It is the unknown.

# case the evolution of curiosity

Everyone knows National Geographic. Some might know the TV channel, others might know it as the 130-year-old magazine framed by the well-known yellow rectangle. You might not know, however, that it's based on a real scientific society, which has its headquarters in Washington D.C.

It's a club of sorts, of which there were quite a few in the 19th century: societies of adventurous people who travelled the world to make discoveries. Most of these

associations have disappeared or have been swallowed up by universities over time, but the National Geographic Society is still alive and kicking.

In addition to publishing many magazines and movies, the Society finances research and expeditions. It is and has always been the Society's aim to promote public knowledge and understanding of geography and the world in general. They even do this in their own headquarters, where you can find the National Geographic Museum. By their own standards, this museum was far too static: it didn't do justice to the organisation's adventurous spirit. That is why we explored potential ways in which this museum could be expanded. A dream job for imagineers, especially considering the extremely high quality of the visual world created by this organisation.

The mission of National Geographic is to inspire people to care about the planet and to empower them to make a difference.

That's why we envisioned a transformational experience for its visitors, an exciting opportunity to engage in the brand and to empower themselves. Our canvas was the office building, to be recreated as a campus.

A journey through the National Geographic Campus is like the human journey itself: ascending from our deepest origins, spiralling up above and beyond, driven by an everlasting curiosity, a passion for adventure and a quest for the unknown. We envisioned a Maslow-like pyramid of exploration. From the basement to the roof, visitors experience for themselves the many Worlds of Wonder that have been brought to us by National Geographic. And who knows which ones are yet to be discovered?

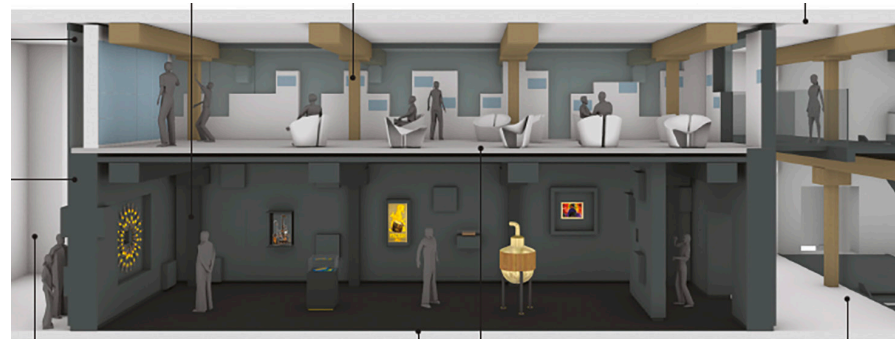


## FINAL DESIGN VALUE ENGINEERING AND ORDERS

During the final design phase, the design is made ready to be sent over to the construction parties, as samples are made for materialisation, construction and graphic design. This phase focuses on the material qualities of the experience. Prototypes can also be made in earlier design phases, but they shouldn't be postponed beyond this phase, as you still want to be able to adjust your design based on the test results. In some cases, future visitors are invited to be present during the tests, allowing for early visitor testing as well. In this stage, the client will be asked to choose between various materials and facilities. The budget becomes increasingly accurate, *but the budget determined in the very first phase is still considered the final total.* Because all parties involved are

familiar with this budget, they can keep making adjustments until their deliveries fit the budget: value engineering. Not a cent has been spent on production yet, however, this stage is all about planning & pre-production. Combining a budget that gradually becomes more accurate with delayed orders allows the client to stay in control, much more so than with a traditional tender method. Don't forget that you wouldn't have any information

about pricing until after this phase in a traditional tender! A final version of the item list is generated, consisting of the negotiated quotations submitted by suppliers. Because they are quotations, this should, in theory, be a 100% accurate budget in theory, adding up to the total budget specified earlier. Naturally, it's always a good idea to keep a 5-10% margin in mind. It is now time to start realising the design with reliable cost overviews and clear, detailed assignments.



## PRODUCTION PRODUCTION & COST MANAGEMENT

During the construction phase, the parties in charge of building the exhibition will share their drawings with the designer for a final check. The architect, experience designer and contractor will meet to coordinate the various processes and the client will check how the exhibition is progressing via Factory Acceptance Tests (FAT). This also applies to software, such as films, games and interactives. In theory, no more changes should be made to the budget at this point, as all suppliers should be expected to comply with their quotations. In practice, however, small expenses might arise, due to new, additional wishes or aspects that had previously been overlooked. It can therefore be a smart idea to reserve part of the budget for unforeseen changes,

made available only to the client and the project manager, who must consult with each other if they wish to make use of the budget (if either party is given free rein, this budget will soon be depleted). The construction phase ends with an on-site delivery, concluding with all contractors, the project manager and the experience or art director walking through the centre. During this so-called Site Acceptance Test (SAT),

a final snag list is drawn up, including all matters that still have to be completed before the delivery can be accepted. This, too, is in the interest of all parties involved, so it generally happens quickly. If all outstanding deliverables were already specified in the quotations, the snag list shouldn't have any consequences for the budget. And that's how you complete a project on budget.





