

TRANSFORMING IDEAS INTO REALITY

MUSEUM

Bring visitors into a dialogue with your collection.

We'll show you how.

TRANSFORMING IDEAS INTO REALITY SINCE 1995
werk5 | new craft

Optimist 007 Elements Sölden 2018



New Narratives

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Documentation Centre for Displacement, Expulsion, Reconciliation; Photos © Michael Jungblut

New Narratives

When exhibits turn passive viewers into active discoverers

The presentation and design of exhibitions and collections is becoming more and more demanding with the new challenges of digitalisation and the increasing diversity of visitors. New concepts are needed that can be used in both permanent and temporary exhibitions as and that add real value for the museum and the people.

We advise you on the planning of interactive exhibitions and inclusive exhibits - with an experienced eye on the respective location and the daily demands. By combining digital technology and tactile experiences, you can reach new groups of visitors and inspire your regulars.

In this way, your museum becomes an inspiring place for all people.



Exhibitions

One contact - unlimited possibilities

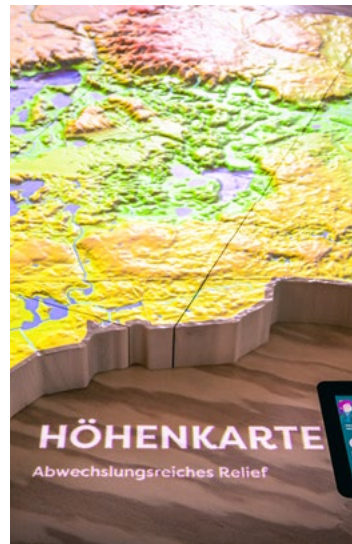
We take care of the project coordination and production of your next exhibition. In our competence cluster, we work together with specialists from crafts, UX/UI design, structural design and media technology to ensure that your next exhibition inspires.

Expedition Märkische Schweiz 2021

The exhibition 'Expedition Märkische Schweiz' in the Schweizer Haus in Buckow, co-conceived by BOK+ Gärtner, shows the richness of nature in Brandenburg's oldest national park. Interactive stations invite visitors to try out and discover: the topography model made of sycamore with front projection, the animal voice seating corners in the species diversity wall and much more.



Topography model made from sycamore with an intuitively controllable projection





Accessibility & Inclusion

Haptic navigation and tactile exploration of
your exhibition for more cultural participation

For your next exhibition, actively plan inclusive offers right from the beginning. This will create new perspectives on the familiar and attract more visitors.

With the #goinclusive initiative, we produce tactile exhibits, make orientation plans speak and ensure a balanced design of tactile and visual elements.

#goinclusive

An initiative by werk5

Ellen Schweizer | schweizergestaltung

Steffen Zimmermann, consultant for accessible design, didactics
and layout





Tactile Orientation

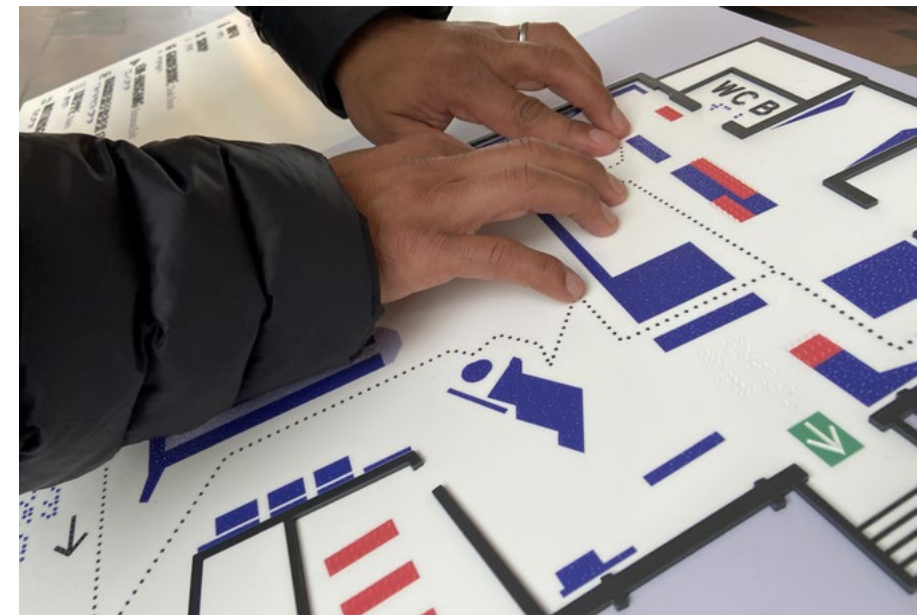
Tactile orientation plans made of hygienic CORIAN® are easy to disinfect and give people with impairments an overview of the rooms.

Equipped with audio feedback, a simple orientation plan becomes an exhibit that tells stories. Sensory points play audio content via a one-hand receiver when touched. In this way, your visitors learn exciting information about the architectural history of your building, the collection or the surroundings.

Braille & Raised Lettering

Various standards ensure optimal legibility of the tactile lettering: width, height and the correct spacing play a crucial role. We master them all so that the information you want to convey comes across successfully.

The typeface named after its inventor Louis Braille can be milled or printed, coloured or transparent - entirely according to your wishes.



Photos © Ellen Schweizer, schweizergestaltung

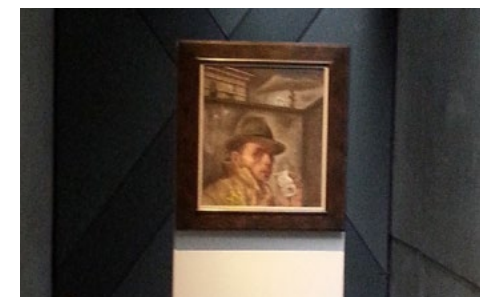


Photo © Hermann Pentermann

Tactile Images

What can you do as a Museum of Fine Arts for blind and visually impaired visitors, apart from audio guides?

Translate a painting into tactile terms with our experts from #go-inclusive. In a joint workshop, we will work out the essential content for 3D interpretation.





Tactile Exhibits

With a reproduction as a hands-on object, you protect the original and still make it tangible. Your object is 3D scanned, digitally processed and reproduced from hygienic material without damage.

Tactile Objects Deutsches Hygiene Museum Dresden 2020

The exhibition Future Food - Food for Tomorrow's World at the DeutschesHygiene Museum in Dresden shows the path of our food from farm to fork. Outstanding exhibits, such as the wild boar's head soup tureen, can also be explored as tactile exhibits by blind and visually impaired visitors.





The Lorm Alphabet Deutsches Museum Nuremberg 2021

How can AI improve the design of touchable exhibits? For the first time, an exhibit was developed for the Deutsches Museum Nuremberg that uses AI and sensor technology to make a new form of tactile learning possible - for humans, machines and the museum.

Visitors to the Deutsches Museum Nuremberg learn about the Lorm alphabet in two modes and see what they write on a screen.

In the 'Learn to write' mode, a word is copied using gestures, while in the 'Free writing' mode, visitors are allowed to try their hand at writing.

For this, each of the letters had to be 'learned' by the sensory system. In TEACH mode, werk5 staff repeated the gestures of the Lorm ABC until the the gesture library was complete.

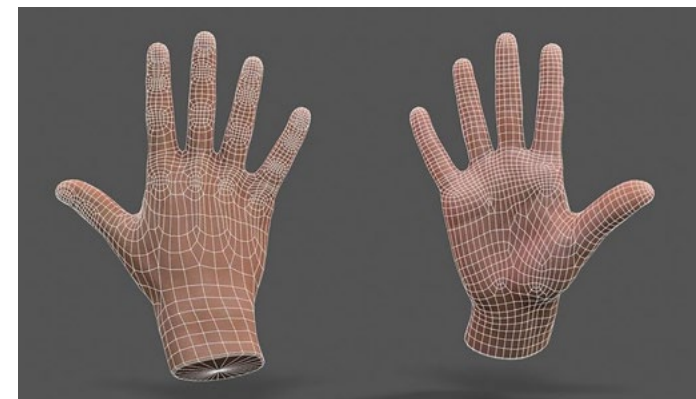
In the content management system (CMS), museum staff can also train the exhibit in TEACH mode to further increase the responsiveness and precision of the gesture recognition.

The collected data is read out via the CMS. The museum staff can then independently update the linked information via the CMS. What's more, the gesture library can be expanded indefinitely, because the sensor system can learn new gestures in TEACH mode. In this way, the exhibit remains adaptable and can also play a role in other exhibitions and contexts.

Interactive Exhibitions

Your exhibits tell the best stories!

With interactive worlds of experience, you create explorative journeys that remain in the memory for a long time. We make your models shine, expand reality with augmented & mixed reality and build hydraulic and kinematic exhibits that invite you to try them out. Artificial intelligence and our in-house development of the Multi-Sense Box make objects talk through sensor technology - with visual or auditory feedback.



Outdoor models

We protect your outdoor exhibits against weather and vandalism

Models of city quarters, excavation sites or historical places are the starting point for many guided tours that deal with the history of a place. In the process, they are exposed to wind and weather in the outdoor space.

Every material, whether cast bronze or CORIAN® , has properties that make it suitable for certain areas of application. Special coatings facilitate the cleaning of graffiti.

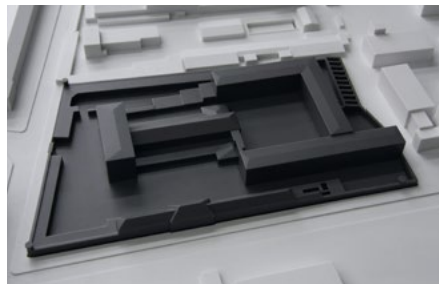
We advise you on the choice of the perfect material and scale so that your outdoor model can remain a long-lasting and timeless part of the exhibition.

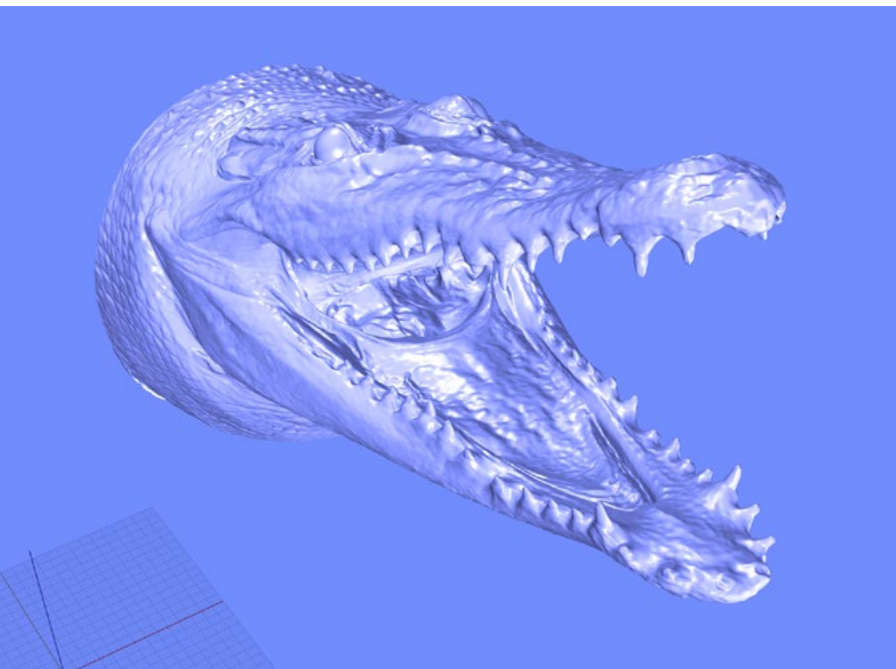


Memorial Berlin-Hohenschönhausen

The Hohenschönhausen memorial is located on the grounds of the former „Central Remand Prison of the State Security Service“.

An urban overview model of the site in 1989 was created in Corian® and ensures a lasting presentation in the outdoor space.





Saltwater crocodile Mediasphere For Nature 2019

As part of a cooperation project between Mediasphere For Nature and werk5, an original specimen of a saltwater crocodile was digitised by means of a 3D scan and reproduced as a full-size 3D model. Thanks to the built-in Multi-Sense-Box visitors learn more about the characteristics of the crocodile via audio feedback by touching one of the four sensory points.

Photo © Hwa Ja Götz, Museum für Naturkunde Berlin

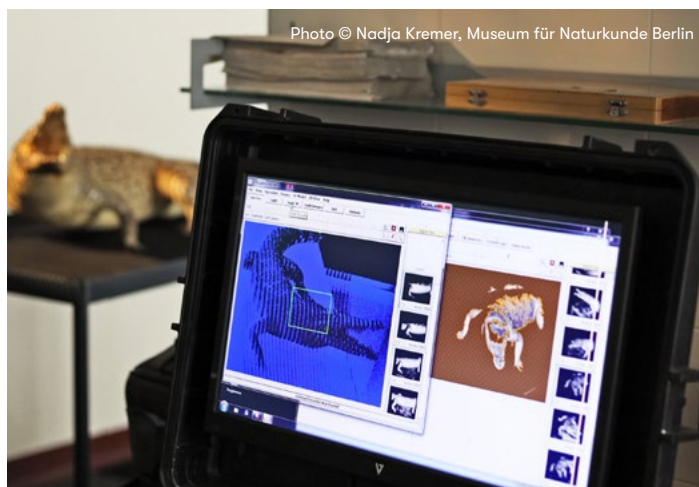


3D-Scan & Reproduction

Protect originals and show new perspectives for engagement with the exhibit

How does an original become a replica? Using a real-time 3D handheld scanner, we digitise your exhibits without damaging them or having to transport them. The precision of the scan data sometimes eliminates the need for time-consuming and costly CAD remodelling, thus speeding up the reproduction process.

Photo © Nadja Kremer, Museum für Naturkunde Berlin





Tombstone of St. Emmeram, Coelestin II Steiglehner Museum Regensburg

Not transportable, but so monumental that it is given a place in the House of Bavarian History in Regensburg: the tomb of the last prince abbot of St. Emmeram, Coelestin II Steiglehner. Therefore, it was digitised by means of a 3D scan, reduced in size by 15% and then milled from PU block material by a 6-axis robotic arm.

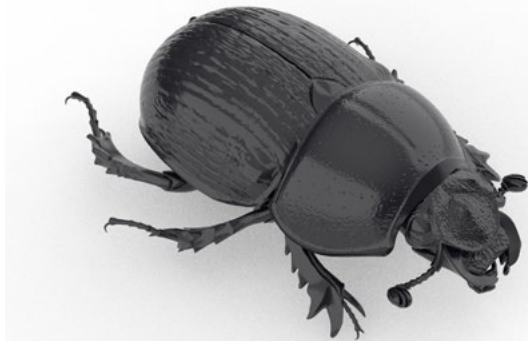


Research

Tactile Learning - how tactile exhibits become living memories of knowledge

Can the principle of the Lormhand, which uses artificial intelligence and machine learning, be transferred to other three-dimensional objects? In a project with the Museum für Naturkunde Berlin (MfN), the model of a forest dung beetle is now being given a voice by intelligent sensor technology.

3D-Modelling © werk5 GmbH



Insect model beetle

As part of its future plan, the MfN's collection will be made accessible in a sustainable way, i.e. conservationally secured, digitally recorded and made accessible for innovative uses. For this special project, expertise from entomology, the education department, the animal voice archive, the collection cataloguing team and the micro CT lab was used, coordinated by the team from the museum's own application lab Mediasphere For Nature.

The 3D model of a forest dung beetle from the entomological collection created at the MfN forms the basis of the project.

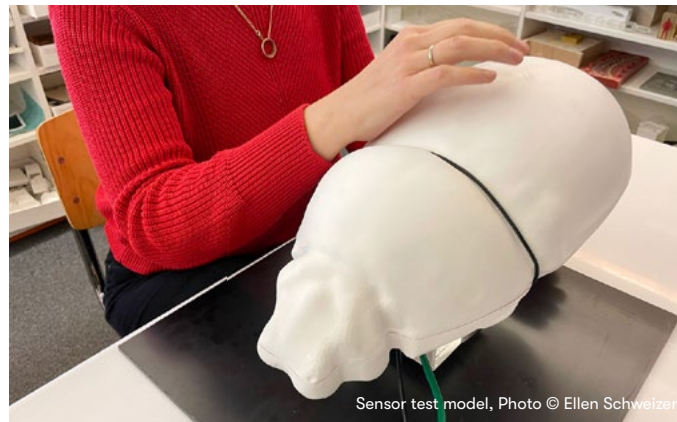
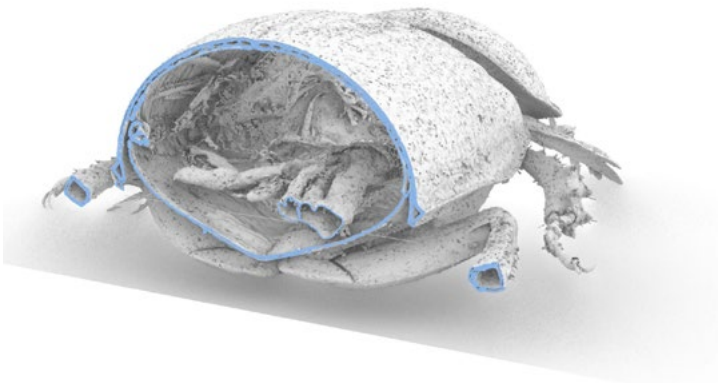
The enlarged tactile model allows people with visual impairments to discover the subtleties of the beetle's body structure that cannot be felt on the original animal.

The body of the beetle has been divided into five areas that provide specific information about the head, neck shield, cover wing, stridulation point and shell. The built-in sensor system recognises the controlled area and plays the desired information precisely. What's more, if the user leaves the defined area, the audio feedback becomes quieter. This is an important indication for people with visual impairments, who can thus better distinguish between the individual parts of the body.

For the development of the model, the gesture control and the audio texts, tests were carried out with the user group, which provided important findings for optimisation.

Expected completion: June 2022

3D-Scan © Museum für Naturkunde Berlin



Sensor test model, Photo © Ellen Schweizer



To realise your projects,
our interdisciplinary team
combines traditional
craftsmanship with
creative technologies.

Architecture, Design, Model Making, Communication, IT, Mechatronics, Electrical Engineering, Robotics

The strength of our team lies in the diversity of our employees, their trades and professions.

Our employees are comprehensively qualified and understand the practical implementation of projects as well as the planning of a project. Through the knowledge and qualifications of our employees, their imagination and courage to experiment, we succeed in integrating new technologies into our processes. In this way, we can offer you ever better possibilities for the realisation of your ideas.

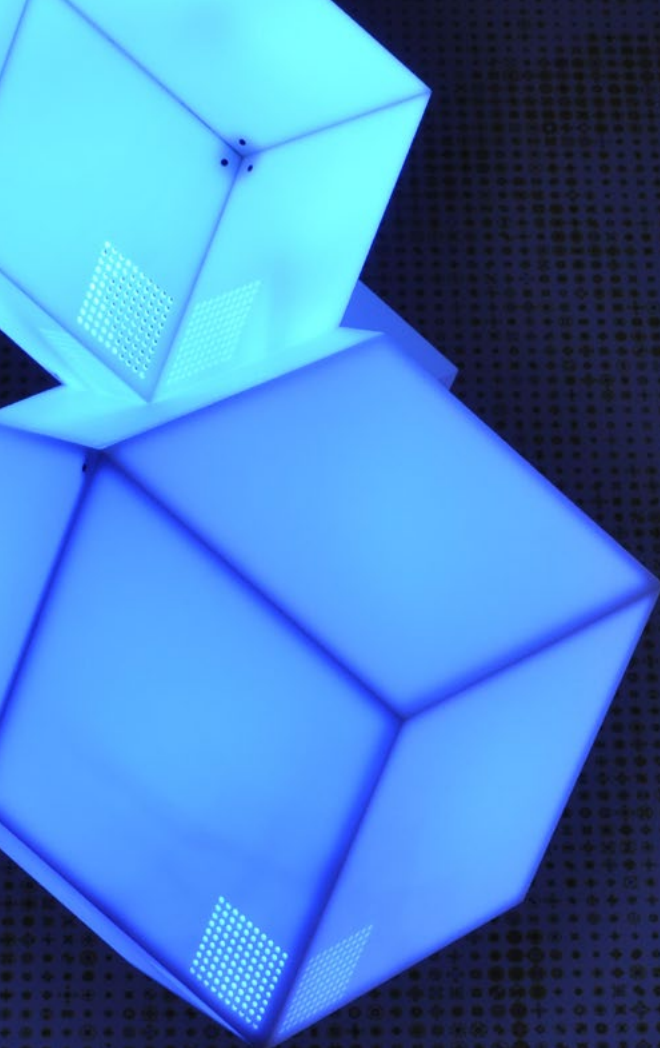
In our factory workshop in central Berlin, we realise your idea - from planning to production. Visit us on site to stay informed about the progress of your project and to look over the shoulder of our model makers at work.

Contact:

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Scan the QR code to take a look
at our workshop:





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