

Yet Another Try

For thirty years he has created hands on experiments and sold them around the whole world. Now, Joe Ansel has designed a science center in Wolfsburg. This week *phaeno* opens.

by Jana Schlütter

“Do you know you’re smiling?” When it comes to the effect of an exhibit, curator Joe Ansel watches every reaction of the visitor. If the visitor smiles it is good, because that means the experiment has done its job. Even if the exhibit looks simple: a picture on the wall which appears to have an even grey surface and a “horsetail” of doll’s hair hanging in the middle of it. If you lift the ponytail up, you notice an optical illusion: the assumed even grey surface turns into two surfaces, on which the grey gets slightly darker to the left side. Only now you see the very noticeable border in the middle.

For Joe Ansel guiding journalists through the exhibition is part of the final spurt just before the opening. Because here, in Wolfsburg, the biggest science center in Germany will open this week: *phaeno*. The city of Wolfsburg spent 79 million euros for the terrific building, from the architect Zaha Hadid, and the exhibition inside. Since 1999 Joe Ansel has planned the exhibitions and spent about 100 days a year in this German province. The American from Philadelphia, who speaks only a little German, thinks that the word “science center” doesn’t translate into German very well.

“Wissenschaftszentrum” sounds like a research center and the linguistic alternative Wissenschaftsmuseum implies display cases. Both are misleading. He doesn’t like the name “curator” either, “A curator tells people what not to do. I do the opposite.”

Within the 7,000 sq. meter exhibition are some spectacular attractions: a fire tornado, similar to the fire vortexes which sometimes occur naturally in bush fires, *phaeno’s* 5 meter high version burns in a controlled fashion. Or a “flying” magic carpet supported by pressurized air. But it seems these dramatic exhibits don’t need any publicity. Ansel prefers to show his visitors rather classic exhibits, of which he has developed about 125 in the last twenty years. Like old friends, “horsetail” and other pieces move with him: from the Exploratorium in San Francisco, the birthplace of “touchable” science, to other different American museums, to New Zealand and now to Wolfsburg. They are selected, refined and rebuilt anew. About one third of the 250 experiment stations and artworks at *phaeno* are one of those long lasting copies.

Another Science Center Clone? “You know one you know them all!” Joe Ansel doesn’t like this sentiment. If the food in a restaurant were extremely delicious, he argues, nobody would think: “We shouldn’t go there again.” Science centers can be enjoyed over and over again. And of course he has had a look at the other science centers in Germany. For example, neither

Universum in Bremen nor **Phänomenta** in Flensburg, is as big as **phaeno**. And with 80 million Germans, he comments, there is still a lot of room for additional science centers.

The problem with a lot of international science centers is that they try to invent the wheel again instead of using proven concepts. The result: expensive “theme worlds,” which seem depressingly unreal because, expensive as they may be, there is rarely enough money to do the job right. One gets a bit of interaction via push buttons, and a dazzling design which in the end only host a computer simulation.

“Lift up this disk.” Ansel guides his visitor. Out of an open ended, downward facing pipe comes air, which hits a big round, plate-like plastic disk and pushes it down. “Higher!” And all of a sudden, just half a centimeter from the opening of the tube, the disk begins to float – even though the air flowing down should push it down. “How come?” Ansel laughs. “ You want to know, right?” “Yes” is the reply. “You really want to know!” “Yes, please!” Again the reply “**phaeno** works!” (Ansel proclaims).

Negative pressure over the disk is responsible for this, he explains, but actually using the exhibit isn’t about answers. It’s about discovering real phenomena – that’s where the name comes from – about curiosity and about questioning. The answer is something you can read in every library. Assumed you have asked one of the museum’s staff for the technical foreign word under which you can look it up in an encyclopedia. The very few sentences on the instruction panels next to the exhibit don’t tell it to you.

Not even Ansel wants to know the explanations up to the very last detail, he isn’t a scientist, he is a practical inventor. Physics in school was OK, but the now 57-year-old man, reports he preferred to work on bikes, cars and motorcycles. In addition to his management studies at the University of Santa Clara, California he built stage sets and dance stages, which were springy enough for ballet dancers. After his studies, he decided for good against a business career. Instead he became an aeronautical technician for Lockheed and investigated the fuel floor of rockets in low gravity conditions. Then 1972, he met Frank Oppenheimer. Oppenheimer worked along with other scientists, under the leadership of his older brother J. Robert Oppenheimer, on the Manhattan Project--the project to invent the atomic bomb.

This little elderly man opened in 1969 one of the first science centers worldwide in an old exhibition hall and prepared the path for the hands on science movement. Nowadays most every major American city has their own science center. Worldwide there are about 1,000. The first time Ansel came out of the clean Lockheed laboratories to the chaos of the early Exploratorium, he was quite irritated. When one of Oppenheimer’s artists in residence first asked him to solve a very bizarre problem, he just thought: they are all mad! After studying philosophy, and some interim jobs, he remained part of the experimental Exploratorium – in time the creative atmosphere of the exhibit builders, artists and scientist totally infected him.

Artists have a different view on science, he says. They open up surprising perspectives. "Come with me!" Ansel hurries to one corner. Behind an inconspicuous red PVC curtain, in flickering stroboscopic light, whirls a cylinder covered with surreal objects. The viewer's brain assembles these moving images into a 3D movie: Out of a paint can ascends a brain, which becomes an egg, out of the egg grows a hand, the hand holds a hot dog and drops a piece of wrapping paper, the piece of paper becomes a rose and lands on the ground. Unintelligible, but beautiful. "I guarantee you, that children will shout to each other that they have to see that strange thing in the corner", Ansel comments. "But before that they have to pass other exhibits."

This kind of visitor guidance has logic. The exhibits are arranged according to topics such as Energy, Light and Seeing, but they are arranged so that the themes are intuitive. There are no fixed routes. And to aid orientation, among the caves, craters and various levels of the architecturally challenging exhibition space, highly visible attractions are placed in the building's corners.

"Would you like to make an echo?" Ansel gazes over the experiment stations. "You can also make fog or test your own reaction time." "The art of designing an exhibition like this is not only to choose interesting exhibits." Ansel says, "But you need to understand them, do they break easily, can they tolerate big visitor flows and is it easy for the staff to repair and change them?" Ansel got this knowledge working at the Exploratorium, where he led the exhibit-workshop from 1974, until he became a member of management in 1982. In 1992 he founded his own company – one of the very few companies, which can seriously plan such a big exhibition, he says.

Sometimes an exhibit is right out of every day life – out of one's own everyday life. "Did you see that exhibit over there?" Without waiting for the answer he goes off. On an experiment table sits a small track. On the track, white and blue foam disks zip around, supported and pushed forward, by air gushing from tiny holes in the track. As more foam pieces are laid on the track, a "collision" occurs and a "traffic jam" forms. This exhibit was born on the A2 autobahn. Ansel once sat in a traffic jam for two hours, after a rear-end-collision, before the traffic started to move again.

DIE ZEIT 24.11.2005 Nr.48 (Translation by Dorit Pointer and AAI)