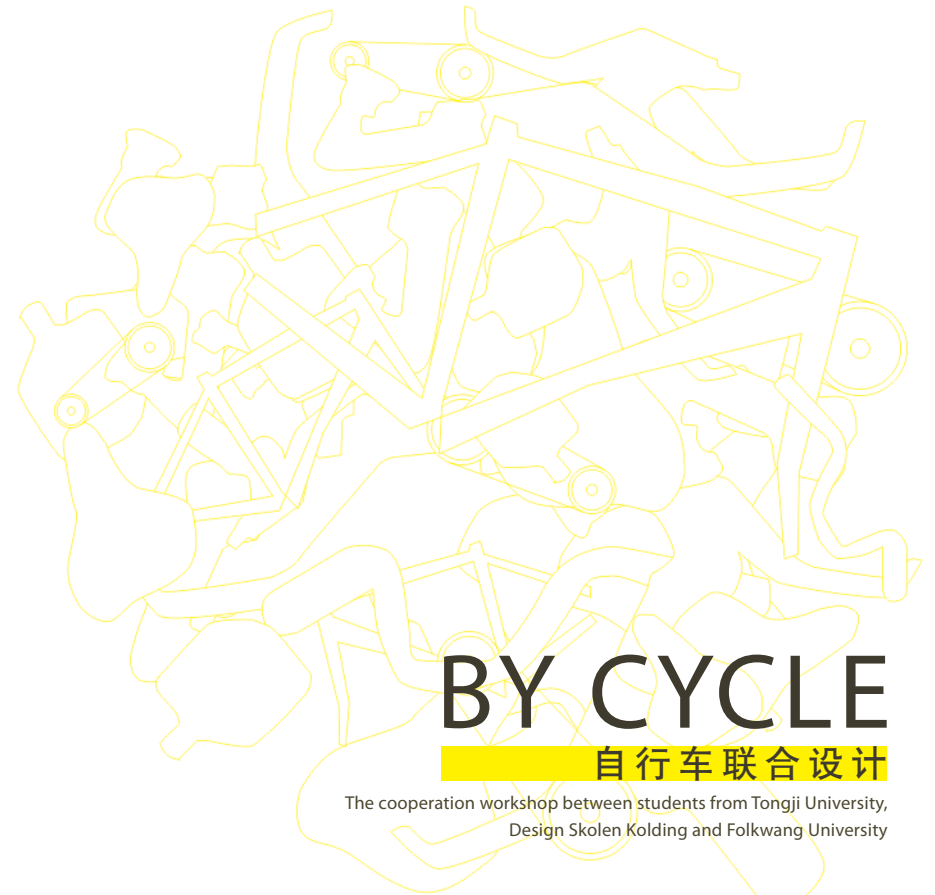


BY CYCLE

自行车联合设计

The cooperation workshop between students from Tongji University,
Design Skolen Kolding and Folkwang University

杨文庆 刘力丹 主编



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EVERY
YOU
AND
EVERY
ME

PRELUDE

Dear all

This book is about the cooperation workshop (BY CYCLE-EXPO BIKE) between students of Industrial Design from Tongji University, Design Skolen Kolding and Folkwang University.

International cooperation & sustainable design is the theme of this Expo bike design project.

From the very beginning of this project, we knew that we would face a big challenge in the following 4 weeks. Cooperating with students from different cultures would be a completely new form of design practice. With a little nervousness and longing for the future, we started our journey of design work.

Although it's great that we do not have so many problems with communication, differences in both design concept and mode of thinking may lead to a divergence in design works. We all acquired a lot from group discussion and cooperation. At the Forever factory, we realized the process of large scale manufacturing for the first time. Sheet metal and iron tubes finally became 15 finished bikes after bending, grinding and polishing. With the advice of teachers, the help of workers in the Forever factory and self endeavor, we presented 15 bikes and 4 interaction prototypes in just 30 days.

This book is a collection of our works. And it is a collection full of innovation, persistence and strength and represents the friendship between students from China, Denmark and Germany. Our innovation and friendship will never end.

这本书是介绍关于来自同济大学工业设计系、丹麦Kolding设计学院和德国Folkwang大学的合作项目-世博自行车联合设计。

国际交流合作，绿色可持续性设计，是这次上海世博自行车联合设计项目的主题。整个项目分为工业设计和交互设计两部分，进行了针对特定使用人群的自行车设计和整个世博园区自行车交互系统设计。

从接到这个项目的开始，我们就知道未来这四周将会接受到前所未有的挑战。对于所有同学来说，都是一次少有的跨国的团队合作经历。面对着文化背景与思维方式完全不同的外国友人，在激动的同时一切仿佛都是未知数。我们就这样满怀憧憬与期待，展开了为期一个月的设计历程。

来自不同国家的同学们在各自团队中秉着友好合作，互相学习的原则，经过了概念确立、草图深化、建模渲染、结构分析等一系列过程之后，在永久工厂接触并参与了自行车生产的过程。一个月的时间里一根根钢管，一块块铁片，在我们的手中脱胎换骨，我们也同时走完了一个造梦的旅途。

在此，我们要感谢悉心教导我们的6位中外导师的倾囊点拨；感谢为我们实现设计的永久工厂的师傅们的无私帮助；最后也要感谢我们自己，在不断地挑战与完善当中实现了团队合作的价值，在短短30天内打造出15辆自行车和4件交互作品。

这本书凝结着大家的智慧与心血，蕴含着合作的力量，坚持的力量，创新的力量，它不仅仅展现了我们的设计成果，更是所有参与本次项目的中丹德三国师生友谊与创造的见证。

PREFACE

Prof. Lou Yongqi Vice president of College of Design and Innovation, Tongji University

娄永琪 教授 同济大学设计创意学院副系主任

Since December 2009, the climate conference has made Copenhagen a focal point of the world.

At the same time and in the same city, the opening ceremony of the exhibition on “Expo Bicycle” took place; a joint workshop with collaborators from the College of Design and Innovation, Tongji University, Design Skolen Kolding, Denmark, as well as Folkwang Hochschule, Germany.

Organized under a common interest in sustainable design, the workshop lasted for 2 years, from preliminary design through realization. In Chinese, bicycle is translated into “Zi Xing Che”, which is literally translated as “self-powered vehicle,” or, in one word: “automobile”. This semantic relationship appropriately suggests that, in many circumstances, the bicycle acts as the automobile of choice. In September, 2009, 50 teachers and students from Kolding, Tongji and Folkwang met in Tongji and began exploring the possibilities for this sustainable method of transportation by means of design.

With strong support from the “Forever Bicycle Company,” 54 students and 6 teachers from 3 countries worked together for one month, shoulder to shoulder, to complete the design and production of 15 bicycles and 4 interactive works. Their works were featured in the “DESIS Exhibition on Social Innovation and Sustainability” during the Fourth Shanghai International Creative

Industry Week. The combination of a low-carbon theme, international cooperation, academic guidance, enterprise investment and social promotion have propelled the achievements of the project far beyond the scope of ordinary academic collaboration. In contrast to the quarrelsome, disorderly operations of the Copenhagen conference, the creativity, passion and sincerity of the young designers in dealing with crisis and searching for solutions have reinforced Copenhagen as a symbol for positive change.

Last but not least, as the initiator of the workshop, I would like to express my cordial gratitude to Prof. Elsebeth Gerner Nielsen, Rector of Design Skolen Kolding, Prof. Kurt Mehnert, Rector of Folkwang Hochschule, Prof. Pei Gang, President of Tongji University, Prof. Chen Xiaolong, Vice President, Prof. Wu Zhiqiang, Assitant to President, Mr. Chen Shan, Chairman of Forever Bicycle Company Limited, Mr. Zhong Ming, Deputy General Manager, Mr. Chen Rong, President of Zhonglu Co., Ltd., Mr. Chen Haiming, Deputy General Manager, as well as the teachers Wenqing, Lidan, Kent, Barnabas, Michael and all the students involved in the workshop. Without your help and support, the achievements recorded in this book would not be possible!

It is an era of collaboration. Thanks to the collaboration, we will certainly walk (and bike) much farther!

2009年12月，气候峰会使哥本哈根成为世界的焦点。同一时候，同个城市，同济大学设计创意学院、丹麦Kolding设计学院和德国Folkwang设计学院最新合作成果“世博自行车”展览在市中心拉开帷幕。

这个合作项目从筹划到实现，前后经历了2年，缘起是因为对可持续发展的共同兴趣。Bicycle中文译成“自行车”；而“自行车”的英语直译，却是“Automobile”。于是，Bicycle=自行车=Automobile，通过“自行车”这个中介，Bicycle在某种程度替代Automobile在算式上符合了逻辑。09年9月，Kolding、同济以及Folkwang的50名师生们终于相聚同济，开始了通过设计探索这一可持续交通方式的更多可能性。

在永久自行车股份有限公司的大力支持下，3个国家、54名学生、6名教师并肩奋战了1个月，最终设计并制作完成了15辆自行车和4个互动作品。作品在第四届上海国际创意产业周“DESIS社会创新和可持续设计展”首次亮相，便引起了广泛的关注。低碳主题，国际合作，院校引导，企业投入，社会推广……，使得这个项目的意义远远超出了学术合作的范畴。与哥本哈根峰会的纷争、杂乱、妥协和无奈相较，年轻设计师们应对危机的策略中所体现出来的创意、热情和真诚，使得哥本哈根作为转折点的象征意义变得不再虚幻。

最后，作为这个合作项目的发起者，在本书即将付

梓之际，我要最诚挚地感谢Kolding的Elsebeth校长、Folkwang的Kurt Merhnet校长、同济大学的裴刚校长、陈小龙副校长、吴志强校长助理、永久的陈闪董事长、钟明副总经理、中路公司的陈荣董事长、陈海明副总经理、以及文庆、力丹、Kent、Barnabas、Michael等教师们和所有参加这个项目的同学们。失掉了任何一方的努力和支持，这本书所记录的成果都将无法产生！

这是一个合作的时代，因为合作，我们必将走得更远！



Prof. Lou Yongqi / 娄永琪 教授
Vice president of College of Design and Innovation
Coordinator of DESIS-China, Network on Design for Social Innovation and Sustainability
同济大学设计创意学院教授、副系主任
DESIS-China, 中国社会创新和可持续设计联盟总协调

Prof. Elsebeth Gerner Nielsen

Rector of Design Skolen Kolding

Elsebeth Gerner Nielsen 教授 丹麦Kolding设计学院院长

The future is not what it used to be. If we continue wantonly using the Earth's resources to the same extent we have for over the past 100 years – there will not be a planet for those who succeed us!

How do we deal with this challenge? And how do we do so without creating resistance? These are questions we take very seriously at Design Skolen Kolding.

There is no easy answer to these questions. But part of the answer is undoubtedly good design; design that makes it easy and attractive to do what is best for the environment. This notion is what motivated the design project just concluded by students from Tongji University, China, Folkwang Hochschule, Germany and Design Skolen Kolding, Denmark. We have designed bicycles and created different types of service designs to help cyclists find their way, or to support them in their desire to cycle.

One of the services our students have performed is a bicycle tyre with stamp-like features: when you cycle through water – the tyre “imprints” a poem on the ground. This is a way of sending a friendly message to your fellow human beings.

We must become better at analysing users' passions and viewing these in relation to the whole of which the user is a part. And what is more: we must also become better at bringing in knowledge of investors – i.e. all those who will help carry a product to the market. For this project we had the honour of working with China's largest bike company: Forever.

未来并不等同于过去是怎样的。如果我们像在过去的100年中一样，继续肆无忌惮地使用地球的资源，那么，将不会有任何星球能让我们居住。

我们应该如何应对这个挑战？在不产生新的阻力的情况下，我们该怎么做？这些问题在我们Kolding设计学院都会被认真对待。

这些问题都没有简单的答案。但是毫无疑问，部分的答案就是好的设计。设计能够既简单又有吸引力的去做一些对环境有益的事，正是这个理念使得来自中国同济大学，德国Folkwang大学以及丹麦Kolding设计学院的学生进行这个设计项目。我们设计自行车，创造出各种不同类型的设计，让骑自行车的人们找到他们的生活方式，激发他们骑自行车的渴望。

我们的学生们所做的项目之一就是使自行车的轮胎有印章一样的特点：当你骑车时经过水时，轮胎就会在地面上“印下”一首诗。这是向人类展示友好的一种方式。

我们需要更好地分析使用者的喜好，更好地把这些视作用户联系的一部分。此外，我们必须更好地了解投资者，也就是那些所有帮助把产品推向市场的人。而在这个项目上，我们有幸和中国最大的自行车公司：永久自行车有限公司一起合作。



Prof. Elsebeth Gerner Nielsen
Rector of Design Skolen Kolding
丹麦Kolding设计学院院长



www.designskolenkolding.dk

Prof. Kurt Mehnert

Rector of Folkwang University

Kurt Mehnert 教授 德国Folkwang大学校长

Unfortunately the label “Made in China” in Europe mostly stands for the reproduction of innovative western products. Watching the development of China today, it is proceeding with breathtaking speed. Not only scientific and technological progress can be witnessed but also an extremely strong will to design independently on a high level.

Within a very short time “Design” has turned into one of the most favored disciplines at Chinese universities. Chinese industry developed a new sense for quality and a good understanding of design.

With four students of the Industrial Design Department of Folkwang University we followed the invitation of Tongji University to participate in the international project “Expo 2010-Bicycleworkshop” with great pleasure and enthusiasm.

Innovations mostly develop through cross-disciplinary exploration. We were very curious to witness what the synergy of Chinese, Danish and German design education in collaboration with the leading Chinese producer of bicycles “Forever” would be like.

The excellent impressions and results pointed out the importance of cross-disciplinary, international projects right before the eye – in the very sense of the word.

I would like to thank our hosts for the extraordinary hospitality and all participants for their great dedication. For the future I would hope for further opportunities for collaboration.

遗憾的是，“中国制造”的商标在欧洲主要意味着是西方创新产品的复制品。现在的中国已令人惊叹的速度发展着，不仅仅是科学技术上的进步，而且中国有强烈的意愿在高水平上进行独立设计。

在很短的时间内，设计已经成为中国大学中最受欢迎的学科。中国的工业推动了质量意识以及对设计的理解力。

我们收到同济大学的邀请，派了4名工业设计专业的学生来参加“2010世博会-自行车工业设计”的国际项目，对此我们感到十分高兴与欣喜。

创新主要是通过跨学科的交流产生的。对于中国、丹麦、德国之间设计教育的协同作用以及与中国最重要的自行车生产商“永久”之间的合作进展，我们感到十分好奇。

这个显著的迹象及结果从某种意义上表明了跨学科交流、国际项目的重要性。

我要感谢主办方的热情款待以及所有参与者做出的巨大贡献。我希望未来能有更深入的合作。



Prof. Kurt Mehnert
Rector of Folkwang University
德国Folkwang大学校长



Folkwang University www.folkwang-uni.de

Cycling is more than just transport

Reflections and perspectives for a study process in the design of bicycles

By Elsebeth Germer Nielsen
Rector, Design Skolen Kolding

Many are involved with this type of design research, including Design Skolen Kolding. Not long ago, Design Skolen Kolding initiated a major user-driven innovation project concerning electric cars. Our goal is to establish what it would take to get users to replace a petrol car with an eco-friendly electric car. We are quite certain it will not just happen spontaneously. Although electric cars are not noisy and do not pollute, it is by no means certain that users will simply take to them.

At the outset of this project, we created a large anthropological field study during which we followed 50 motorists for one day. We drove with them. We talked, helped, ate and drank, went shopping, had breaks, worked, refuelled, charged, washed and walked with them. We looked, filmed, took photographs, listened, asked, perceived, guided and surveyed. We saw their living rooms, gardens, family photos and, of course, their cars.

Subsequently, research scientists, students, designers and the project partners analysed the results and developed 85 new ideas for services, gadgets and products that can help make the electric car a success. A design method called "participatory design".

Based on the field study, we developed:

7 different archetypes or personae:

1: The status seeker – for whom the car is a status symbol

2: The pragmatist – for whom the car is a marriage of convenience

3: The rationalist – for whom the car is an implement and a work tool

4: The design lover – for whom the car is an aesthetic project

5: The city bohemian – for whom the car is a trendy rebellion project

6: The environmentalist – for whom the car is an ethical project

7: The technology enthusiast – for whom the car is a hobby project

One example of how we might work with these personae:

Characteristics – the status seeker:

- views the car as a status symbol; places importance on the extraordinary, on exquisite quality and on good provenance

- values are individualism, freedom, independence, personal initiative, decisiveness

- unabashed bon viveurs

- is not interested in nature for nature's sake. Buys organic products, possibly because they are healthier than conventional products.

Portrait of a status seeker: Rashid, an estate agent, divorced and the father of two young children. Currently driving an Audi A4:

"If I fall in love with a car, I just have to have it," he explains, adding: "I could happily keep the same sofa for 10 to 20 years. But women and cars ... I change them. If I can't have the one, I'll have the other. My marriage lasted 6 years. But you'd be amazed at the number of times I changed cars during that time."

From the analysis of the status seekers, we have identified several design principles that should be respected - if the goal is to convince the status seeker that he must buy an electric car.

Six overarching design principles for designing products, communication and/or services for a status seeker.

1. Materialism

A status seeker derives genuine pleasure from material things, and consumption is very much motivated by the desire for self-pampering or reward. It is therefore vital to offer a continuous supply of stylish selections of luxury goods. Preferably products that relate to classic consumer goods and makes and always good quality with an exclusive finish.

2. Results and progress

A status seeker's consumption has to convey relatively clear signals that he/she leads a privileged lifestyle with emphasis on results and progress. A car must be recognisable to others as a status symbol, and it should convey strength, dynamic and exclusivity. The environment and ethics are not good enough arguments.

3. Good for the career

A status seeker's career is central to his/her life and self-image. The result of the career must be discernable in the things the person surrounds himself/herself with. This could mean that gradations could be a good idea, with options for standard, silver and gold category purchases.

4. Specially selected

It is vital to give consumers in this segment a feeling of being set apart from others. A special offer for a status seeker cannot be for everyone, but it could be a special offer to belong to a particular club, and it should preferably be made clear to all that not everyone can be a part of it.

5. Technical aids – not technical challenges

The status seeker is "plugged-in" and dependent on being "connected". But in an established way that does not leave room for irregularities. Use of technology must be "delicious and smooth, thoroughly tested and safe", without unforeseen surprises or challenges.

6. A classic feeling of control

The status seeker enjoys what are familiar and recognisable signals. Refers to and subscribes to symbols that are exclusive in other contexts instead of thinking completely out of the box.

Differences between male and female

In addition, it is important to note that there are differences between male and female status seekers. With regard to cars, women are concerned with good interior materials, sophisticated solutions, and a car that is simple, very reliable and that makes you look good. Men are concerned with engine power and extras such as aluminium rims, leather trim and steel, as well as electronics. Both consider it important that the brand is renowned for its exclusivity.

No matter whether the status seeker is male or female, we cannot convince him or her to buy an

electric car because it is good for the environment. Much more is required. This is unlike some of the other archetypes of whom the Environmentalist, for example, would be prepared to buy an electric car – even if it costs more than a conventional car.

Bearing in mind what we have learnt about motorists and their views concerning transport, Design Skolen Kolding is now proceeding to develop different prototypes – i.e. proposed design solutions, and these will be tested among users in the form of new studies. Once we know how users react, we will work with them to try to design even better solutions. At the same time, we are initiating new studies to identify aspects such as town planners' and car dealers' views of electric cars. Perhaps there will be barriers here which we can also find solutions to.

Thus, in undertaking the electric car project, we endeavour to gain as much knowledge as possible about users and about the market, while also involving end-users and companies in the design process.

This way, we are turning the relationship between customer and producer upside-down: The customers themselves become producers. They help to create their own consumer products and services.

Everything to do with the projects takes place in collaboration with more than 15 different companies (e.g. Peugeot, Statoil, and DONG Energy) because it is our clear goal for the business community to benefit from the know-how and design solutions we generate.

We do not expect or attempt to design new electric cars. We seek to design the value chain that can help to make the electric car a success. We think

more in terms of systems than individual products.

The electric car project is an example of how we can apply knowledge of users and of the market to design products and systems that hit the spot.

You can read more about the electric car project at www.etrans.dk

The project is supported by The European Community and The Region of Southern Denmark.

Looking back and ahead

If the question is: How can we solve the environmental problems of the past while also promoting welfare? – Then the answer to the question is: Create design in which the user and knowledge of the user are important elements. Create design which is rooted in the user's passion – his dreams and subconscious needs – and put into a social context.

In my opinion, the bicycles and the bicycle design that Chinese, German and Danish students have created are a very good example of how design can contribute to solving the major challenges that humanity and the planet face; a real and concrete contribution to the agenda which both the United Nations Climate Change Conference in Copenhagen and Expo 2010 should address.

Let me use this opportunity to thank my dear colleague, Professor Lou and his staff, for all their efforts to make this project possible! Thank you so much for your cooperation; for knowledge sharing across cultures,

nations and systems! We will continue on with new projects. Next time with more emphasis on research, more user insight, more business involvement and at the same time drawing on Tongji University's knowledge about urban design and Design Skolen Kolding's knowledge about user-driven innovation. Our next project must be more holistic and more scientifically based. The bike project was a beautiful beginning.



32=15+4

同济、Design Skolen Kolding、Folkwang 的自行车 workshop

By Yang Wenqing
Docent, College of Design and Innovation, Tongji University
杨文庆, 同济大学设计创意学院讲师

Workshop 已经过去一段时间, 现在再来总结那 33 天可能更加客观和冷静。所谓时过境迁, 当时觉得“如花”的东西, 后来越看越觉得就是一坨屎。所以一直奉劝学生不要固守己见, 要学会对自己说“NO!”。这并不不会影响学生的自信心, 反而会让学学生变得成熟、冷静、处变不惊。由于选择是出于自己的理性思考, 更会增强学生自己的设计判断力和自信心。简单回顾一下这次 workshop 的得失和问题, 希望能对同仁和学生提供有益的借鉴作用。

永久的进入

暑假接到课题时, 只有一个模糊的“世博自行车”的概念。丹麦的 Kolding 设计学院表现出了强烈的合作意愿, 他们很满意这样的课题, 并希望设计的自行车模型能够在明年上海世博会展出。这对于北欧小国来说可能并不是没有可能, 但也充分暴露出丹麦人太真和对中国的不了解, 这种情况会在后面的合作中一而再, 再而三的出现, 并时不时的升级为“文化间的冲突”, 很多时候“沟通”成为这次合作的重中之重。丹麦人一直对自己的动手能力很有信心, 所以最为关心的就是学校工厂间和设备的咨询。同济工业设计没有自己完备的工厂间是从所周知的, 估计这是那些欧洲人做梦也想不到的, 幸好娄永琪老师落实到上海永久自行车公司为本次 workshop 提供模型制作的支持, 现在想来这的确为模型工作的顺利完成提供了

保障, 只是当时并没有意识到这一点。永久和同济在这以前并没有什么合作, 除了对这个昔日的上海自行车名牌有所印象, 对于永久企业一无所知, 通过几次会议和交流反而为后期的工作感到担忧, 永久作为一个自行车制造工厂, 虽然有着完善的自行车制造专用机械和熟练的工人, 但并没有一个独立的样机制作工场, 也没有专业样机制作人员, 所有的配置都是为了生产。在不影响生产的前提下尽可能的提供一切帮助, 是永久给我们的最厚实的承诺。可想而知, 这对没有任何制作经验的同济学生来说是雪上加霜, 但远在千里之外的丹麦人对他们学生的动手能力还是一如既往的乐观, 虽然他们并不知道等待他们的是什么样的状况。知道后来我才明白他们的信心是有道理的。

9月14日 - 9月30日

Kolding 派了 4 位指导教师和 25 名学生来上海 (15 名工业设计学生和 10 名交互设计学生), 可见他们是相当重视这次的 workshop。教师分前期设计概念指导和后期模型指导两批交替而来。最先碰到的就是 Barnabas 和 Michael, 欧洲的老师都比较有特点, 而 Barnabas 可以用极富表现欲来形容, 每天上午上课前的各种 warm-up 健身活动很富有煽动性, 即使是内敛的中国学生开始也扭动起来, Barnabas 是来指导丹麦的交互设计的学生, 对于同济的学生来讲还是第一次接触, 可能是 Barnabas 的具有吸引力的风格加上对模型制作的恐惧, 他的交互设计课题也吸收了不少中国的学生。因为我们在前期 Email 中已经决定了设计都是以小组的形式展开, 每个设计小组必须是丹麦学生和中国学生混合组成。刘力丹、Michael 和我则负责去啃那块硬骨头。

三个相互陌生的群体要在这 33 天内去完成自行车设计到模型 (后来变成四个, 刘力丹又介绍了德国 Folkwang 的四个研究生一起来参与), 模型的数量也在不断的上升, 从永久开始承诺的 9 辆, 到丹麦人希望的 16 辆。虽然领教过欧洲人的动手能力, 但还是为此感到担忧, 直到丹麦人提到了极富制作经验的模型指导 Kent, 我才明白他们如此自信的道理, 虽然现在的条件远比不上 kolding 学校的模型工厂间, 还是勉强说服永久帮助我们完成 15 辆自行车的模型工作。

考虑到时间的紧迫, 我们针对世博会的观众特点设定了 15 个 persona, 每辆车的设计针对不同的 persona, 限定条件的设计是每个设计师必须具备的能力。力丹、Michael 和我还为小组方案筛选设定了规则, 以免学生之间协调不清, 影响进度。第一阶段, 每组提交 3 个方案, 然后和永久方一起对方案给出我们的意见和建议。这一阶段相对较为平和, 每个学生都根据自己小组的 persona 提交了数个方案。第二阶段, 学生进行调整建 3D 数据模型, 并最终由学生自

己协商提交最终制作模型的方案, 而这个方案将不能够再被替换。这就意味着小组必须自己来决定最后的方案, 指导教师的意见仅作参考, 这也是前期最为艰难的一件事, 每个学生都希望把自己的方案做下去。中国学生总体上比较“好客”, 即使在方案的选择上也表现得偏软。我们只能在暗地里偷偷灌输给学生不要轻易放弃自己的想法, 要“据理力争”。对欧洲人来讲, 除非你能够说服他, 你的“礼让”只能让他们觉得你理亏, 虽然 workshop 前给学生写 Email 提醒过, 但无奈同学们受孔老二的毒害太深。最终还是有些同学坚持下来了, 非常感谢他们的坚持, 这让后面的设计能在更平等的基础上进行讨论, 同时也激发了其他同学的自信心。这个阶段可以用噩梦来形容, 个别小组最后只能通过“民主”票选来决定最后的方案, 但对有些学生来说这仅仅是噩梦的开始。第三阶段, 针对模型制作工艺及材料的限制, 和永久方探讨并调整最终的方案, 制作 1:1 的模型加工图纸。相比较我们的学生, 欧洲的学生更热衷于在最终的设计中加入自己的想法, 哪怕是一个轮毂, 一个把手, 抑或是图案和色彩, 他们可以接受最终的设计不是他们为主, 但无法接受一个没有他们贡献的设计。而反观我们的学生则没有那么着急, 有些小组的中国学生在最终选定欧洲人的方案后, 就放弃了继续的设计努力。

远在天边的 Kent 又添了不少“麻烦”, 丹麦人莫名其妙的限定了这次设计必须用管件成型 (估计是考虑到加工时间的问题), 难怪他们一开始就关心金属管件的具体规格。一些非丹麦学生的方案因为非管件而遭到否定, 要求调整。由非管件的形状调整到管件的设计, 基本上会是十万八千里的事情, 还好得到永久的支持, 承诺制作非管件的自行车模型, 才使这次风波得到平息。

10月1日 - 9月15日

9 月的最后两天, Kent 和 Thomas 来到了上海,

他们是来接替 Michael 和 Barnabas 的。模型指导教师 Kent 年轻时当过兵，能熟练操作各种加工机械，曾今在 kolding 的工场间指导过学生的自行车模型制作，他们还特地为这位第一次到中国的“老先生”配了个私人助理。30 号我们一起去永久和厂方讨论模型制作的相关事宜。永久担心操作的安全问题，以及 10.1 长假的安排，而 Kent 则努力劝说永久能开放加工的机械给他们的学生，永久表现出了极大的诚意，最终答应了在 Kent 监管下的学生使用权，这对于他们来说已经是极限了，因为除了学生的安全问题，他们还必须冒着设备损坏对节后影响生产的风险。永久特地为模型制作组建了协调团队，由富有经验的车业总经理陈海明亲自带队。

模型制作基本分成三个阶段，成型（落料、弯曲、焊接）、打磨和涂装。永久自行车被中路实业收购后，现在的制造工厂在离野生动物园不远的南汇，这意味着学生必须在路上颠簸 3 个小时左右。所有的材料和工具需要事先准备好，到了那里再要找，几乎没有可能。但唯一的好处就是学生们能够集中尽力，相比待在本部很难受到干扰。为了赶时间，加上路上的时间，学生们每天都要花上 12 个小时左右的时间。虽然永久已经竭尽全力，15 个完全不同模型同时进行，还是使得每各小组的进度不尽相同。急躁的情绪在部分学生中蔓延，文化上的差异，使得外国学生无法很好的与中国的师傅及学生沟通，中外学生之间的不满和对立的情绪日益明显，像一触即发的炸弹。我们的学生也不再那么“好客”了，一有什么意见也及时和老外提出，这不是一件坏事情，只是觉得这一切来的有些太晚了。力丹具有丰富的国际交流经验，她和 Kent 的交流使得有些矛盾暂时得到缓和。但模型制作上的问题一个接一个的产生，解决一个，又会有新的问题产生，手机也几乎一刻不停。到最终提交前夕，每个人的神经都绷紧的到了极限，生怕有什么意外产生。终于到了提交那天，最慢的 3 组，还有部件需要喷漆，而其他很多组已经开始拍照了。

中国学生的不满最终集中到了 Kent 身上，力丹组织了学生与 Kent 的对话。经过交流，澄清了一些误会，

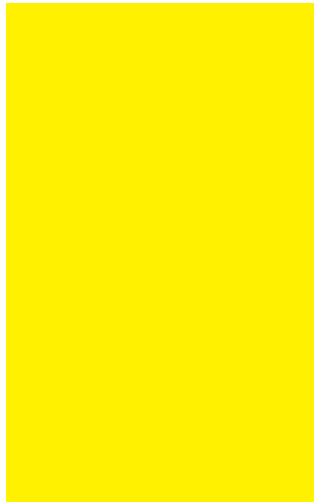
对于 Kent 要求丹麦学生争做 Team leader 的情况，其实我们也同样要求过我们的学生。平心而论，Kent 在整个模型制作过程中还是很尽心尽职，可能在交流过程中由于时间的原因较为直接，让很多女同学很难接受。中外教育方式的差异也是原因之一，总体上来讲，西方的教师还是以服务学生为宗旨，教师不能强制学生做学生不愿意的事，给学生指导意见，但不帮学生最决定。学生也习惯了自己拿主意，相比我们的学生来说具有更强的自信心，这是我们学生最该学习的地方。我们有些学生缺乏主动性，还是习惯等待老师的决定，在初期就失去了主动权，往往在后面就很难挽回。这并不意味着盲目的竞争，去战胜老外。要学会如何与他人合作，要能够分辨设计的优劣，在小组项目中遴选出优秀的设计作品，并加以完善。

交互设计

交互设计在国内还是比较新兴的一个专业，这次我们的主要尽力都放在了自行车的模型上，没有更多的关注交互设计小组，是件比较遗憾的事情。所以对于 Thomas 几乎没有什么印象，他本人好像也不像 Barnabas 那样外向。但对于最后的 4 组作品还是觉

得很有想法，特别是在轮胎上刻上诗歌的想法，简单纯粹，套用中国的一句老话，那就是“化腐朽为神奇”。把原本令人讨厌的自行车胎的水迹，变成可以阅读的诗文，变成传播文化的载体，足可见设计的神奇和力量。

通过这次的 workshop，很多学生反映欧洲学生并不像想象中的那样强大，很多思路 and 想法也和我们的学生比较接近，这让他们看到了希望，增强了自信心。我想这也是这次课程最为重要的收获，这比 15 辆自行车的设计和 4 个交互设计的结果要重要得多。但我们还是看到了很多不同，欧洲学生对设计的认真和坚持值得我们学习，还有就是对过程的重视是我们的学生比较欠缺的，我们的学生比较关注结果，对于过程中的交流和阶段的成果很少重视，缺乏探索的精神和手段。可能在这样的项目中这种差异并不能体现出来，但是对于以后一些情况更为复杂的项目，这些微小的差别就可能造成巨大的差异。很自然地联想到足球运动员，中国很多年轻的足球运动员，在小的时候和欧美的大牌明星并没有多少差异，但日后的道路却决定了他们的天差地别，如果能更深入的研究这其中的奥妙，我想这对于我们的设计教育也会有更好的促进。



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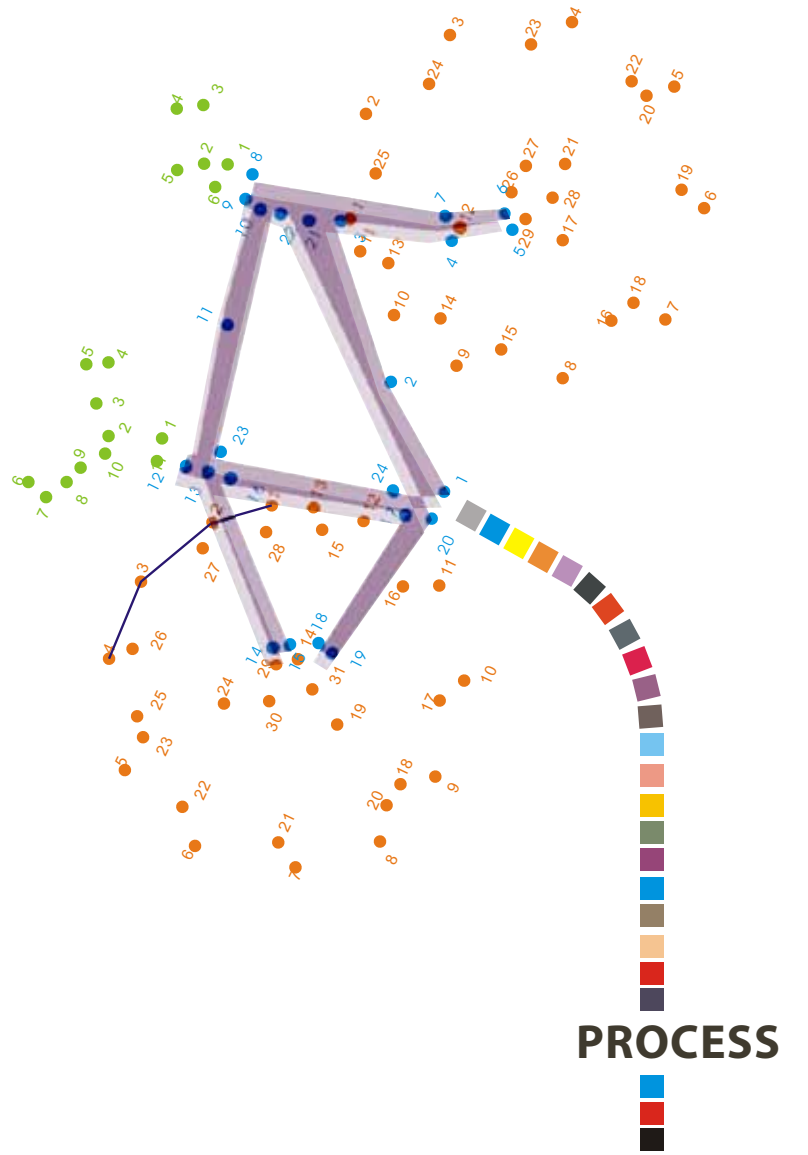
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9:00am, 2009-9-14
Mingcheng Building
Tongji University, China

Welcome

Meet with each other
Project Introduction
Say Hi

Afternoon, 2009-9-14

Research

Downtown Area
Shanghai, China
See local cultural
Overview bicycle market

项目开始

2009年9月4日，在同济大学的明成楼进行了简短的欢迎仪式以及项目介绍之后，丹麦以及中国同学们组合成五个小组分头进行市场调研。



2009-9-15 - 2009-9-24
Comprehensive Building
Tongji University, China

Schematic design

Brain storm
Sketch

2009-9-25 - 2009-10-4
Comprehensive Building
Tongji University, China

Further Development

Feasibility discussion with Forever

方案确定及深化

2009年9月15日至10月4日，同学们分组进行了头脑风暴，确定方案概念，完成了草图，二维及三维建模的过程，并且和来自于永久的工程师讨论的方案的可能性及对策。



2009-10-5 - 2009-10-15

Prototype

Forever Factory & Tongji University

模型制作

2009年10月5日至15日，全体工业设计的学生在永久自行车工厂进行模型制作，交互小组在学校继续方案的深入探讨。



Exhibition

2009-10-16 - 2009-10-21

Shanghai International Creative Industry Week

2009-10-22 - 2009-11-5

Comprehensive Building, Tongji University, China

On 10th November, these works were sent to Denmark and Germany and will be back again in 8th Shanghai Biennale 2010.

展览

2009年10月16日至21日所有模型在上海国际创意产业活动周上展示，并于10月22日至11月5日在同济大学综合楼举办专门展览。11月10日，所有自行车以及部分交互模型被运往丹麦展示。请您关注本书的同时继续关注我们的各项展览，2010年上海双年展，您将有机会再次看到我们的作品。



FINAL DESIGN WORKS

BICYCLE DESIGN & INTERACTION DESIGN

BICYCLE DESIGN/自行车设计

We set 15 personas such as the architect, elderly, Chinese family, children and businessman; from the focus of former research and design works. In the first two weeks we decided our concept after brainstorming and group discussions. The next two weeks were spent in the Forever factory, where we actualized the bikes. After bending, welding, grinding and painting, we finally finished 15 new bikes that embody both innovation and practicality, ending the four-week workshop perfectly.

在此次联合自行车设计项目中，我们首先设定了建筑师、老人、中国父女、儿童、商人等15组目标人物，针对每组的目标人物进行设计定位和市场调研等一系列前序工作。我们利用两周时间不断地讨论修改并最终确定了方案，其后的十五天我们在永久工厂亲身参与自行车模型的制作。经过弯管、焊接、打磨、上腻子、喷漆等诸多工序，15辆有创新性兼具实用价值的自行车最终呈现在我们面前，为30天的紧张工作划下了完美的句点。

INTERACTION DESIGN/交互设计

Based on the background of the EXPO, we designed four public bicycle interaction systems considering different issues such as way finding and environmental talking. All the design works aim at developing new experiences and possibilities in the user process.

Firstly we set a Pitch as the concept of each group before we did social research to ensure that our design integrates the features of both international and Chinese traditional culture. After a whole month of brainstorming, heated discussions, logical development and many experimental texts, we completed the four design works and made models for exhibition.

在这个项目中我们立足于世博会环境，从way finding, environmental talking几个课题出发，围绕自行车设计了四个公共交互系统，对人们使用的过程中获得新体验与可能性做出了探索。

我们设定了pitch作为各个组目标的概述，之后进行了社会调查，确保我们的设计既具有开放的国际性，又保留由中国文化自身的色彩。经过一个月的头脑风暴，激烈讨论，逻辑的发展和反复实验测试，我们产生了呈现在您面前的最终的4组方案，并且制作了展示模型。

BICYCLE DESIGN

ARC

By Anne Danielsen/Luo Dan/Xue Bai

Rythem

EDGE

KITEBIKE

BLACKBOARD

Pine

融融

Freedom

Shao

Sturely

AK

THEY

TEN

XPO

YI

FLOATING AIMS

ZEUS

KEEP MOVING

NAVIGANT

SEED

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

*The names are in alphabetical order.



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ARC BIKE

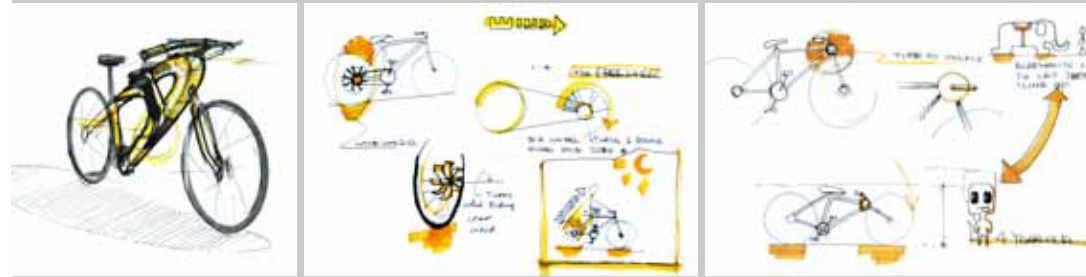
Our bike is designed for a Chinese family. As there will be two riders, father and his little child on this bike, it is a bit longer than a normal one. The main body of Arc is the arc. Arc brings a powerful and speedy feeling.

We chose black and yellow for the bike. The yellow area includes a small seat, the band and handlebar for the child. When father holds his handlebar, his arms will create a safe area for his little child.

In four weeks we finished all the research, design and manufacturing work and the result came out to be so amazing. We feel all the perspiration was worth it and our friendship between three countries is unforgettable.

我们的自行车是为一个中国家庭游览世博会而设计的，因为是双人车，所以会比普通的自行车稍长些。Arc的主体就是一个弧线，给人带来力量与速度感。整部车用了黑色与黄色，前部黄色区域的使用者是小朋友，当家长握住把手的同时，也形成了保护小朋友的臂弯。

在四周的 workshop 中，我们完成了从调研设计到模型制作的过程，当这辆满载心血的自行车完成时，难以说出我们有多么惊喜，所有的汗水都是值得的，所有工作中建立的友谊更是难忘的。





BLACK BOARD

By Guo Cheng/ Lasse Breinholm/ Nina Thoeming

Rythem

EDGE

KITE-BIKE

光Ch

Piao

Shao

天

Frederik

BLACKBOARD

THEY

TEN

Sturdy

XI

XPO

ZIUS

FLOATING ARMS

REFLECTIONS

NAVILIGHT

SEED

BLACKBOARD

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE



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BLACKBOARD

Blackboard is a bike for kids around the age of 10.

With its curvy lines combined with sharp edges it is meant to signal speed and fun. The fresh green color of the bike is meant to appeal to both boys and girls, and it is a color that should bring forth happy thoughts wherever it travels.

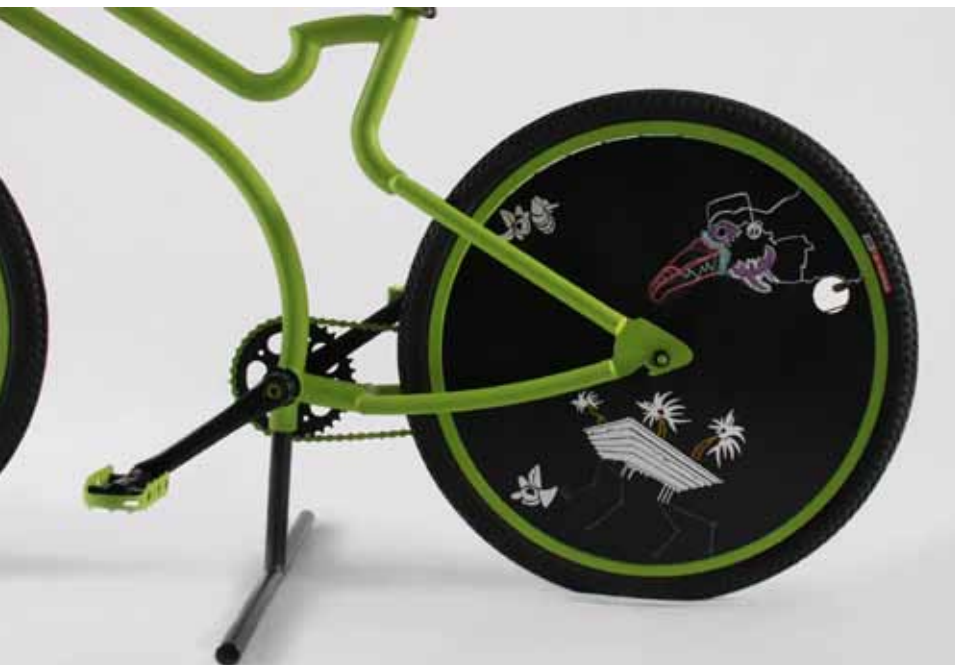
Blackboard also encourages customization and play with its blackboard wheels that kids can unfold their creativity on and paint whatever they desire.

Blackboard is a bike that is all about having a great time while you are getting healthy exercise, and at the same time spare the environment of pollution by not using fossil fueled transportation.

Blackboard 是一辆为 10 岁左右儿童设计的自行车。在设计上我们旨在表现它的出速度和乐趣，并具有快乐运动和环保交通方式的理念。

它运用了同时令男孩和女孩喜欢的无性别形态设计，带有锐利转折的曲线结构和明快的绿色传达出无论骑车去哪里都是快乐的理念。车轮上的小黑板激发了孩子们的好奇心和想象力，孩子们可以在上面画出他们想象出的任何图案。





驰CHI

By Micheal Ubberson Yakobesen/Ni Chen

BICYCLE ROTOTYPE

BICYCLE ROTOTYPE

BICYCLE ROTOTYPE

驰CHI

Plato

EDGE

Rythem

Shae

Arc

BLACKBOARD

Frederik

HI

THEY

TEX

Sturdy

KEEPER

XPO

FLGATING AIMS

ZEUS

NAVRIGHT

REFRESHING

SEED

驰CHI

*The names are in alphabetical order.



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Room for the Suitcase

We make room for the suitcase in the frame so that he can leave his luggage on the bike.
We want to make him feel carefree instead of being worried.

CHI 驰

The dark blue frame with metallic support rod is designed for users with a gentry, classic and high-quality experience.

We worked with the persona of a 45-year-old Chinese businessman, Mr. Yao. To start the design, we thought about how to attract a gentleman in a formal suit to ride a bicycle we designed and raised some questions such as “how to avoid getting dirty” and “how to make him feel important”. After a brainstorm, we got our solutions though we didn’t integrate it all finally. But I still think the preliminary process is very important, for it led to the main direction of our design.

暗青色的主体框架搭配亮金属质地的支撑细杆，为目标用户提供了一种绅士感的、经典的、高品质的使用体验。

我们组被分配到的目标用户是 45 岁的中国商人姚先生。在设计初始阶段，我们设想怎样吸引一名身着正装的绅士来骑我们设计的自行车？并一次提出一些问题，例如“怎样避免弄脏”，“怎样让他感觉自己很重要”等等。然后经过头脑风暴，我们出方案一一解决这些问题。可是最后我们并没有把解决方案都整合到车的造型里。但是我认为前期设计过程仍是非常重要的，它为后续的设计奠定了总的基调。





EDGE

By Allan Sejer Madsen/Lin Yuanyuan/Song Kejie

Rythem

Bike Board

KITE BIKE

EDGE

Piao

Shao

Frederik

BICYCLE PROTOTYPE

Sticky

THEY

TEN

AK

YI

Sturdy

XPO

FLYING HUB

ZEUS

EDGE

NAVWEIGHT

KEEP MOVING

STEP



DESIGNERS

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EDGE

Our persona is a 40 year old Danish businessman who is at the Expo to talk to important people.

We want to design a unique bicycle with high quality. We were inspired from the sharp lines of modern buildings and the steady feeling of the business car.

We use cold gray to illustrate this modern and high-tech bicycle. And the unique folding structure of the main frame makes the bicycle visually concrete and strong but actually light and agile. Besides taking into consideration the posture of the rider, we enabled him to keep his image as a businessman.

The name "Edge"conveys the sense of modern and wise. We hope that everyone can understand us through our bicycle.

我们的角色是一位四十岁的丹麦商务人士。他想去世博会上与重要人物谈话。

我们想要设计兼具个性和品质感的自行车。灵感来源于城市建筑硬朗利落的线条和块面以及商务型汽车的稳重气质。使用了具有科技感的冷静色彩，并采用折面作结构给车身带来视觉上的稳重感实际上却轻便灵活。另外，考虑了骑车时商务人士的优雅姿势。

Edge 这个名字提示着它散发的时尚又冷静的气息。希望大家通过自行车能了解我们心中的感想。





FREDERIK

By Christina Hansen/Felix Von Looz/Liu Wei

ARC

EDGE

馳CHI

KITEBIKE

Piao

BLACKBOARD

FREDERIK

Shao

BICYCLE PROTOTYPE

Sturdy

System

TEN

THEY

FREDERIK

XPS

ZELUS

FLOATING ARMS

KEHANGONG

NAVILIGHT

SEED

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

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FREDERIK

Frederik is made for the Prince of Denmark. Considering the special character and the background of the Shanghai EXPO, we concluded with the five elements: Classic, Royal, Hidden High-Tech, Chinese Element and Danish Element.

The Astro Martin Automobile and classical style bicycle also gave us direction and inspiration. After research and brainstorm, we found that Rosewood, an old Chinese element, and leather of concise style which stands for the Danish element could be perfect to express these two feelings. Meanwhile, we used the member bar-footstock lever-system and transparent PC board instead of traditional chain and spokes to present the Hidden High-Tech, just like the Porsche automobile's arresting gear is inside the wheel; this means low-profile as well as of nobility.

Frederik 是为丹麦王子所设计的，考虑到人物的特殊性以及上海世博会的背景，我们总结了五要素：经典，皇室，隐含-高科技，中国元素及丹麦元素。

我们从阿斯顿·马丁跑车以及传统自行车中获取灵感，在经过一系列调研和头脑风暴后，我们决定采用古典花梨木和简洁的皮革来表达我们想要的感觉，它们分别代表了中国和丹麦的元素。同时，为了表达隐含-高科技这个概念，我们运用了涡轮驱动系统和透明 PC 板来代替传统的链条和辐条，正如保时捷跑车的车轮内制动装置，是内敛却不失高贵地位的一种表达。





KITE BIKE

By AnneLinn Palm Hansen/Yan Liwen

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

KITE BIKE

Shao

ARC

BLACKBOARD

Piao

EDGE

THEY

驰Chi

YI

FREDERIK

TEN

Sturdy

System

XPO

FLGATING AIMS

ZEUS

KITE BIKE

NAVLEIGHT

KEEP MOVING

SEED



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KITE BIKE

Our persona is a businessman from Switzerland. At the very beginning, we discussed about his age, career, things he might be interested in, etc. After more research of his lifestyle, we decided to design a bicycle of geometric aesthetics. Kite is definitely what we want.

From the side, it looks like part of a cobweb, simple but with an aesthetic feeling. On the other hand, if we see it in perspective, it will be totally different. The front fork was redesigned with reference to motorcycles to coordinate the whole style. We used high-gloss-painted gray to make it change with light. During the execution, we paid attention to every detail to get a satisfied result.

我们的人物角色是来自瑞典的商人。在设计初期，我们针对他的年龄，职业以及他可能会感兴趣的事物等进行讨论。经过更多对他生活方式的调查后，我们决定设计一辆具有几何美学的自行车。Kite 正是我们想要的。

从侧面看，它像蜘蛛网的一部分，简单却有美感。而从整体看，它会呈现截然不同的样子。针对前叉我们联想摩托车进行了再设计，使得更适合我们车的整体风格。色彩方面，我们选择了会随着光线的变化而变化的高光灰。模型制作过程中，我们注重每个细节以达到满意的效果。





RYTHEM

By Christian Troels Hansen/Song Yimeng/Yan Yikuan

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

RYTHEM

Sturdy

THEY

IT

Share

TEV

Piao

KITE BIKE

ZEUS

FREDERIK

EDGE

BLACKBOARD

XPD

ARC

驰CHI

FLOATING ARMS

KEEP MOVING

NAVILIGHT

SEED

RYTHEM



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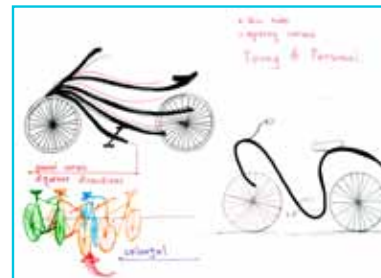
RHYTHM

It is a bike designed for Katrin who is a young German girl playing bass. The original concept comes from the mascot of the 2010 Shanghai EXPO – Hai Bao. The blue curves, expressed in fluent design language, represents the rhythm of China, of EXPO and the music girl, and symbolizes the ocean, the city of Shanghai and the energy of the young generation.

Our bicycle is unique. The 28-inch wheels make the bike perfectly suitable for relatively tall German girls; instead of being printed on the main frame, our logo is hung in front of the handlebar by an elaborate silver chain. It looks like an elegant and lovely necklace of a young lady.

这辆车是为了 Katrin 这个年轻的德国摇滚女孩设计的。概念来源于 2010 年上海世博会吉祥物“海宝”。流畅的蓝色曲线代表着中国、世博会以及这位音乐女孩的韵律，同时也象征着海洋，上海和年轻的一代。

我们的自行车有几个显著的特点：28 英寸的轮子非常适合相对较高的德国女孩；不同于别人通常把标志放在自行车的主架上，我们的标志用精致的银链悬挂在车龙头上。它看上去正像一条优雅可爱的女士项链。





PIAO

By Jonas Birkebaek Poulsen/Qian Jing

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

PIAO

System

EDGE

THEY

抛Chi

ARC

BLACKBOARD

Shao

KITLOKE

Sturdy

TEN

FREDERIK

XPO

PIAO

PI

FLOATING AIMS

ZEUS

NAVILIGHT

KEEP MOVING

SEED



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PIAO

PIAO is designed for a stylish French lady named Juliet. We tried expressing a floating-dress feeling as well as a luxury-jewelry feeling on this bike.

Curves run through our bike like a graceful dress. We like the curves around the steel parts, which make them look like blowing dresses. The organic back saddle pipe with a reflection is a highlight. We also had an innovation on the basket in which we used three chromed rings combined with the handle bar. What's more, a selected pearl-white color enhances our lady feeling. We hope PIAO can encourage these stylish ladies with high heels and dresses to ride bicycles with more confidence and dignity.

PIAO 是为名叫 Juliet 的时尚法国女士所设计的。我们尝试通过这辆自行车来表达一种裙摆飘逸和珠宝首饰的感觉。

优雅裙子般的曲线贯穿于我们的自行车中，绕过车架的曲线使它看起来更像吹起的裙摆。另外一个亮点则是鞍管部分具有有机曲线的设计，很巧妙地结合了反光板。在篮子部分，我们设计了由三个镀铬环与手把相组合而成的有首饰感的创意车篮。而珠光白更是增强了整辆车的优雅女士感。我们希望能通过 PIAO 让那些喜欢穿高跟鞋和裙子的女士也能自信高贵地骑自行车。





BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

SHAO

Sturdy

SHAO

Piao

It

THEY

By Su Yu/Tobias Tostesen/Xu Xueqin

TEX

KITE BIKE

ZEUS

FREDERIK

EDGE

XPO

ARC

驰Chí

Bythem

BLACKBOARD

FLOATING ARMS

HAVELIGHT

REPLACING

SHAO

SEED



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SHAO

SHAO

It seems that Shao has the talent to whisper to you. The minimalism and elegant curve of Shao makes it classical and vintage. Due to our persona, an architecture student, we have made a breakthrough on its structure. Two wires take the place of original steel tubes of the main frame. This transformation reveals a brand new feeling and perspective of bikes. We have also spent much time on its logo. The front shield logo ingeniously holds the wire and decorates the front part of the bike. The seat and handle bar are wrapped with brown leather, which makes it a little luxurious but unadorned.

Shao 这个名字来源于汉字“少”的发音，一是由于这辆车的目标客户是年轻的学生，这个名字透露出年轻的气息；另一方面是由于“少”的字形与我们所设计的车架形状相似。极简以及经典是这两车最主要的设计语言，车架部分在结构上做出了大胆尝试，将脚踏板与后轮相连的部分采用钢丝取代原本的钢管，车身上部趋于直线，整个车架围绕出近似于三角形的稳定结构。坐垫以及把手用深棕色的皮革包裹，使车辆具有品质感。除此之外，车身前部的盾牌标志布局巧妙，既可以承受住钢丝绳的压力又起到了装饰的作用。





STURDY

By Daniel Kowal Andersen/Tian Xiaoyan

BICYCLEP ROTOTYPE

BICYCLEP ROTOTYPE

BICYCLEP ROTOTYPE

STURDY

Shao

卅

Piao

TEN

THEY

KITES-IKE

ZELUS

Pythons

FREDERIK

ARC

馳CHI

XPO

KEEP MOVING

STURDY

SEED

NAVILIGHT

BLACKBOARD

FLIGHTING ARMS

EDGE



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STURDY

The Sturdy Bicycle is designed for an old worker.

The persona is 72 years old, so it may be difficult for him to get on the bike. So the framework should be low enough and the structure should be very firm.

But on the other hand, if the framework is too low, the whole body of our bicycle may look like the female style.

Finally, we decided the height of the framework is between the female style and male style. And we tried to use thick tubes to make the bicycle, so the whole structure can be firm and safe for the old man. The basket is straightforward, applied and cross-country style. And the height of the saddle can be adjusted, so it is suitable for different statures.

Sturdy 是为一位老工人设计的自行车。

对于 72 岁的目标用户，骑上自行车可能有点难度。所以车体框架要够低，结构要够坚固。但是如果车架过低，车型可能会像女式车。所以最终车的高度位于女车男车之间，且采用了较粗的钢管来让整体结构更加坚固安全，适合老年人。车篮筐亦采用粗管，有着粗犷越野的风格。车座的高度可以调节，适合不同身高的老年人。





TEN

By Arther Eisenkreinn/Li Jingyao/Nina Guldager Larsen

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

TEN

Piao

Shao

BLACKBOARD

KITEBIKE

ARC

EDGE

馳Chi

HI

THEY

XPO

FREDERIK

Sturdy

System

FLOATING AIMS

KEEP MOVING

ZELUS

NAVILIGHT

SEED

TEN



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TEN

Our persona is a mother carrying her 2 year old daughter, who may also be carried by her father. We want to create a memorable experience for them and also a good communication between mother and baby. So a multifunctional folding bike came to our mind.

We made the frame a modern and simple cross with some fabric belts and zippers on it. And we successfully found a way to turn a baby seat into a bag after a lot of experiments and communication with the tailor.

The combination of dark purple and cream additionally gives a surprise and the bright yellow details really highlight the whole bicycle.

我们的角色是带着 2 岁女儿的母亲（和她的丈夫）。我们想要为她们创造值得纪念的经历，同时注重母女间的交流。所以我们想做一个多功能的可折叠物件。

主架是具时代感又简洁的十字形态，在上面增加了编物搭扣和拉链。而且我们在不懈的试验和与裁缝的讨论后成功找到了将婴儿车变成置物袋的方法。

此外，深紫色与奶油色的搭配让人眼前一亮，亮黄色的细节也成为了整辆车的焦点。





THE V

By Li Sichun/Micheal Dalsgard Knap

ARC

EDGE

馳馳

BLACKBOARD

Piao

KITE BIKE

THEY

Shao

BICYCLE PROTOTYPE

FREDEKIK

Sturdy

System

ZEUS

XPO

FLOATING ARMS

YI

NAVILIGHT

KEEP MOVING

FEN

THEY

SEED



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THE V

Our EXPO bike is designed for the persona, Maggie, 52, an architect from Australia. She has her own firm, hates silly things and also pays attention to the green wave concept.

Both of us concentrated on simple and sustainable design. Since our persona is an architect, we made the bike look sharp, simple, without any curves and sweet colors while at the same time keeping it suitable for women. We also changed the regular wheels to our own design by using a cross instead of spokes to strengthen the concept: less is more. The structure of our bike is very reasonable and feasible. We have two lines forming a V shape and thus call it The V.

目标用户: Maggie, 52岁, 来自澳大利亚的建筑师, 拥有自己的事务所, 讨厌愚蠢的事物, 十分关注绿色节能设计。

我们侧重的共同点是简单, 可持续设计。因为目标人物是建筑师, 所以使用了简洁锐利的线条, 舍弃了曲线与感觉甜美的色彩, 并同样适合于女性。车轮经过特别设计, 用十字代替普通辐条, 更强调了我们的概念: less is more。车的结构合理, 可行性高。由于车的主体线条组成了英文字母 V, 我们给这辆自行车取名为: The V。





XPO

By Wang Bier/Markus Krebber/Anne Ditlev Nielsen

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

XPO

Piao

BLACKBOARD

KITEBIKE

ARC

EDGE

馳Chi

Shao

ZEUS

THEY

FREDERIK

Sturdy

Bybass

yi

FLOATING ARMS

TEN

KEEP MOVING

NAVILIGHT

SEED

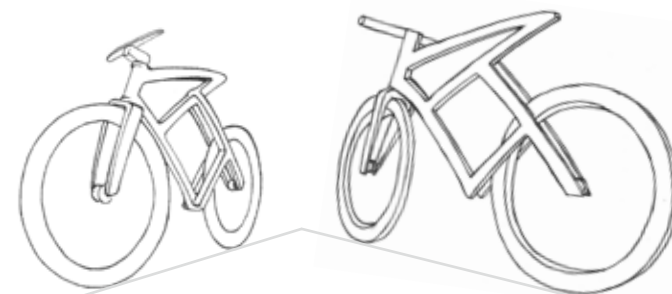
XPO

*The names are in alphabetical order.



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XPO-BIKE

Our bike is a roadster for young people who love sports. It is called XPO-bike. Our inspiration is from the Expo. X also means extreme sports and is popular among youngsters.

Our design is mainly focused on the modern feeling and excitement when riding it. The whole frame is dynamic and the lines are clean and flowing. We make the wheels small and narrow and the spokes fewer than normal bikes. A foot brake is used to simplify the handlebar. The main part of our frame is white thus making it look modern and clean. Green spokes make the bike delicate. The colors we have chosen are based on the theme of the workshop: green, environmental and recycling.

Xpo 是给喜爱运动的年轻人设计的一款公路自行车。灵感来源于即将在上海举行的 2010 世博会。同时，名字中的字母 X 还意味着在年轻人中颇受追捧的极限运动。

我们的作品主要聚焦于现代感与用户使用时的兴奋体验。整体的框架采用流线型设计，简洁流畅。车轮选择了小而窄的轮缘，辐条少于普通的自行车，以脚刹车代替手刹以简化把手的设计。主体框架的颜色为白色，绿色辐条穿插点缀，细节部分采用了黑色压阵，使整车看上去干练而精致。颜色的选择也是基于这次 workshop 的主题：绿色，环保，循环利用。





YI

By Cheng Ruoyu/Ragnhild Lubbert Terpling/Yin Wenting

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

ZEUS

ARC

馳Chi

EDGE

Piao

KITEBIKE

Shao

卅

BLACKBOARD

THEY

FREDERIK

Sturdy

Bythem

XPG

FLOATING ARMS

TEN

NAVILIGHT

KEEP MOVING

SEED

卅

*The names are in alphabetical order.



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YI

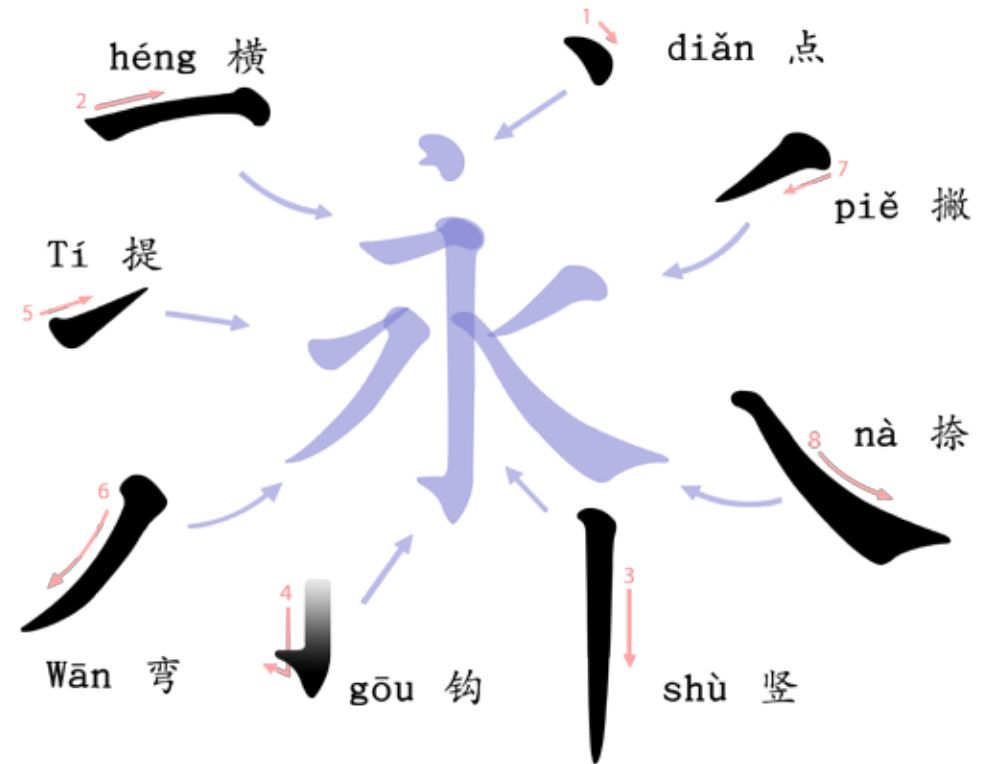
Our persona is a thirty-two year old Chinese office lady who loves culture, is sporty, strong and with good taste.

We are inspired from the curves of Chinese calligraphy. We developed the form of the bike from the calligraphy curves to find the simplest and most beautiful shape which is also able to hold the whole structure. For the function of the bike, except for common use, when one is riding it at night, the shiny material of the graphic on the main frame can be very bright-- stylish and safe for the user. For the color, we only used two: Chinese deep red and black to show the characteristic of being low-key and elegant. The name Yi represents the bicycle perfectly—a simple spelling and pronunciation but rich with meaning in this Chinese word.

我们的角色是一位 32 岁的中国白领女性。她喜欢文化，热爱运动且有品味。

我们从中国书法中获得设计灵感。在形态方面，我们从书法曲线中发展出了最简单，最美同时能够作为结构支撑的车身形态；在功能方面，除了正常使用，在晚上骑车时车身上平面图形的反光材质会非常闪亮—让使用者更安全而且更时髦；在颜色方面，我们仅使用了中国的深红色和黑色两个颜色来表现这辆车低调优雅的特点。

“逸”这个名字完美的代表了这车的概念—简单的字和简单的发音，却又蕴含了丰富的内涵。





ZEUS

By Carl Emil Jacobse/Lin Lili/Yu Jinhong

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

BICYCLE PROTOTYPE

ZEUS

ARC

BLACKBOARD

EDGE

馳Chí

Piao

KITE BIKE

Shao

YI

XPD

THEY

FREDERIK

Sturdy

System

FLOATING ARMS

FEN

NAVILIGHT

KEEP MOVING

ZEUS

SEED



DESIGNERS

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ZEUS

ZEUS is a bike for a powerful man from Denmark, Brad, keen on hi-tech and architecture.

We tried to make the bike timeless and express an intense feeling of speed. After brainstorming, we were more satisfied with the concept of ZEUS, of which the cutting angles made the bike look like a sporty man riding on an open road. The orange dots are telling a story about the city of modernization and its fast pace. The different sizes of holes on the white frame represent various feelings of different architecture. The holes seem random but are actually well-designed.

We hope that ZEUS can help Brad, a freelance journalist find many meaningful and valuable news in the 2010 EXPO in Shanghai.

ZEUS 是以 BRAD 为目标客户而设计的一辆车，一体成型的 ZEUS 映衬着健壮好动的 BRAD，切角彰显着速度与力量，犹如一个男子在空旷的马路上飞驰。车身上的点点红痕是对于城市建筑的映射，色彩的交替是平面与立面的交错。我们希望这辆车足够的灵活，能够肩承起一个自由撰稿人的热忱，帮助他挖掘更多有意义，有价值的故事。





INTERACTION DESIGN

INTERACTION DESIGN

INTERACTION DESIGN

INTERACTION DESIGN

FLOATING AIMS

FLOATING AIMS

Piao

Shao

Yi

KEEP MOVING

By Agnete Hentze/Benjamin Buus Perdesen
/ Hu Jin/Wang Ye

THEY

KITE BIKE

FLOATING AIMS

FREDERIK

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BLACKBOARD

XPO

ARC

驰Chi

ZEUS

Rythem

NAVILIGHT

Sturdy

SEED

FLOATING AIMS

*The names are in alphabetical order.



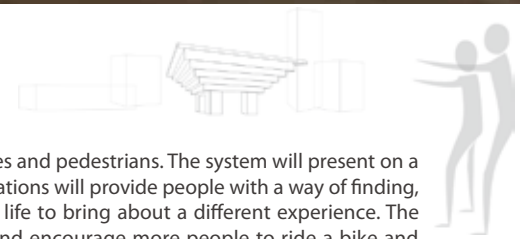
FLOATING AIMS 浮光地图

Designers: Agnete Hentze//agnete_b_hentze@dskd.dk
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PITCH

We plan to design a way finding system for bikes and pedestrians. The system will present on a map stations around the Expo area. The map stations will provide people with a way of finding, like giving directions between people in daily life to bring about a different experience. The map station should be usable for bike users and encourage more people to ride a bike and participate in this experience.

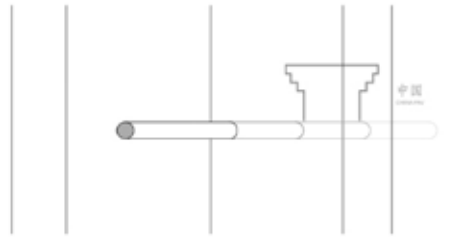
我们想做一个针对自行车与行人的道路指引系统，将以遍布世博园区的地图站形式出现。浮光地图将以一种类似人与人之间指路的方式指引道路，带给人们不同以往的体验。它是便于骑自行车者使用的，并且鼓励更多的人使用自行车，参与到这项体验之中。



1

Touching the tip of the stick, an outline & name of building lights up on the outermost two glass sheets.

轻触木棍一端，最外2层的玻璃幕墙会亮起木棍所指建筑物的外轮廓和名称。



2

The stick shows the direction of the building.

木棍仅指出了从地图到目的地的方向。让使用者凭借感性认识辨识方向。



3

With info of the distance & direction, by intuition users can start out!

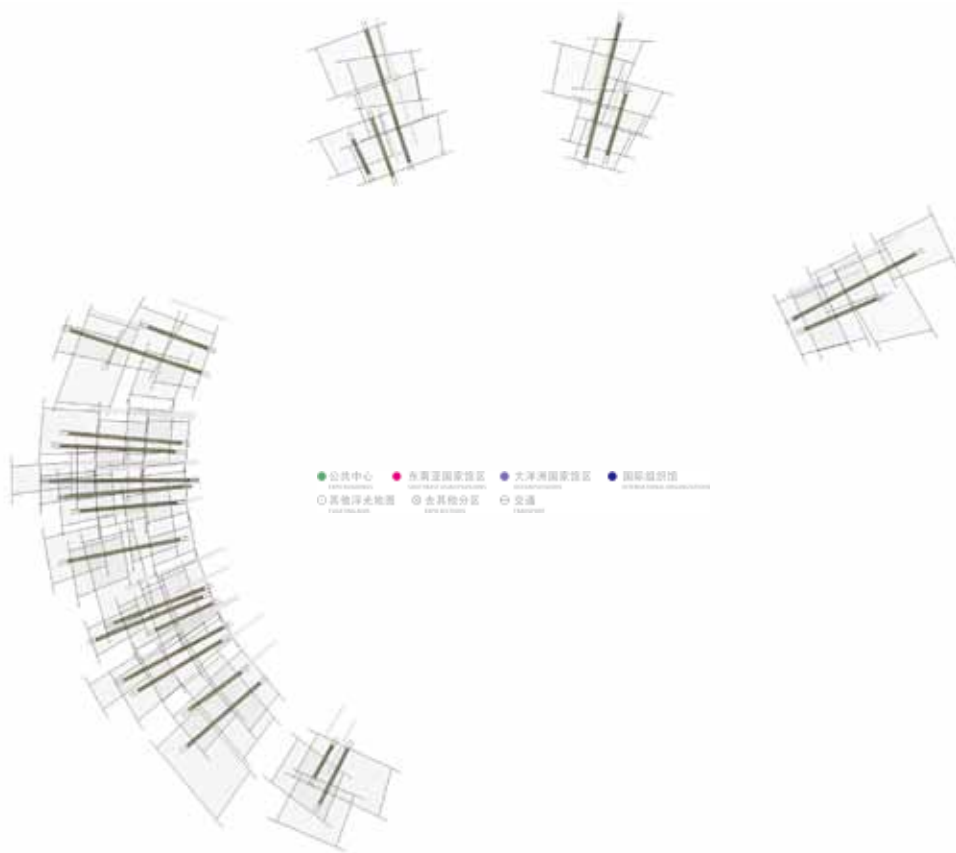
参观者知道一个感性的方向和距离之后，便可以动身出发。



STICK 木棍

The length of the stick represents the distance between Floating aim and the Building aim. The nearest is 300m, while the furthest is 750m, within the length of the walk.

木棍的长短表示浮光地图离所指建筑物的远近。最近300米，最远750米，都在步行的范围内。



GLASS WALL 玻璃幕墙

When the user touches the tip of the stick, the outermost glass sheet in the line lights up and an illustration appears. This shows the outline of the building that the stick points towards.

当使用者触碰木棍的一端,目标建筑的外轮廓和名字将在最外2层的玻璃幕墙上亮起.亮起的灯光将反射在前面的玻璃上,形成奇幻的浮光效果。



COLOR CODES 色彩与标记

The colors on the sticks show both what EXPO section the pavilions belong to and which continent they are from. Country codes help the user to find the pavilion they want.

木棍前端的色彩和地上的标识表明了目的地所属的世博分区和场馆所属的洲系。木棍顶端的字母缩写帮助人们更快找到想去的地点。

KEEP MOVING

By Anne G Pedersen/Ding Hong/Ida Burchardi
/Sara Hardy Graversen/zhu Lingyu

INTERACTION DESIGN

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INTERACTION DESIGN

KEEP MOVING

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KEEP MOVING

Informative Tyre Tracks, **Communication** through biking

车远遗痕须思量，胎底方寸著文章

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Ida ida_burchardi@dskd.dk
Sara sara_h_graversen@dskd.dk
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KEEP MOVING

Inspiration
灵感

Key Idea :
TYRES WITH LETTERS
胎印留痕话环保

Possible Solutions
方案

Research Focus :

BEHAVIOR 2 • **PATTERN** 4 • **SUBSTANCE** 3
行为 图案 媒介

Research & Field Test 4/5
研究 · 测试

CONTENTS/TEXT 11
文本内容

CRAFTS & MODELING 9/7
工艺 · 模型制作

FINAL WORK & EXHIBITION 8/9/10/12
最终成果 · 展览



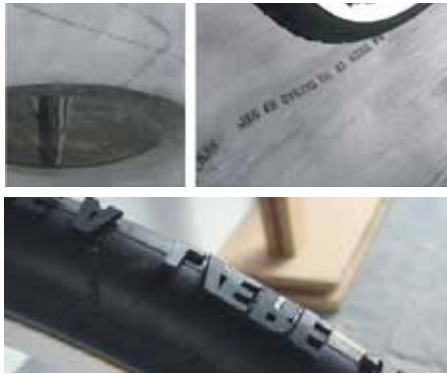
- 1. Study of Tracks · 轨迹
- 2. Habits · 骑车习惯
- 3. Using Color · 色彩
- 4/5. Pattern Study · 图案
- 6. Slick · 光胎
- 7. Rubber Letters · 字母
- 8. Audience · 观众
- 9. Letters on Slick · 成胎
- 10. Puddle · 水塘
- 11. Tyre Prints · 胎痕
- 12. Exhibition Podium · 展台



Moving Together

In life as well as when cycling, you need to keep moving in order to stay balanced. Our vision for the concept Keep Moving, is to take Expo2010 as a stage to increase public awareness of using bicycles as a unique form of sustainable transportation, thereby contributing to a globally better city environment.

生活跟骑自行车一样，只有不断前进才能保持平衡。我们的概念“保持前进”设想以世博为平台提高人们对自行车环保意义的认识，并由此为实现全球范围内城市环境的改善做出贡献。



Reinventing the Wheel

This concept creates a new dimension to cycling at Expo2010, as it turns the wheel into a means of communication. Inspired by traditional seal craft, we transform ordinary tyre pattern into meaningful messages to create a medium to facilitate interaction between the visitors at the Expo. The user will be able to print the messages on the ground after riding the bike through water. These messages will be received by other visitors and further spread around the world in forms of photos. This subtle way of branding cycling, will lead the way for a movement, which promotes the bicycle as a natural way of life and increases the popularity of cycling.

我们的概念意为为世博园区内的单车骑行注入新的意义，使其成为一种沟通交流的方式。我们用有意义的信息替代普通的胎纹，为来访者之间的交流创建了一个新的媒介。使用者骑行过水塘时就自然地把轮胎上的信息印在了地面上。这些印迹会向路人，并通过照片向整个世界传达这些信息。我们希望通过这种微妙的方式引领一种风潮，宣传并普及自行车这样一种自然而和谐的交通和生活方式。



JEG ER DYGTIG

JEG,
ER DYGTIG TIL AT KØRE PÅ CYKEL
JEG HAR SUCCES SOM CYKELRYTTER
JEG HAR LÆRT MEGET AF AT KØRE PÅ CYKEL
JEG, ER BLEVET DYGTIGERE TIL AT VÆRE MENNESKE
AF AT KØRE PÅ CYKEL
JEG, HAR MÅSKE MERE AT LÆRE



Jørgen Leth (1937-)
DANISH AUTHOR

追寻

我有酷炫的车技，
我是骄傲的车手；
单车见证着青春的印记，
宛如我们的良师益友；
轮辐还在向前不停转动，
以后的路我还要更坚定地走

I AM GOOD

I am good at riding a bike
I am successful at being a bike rider
I have learnt a lot by riding a bike
I have got better at being a human
by riding a bike
I have maybe got more to learn

NAVILIGHT

By Bo Pedersen/Liu Ran/Julian Kohn/Tang Rong

INTERACTION DESIGN

INTERACTION DESIGN

INTERACTION DESIGN

NAVILIGHT

Shao

BLACKBOARD

KITEBIKE

Piao

EDGE

ARC

驰Chí

Yi

XPO

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FLOATING ARMS

ZEUS

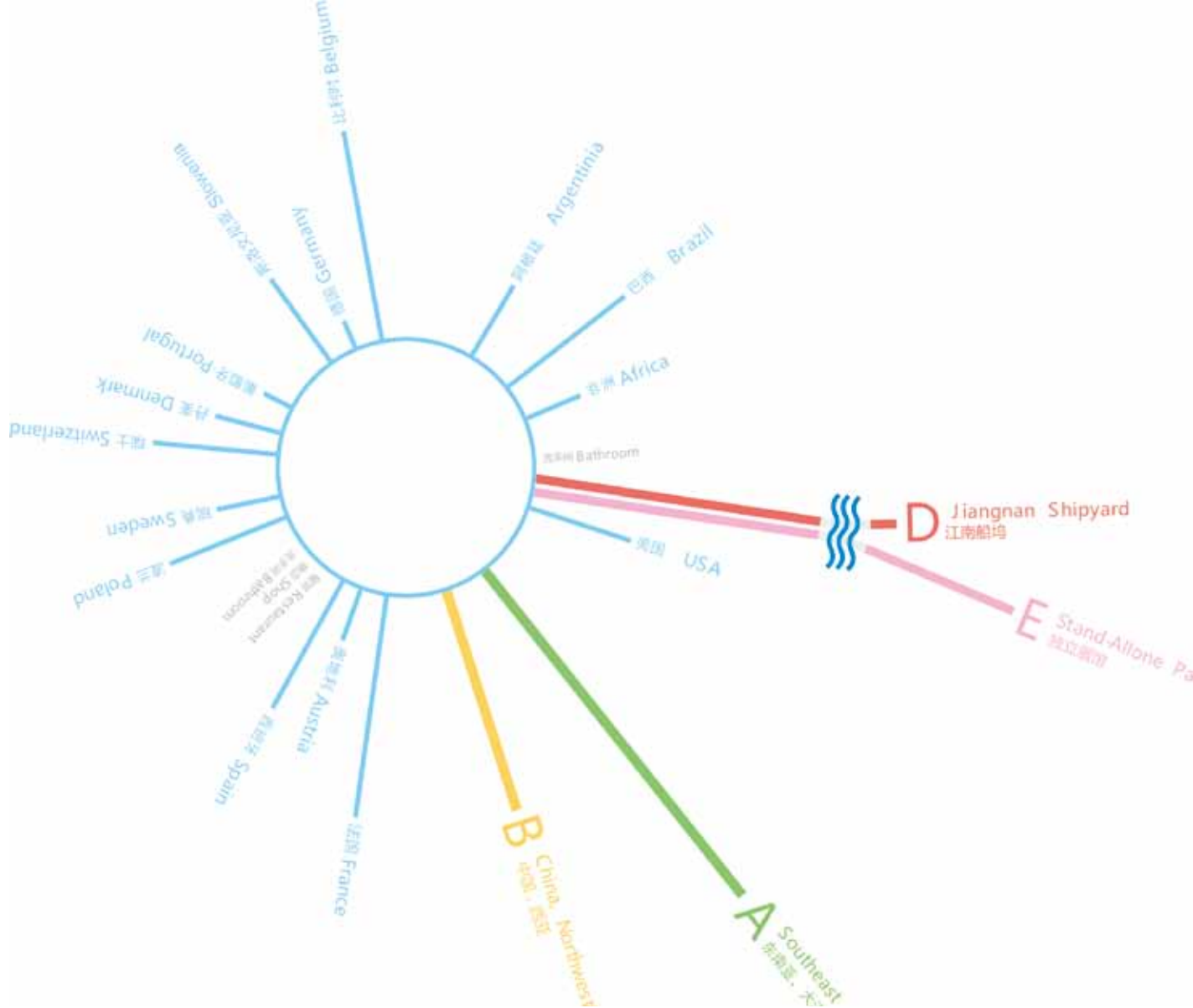
TEN

KEEP MOVING

SEED

NAVILIGHT

*The names are in alphabetical order.



NAVILIGHT

Designers: Bo Pedersen//hope_project@hotmail.com
 Julian Kohn//info@juliankoehn.de
 Liu Ran//liuran198832@hotmail.com
 Tang Rong//sibuhaigai3391@126.com

The main concept for this project is to create a wayfinding system for Expo 2010 that is based on intuition and feeling.

To achieve this goal we have worked with a concept based on light, color, direction and distance. These parameters are combined in a way that makes it easy for the user to orientate in a big unknown area.

There are two physical elements in this system.

The first are waypoints, which are surrounded by a map on the ground. These waypoints can be seen from far away, so the user never gets the feeling of being lost.

The second physical element are the bikes riding around the area. These bikes are equipped with lines of light in the frame, these lights provide the user and other Expo visitors with information about directions and distances, by switching their color and the length of the light within the lines.

PITCH

We want to create a fun and colorful biking experience that makes it easy for people to find their way around Expo 2010. Our design shows the world that biking is a good alternative to other kinds of transport.

自行车是一个很好的交通工具,它既环保,又方便。最开始我们想做的很多,我们想要通过交互设计告诉人们骑自行车是多么环保,想要把自行车变成不同国家的人们在世博会交流的一个媒介,想让自行车变得更加有趣,想让自行车传递信息……可是想了那么多,我们发现,当人们来到一个陌生的地方,骑上一辆自行车,任何花哨的噱头都比不上明确的方向感来的有意义,所以我们终于找到了我们要做的——



INTRODUCTION

1

Expo 2010 is divided into five major color-coded areas. The colors are shown on the Expo map, and on the waypoints in that area. There are approximately five waypoints in each area.

2

At each waypoint there is a "map" on the ground, which is divided into three layers of wayfinding. The first layer is the overall wayfinding, telling the user directions and giving a feeling of the distance to the five major areas. If the user has to cross the river, it will show the direction to the crossing, and the direction to go on the other side. These lines always have the color of the area they are leading towards. The Second layer is area specific wayfinding relative to the pavilions and other important buildings in the area. These lines always have the color of the area the station is situated in. The Third layer is wayfinding, giving the user directions towards services and facilities such as nearby toilets, restaurants and shops. These lines do not have a color.

3

The bikes riding around in Expo 2010 have lines of light integrated in the frame. These lights will shine in the color of the nearest area when the bike's user is moving in that area's direction. If the user isn't riding in the direction of any other area in the Expo, the lights will show the color of the area he is located in.

The closer the user gets to an area, the shorter the line of light will become. In this way the bike will work as a "compass" for the user. Through the light in the frame the bikes riding around give other visitors information about in which direction the different areas are positioned and how far away the areas are. The lights at the bikes will give the expo visitors a feeling of safety and a feeling of never being lost. These lit up bikes will also create an aesthetically beautiful scenery all around the Expo site at night.

BIKE—Mobile Compass 自行车—移动的指南针

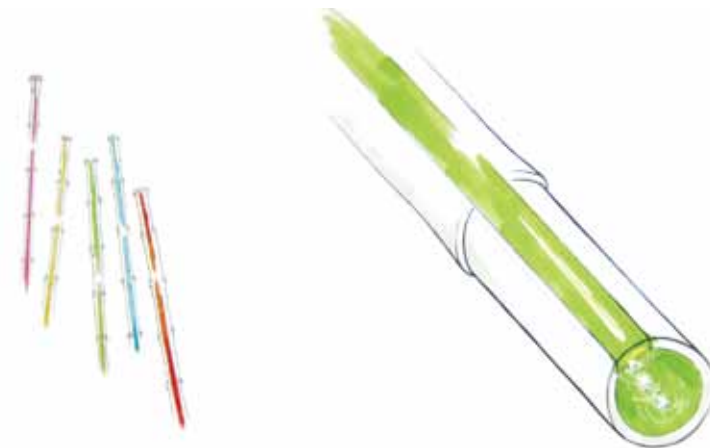
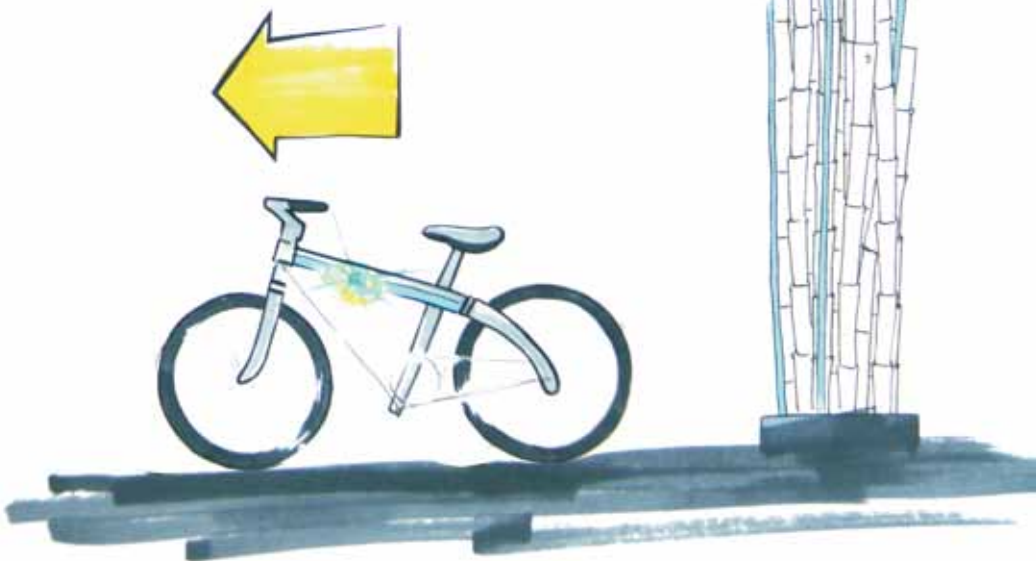
The EXPO is divided into five parts, therefore we used different colors to distinguish these parts. The bike is designed as a mobile compass which can serve all visitors. It must be a beautiful scene in the EXPO.

2010年的世博会分为五个区域，我们用了色彩来区分这五个区域。让自行车显示所指区域的代表颜色，把自行车变成移动的指南针，通过自行车，让我们的指路系统为整个世博会的游客服务，也让自行车成为2010年世博会的一道亮丽的风景线。

Map 地图

No strange way and line, instead, we found an easier way to lead people to get the direction and distance.

没有让人头痛的街道和线路，通过实验，我们找到了更简单的导航方式。人们只需要知道目的地的距离和方向，就可以找到它。



Navilight—Bamboo 导航站点—竹

The EXPO 2010 is such a huge space that we don't want to make a boring map. When we are in a strange place there must be some questions like where am I, where shall I go, how can I get there, etc. As a result, we considered that we could build a navi-station around the horizon of the people to answer these questions. The feature of the navi-station is bamboo, a Chinese material, that fits our concept very well. The LED light inside the bamboo is cut in a long piece, combining the cultural and natural, in a way that makes our concept come true.

2010年的上海世博会会场是一个块很大的区域，但是我们讨厌叠来叠去的地图。当人们身处一个陌生的地方，就自然会生出这些问：这是哪里？我要去哪里？怎么去？所以我们考虑在人们视线所及的范围建立自行车的导航站点，来解答人们脑海中的这些问题。站点的外型，我们选用了竹，则以非常具有中国特色的建筑材料，结合我们的概念，我们把竹的一条劈开去掉，换成各种颜色的有机玻璃材质，在竹子内部配以LED光源。自然结合人文，东西方文化融合的导航站点，就是我们整个概念得以实现的基础。

SEED

By Alexander Muchenberge/
Wang Chengqi

ARC

EDGE

驰Chi

Piao

KITBIKE

Shao

BLACKBOARD

INTERACTION DESIGN

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ZEUS

NAVLIGHT

KEEPMOVING

FREDERIK

SEED

INTERACTION DESIGN

INTERACTION DESIGN

*The names are in alphabetical order.

THINKING PROCESS



SEED

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 Bai Lu// bailu1988@hotmail.com
 Mathilde Ploug Andreassen// mathildeploug@gmail.com
 Wang Chenqi// 295298416@qq.com



INTRODUCTION

The aim of our project is to give a beautiful experience that makes you more concerned about the environment. Rather than persuading you to ride a bike and teaching people to protect the environment, the nice gift you get in the EXPO will make you feel involved in the designed process and deliver the information more emotionally. That natural and healthy way is what we will follow to create sustained well-being for the world.

这个设计旨在创造一种体验，代替传统的说教方式，从而引起对环境的关注。在使用自行车的过程中得到意外的礼物，使身处这个美丽过程中的参与者感受到自然、绿色和健康的气息，实现不知不觉中了解我们的行为与自然环境、生活环境的关系。



1 Riding through the edge between two areas. The sensor feels the wheel. Then the device in the tree receives the signal to release a seed.
当车轮进入一个新的区域，感应信号将立刻被传递到树中的释放装置，释放一颗种子。



2 You find a big piece of seed falling down from a high place in the tree signaled by the wheel. The device in the tree receives the signal to release the seed.
种子在骑车人的面前从空中缓慢的旋转到地面。



3 After visiting the EXPO area, you can take the gift home and plant it.
结束了世博会参观，这份礼物可以被带回家并被播种在土壤中。

4 It is a kind of tree that grows faster if you bike more. If you do not believe, just try and see.
骑车越多，这颗种子就会长的越快，如果不相信请亲自验证。



Wang Bi'er/Anne Ditlev Nielsen/Markus Krebbeer/Guo Cheng/Nina Thoeming/Lasse Breinholm Skovlund/Lin Lili/Yu Jinhong/Carl Emil/Xu Xueqin/Su Yu/Tobias Tostesen/Ding Hong/Zhu Lingyu/Anne G Pedersen/Ida Burchardi/Sara Hardy Graversen/Li Jingyao/Arthur Eisenkrein/Nina Guldager Larsen/Ni Chen/Micheal Ubbesen Jakobsen/Qian Jing/Jonas Birkebaek Poulsen/Li Sichun/Micheal Dalsgaard Knap/Lin Yunyuan/Song Kejie/Allan Sejer Madsen/Song Yimeng/Yan Yikuan/Christian Troels Hansen/Liu Wei/Felix von Looz/Christina Hansen/Anne Danielsen /Luo Dan/Xue Bai/Tian Xiaoyan/Daniel Kowal-Andersen/Yan Liwen/Ann Linn Palm Hansen/Yin Wenting/Cheng Ruoyu/Ragnhild Lübbert Terpling/Wang Ye/Hu Jin/Benjamin/Agnete/Tang Rong/Liu Ran/Bo Pedersen/Julian Kohn/Alexander Muchenberge/Mathilde Ploug Andreasen/Bai Lu/Wang Chenqi/Ye Lingke/Lin Jianjun/Li Weirong/Shen Zhiguo

OUR COMMENTS AND FEELINGS

I found the time in Forever factory was really exhausting but we all had fun and learned a lot from each other. That's real industrial design, not just to have it on paper but to actualize it.

李思淳 Li Sichun

It's my first time to take part in such an internationally corporative workshop working with foreign students and I'm really excited. I learned a lot through this workshop, not only something about design but also the way of getting along with foreign students. I feel that the hearts of we Chinese students have gotten closer after the workshop and we have realized the responsibilities we have.

王碧儿 Wang Bi'er

It's a miracle that we turned into friends in such a short time and exerted ourselves for a same goal. Although we once had conflicts, compromises and even tears, it's still a piece of memory we are glad to mention anytime. The result definitely amazed and moved everyone!

徐学勤 Xu Xueqin

It was not just about a bicycle. It was a fantastic experience which involved friendship, teamwork, relation, unity, cooperation and harmony. Though it was really difficult, we got through it and did a great job, and we all took it as a good chance to widen our sights and improve our skills in industrial design. We do appreciate that we're given this opportunity and we drew a perfect period on this task.

罗丹 Luo Dan

Amazing models from the ID group! Amazing ideas from the Interaction group! Unbelievable~

白璐 Bai Lu

Facing the world, we need to understand what it contains. Also, we need to hold our standpoint.

宋可婕 Song Kejie

I've learned a lot through this project, though the design process is time consuming and torturous. We had gone a long way before we decided the best idea. I have a clear idea now of what interaction design is and how it is conducted. In addition, via comparing the difference between foreigners and Chinese people, the capacity of logical thinking from foreign students left a strong impression on me. More important, Alex and Mathilde are really nice, I'd like to connect with them in the future.

汪辰琪 Wang Chenqi

During the workshop, we spent lots of time to adjust to the working styles of each other. But the feeling of alienation among us was cleared away with the prototype making process. We made a fantastic bike by transforming a mass of meaningless iron by ourselves.

郭城 Guo Cheng

Bo: Beef, how to say brothers in Chinese?

Beef: 兄弟。(xiong di).

刘然 Liu Ran

In this workshop, besides the bike we worked out together, the greatest gain is a lot of things in the process: thinking method, team-working and friendship. For me, this is a beautiful memory.

殷雯婷 Yin Wenting

The workshop with the foreigners always integrated happiness and sadness in one day. When the project was over, I realized that whatever the problem is, we can finally conquer it if we want. In a word, tomorrow is another day, and we always can have a nice day tomorrow.

虞金红 Yu Jinhong

There is a Chinese saying: He that travels far knows much. Experience more and communicate more; thus goes really good design.

林圆圆 Lin Yuanyuan

The Danish friends are passionate. For them, the results of experiments are usually more reliable than the experience, although some have been proved before and are the same results. However, I'm really impressed by their self-confidence and their love for design.

朱灵彘 Zhu Lingyu

It is the first time for me to cooperate with foreign students. The huge difference between us provides a chance to make some fantastic works, and it also is a gap which we have to overcome. I think the great results of this workshop came from a collision of different cultures.

颜丽雯 Yan Liwen

Tender Agnete, energetic Benjamin, optimistic Hu and I (it's hard for me to describe myself). In China, in one month and different cultural backgrounds together make a magic Floating Aims.

王晔 Wang Ye

Thomas always asks, "Are you happy today? Do you feel happy from the inside?" As a reeeeeeeally wonderful teacher, he is quite sharp and endless with all kinds of fascinating stories.

胡瑾 Hu Jin

The workshop makes me know that: As a designer, you should never give in or give up even if you are in a very tough situation. What impressed me a lot is that when the engineers said "NO" to us, we insisted to tell them "YES".

倪辰 Ni Chen

The 30 days we spent together was very precious. I experienced international intercommunion and teamwork in this workshop which inspired me so much. People from Forever factory and my partner Daniel impressed me deeply.

田晓妍 Tian Xiaoyan

It is a beautiful dream, a dream full of emotions. Bear in mind the memorable and forget the meaningless. In this complicated world, so long as you do everything attentively, you will gain a lot. Thank you Tongji. Thank you Forever.

宋忆梦 Song Yimeng

This bike workshop was unforgettable. For me it's a process full of acquirement. At the beginning of this workshop I even didn't know how to sketch a normal bike because I had no sense of where the parts should be. However, I can deal with the heavy and cool steel by hand after I tried to get to know the bicycles. Finally, we actualized our bike from sketches into reality. Not all designers can get such a chance to experience the whole procedures of making a bike, especially students. What's more, I have learned that a good communication skill is really very important in an international group and the spirit of teamwork as well. I will benefit from it a lot in the future.

林莉荔 Lin Lili

The most important experience in this workshop for me is the way to do the teamwork that the Danish teacher taught us at the beginning of the workshop. Everybody is not an individual, as organs to your body; you are a part of the team. A team can reach the best efficiency in this way.

薛白 Xue Bai

Through this project, we experienced intensive cooperation with people from different cultures. This valuable experience will become our unique strength when we face international collaboration again in the future. Meanwhile, we also made direct contact with Western design education. By drawing a comparison, we better discovered our strengths and weaknesses, figuring out what we still need to improve in the future, and what to rely on as our main strength. Therefore, the significance of this project is not only on the design level, it's also social and cultural.

丁洪 Ding Hong

It seems that we are so different from each other in culture, language and color of skin, but when the dissimilar thinking and ideas mix together to create a very beautiful rainbow shining in the blue sky, it's amazing. I just find this kind of mixture is actually so harmonious and wonderful. Maybe otherness itself could create oneness. I have learned a lot from this workshop and built a precious friendship. I come to know that although we have so many differences, the target to pursue the perfect thing and to lead people to a better life is the same.

刘磬 Liu Wei

This workshop was the first project that I accomplished together with foreign students. It has taught me a lot, including something other than design, something like intercommunication and how to deal with the culture difference between different nations. Thanks to our school for providing us this opportunity, and also Mr. Yang together with Ms. Liu, for their company during the producing phase of the bikes in the Forever factory.

严亦宽 Yan Yikuan

It's an amazing month! I could not believe until now that we did make these bicycles. I think I will remember all the things, whatever happiness, helplessness, grievances or even weeping! All of us are the best!

钱晶 Qian Jing

It is very interesting and it is my honor to participate in this project. I really learned a lot in such a short time.

唐蓉 Tang Rong

Jina, a 32 year-old lady from Beijing, is our target user. We hope to design a bike which will be used in the Expo area for her. To realize this purpose, we concluded the personality that Jin would want her bike to show. So, we took a part of Chinese word "逸" (yi) which means elegant, leisure and escape as the body form. "逸", this bike, is mainly matte red with orchid pattern on its body while it is black on the other parts. These two colors make a strong contrast. We wiped off the support of the seat part from this bike because the structure is strong enough. "逸" is a city bike. It looks like a race bike and is not the one a woman would usually use because the user, Jin is a tough business woman and she likes to use strong products. We want to introduce the innovation with Chinese feeling to the visitors, who could see how Chinese culture is combined with a classic industrial product. I personally learned a lot from this teamwork in just four weeks time. I have learned how to inspire members' will to push our concept to perfection.

程若愚 Cheng Ruoyu

This one-month workshop is definitely a memorable experience. I met some nice people and learned a lot about design, cultural differences and how important insisting on your idea is. During this period of time we had a lot of arguments and made some mistakes. But these are all precious experiences. The process is more important than the result. And finally, I want to say thank you to my dear partner Nina and Arthur.

栗景瑶 Li Jingyao

Lovely students! I felt I went back to my schooldays when I saw their great efforts. It's also a really good experience to strive with them until the end, which made me have a sense of achievement!

叶灵科 Ye Lingke

When I first saw these concepts; I felt it was a Mission Impossible, especially in such a short time. But they did it, and the project's worth accompanied them day and night for almost two weeks.

林建军 Lin Jianjun

It's reeally amazing and impressive! I don't know how to describe this feeling precisely, but the experience was totally unforgettable! It'll be always in my mind how we spent the time with these young students making bicycles!

李伟荣 Li Weirong

The several weeks we spent with the students made me feel so much younger. The creative ideas and the youthful spirit made us realize the rarity of youth and the happiness of endeavor.

沈志国 Shen Zhiguo

I think it was a very good project and I learned a lot about how different our cultures and communication are. And last I am very impressed that we could build a bike in only four weeks.

Emil

"The Bike Workshop in Shanghai was a very intensive experience. To design and build a bike in only four weeks with a team I didn't know before, under different circumstances and a cultural surroundings, which are different from what I was used to, was an often challenging task. To organise a group from three different universities and different educational levels, to coordinate work plans with the Chinese bike factory, to figure out where to get and make special parts and how to get them in time—well this all has not been easy. But the more challenging a project is, the more you learn. For me it was a great chance to improve my own skills and to figure out what is similar and what is different in Germany, Denmark and China when it comes to design work, but as well when it comes to student life and overall culture. To actually work in another country, together with local colleagues gives you a so much better understanding, how the people think and how they go for things, than if you just travel there and visit the main touristic attractions. In the end we got all the bikes finished in time and I think in our bike you can see, where its designers came from. The project was a big success and I am very thankful that I got the chance to be a part of it.

Felix von Looz

I think that creating a bike with two complete strangers was a tough trial for anyone in our group. As this is probably the most ambitious project each of us have been in yet, I think we were all eager to make something incredible and to make sure that the final product would also have some of our personal touch to it, as this could be something that will be seen by a lot of people. And even though our way of thinking and seeing things were mostly in complete opposite directions, we ended up with a great little bicycle, that I think we can all feel a part of and that we can also be very proud of. We've had a lot of differences throughout this process but in the end I think we've each grown great heights from it, and in the end we came out rich in knowledge and experience.

Lasse

This workshop was a very good experience for me. Such a high performance in a foreign city with foreign students, now providing friends, is unique. It has given me a lot of fun to have participated in this project.

Working in an international group was very informative. Combining the influences of three different countries in order to get out making the best was the biggest challenge.

I had a wonderful group with Wang Bier and Anne Ditlev. Many thanks to you both. We have developed a wonderful bike, designed and implemented. The cooperation in this group was well above average and we had no complications in dealing with our ideas, influences and suggestions. Each individual has given his best and brought to present in this short time a very good project.

Markus Kriebber

Experiencing Shanghai has been so amazing. Seeing and feeling a whole other way of life, has really taught me a lot. Not just by collaborating with Chinese students, but trying to understand a completely different way of thinking. But, what still strikes me as the most beautiful lesson is despite major obvious differences between the two countries, Danish and Chinese students were so alike. I had such a good time, and I can't wait to go back for another visit.

Sara

It was an amazing experience to do this type of project in China with Chinese students. Group work always puts the way you interact with others in perspective and when you are on top of that in another country working with students, that had never worked in groups, it can get really intense. I think maybe this has been the most extreme project I have ever done and the most giving at the same time. The way we do things in Denmark are very different from the way things are done in China, but it was nice to see how people were able to meet each other and create so inventive and creative projects despite this.

Cheers Benjamin

Crazy project!

Nina Thoeming

The bike project 09 was a rollercoaster of fun, deadlines, design and the biggest challenge of all; being in China to experience the culture and how that part of the world works.

It has been a great project in many ways: the entire journey, from idea on paper to standing in a Chinese factory, to trying to make steel tubes into a beautiful bike; organising the building process and just the hurdle of being unable to speaking with the Chinese workers. It's been great fun to learn and experience myself what it means to go out into the world and really try to make a teamwork based project come to life.

Jonas Birkebaek Poulsen

Hi ho Lovely fellow students!

It looks really amazing! I'm so excited to see the final result (especially with interaction design projects in as well?). Great work you guys!!

I'm so sorry for the delay of my answer but I just got back from London... Here are some random thoughts. And by the way I'm Ida Burchardi from the Keep Moving group:-)

Einstein once said that in order to keep your balance in life as well as when biking you must keep moving. This sentence has been in my head throughout this project. I feel that all of us has moved - not only together towards a greener future, but also as individuals. For me, a Danish student, travelling around the world and meeting a culture that is unlike anything I have ever experienced (chicken feet!) has taught me immensely about myself and the wonderful diversity of my world.

I hope it's ok.

Take care guys!

Ida. Venligst

