

## An eye on China?



**Photo 1.** Wow, who is this little one that is looking discreet back towards me?

It is October 5<sup>th</sup> 2015, the second last day of the week long national holiday. We are sitting in the high speed train on our way from Nanjing to Yichang to visit the largest concrete dam in the world: San Xia Ba = Three Gorges Dam, with the world's biggest power station.



**Photo 2.** The little Chinese girl is looking a little again. Maybe there is something special about me? When I was a child in Denmark we had a lot of fairy tales about trolls. In drawings they were always painted with a very big nose. When I was standing in a lift (= elevator) in a shopping centre in China the parents wanted their little boy to step forward from the corner and greet me, the kind old white man from Europe. Why did the boy hesitate? It was because I had such a big nose, he whispered loudly to his mother. So the little girl in the seat in front of me in the train now looked from the other side of the seat, to see if I really looked like that.

I was together with a young colleague from Subote in Nanjing on my way to see this amazing engineering work. When I gave lectures in basic dam construction 40 years ago, it was said that China would not be able to build this dam the next 100 years without technical assistance from Russia. 40,000 Chinese went into these mountains and build and worked for 10 - 17 years, and now the dam has functioned well for over 10 years and produced a lot of electricity, now with the same output as 18 nuclear plants, it is said. And it has already saved thousands of people from a devastating flood.

Subote in Nanjing, where I was a visiting guest, is the biggest developer and producer of additives for making, concrete, so they have in this way participated in the construction of the San Xia Dam. The Subote company was started by competent professors from the university in Nanjing. Subote has a staff of about 300, among them several highly qualified scientists. With the leadership of professor Ole Mejlhede Jensen from the Technical University of Denmark week long courses in concrete technology have been given here over the years to Ph.D students from all over China and from Korea, also with participation of professors from France, Israel, and USA. I had the pleasure to be together with 19 of these bright young people, one at a time. Several of these students come from e.g. small farm families, with farms not much bigger than my garden, from Inner Mongolia in the north, to Guangxi province in the south, to Sichuan in the west, to Shandong in the east. Their parents and grandparents have used all savings to pay their university study. Several of these brilliant students are now on their way to universities in USA, France, and Denmark, paid by the Chinese state. Because China wants to make progress. China makes half of the world's concrete, and wants to make it well.



**Photo 3.** The little girl got more courageous and now looked back on me with both her eyes. Her father had tried to sleep a little with the curtain pulled down because of the sun. I would have liked the curtain up, to look out of the window from up here, from this railway, elevated on columns, look on the farmland. To reduce the risks during floods, dikes have been build already years back to protect areas and villages, but also to have contained land that occasionally can be planned sacrificed to be flooded, to reduce the water level of the river.

But this measure is often not enough. Every 10<sup>th</sup> year, or now maybe every 6<sup>th</sup> year, the flood is devastating. August 1998, 5 years before the dam was ready, a flood killed estimated 3,000 people and destroyed 1 mill homes. The damage totalled estimated 1 billion US dollars ( $10 \times 10^8$  \$) more than the cost of the dam. The next huge flood could be regulated OK, thanks to the dam.

In such flood regulation one does not need to wait by lowering the reservoir level until the water has risen to the edge of the dam. Already by heavy rain upstream the spillway gates can be opened, including the bottom gates which also can suck some mud and silt out. In this way the height of the flood is levelled out. This may reduce the production of electricity a little. More than half of the reservoir's 40 km<sup>3</sup> volume can be used for flood control.

With an adequate number of turbines this also gives good possibilities to regulate electricity production: to sell mainly expensive electricity during daytime, and stop at night for refilling the reservoir when e.g. wind generated electricity is very cheap.

Such a big gravity dam is usually concreted in big blocks that are allowed to cool off before the neighbouring blocks are made. Even when using crushed ice in the concrete mixture and cooling pipes in the dam excessive heat can develop, especially during the summer, giving risks of heat cracks, which is said to have been encountered in 2002. I proposed to consider cutting big blocks out of solid mountain rock, use sound vibration of the rock for hidden fissures, place the blocks with space in between for casting reinforced "Subote concrete". The professor from Israel told that they experiment with dropping the rock blocks to assure the quality.



**Photo 4.** Now the little girl in front of me got curious and stood up on her seat and showed me her lovely face. I asked for her name and if it was her grandmother (nai nai) sitting next. No, said her father stretching his legs close by in the aisle. Her name was Wang Giwen, 3 years old. The father had a metal business in Yichang, but now not earning so well, so the mother had got a job in Jiangsu, the province with Nanjing, an economically prosperous region. They had just visited her mother during the national holidays, and they occasionally made this trip with the high speed train, ticket: 150 yuan (25 dollars).

The train ride with a speed of 200 km/h was very calm. What a big difference to the shaking slow expensive Danish trains. We should let the Chinese take over.

Now the loudspeaker in the train again announces, also in English to the passengers from the West with other habits, that used toilet paper must be put in the waste basket and not be flushed out, polluting and choking the pipes.

Arrival at stations is also said in English and we are reminded to take special care of and assist seniors and children.

Our trip went on through several tunnels and over bridges, up to the million big city Yichang. Here the dam company bid us welcome by offering us a car with driver + guide for 2 days from the next morning on.

Unfortunately it had started to rain. And the rain continued the next day.

## Chinese quality concrete



**Photo 5.** It is October 5<sup>th</sup> 2015, the second last day in the vacation week of the national holiday, and we are checking in at this beautiful new hotel in the big city Yichang by China's big river Chang Jiang (= YangtzeKiang). It is busy here because many well to do Chinese people are here to see the big dam and the impressive mountains and gorges. Unfortunately it is raining and more rain is forecast.

The wall has a big beautiful frieze of the dam 40 km up river. This dam is so far the biggest concrete structure in the world. It is 2.3 km long and we see that it here has opened the gates to let out excessive water from the almost 120 m higher reservoir. Mostly the water runs through the 32 gigantic turbines inside the dam to produce "green" electricity to China.

Just to the right in the river we see a canal leading up to the dam, where there is a ship lift that can lift ships of 3,000 tons in 40 minutes - when the lift is finished in a few months.

Further out to the right, out in the mountains, we see a 5 step 2-way ship lock that can raise 10,000 tons ships in 4 hours. Chang Jiang is the river in the world with the second most ship traffic. Many ships sail to Chongqing and Sichuan, and this traffic is increasing now that it is safer to sail, also at night.

## Exhibition model



**Photo 6.** On this model we look towards the west, look upstream, towards the dam which is orientated NE - SW. In the right part we see the big 2 way 5 step ship lock. Behind the spectators we see a picture of the mountain area the river passes through. These mountains were created 40 million years ago, and as the mountains shut up the river dug itself down and so created the famous 3 gorges.

It could have been interesting to hear accounts from engineers that had participated in the construction work, and possibly participated during the August 1998 flood, but because we came to visit during the national holiday this was not possible. So I appreciated that it here in the exhibition hall was possible to buy a book from 2013 by Lu Jin in English: "The largest water control project in the world, Three Gorges Project in China". I read the book on my 18 hours flight home from Nanjing to Copenhagen. Maybe I here and there could find a new figure. But I understand well if an author does not find it worth the effort to be more informative to the many tourists that only open the book for 5 - 10 minutes to see some beautiful colour photos without interest for the date of the photos.

This model was almost pretty much what we got to see of the dam itself, because of the rain fog.

## Visit to the dam



### Photo 7.

Hundreds of visitors came to see the dam, busload after busload. Here we see the many umbrellas moving up the escalator to the viewpoint, to see what? When we reached the famous viewpoint from which to see the whole dam - then we could see nothing. Only the rain.



### Photo 8.

I felt sorry for the thousands of Chinese tourists that had come from far away to here in their national vacation to see their Chinese pride, and now only stood here in the rain under their umbrella.



### Photo 9.

Later the same day, from the other bank, we had the joy to get a glimpse of the big dam, which my young male colleague Zuo Wenqiang from Subote here discusses with our female guide.

## Sailing through Chang Jiang's gorges



**Photo 10.** Here in this beautiful narrow gorge (Xiling Xia) it was chosen not to build the dam. During the 10 years it took to build the main dam it was important that the river water and ship traffic still could pass. So the dam was build a wider and better place.

**Photo 11, 12.** Below we see a wedding by the Ba-people, who lived here on the slopes pulling ships.



## English in China?



**Photo 13.** Who has the courage to address this friendly old white haired man with the big nose and try to say: “Hello, nice to meet you?”. The parents urge their children, to try for the first time to use the English they have learned at school, now that they have the possibility.



**Photo 14.** After some time this girl to the right dares and we shake hands. And shortly after I also greet the boy. This happens just before we reach the ship lock in the dam we see here in the distance, where our ship is lowered 20 meters, before we debark in Yichang. It is the Gezhou dam that spans Chang Jiang (= Yangtzekiang) in the outskirts of Yichang and produces electricity.

The family here knew how to speak Mandarin (= Beijing Chinese), but when speaking together they spoke a local language not understood by my colleague. In Yichang as well as in Nanjing and Shanghai we also met people that spoke their local languages. So spoken Chinese language is a variety, but the written language with its many thousands of characters is rather much in common.

## Yichang



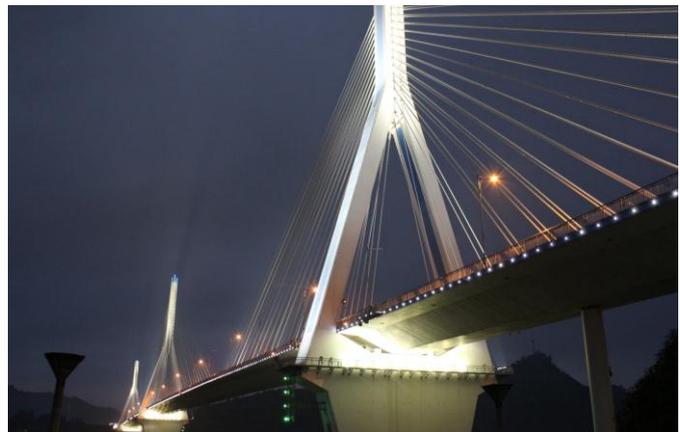
**Photo 15, 16.** At Yichang we sailed through the ship lock in Gezhouba dam and on to Yichang, below this big city's increasing number of bridges.



**Photo 17, 18, 19.** Pestrain bridge ↑↓,

sky scrapers,

shopping centre



**Photo 20, 21.** Here above this central street crossing there is a special pedestrian bridge all the way around, which is illuminated at night with shifting colours, so there is good use for the electricity from the dams. Likewise this cable stayed bridge and many buildings are fancy illuminated.

## Shanghai



**Photo 22.** Shanghai is the biggest city in China, with the tallest modern sky scrapers. But here we are in another area, in a street without cars. We see that goods still can be transported traditionally with a load of boxes on a hand drawn cart. The modern China has useful room for the common man.



**Photo 23, 24, 25, 26.** A Russian group is dancing in Shanghai. Watch out for swindlers on the street who sell fake tour tickets. I am happy to be photographed together with nice Chinese: here a bride on the sidewalk, and in the evening my colleague's girlfriend on the tourist ship in front of Pudong.



**Photo 27.** Shanghai station with a high speed train. The train speeds 300 km/h via Nanjing across river Chang Jiang = Yangtze River to Beijing in 5 hours.



**Photo 28.** TV Tower ↓↑ up on the glass floor. There were a lot of tourists, and here we were photographed floating high above the city.



**Photo 29.** Evening cruise in Shanghai, with the 400 m tall TV tower on the other side of the river Huangpu in the new sky scraper area, Pudong, now with up to over 600 m tall sky scrapers. Behind us: the famous beautiful classic European Waitan = The Bund, where the West since they with 90 warships in the nasty Opium wars from 1842 and on, dominated as a semi colonial power until the 1949 Mao revolution, so informative shown in the Historical Museum below the TV Tower.

## Suzhou



**Photo 30, 31.** The historical city Suzhou is east of Nanjing and we went there by high speed train. We see a famous garden from the Ming period, and the old city wall + a map of Suzhou with canals.



**Photo 32.** Road signs: The message is not always written also in pinyin = latin letters. The many tourists that drive to the famous Suzhou, praised as “Venice of the East” by Marco Polo in 1280, they better do as written, otherwise their car will be hauled away.

## Yangzhou



**Photo 33, 34, 35.** The historical city Yangzhou is a little north of Nanjing, and we went there by car on a nice Sunday trip. We visited e.g. a Buddha pagoda with a lot of Buddha figures. We here see that Buddha is decorated on his chest with a yellow swastika like symbol. Driving to Yangzhou we crossed Chang Jiang = Yangtze River on an impressive suspension bridge, bridge no. 4 in Nanjing.



**Photo 36, 37, 38.** Scooters are widely used in China, especially electric scooters, and children and family ride along for an exciting tour. Scooters are very flexible in the traffic and find their way through any narrow passage, in a way we do not see in a more police dominated state like Denmark. The car drivers honk their horns often, just to make attention and warn, and they seem to be more watchful and considerate in China. Here in Yangzhou I saw this scooter riding chair for children.

## Nanjing



**Photo 39.** Nanjing skyline seen from one of the two high speed train stations (North). To the left, on the other side of Xuan Wu Lake we see the Zifeng building, once the 7<sup>th</sup> tallest in the world.



**Photo 40, 41.** Nanjing Metro. From the station north of Xuan Wu Lake (the top violet arrow) a metro line goes to the centre station, Xin Jie Kou with 24 beautiful exits (arrow), where I use exit 7 to my language school, where I for 3 weeks 6 hours daily practised Chinese pronunciation. From there I go by metro south to Long Mian Da Dao station (arrow), and from there taxi to Subote Campus. Metro is 4 yuan, + taxi 17 yuan = 3 US dollars = 1/10 of Danish price. Metro every 5 minutes. Often in non rush hours you can sit down. Seniors 70+ can use the metro and bus free, if applied. We seniors also have free admission to museums etc., I only showed my passport, which I had in a hidden breast purse. It was hot every day (~30°) so I wore short sleeved shirt and trousers.



**Photo 42, 43, 44.** Nanjing centre: a sky scraper outside my school window, with interesting expensive architecture: 8 sided on the top, 12 sided below with inclined corners. A many storey shopping centre. Fashion show with tall European girls with big eyes and sharp look, where I prefer the small Chinese girls with their beautiful narrow eyes and yellow round faces.



**Photo 45, 46, 47.** In the entrance hall at the language school there are 2 big porcelain vases. After 3 hours of 1 to 1 lessons of language from a teacher with 7 years experience of English in Canada, I go with my 3 colleagues from Subote to have lunch at a small restaurant for 1 hour. (Normally I am accompanied by only 1 colleague).



**Photo 48, 49, 50.** This long stairway leads up to the mausoleum for Sun Zhong Shan = Sun Yatsen, who in the 1912 revolution became president (in the beautiful historic Presidential Palace) in Nanjing, after overthrowing the Qing emperor in Beijing. An impressive city gate in the city wall of strong brick around Nanjing dating the first Ming emperor (~1400), when Nanjing was the capital.



**Photo 51.** Sunny Nanjing: on the roofs there are a lot of sun heating installations to make hot water.



**Photo 52.** The baby is carried sleeping close by his mother's body, and not in a pram as in Europe.



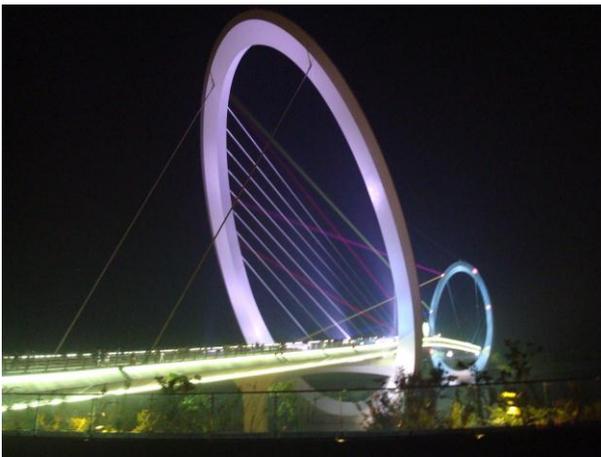
**Photo 53.** There are a couple of bicycles to the right in this photo, one with an umbrella to shade the sun this hot Sunday. But else we see the popular scooters here. The scooter in the centre: the father has a child at his front and at his back his wife is sitting the female sideway, holding a white balloon.



**Photo 54, 55.** A construction site for building a new high rise building has the shown 3 storey temporary dwelling for the construction workers from other parts of China, so that workers from less rich provinces can earn a salary here. Red light street crossings have more advanced signals than in Denmark, so on this multilane street cars can turn left from this right side lane.



**Photo 56.** Moon Festival Saturday 2015.09.26, high up here at the beautiful home of Tian Qian + husband Tang Jie + daughter Tang Jingling, also with the visit of Tian's niece + boyfriend.



**Photo 57, 58, 59.** The Moon Festival (explained in a fairy tale book I got) included a tour to the Nanjing Eye, a new pedestrian bridge out to an island in the Chang Jiang river, build for the occasion of the Olympic Youth Games 2014 in Nanjing. I am here photographed together with Tian's family on the bridge. The full moon is here seen above the skyscrapers. In Europe it later became "a red moon" = total eclipse.



**Photo 60, 61.** The bridge across Chang Jiang in Nanjing: road and railway Beijing - Shanghai. Finished by the Chinese in 1968 after Russian Engineers of political reasons had been pulled out. Modern 4 storey street crossing, here with road signs in both Chinese and English.



**Photo 62, 63.** “Clothes-lines” in the park with hundreds of notes, where parents of their marriage ready child look for a spouse. The many red ribbons seen in several places are a kind of prayer or good wish for a close person. I got a ribbon with a small bell on.

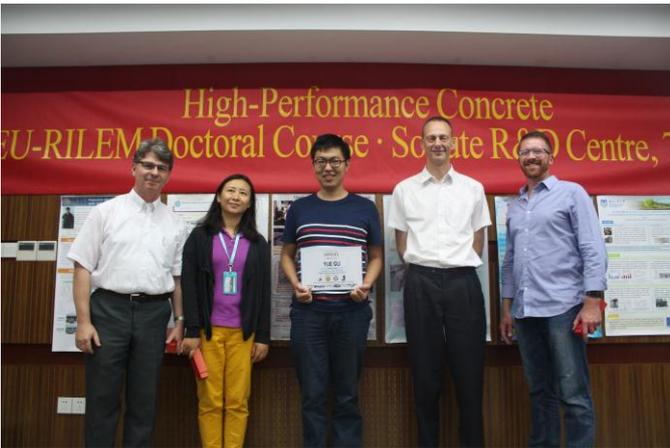


**Photo 64, 65.** In a pedestrian underpass small bicycles are made with a pair of tongs: 10 yuan = \$2. Illuminated evening cruise with small shows on shore in Qinhuai district with the Konfuzi Temple.

## Subote



**Photo 66.** State Key Laboratory of High Performance Civil Engineering Materials, we read up there.



**Photo 67.** Gu Yue here shows his diploma for well performed course. He hereafter goes to California for further scientific education, paid by the Chinese state. Dr Tian Qian, the Chinese leader, stands on his right side (she has additional science experience from e.g. Denmark and USA). The other persons are from left: professors from Israel, Denmark (my son) and USA.



**Photo 68.** Farewell dinner for Ph.D. course participants and professors. Here a group of participants comes to the professors from Israel and Denmark to toast the Chinese way. We are dining at a big round table, in the middle with food on a big circular glass top, which can rotate the wanted food over to you.



**Photo 69, 70.** Student canteen: the serving personals wear plastic shields in front of their mouths. Our evening meal is here fish etc. + cooked rice which sticks a bit together for eating by chopsticks.



**Photo 71.** Farewell dinner for me in probably the best restaurant in town, after 1 month with a most fabulous experience by the very nicest people. I am wearing my new Chinese shirt. Behind me my language co-author Tian Qian stands, and my young colleague and travel mate Zuo Wenqiang, professor Miao Changwen, and his secretary. Miao has invited me as a guest of Subote.



**Photo 72.** To the left: the building with the big canteen for students and employees. To the right: the building with dormitories (rooms) for the students. The picture is taken from my window.



**Photo 73, 74.** The guest room: my beautiful apartment: my living room and kitchen, and my bedroom and bathroom. There is air condition (set to 25°) which cools the room during the hot summer and which is also used to heat the room during the mild winter. I shut off the air condition, and had open windows day and night with a pleasant temperature for light summer clothes.



**Photo 75, 76.** The main building at Subote Campus with the main entrance. The 6 storey building is the office building for scientists and students, and with lecture rooms and laboratory.

In the background we see the hills with forest.

The whole campus area here in the southern part of greater Nanjing is with new buildings. Subote moved out to here from the city about 3 years ago.



**Photo 77.** High Performance Concrete. Doctoral Course. Sobute Research & Development Center, 7-11 Sept. 2015. (English Sobute = Subote in Chinese). A big group of young scientists, a big future for high performance concrete in China. Some of these young scientists have experience from the west, and several more will go to the west to learn and get scientific experience.

This doctoral course here given to the many Chinese is performed by 4 professors from the west. The Chinese scientific knowledge is progressing fast, so soon we in the west may have to go to China to learn. I hope we then will show a positive attitude towards the Chinese way of daily life, of their culture, and of their language.

## A short summary of 1 month in Nanjing and China Sept - Oct 2015

by Niels Mejlhede Jensen, [www.mejlhede.dk](http://www.mejlhede.dk)

Sept

09 Wednesd Arrival to Nanjing and Subote serviced: by Li Hua  
 09 - 11 Participation in Ph.D program and festivities  
 12 Sat Nanjing roundtrip: Presidential Palace, Mausoleum, Pagoda by Zuo Wenqiang  
 13 - 14 Shanghai: Waitan, river cruise, TV Tower, museum, historic district by Zhou Yang  
 18 Nanjing museum + language course by Yang Kaili  
 19 Sat Suzhou: Zhuozheng Yuan garden, Suzhou Museum by Zhong Peihua + Tang Jinhui  
 20 Sund Yangzhou: park lake, Buddhist pagoda, bazaar street by Li Zhen + Li Wei  
 26 Sat Nanjing museum, moon feast at Tian Qian fam., with night trip to bridge by Feng Pan  
 27 Sund Nanjing railway bridge, Xuan Wu lake, Techn. Uni. by Wang Penggang + Li Wei  
 Oct 04 Sun End of language course, by teacher Jin Meng, by Zuo Wenqiang + She Wei + wife  
 05 - 08 San Xia dam, Chang Jiang river and gorges, Yichang, by Zuo Wenqiang  
 09 Friday Departure: Nanjing to Copenhagen (over Beijing and Stockholm) by Zuo Wenqiang

During the other days I had 3 weeks of language training in a Nanjing school by teacher Jin Meng to where I was accompanied by different young, kind, interesting, clever colleagues from Subote:

Female: Yang Kaili, Li Zhen, Ge Xiaoli, Liu Yujing. (Li Hua og Feng Pan)

Male: She Wei, Zuo Wenqiang, Li Wei, Zhong Peihua, Tang Jinhui, Wang Penggang, Chen Ruixing, Gu Yue, Yuan Peng, Cheng Jun, Zhang Hao, Lü Kai. (Zhou Yang)



**Photo 78.** What is it the little Chinese boy is looking so close on at me?

This you may read more about on page 2 section 2.

**Photo 79.** Here outside Subote an old farmer wife is sitting in her traditional modesty and quiet enjoying her good lovely cow and calf. Behind her we see the top modern building where big money is earned with a big group of skilful people working enthusiastically with big interest day and night to develop and produce better concrete. In the top modern China there is still a useful place for the modest people working the traditional way. This is e.g. seen on the streets with big cars, where also small 3 wheeled lorries and busses and 3 wheeled bicycles transport the small goods they can handle. So here there is no need to send a small packet by a big car. In China there is room for both old and new.