

SHANGHAI'S MOOD

INTRODUCTION

HOW TO DECIDE THE TOPIC

The first topic the group chose was about the growth of Shanghai in three years, considering both the Chinese and International population, both the expansion of the city . After some discussion we decided to focus our attention on Shanghai's atmosphere factors and how the main factors can influence people's daily life. We defined which data could have been interested and useful for our project and we started to search open datas on the Chinese website www.tianqi.com (*figure 1*). The data we started to analyze were about rain, minimum and maximum temperature, uv index, allergies index and air quality during the last year in Shanghai. After a first selection and translation from chinese to english, we added the datas on excel trying to understand how to divide them. The decision was to analyze all the information we got based on the by lunar calender and the four seasons (*figure 2*). The choice to use the lunar calendar is because the chinese culture follows it and calculates all the holidays according to that.

日期	最高气温	最低气温	天气	风向	风力
2016-02-01	3	-1	阴-多云	东南风	小于3级
2016-02-02	5	0	晴-多云	东南风	小于3级
2016-02-03	7	1	晴-多云	东北风	小于3级
2016-02-04	6	1	阴-多云	西北风	小于3级
2016-02-05	8	1	晴-多云	东南风	小于3级
2016-02-06	6	-1	多云-晴	西北风	小于3级
2016-02-07	9	1	晴-多云	东南风	小于3级
2016-02-08	13	2	晴	东南风	小于3级
2016-02-09	17	6	晴	东北风	小于3级
2016-02-10	18	11	多云-阴	东南风	小于3级
2016-02-11	18	14	阵雨-阴	东南风	小于3级
2016-02-12	20	14	多云-小雨	东南风	小于3级
2016-02-13	17	3	阵雨-阴	西北风	小于3级
2016-02-14	5	-1	雨夹雪-多云	西北风	小于3级
2016-02-15	5	-1	晴	西北风	小于3级
2016-02-16	10	2	晴-多云	东南风	小于3级
2016-02-17	19	4	晴-多云	东南风	小于3级

figure 1

Seasons	Date 2016	Max temperature(°C)	Min temperature(°C)	Temperature difference(°C)	Average temperature(°C)	Weather
1 Spring	2/4	6	1	5	3.5	2 Cloudy
1 Spring	2/5	8	1	7	4.5	2 Cloudy
1 Spring	2/6	6	-1	7	2.5	2 Cloudy
1 Spring	2/7	9	2	7	5.5	2 Cloudy
1 Spring	2/8	13	3	10	8.0	1 Sunny
1 Spring	2/9	17	8	9	12.5	1 Sunny
1 Spring	2/10	18	11	7	14.5	3 Rainy
1 Spring	2/11	18	14	4	16.0	3 Rainy
1 Spring	2/12	22	14	8	18.0	3 Rainy
1 Spring	2/13	19	3	16	11.0	3 Rainy
1 Spring	2/14	6	-1	7	2.5	2 Cloudy
1 Spring	2/15	6	0	6	3.0	1 Sunny
1 Spring	2/16	10	2	8	6.0	2 Cloudy
1 Spring	2/17	11	5	6	8.0	2 Cloudy
1 Spring	2/18	15	6	9	10.5	2 Cloudy
1 Spring	2/19	12	5	7	8.5	3 Rainy
1 Spring	2/20	11	3	8	7.0	1 Sunny
1 Spring	2/21	10	6	4	8.0	3 Rainy
1 Spring	2/22	8	5	3	6.5	3 Rainy
1 Spring	2/23	10	3	7	6.5	2 Cloudy
1 Spring	2/24	9	2	7	5.5	1 Sunny
1 Spring	2/25	11	4	7	7.5	2 Cloudy
1 Spring	2/26	15	7	8	11.0	2 Cloudy
1 Spring	2/27	18	8	10	13.0	2 Cloudy
1 Spring	2/28	21	5	16	13.0	2 Cloudy
1 Spring	2/29	10	2	8	6.0	1 Sunny
1 Spring	3/1	12	5	7	8.5	2 Cloudy
1 Spring	3/2	16	8	8	12.0	2 Cloudy
1 Spring	3/3	21	12	9	16.5	2 Cloudy
1 Spring	3/4	22	14	8	18.0	3 Rainy
1 Spring	3/5	23	10	13	16.5	3 Rainy
1 Spring	3/6	16	9	7	12.5	2 Cloudy
1 Spring	3/7	21	10	11	15.5	3 Rainy
1 Spring	3/8	11	5	6	8.0	3 Rainy
1 Spring	3/9	7	4	3	5.5	3 Rainy

figure 2

DISCOVERING MORE

Shanghai is a renowned international metropolis drawing more and more attention from all over the world. Situated on the estuary of Yangtze River, it become not only the most influential economic and financial center in East China but an important center of cultural exchanges which gives a suggestive and uncommon international atmosphere to the city. Furthermore, thanks to the location by the sea , the clouds are often bushed away letting people breath better and enjoy the beautiful and carateristic area around the bund.

Nowadays the city is populated by over 24 million inhabitants, Chinese and non, long-term residents and immigrants who share cultures, sceneries and routine in this multifaceted city. The modern and the traditions, the western and the oriental create, new skyscapers and old buildings collaborate perfectly together drawing the skyline of the city. Western customs and Chinese traditions intertwined and formed the city's culture, making a visitor's stay memorable.

Shanghai offers visitors a chance to experience the past, present, and future all at once and received 4,091,196 visitors in the first half of 2016, concentrated more during holidays day. Shanghai as other cities throughout the country, celebrates all Chinese public holidays like Spring Festival, QingMing Festival, International Labor Day, Dragon Boat Festival, Mid Autumn Festival, National Day and some western festivities such as New Year Day, Easter, Thanks Giving and Christmas. This are the dates in which the population of the city changes and tourist concedes it as the favorites destination for the holidays.

METHOD

According to this we have decided to collect and compose our data to help tourist getting along with the Shanghai's mood considering rain, temperatures, pollution, allergenic factors, etc; which are some of the main issues people concerns about when coming to visit the metropolis. To carry out the project we decided to take into consideration variables of the four different seasons (**figure 3**) and highlight the main factors tourist should be aware of when coming to Shanghai. We had taken as a spotlight public holidays considering them as the most likely occasions tourist could organize a trip to visit the city.

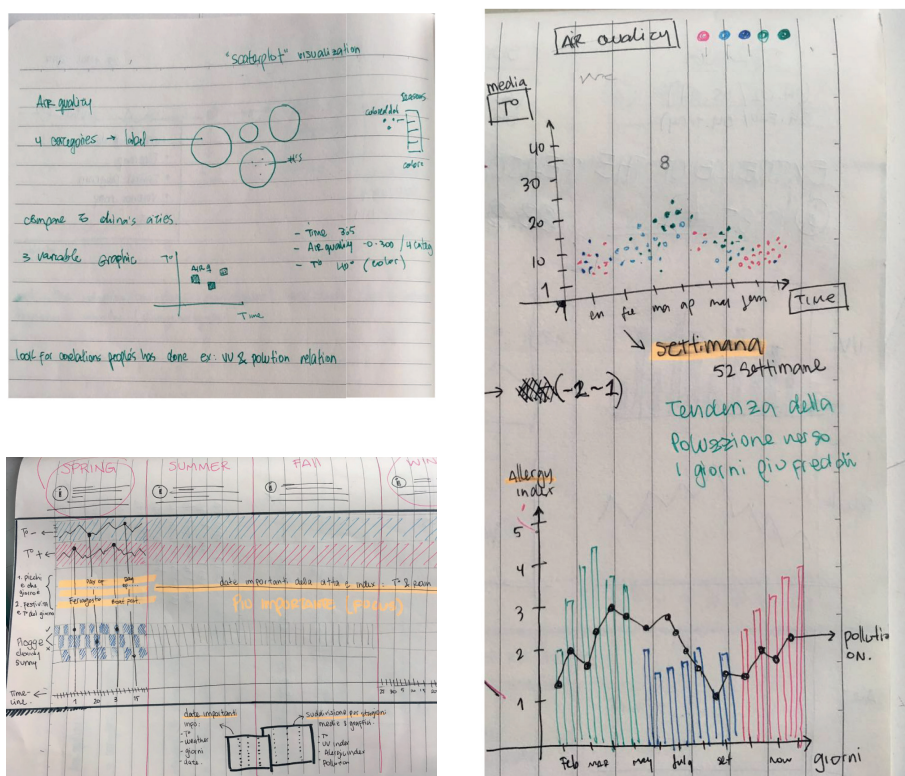
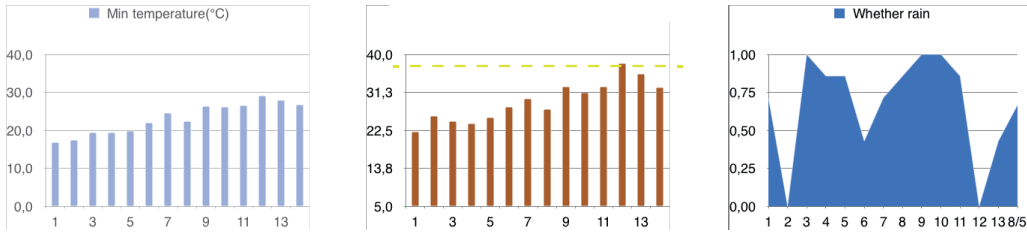


figure 3

We created the first graphics with 2 and 3 variables in order to find a tendency and validate the assumptions and information founded on the net. Temperatures are very variable and in some seasons weather can get inestable to the point of having 3 seasons in a day. The location makes the city so wet that it rains for about one third of the year and for this reason the best time recommended to visit the city is the springtime.

SUMMER
(05 May-06 Aug)



Here we can appreciate how the temperature changes according to the season and appreciate the maximum and minimum values.

T°C index

This graphics shows the course of the rain and the strong presence during the summer

RAIN index

WINTER
(07 nov-03 feb)

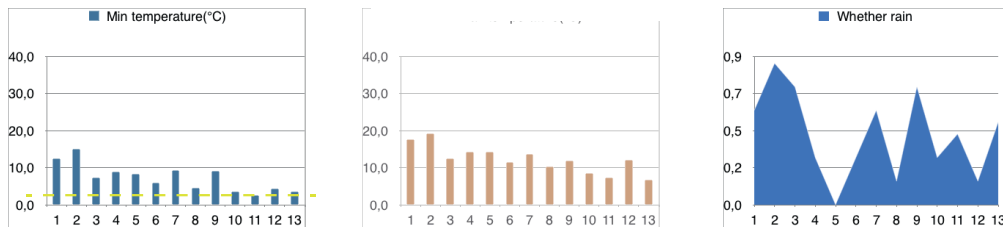


figure 4

After the temperature, we wanted to investigate more about the other factors and see if there is a relationship between them: how change the air quality? How Serious is Air Pollution in China?

It is debatable how serious the health effects of air pollution are, in some cases in fact, the consequences are the same as cigarettes. The composition of Shanghai Air Pollution according to a report from July 2014 Shanghai air pollution is composed of: vehicle and factory emissions, dust from construction sites, power stations, straw burning, the remainder of other provinces, industrial plants, ships and planes accounted dust, cooking and the agricultural sector.

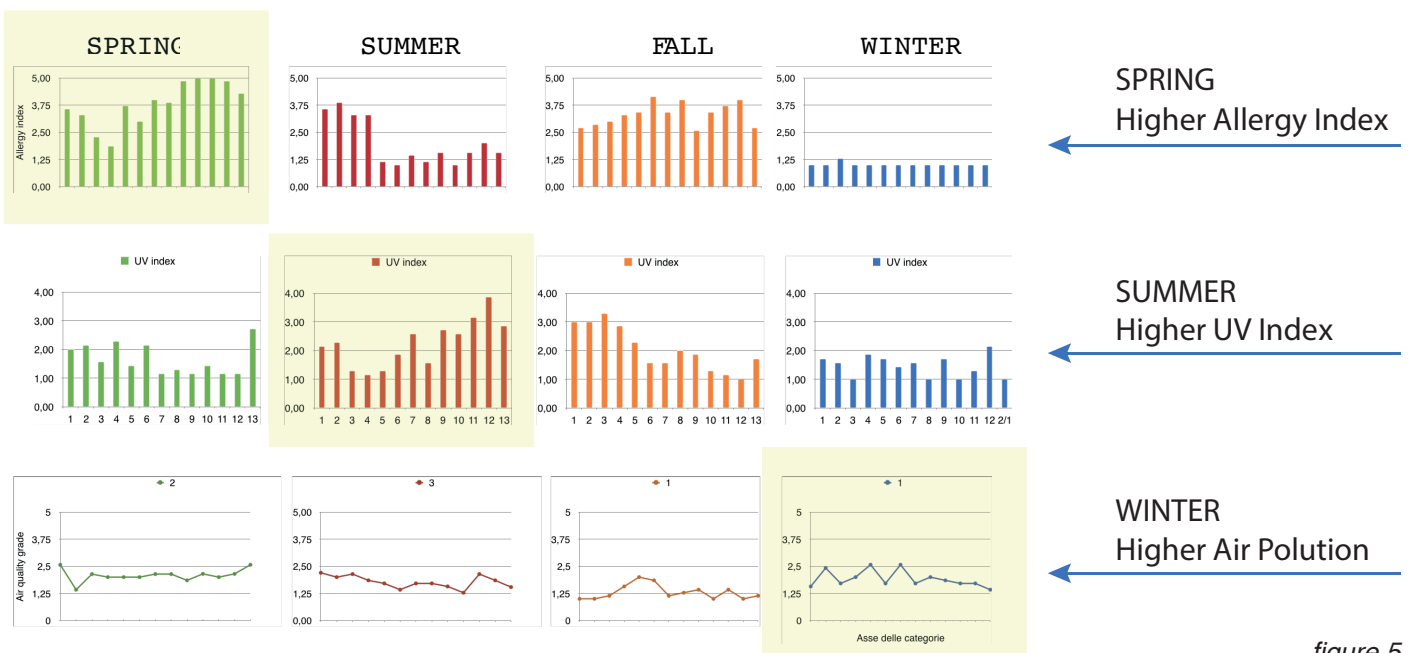


figure 5

Figure 5 and other graphs helped us to answer to the following questions:

- 1)Whats is the highest tendency of each season regarding environmental issues?
- 2)What is the tendency of this issues during public holidays?
- 3)What are the elements people can carry to make stand better this changes?

CONCLUSION

The division by seasons gave us some interesting information that could be helpful for tourists: during springtime the allergy index is higher and is possible to perceive the tendency of bad quality air while the weather is un-stable; in summer there is a strong presence of rain during the hole season, high temperatures and UV index elevated; fall is determined mostly by a strong allergy index, high temperatures and UV radiation start to decrease; in winter instead low temperatures with sporadic rains and a very strong presence of air pollution. After this we focused more the attention on the holidays and we calculated an average considering the past five years in Shanghai (*figure 6*).

表格 1

	Average temperature(°C)	temperature difference	Weather	Whether rain	UV index	Allergy index
Easter	15	5	50%rainy 40% cloudy 10% sunny	50%rainy		14
Spring Festival	96		60% rainy 20%cloudy 20% sunny	60% rainy		13
Qingming Festival	14	7	60%rainy 30%cloudy 10% sunny	60% rainy		15
Labor Day	20	6	60% rainy 25%cloudy 15% sunny	60% rainy		24
The Dragon Boat Festival	24	5	60%rainy 40%cloudy	60%rainy		21
Mid-Autumn Festival	25	5	60%cloudy 30%rainy 10% sunny	30%rainy		24
National Day	23	6	60%cloudy 30%rainy 10% sunny	30%rainy		25
Thanksgiving Day	85		60%cloudy 40%rainy	40%rainy		21
Christmas Day	84		80%cloudy 20%rainy	20%rainy		11
New year's Day	77		60%cloudy 30% sunny 10% rainy	10% rainy		21

figure 6

According to what we discovered we tried to understand how to react in the right way to each factors:

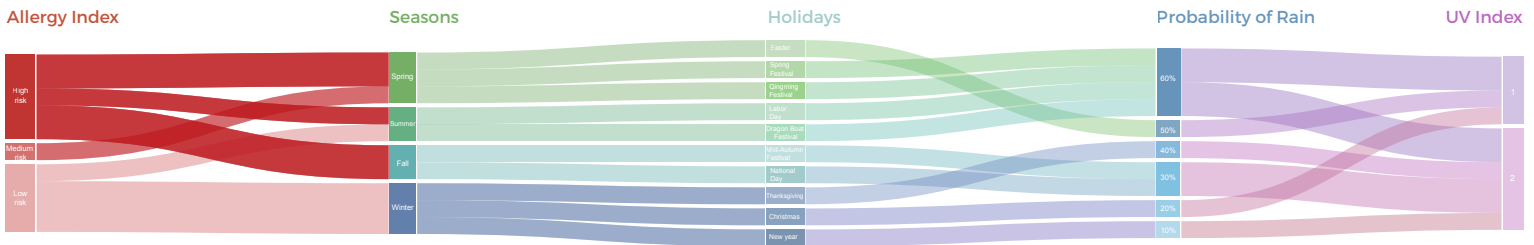
- High UV index - use sunglasses, suncream +30, hat, sun protecting clothing, humbrella and avoid bright surfaces
- Pollution - wear masks, provide plants that helps to purify the air at home
- Allergy index - change clothing frequently, use air purification system, wear mask, use special detergents
- Rain - remember umbrella, rain coat and water-proof footwear
- High Temperatures - stay hydrated, take transportation instead of walking

Our project wants to help tourist on choosing the right moment to visit Shanghai and provide them an instrument that shows which are the useful elements they should have in their luggages. The idea is to create a flier to be distributed in travel agencies, info points or a link in booking websites.

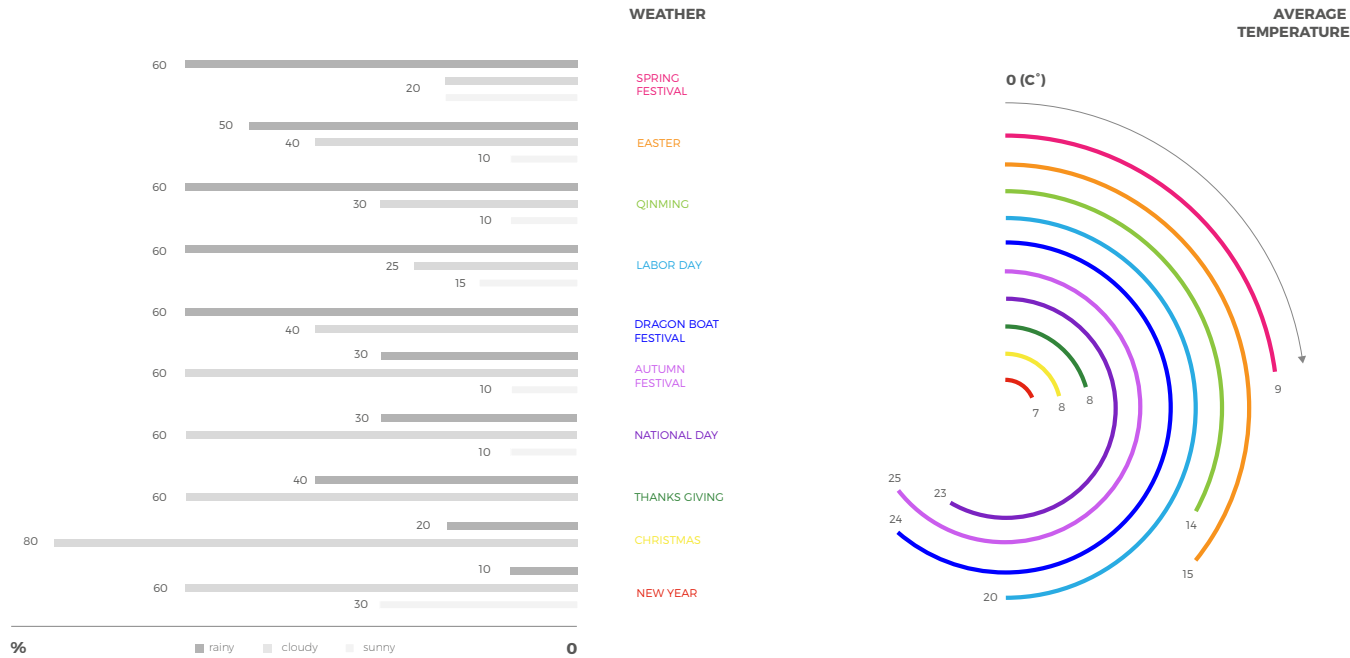
SHANGHAI'S MOOD

HOLIDAYS

Seasons and variables of the Holidays over past five years



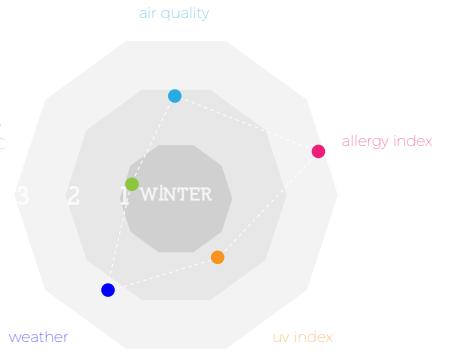
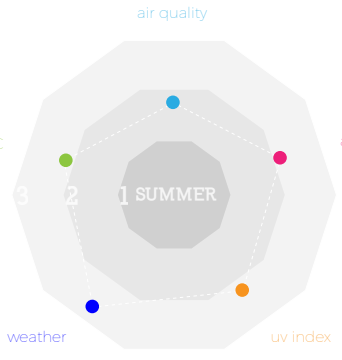
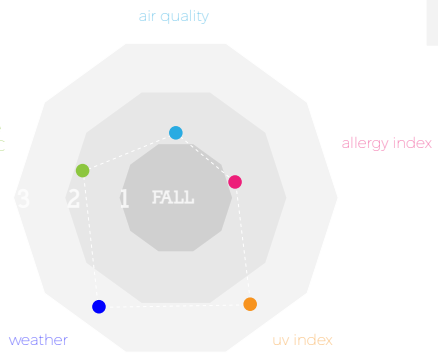
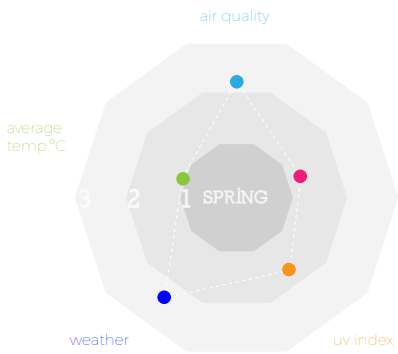
Average of weather and temperature during the Holidays



SEASONS

·Tendency of the meteorological factors by season in Shanghai

3	2	1	
rainy	cloudy	sunny	weather
very low	low	med	uv index
low	med	high	allergy index
polluted	not bad	good	air quality
26.6-39.9	13.3-26.6	-1-13.3	average temp.°C



THE YEAR

Tendency of the meteorological factors during the whole year

